



NOKIA
Products and Services Listing
February 2021



Customer: NASPO ValuePoint
20.US.938263.01

Notes:

1. In accordance with the Master Agreement, shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the



Wavence Microwave Solution, an evolution of the 9500 MPR Family	
Part No	Description
RACKS - Table K	
694-9000-006	Standard Rack, 7' tall, 19" wide
1AD014120046	Seismic Rack, 7.0'
690-1125-003	Rack Extension Kit - 19" rack
3EM13317AB	Power Distribution Panel with Fuse Alarm Card included
3EM13317AC	Power Distribution Panel with Relay Alarm Card included
690-4373-001	Kit AC Outlet
695-1001-006	Aluminum Rack Screw Kit
695-1001-007	Seismic Rack Screw Kit
695-1001-005	Seismic Rack Grounding Kit
694-9004-001	Adjacent Rack Attachment Assy (without rack extensions)
694-9004-002	Adjacent Rack Attachment Assy (with rack extensions)
3EM19148AD	Laptop Shelf Assy
RACKS - Table K1	
695-0905-003	Standard Rack, 7' tall, 23" wide
694-8873-005	Adapters for 23", 2 RU (PDU two required)
CABINETS	
3MU00079BA	9500 MPR Flx16WS 1 MSS
3MU00079AB	9500 MPR Flx16WS 2 MSS
Cabinets - Wall and H-Frame Mounting	
3EM24726AA	Kit, Wall Mount, ATT FTTCS
3MV00159AB	Kit, Wall Mount, FLX16WS, Battery Base
3MV00159AC	Kit, Wall Mtg, FTTCS, 90Deg
Cabinets - Pole Mounting Kits	
3MV00159AD	Kit, Pole Mnt, FTTCS
3MV00159AE	Kit, Pole Mnt, FTTCS, 90Deg
3MV00159AF	Kit, Banded, Pole Mnt, FTTCS
Cabinets - Pad Mount Kits	
3MV00159AH	Kit, ASSY, Plinth, 4" High, FTTCS
3MV00159AJ	Kit, ASSY, Plinth, 14" High, FTTCS
3MV00159AK	ASSY, Plate, Anchor, FLX, FTTCS
1AD165490001	Kit, 1/2-13 hardware, FTTCS, CAB to CAB



	Cabinets - MPT-HL Flex 25
3MU00119CC	9500 MPR FLX25 MPT-HL Cabinet with MSS
	Cabinets - MPT-HL Flex 25 Mounting Option
3MU00127AA	Flex25 14" Plinth Base
3MU00128AA	Flex25 Pole Mount Kit
	Cabinets - Eyebolt FRU Kit
1AD165480001	LIFT BOLTS 1/2 9412
	MSS SHELF OPTIONS - Table A
1AB405070001	DS1 Patch Panel D1M-1C2036
1AB404960001	DS1 Circuit Protection RH33250-000
	MSS SHELF OPTIONS - Table A
3EM22715AH	9500 MPR Shelf Kit w/FanEvo - HSv2
3EM24463AB	9500 MPR Shelf Kit (MSS-4 10G)
3DB18163AB	MSS Slot Cover - Blank Plate 1/2H
3CC52216AA	Fan Alarm Cable 7.5m
3CC52216AB	Fan Alarm Cable 15m
3DB05594AA	AUX Cable for Housekeeping
	MSS SHELF OPTION SPARES - Table A
3DB18485EA	9500 MSS-8 Shelf HSv3
3DB18219DA	MSS-4 10G Shelf
3EM23911BB	MSS Fan Alarm Evo
3DB19506AA	MSS-4 10G FAN
3MU00153AA	MSS Power Supply Cable Kit
3EM24095AC	MPT-HL & HLC Power Cable
3EM24040AA	MPT-HL Air Filter (Spare)
3DB76288AA	MPT-HLC Air Filter Kit (Spare)
3DB19325AA	MSS-8 Side Filter
3DB19580AA	MSS-8 Side Filter - Mid Mount
3DB19325AB	MSS-8 Side Filter Screen
3DB19580AB	MSS-8 Side Filter Sreen - Mid Mount
	MSS-E/HE - Table A1
3DB19445AA	MSS-E
3DB19575AA	MSS-HE



	MSS SHELF OPTIONS - Table A
3DB18788BA	CorEvo-10G
3DB18126AE	32xT1 TDM Module - TH/Clei
3DB18634AB	MPT-Access with PoE
3DB18236AB	AUX Housekeeping
3DB18735AA	2xOC3 Module
3DB19017AB	Ethernet Access Module Version2 with PoE
3DB78017AA	Sync In/Out SFP for MSS-1/CorEvo-10G
3DB78022AA	1588 ToD SFP
3DB19417AA	EAC 1G
3DB19343AA	EAC 10G
1AB380750004	DS3 SFP
	Optical Coupler for CoreE Protection
3EM09257AA	Fiber Management Panel
1AB432200001	Splitter/Combiner unit for 2x4 Management Panel (LC)
1AB123320023	Splitter/Combiner unit for 2x4 Management Panel (SC)
	DC Power Injector for MPT-HC
3CC50129AA	DC injector Box
3CC50120AA	DC injector plug-in
3CC50174AB	MPT Extended Power Unit
	DC-DC Power Convertor MSS Version
3DB18862AA	+24 /-48 Vdc Two converters with chassis (Requires 1 MSS Slot)
	SOFTWARE R19 19A - Table B
3DB17020DDAA	Wavence 19A uSD Card for CoreEvo-10G
3DB17010GCAA	Wavence 19 SW CD Kit
3DB17010HCAA	Wavence 19 SW Electronic Delivery Kit
3DB17020ECAA	Wavence 19 Flash Card MSS1/MSSO
3DB17020FCAA	Wavence 19 Flash Card Core-E
3DB17020DDAF	Wavence 19A ICS05 uSD Card for CoreEvo-10G
3DB17010HDAF	Wavence 19A ICS05 SW Electronic Delivery Kit
3DB17020EDAA	Wavence 19A Flash Card MSS1/MSSO
3DB17020FDAA	Wavence 19A Flash Card Core-E
	SOFTWARE R20 - Table B
3DB17020DEAA	Wavence 20 uSD Card for CoreEvo-10G UBT ONLY
3DB17010HEAA	Wavence 20 SW Electronic Delivery Kit UBT ONLY
3DB17020DEAB	Wavence 20 uSD ICS02 Card for CoreEvo-10G



3DB17010GEAB	Wavence 20 ICS02 SW CD Kit
3DB17010HEAB	Wavence 20 ICS02 SW Electronic Delivery Kit
3DB17020EEAB	Wavence 20 ICS02 Flash Card MSS1/MSSO
	SOFTWARE W20A
3DB17020DFAA	Wavence 20A uSD Card for CoreEvo-10G
3DB17021TFAA	Wavence 20A Secure uSD for CorEvo-10G
3DB17021JFAA	Wavence 20A MSS-E uSD
3DB17021KFAA	Wavence 20A MSS-HE uSD
3DB17010GFAA	Wavence 20A SW CD Kit
3DB17010HFAA	Wavence 20A SW Electronic Delivery Kit
	MISC RTU
3EM24226AA	Microwave Factory Test Certificate
3EM24226AF	Factory Configuration Certificate - Customer Witness Test
3EM23067AAAA	9500 MPR CT License (Per PC Installed) Optional for CorEvo
3EM24592AAAB	9500 MPR Software Subscription (Per Node)
3EM24745AAAA	9500 MPre OS License For MPT Only
3MU00147AAAA	MPT Spectrum Analyzer Tool RTU
3DB19531DBAA	Wavence Spectrum Analyzer Tool
	Secure Mode
3DB19414AA	MSS-8 Security Kit
3DB76333AA	MPT-HLC Security Kit
3DB19411AA	Tamper Resistant Label Kit
	Factory RTU's - per ODU or RF Transceiver - Table B1
3EM23068AAAA	RTU 40Mbps TRX Capacity
3EM23068ABAA	RTU 80Mbps TRX Capacity
3EM23068ACAA	RTU 120Mbps TRX Capacity
3EM23068ADAA	RTU 160Mbps TRX Capacity
3EM23068AFAA	RTU 220Mbps TRX Capacity
3EM23068AEAA	RTU 320Mbps TRX Capacity
3EM23068AGAA	RTU 450Mbps TRX Capacity
3EM23068AHAA	RTU 500Mbps TRX Capacity
3EM23261AAAA	9500 MPR 5.8GHz Unlicensed RTU (MPT-HL only)
3EM23073AAAA	9500 MPR Adaptive Modulation RTU
3MU00086AAAA	9500 MPR MSP Ring RTU
3MU00092AAAA	9500 MPR Packet Throughput Booster RTU
3MU00122AAAA	9500 MPR XPIC RTU
3MU00121AAAA	9500 MPR AES RTU



3MU00148AAAA	1588 TC RTU
3MU00149AAAA	1588 BC RTU
3MU00154AAAA	9500 MPR RTU 10G Interface
3MU00155AAAA	9500 MPR RTU MSS-O L1 LAG
3MU00156AAAA	9500 MPR RTU 5+ L1 LAG
3MU00175AAAA	Bandwidth Notifications RTU
3MU00180DFAA	RTU MSS-HE 10G
	Upgrade (ASLM) RTU's - Table B2
3EM23577AAAA	RTU 40Mbps TRX Capacity Upgrade
3EM23577ABAA	RTU 80Mbps TRX Capacity Upgrade
3EM23577ACAA	RTU 120Mbps TRX Capacity Upgrade
3EM23577ADAA	RTU 160Mbps TRX Capacity Upgrade
3EM23577BBAA	RTU 220Mbps TRX Capacity Upgrade
3EM23577AEAA	RTU 320Mbps TRX Capacity Upgrade
3EM23577BCAA	RTU 450Mbps TRX Capacity Upgrade
3EM23577BTAA	RTU 500Mbps TRX Capacity Upgrade
3EM23577AFAA	9500 MPR Adaptive Modulation RTU Upgrade
3EM23577AGAA	9500 MPR 5.8GHz Unlicensed RTU Upgrade
3EM23577AUAA	9500 MPR MSP Ring RTU Upgrade
3EM23577AVAA	9500 MPR Packet Throughput Booster RTU Upgrade
3EM23577AYAA	9500 MPR XPIC RTU Upgrade
3EM23577AZAA	9500 MPR AES RTU Upgrade
3EM23577BPAA	1588 TC Upgrade
3EM23577BQAA	1588 BC Upgrade
3EM23577BUAA	9500 MPR RTU 10G Interface Upgrade
3EM23577BVAA	9500 MPR RTU MSS-O L1 LAG Upgrade
3EM23577BWAA	9500 MPR RTU 5+ L1 LAG Upgrade
3EM23577DAAA	Bandwidth Notifications RTU Upgrade
3MU00177DFAA	RTU MSS-HE 10G
	ASLM Capacity Upgrades - Table B3
3EM23577AHAA	Capacity Upgrade MPR-TR-40T80
3EM23577AJAA	Capacity Upgrade MPR-TR-40T120
3EM23577AKAA	Capacity Upgrade MPR-TR-40T160
3EM23577ALAA	Capacity Upgrade MPR-TR-40T320
3EM23577AMAA	Capacity Upgrade MPR-TR-80T120
3EM23577ANAA	Capacity Upgrade MPR-TR-80T160
3EM23577APAA	Capacity Upgrade MPR-TR-80T320
3EM23577AQAA	Capacity Upgrade MPR-TR120T160
3EM23577ARAA	Capacity Upgrade MPR-TR120T320



3EM23577ASAA	Capacity Upgrade MPT-TR160T320
3EM23577BDAA	Capacity Upgrade MPR-TR-40T220
3EM23577BEAA	Capacity Upgrade MPR-TR-80T220
3EM23577BFAA	Capacity Upgrade MPR-TR-120T220
3EM23577BGAA	Capacity Upgrade MPR-TR-160T220
3EM23577BHAA	Capacity Upgrade MPR-TR-40T450
3EM23577BJAA	Capacity Upgrade MPR-TR-80T450
3EM23577BKAA	Capacity Upgrade MPR-TR-120T450
3EM23577BLAA	Capacity Upgrade MPR-TR-160T450
3EM23577BMAA	Capacity Upgrade MPR-TR-220T450
3EM23577BNAA	Capacity Upgrade MPR-TR-320T450
3EM23577BYAA	Capacity Upgrade MPR-TR-40T500
3EM23577BZAA	Capacity Upgrade MPR-TR-80T500
3EM23577CAAA	Capacity Upgrade MPR-TR-120T500
3EM23577CBAA	Capacity Upgrade MPR-TR-160T500
3EM23577CCAA	Capacity Upgrade MPR-TR-220T500
3EM23577CDAA	Capacity Upgrade MPR-TR-320T500
3EM23577CEAA	Capacity Upgrade MPR-TR-450T500
	DOCUMENTATION (1 Per NE) - Table K3
3DB19275ABAA	9500 MPR 6.1 O&M Manual Electronic Delivery OLCS
3DB19275ACAA	9500 MPR 7.0 O&M Manual Electronic Delivery OLCS
3DB19275ADAA	9500 MPR 7.1 O&M Manual Electronic Delivery OLCS
3DB19275AEAA	9500 MPR 8.0 O&M Manual Electronic Delivery OLCS
3DB19275AFAA	Wavence 18 O&M Manual Electronic Delivery OLCS
3DB19275AGAA	Wavence 18A O&M Manual Electronic Delivery OLCS
3DB19275AHAA	Wavence 19 O&M Manual Electronic Delivery OLCS
3DB19275AJAA	Wavence 19A O&M Manual Electronic Delivery OLCS
3DB19275AKAA	Wavence 20 O&M Manual Electronic Delivery OLCS
	Tributary Options OPTICS - Table A1
3EM20277AA	Optics SFP GigE 850 NM Multimode 550 Meter
3EM20277AB	Optics SFP GigE 1310 NM Singlemode 10 Kilometer
3CC50204AA	Optics SFP GigE 1310 NM Singlemode 40 Kilometer
3CC50170AA	Optics SFP GigE 1550 NM Singlemode 80 Kilometer
3EM23141AA	SFP Copper Cable, 0.5 M
3DB80628AD	SFP Copper Cable, 0.5 M
3EM23141AB	SFP Copper Cable, 1.0 M
3DB80628AE	SFP Copper Cable, 1.0 M
3DB80628AA	SFP Copper Cable, 1.5 M
3DB80628AB	SFP Copper Cable, 2.0 M



3EM23141AD	SFP Copper Cable, 3.0 M
3DB80628AC	SFP Copper Cable, 3.0 M
3CC50167AA	Optical SFP (850 MM) for use in ODU - MPT-HC
3CC50168AA	Opt SFP 1000Base-LX for use in ODU - MPT-HC
3CC50169AA	Copper SFP (Finisar) - not for use on ODU
3CC50166AA	OC3 optical SFP, L.1.1
3CC50165AA	OC3 optical SFP, S.1.1
3CC50386AA	1000BASE-SX 2.5 Gbps
3CC50387AA	SFP+ 10GBASE-SR
3CC50388AA	SFP+ 10GBASE-LR
3CC50322AA	SFP+ 10GBASE-ER
3CC50183AA	SFP 1000Base-BX20-U
3CC50184AA	SFP 1000Base-BX20-D
3CC50198AB	SFP 1000Base-BX40-U
3CC50199AB	SFP 1000Base-BX40-D
3CC50200AA	SFP multi-rate CWDM 1490nm 40 km
3CC50201AA	SFP multi-rate CWDM 1550nm 40 km
3CC50201AB	SFP multi-rate CWDM 1510nm 40 km
3CC50201AC	SFP multi-rate CWDM 1530nm 40 km
3CC50201AD	SFP multi-rate CWDM 1570nm 40 km
3CC50201AE	SFP multi-rate CWDM 1590nm 40 km
3CC50201AF	SFP multi-rate CWDM 1610nm 40 km
3CC50201AG	SFP multi-rate CWDM 1470nm 40 km
	Tributary Options DS1 Cables/Supplies - Table A1
1AF15245AB	32 E1/T1 Protection Panel - RJ45
3MU00173AA	DS1 Protection Panel 68 SCSI to 37 D-Sub
3CC52118AA	E1/T1 SCSI-SCSI Interface Cable (16 T1/E1 per Cable)
3EM21339AA	16 DS1 Cable Stub (SCSI-Open) 25' Main Side
3EM21339AB	16 DS1 Cable Stub (SCSI-Open) 25' Spare Side
3EM21339AC	16 DS1 Cable Stub (SCSI-Open) 50' Main Side
3EM21339AD	16 DS1 Cable Stub (SCSI-Open) 50' Spare Side
3EM23110AA	8 DS1 Cable Assembly (D-Open) 15'
3EM23110AB	8 DS1 Cable Assembly (D-Open) 30'
3EM23110AC	8 DS1 Cable Assembly (D-Open) 50'
3EM23110AD	8 DS1 Cable Assembly (D-Open) 100'
3DB16109AA	D-Connector Rack Mount Bracket
	Tributary Options DS3 Cables/Supplies - Table A1
3EM22900AA	DS3 Protection Splitter Cable
3EM22687AA	DS3 BNC to Mini-BNC Cable - 2 Meter



3EM22687AB	DS3 BNC to Mini-BNC Cable - 5 Meter
3MU00190AA	DS3 DIN to BNC - 3 Meter
3EM24462AA	DS3 Grooming Panel Kit
	Tributary Options Sync Cables - Table A1
3DB05850AA	9500 MPR Sync Cable
3DB18204AA	9500 MPR Sync Y-Cable
3DB04295AA	9500 MPR Sync Cable (1.0/2.3 - 1.0/2.3) 1.1m
3DB02901AA	9500 MPR Sync Cable (1.0/2.3 - 1.0/2.3) 6.0m
3CC52203AA	9500 MPR Sync Cable for Sync SFP
	Tributary Options Ethernet Cables/Supplies - Table A1
3MU00085AA	1 ft RJ45 Cat5e Cable
3MU00085AB	2 ft RJ45 Cat5e Cable
3MU00085AC	3 ft RJ45 Cat5e Cable
3MU00085AD	6 ft RJ45 Cat5e Cable
3MU00085AE	10 ft RJ45 Cat5e Cable
3MU00085AF	20 ft RJ45 Cat5e Cable
3MU00085AG	30 ft RJ45 Cat5e Cable
3MU00085AH	50 ft RJ45 Cat5e Cable
3MU00085AJ	70 ft RJ45 Cat5e Cable
3MU00085AK	100 ft RJ45 Cat5e Cable
3MU00085AL	200 ft RJ45 Cat5e Cable
3MU00085AM	300 ft RJ45 Cat5e Cable
	ODU Coax Supplies - Table E2
1AF02957ABAA	11 GHz FlexTwist
	Fiber Optic Jumpers - Table A1
3EM07641AC	Fiber Optic Jumper Cable, LC to LC, 3 meter, multi mode
3EM07641AD	Fiber Optic Jumper Cable, LC to LC, 5 meter, multi mode
3EM07641AE	Fiber Optic Jumper Cable, LC to LC, 10 meter, multi mode
3EM07646AC	Fiber Optic Jumper Cable, LC to SC, 3 meter, multi mode
3EM07646AD	Fiber Optic Jumper Cable, LC to SC, 5 meter, multi mode
3EM07646AE	Fiber Optic Jumper Cable, LC to SC, 10 meter, multi mode
3EM07651AC	Fiber Optic Jumper Cable, LC to FC, 3 meter, multi mode
3EM07651AD	Fiber Optic Jumper Cable, LC to FC, 5 meter, multi mode
3EM07651AE	Fiber Optic Jumper Cable, LC to FC, 10 meter, multi mode
3EM07641AH	Fiber Optic Jumper Cable, LC to LC, 3 meter, single mode
3EM07641AJ	Fiber Optic Jumper Cable, LC to LC, 5 meter, single mode
3EM07641AK	Fiber Optic Jumper Cable, LC to LC, 10 meter, single mode



3EM07646AH	Fiber Optic Jumper Cable, LC to SC, 3 meter, single mode
3EM07646AJ	Fiber Optic Jumper Cable, LC to SC, 5 meter, single mode
3EM07646AK	Fiber Optic Jumper Cable, LC to SC, 10 meter, single mode
3EM07651AH	Fiber Optic Jumper Cable, LC to FC, 3 meter, single mode
3EM07651AJ	Fiber Optic Jumper Cable, LC to FC, 5 meter, single mode
3EM07651AK	Fiber Optic Jumper Cable, LC to FC, 10 meter, single mode
	R56 Grounding
1AD174570001	SBHB119K Horizontal Rack Ground Bar Kit
1AD214220001	Universal grd bar kit SB57903/19" rack
406645671	#6 Ground cable-KS22641L1, Per FT
408406536	KIT-YA6C-L BOX PWR COMMO*
901350322	SCR M-.25 IN 20 TPI 1 IN*
407305549	WSHR LK-92147A029 SPLT 1*
900327453	FLAT WASHER, STAINLESS STEEL,1/4 INCH
900329830	NUT-300 HEX SST .250-20
	Accessories
3EM16790RA	VoIP OrderWire,-48Vdc
	MPT-HL Shelf Kit - Table F
3EM24238AA	MPT-HL Shelf Kit Single T-R
3EM24238AB	MPT-HL Shelf Kit Dual T-R
	MPT-HLC MODULES - Table F1
3DB19060AA	MPT-HLC XCVR L6 GHZ
3DB19060BA	MPT-HLC XCVR L6 GHZ WITH COMBINER
3DB19060CA	MPT-HLC XCVR L6 GHZ HP
3DB19060DA	MPT-HLC XCVR L6 GHZ HP WITH COMBINER
3DB19060EA	MPT-HLC Plus XCVR L6
3DB19060FA	MPT-HLC Plus XCVR L6 WITH COMBINER
3DB19060GA	MPT-HLC Plus Std XCVR L6
3DB19060HA	MPT-HLC Plus Std XCVR L6 WITH COMBINER
3DB76047AA	MPT-HLC XCVR U6 GHZ
3DB76047BA	MPT-HLC XCVR U6 GHZ WITH COMBINER
3DB76047CA	MPT-HLC XCVR U6 GHZ HP
3DB76047DA	MPT-HLC XCVR U6 GHZ HP WITH COMBINER
3DB76047EA	MPT-HLC Plus XCVR U6
3DB76047FA	MPT-HLC Plus XCVR U6 WITH COMBINER
3DB76047GA	MPT-HLC Plus Std XCVR U6
3DB76047HA	MPT-HLC Plus Std XCVR U6 WITH COMBINER



3DB76078AA	MPT-HLC XCVR 10.5 GHZ
3DB76078BA	MPT-HLC XCVR 10.5 GHZ WITH COMBINER
3DB76050AA	MPT-HLC XCVR 11 GHZ
3DB76050BA	MPT-HLC XCVR 11 GHZ WITH COMBINER
3DB76050CB	MPT-HLC XCVR 11 GHZ HP
3DB76050DB	MPT-HLC XCVR 11 GHZ HP W/COMBINER
3DB76050GA	MPT-HLC Plus XCVR 11GHz
3DB76050HA	MPT-HLC Plus XCVR 11GHz WITH COMBINER
3CC50210AA	MPT-HLC Antenna Alignment Cable
	MPT-HLC XPIC Cables
3CC52204AA	XPIC cable RJ45-RJ45, 3 m
3CC52204AB	XPIC cable RJ45-RJ45, 5 m
3CC52204AC	XPIC cable RJ45-RJ45, 10 m
3CC52204AD	XPIC cable RJ45-RJ45, 0.5 m
3CC52204AE	XPIC cable RJ45-RJ45, 1 m
	MPT-HL Transmit Monitor Port Kit
3EM24447AA	6 GHz Transmit Monitor Port Kit
3EM24447AB	11 GHz Transmit Monitor Port Kit
	Diplexer Bracket Kits - Table F2
3EM23465AA	6/11 GHz Hot Standby 1:10 Coupler Diplexer Bracket
3EM23465AB	6/11 GHz Hot Standby Space Diversity Diplexer Bracket
3EM23465AC	6/11 GHz 1+0 (Non-Standby) Diplexer Bracket
3EM23465AD	6/11 GHz Single Shelf Repeater Diplexer Bracket
3EM23465AE	1+1 HSB. SD w/ Combiner
3EM23465AF	2x(1+0). SD w/ Combiner
3EM23465AG	1+0, SD w/ Combiner
3EM23465AH	Expansion to 2x(1+0), SD w/ Combiner
3EM23465AJ	Hot-Standby w/ Antenna Protection
3MU00117AA	UU6 GHz, HSB, 1:10 Coupler Diplexer Bracket Kit
3MU00117AB	UU6 GHz, 1+0 (Non-Stby) Diplexer Bracket Kit
3MU00117AC	UU6 GHz, HSB, HSB w/ SD Diplexer Bracket Kit
3MU00117AD	UU6 GHz, HSB, Single Shelf Repeater Diplexer Bracket Kit
3DB76236AA	BRANCHING COMPACT 4GHZ 1+1 HSB1:10 COUP
3DB76237AA	BRANCHING COMP. 4GHZ 1+1 HSB SD RPS
3DB76232AA	BRANCHING COMPACT 4GHZ 1 0
3DB76234AA	BRANCHING COMPACT 4GHZ 2x (1+0)
3DB76238AA	BRANCHING COMP. 4GHZ1X(1+1 HSB SD COMBI
3DB76235AA	BRANCHING COMPACT 4GHZ 2x (1+0) SD



3DB76233AA	BRANCHING COMPACT 4GHZ 1+0 SD
	Diplexer Clamp and Isolator Kits -Lower 6Ghz - Table F3
3EM23466AA	L6 GHz Hot Standby 1:10 Coupler Diplexer Clamp and Isolator Kits
3EM23466AB	L6 GHz Hot Standby Space Diversity Diplexer Clamp and Isolator Kits
3EM23466AC	L6 GHz 1+0 (Non-Standby) Diplexer Clamp and Isolator Kits
3EM23466AD	L6 GHz Single Shelf Repeater Diplexer Clamp and Isolator Kits
3EM23466AN	L6 GHz 1+1 HSB, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AP	L6 GHz 2x(1+0), SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AQ	L6 GHz 1+0, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AR	L6 GHz Expansion to 2x(1+0), SD w/ Combiner Dplxr Clamp & Iso Kit
3EM23466BB	L6 GHz Diplexer Clamp Kit Antenna Protection
	Dplxr Clamp, Isolt & Cable Kits -L6Ghz 60 MHz Channels - Table F3
3DB76116AA	L6 GHz, 60 MHz Hot Standby 1:10 Coupler
3DB76119AA	L6 GHz, 60 MHz Hot Standby Space Diversity
3DB76117AA	L6 GHz, 60 MHz 1+0 (Non-Standby)
3DB76120AA	L6 GHz, 60 MHz Single Shelf Repeater
3DB76115AA	L6 GHz, 60 MHz 1+1 HSB, SD w/ Combiner
3DB76121AA	L6 GHz, 60 MHz 2x(1+0), SD w/ Combiner
3DB76118AA	L6 GHz, 60 MHz 1+0, SD w/ Combiner
3DB76195AA	Diplexer Kit 60 Mhz L6 w/ ant prot
	Diplexer Clamp and Isolator Kits -Upper 6Ghz - Table F3
3EM23466AE	U6 GHz Hot Standby 1:10 Coupler Diplexer Clamp and Isolator Kits
3EM23466AF	U6 GHz Hot Standby Space Diversity Diplexer Clamp and Isolator Kits
3EM23466AG	U6 GHz 1+0 (Non-Standby) Diplexer Clamp and Isolator Kits
3EM23466AH	U6 GHz Single Shelf Repeater Diplexer Clamp and Isolator Kits
3EM23466AS	U6 GHz 1+1 HSB, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AT	U6 GHz 2x(1+0), SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AU	U6 GHz 1+0, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AV	U6 GHz Expansion to 2x(1+0), SD w/ Combiner Dplxr Clamp & Iso Kit
3EM23466BC	U6 GHz Diplexer Clamp Kit Antenna Protection
	Diplexer Clamp and Isolator Kits -Upper 5.8Ghz - Table F3
3EM23466AJ	5.8 GHz Hot Standby 1:10 Coupler Diplexer Clamp and Isolator Kits
3EM23466AK	5.8 GHz Hot Standby Space Diversity Diplexer Clamp and Isolator Kits
3EM23466AL	5.8 GHz 1+0 (Non-Standby) Diplexer Clamp and Isolator Kits
3EM23466AM	5.8 GHz Single Shelf Repeater Diplexer Clamp and Isolator Kits
3EM23466AW	5.8 GHz 1+1 HSB, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466AY	5.8 GHz 2x(1+0), SD w/ Combiner Diplexer Clamp and Isolator Kit



3EM23466AZ	5.8 GHz 1+0, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM23466BA	5.8 GHz Expansion to 2x(1+0), SD w/ Combiner Dplxr Clamp & Iso Kit
	Diplexer Clamp and Isolator Kits - 10.5 Ghz - Table F3
3EM24188CA	10.5 GHz Hot Standby 1:10 Coupler Diplexer Clamp and Isolator Kits
3EM24188CB	10.5 GHz Hot Standby Space Diversity Diplexer Clamp and Isolator Kits
3EM24188CC	10.5 GHz 1+0 (Non-Standby) Diplexer Clamp and Isolator Kits
3EM24188CD	10.5 GHz Single Shelf Repeater Diplexer Clamp and Isolator Kits
3EM24188CE	10.5 GHz 1+1 HSB, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188CF	10.5 GHz 2x(1+0), SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188CG	10.5 GHz 1+0, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188CH	10.5 GHz Expansion to 2x(1+0), SD w/ Combiner Dplxr Clamp & Iso Kit
3EM24188CJ	10.5 GHz Diplexer Clamp Kit Antenna Prot9500 MPR
	Diplexer Clamp and Isolator Kits - 11 Ghz - Table F3
3EM24188BA	11 GHz Hot Standby 1:10 Coupler Diplexer Clamp and Isolator Kits
3EM24188BB	11 GHz Hot Standby Space Diversity Diplexer Clamp and Isolator Kits
3EM24188BC	11 GHz 1+0 (Non-Standby) Diplexer Clamp and Isolator Kits
3EM24188BD	11 GHz Single Shelf Repeater Diplexer Clamp and Isolator Kits
3EM24188BE	11 GHz 1+1 HSB, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188BF	11 GHz 2x(1+0), SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188BG	11 GHz 1+0, SD w/ Combiner Diplexer Clamp and Isolator Kit
3EM24188BH	11 GHz Expansion to 2x(1+0), SD w/ Combiner Dplxr Clamp & Iso Kit
3EM24188BJ	11 GHz Diplexer Clamp Kit Antenna Prot9500 MPR
	RF Diplexer Filters - Table G
3EM24458AA	RF Diplexer Filter Xmt 5725-5755, Rcv 5790-5820, 30MHz
3EM24458AB	RF Diplexer Filter Xmt 5755-5785, Rcv 5820-5850, 30MHz
3EM24458AC	RF Diplexer Filter Xmt 5725-5755, Rcv 5820-5850, 30MHz
3EM16710AB	RF Diplexer Filter Xmt 5925-6175, Rcv 6175-6425, 10 MHz BW
3EM16710AC	RF Diplexer Filter Xmt 6175-6425, Rcv 5925-6175, 10 MHz BW
3EM24335AA	RF Diplexer Filter 5925-6425, 30MHz, Symmetrical
3DB76188AA	RF Diplexer Filter Xmt 5925-6175, Rcv 6175-6425, 60 MHz BW
3DB76189AA	RF Diplexer Filter Xmt 6175-6425, Rcv 5925-6175, 60 MHz BW
3EM09730AA	RF Diplexer Filter Xmt 6525-6875, Rcv 6525-6875, 10 MHz BW
3EM24333AA	RF Diplexer Filter Xmt 6525-6875, 30Mhz, Symmetrical
967-1585-002	RF Diplexer Filter Xmt 6440-6750, Rcv 6440-6750, 10 MHz BW
967-1585-003	RF Diplexer Filter Xmt 6440-6750, Rcv 6750-7080, 10 MHz BW
967-1585-004	RF Diplexer Filter Xmt 6750-7080, Rcv 6440-6750, 10 MHz BW
967-1585-005	RF Diplexer Filter Xmt 6750-7080, Rcv 6750-7080, 10 MHz BW
3EM04024AC	RF Diplexer Filter Xmt 6440-6580, Rcv 6740-6920, 30Mhz



3EM04024AD	RF Diplexer Filter Xmt 6581-6740, Rcv 6921-7080, 30Mhz
3EM04024AE	RF Diplexer Filter Xmt 6740-6920, Rcv 6440-6580, 30Mhz
3EM04024AF	RF Diplexer Filter Xmt 6921-7080, Rcv 6581-6740, 30Mhz
3EM24078AA	RF Diplexer Filter 10550-10680, 10 MHz BW, Symmetrical
3EM24081AA	RF Diplexer Filter 10700-11700, 30 MHz, Symmetrical
	RF Space Filters - Table G1
3EM11649AA	RF Diplexer Space Diversity Filter 5725-5755/30MHz
3EM11649AB	RF Diplexer Space Diversity Filter 5755-5785/30MHz
3EM11649AC	RF Diplexer Space Diversity Filter 5790-5820/30MHz
3EM11649AD	RF Diplexer Space Diversity Filter 5820-5850/30MHz
967-0506-002	RF Diplexer Space Diversity Filter 5925-6175 /10MHz BW
967-0506-003	RF Diplexer Space Diversity Filter 6175-6425 /10MHz BW
3EM04182AA	RF Diplexer Space Diversity Filter 5925-6050/30MHz
3EM04182AB	RF Diplexer Space Diversity Filter 6050-6175/30MHz
3EM04182AC	RF Diplexer Space Diversity Filter 6175-6300/30MHz
3EM04182AD	RF Diplexer Space Diversity Filter 6300-6425/30MHz
3DB76190AA	RF Diplexer Space Diversity Filter 5925-6175 /60MHz BW
3DB76191AA	RF Diplexer Space Diversity Filter 6175-6425 /60MHz BW
3EM19463AA	RF Diplexer Space Diversity Filter 6525-6875 / 10MHz BW
3EM04235AA	RF Diplexer Space Diversity Filter 6525-6710/30MHz
3EM04235AB	RF Diplexer Space Diversity Filter 6710-6875/30MHz
967-0506-004	RF Diplexer Space Diversity Filter 6440-6750/10MHz
967-0506-005	RF Diplexer Space Diversity Filter 67500-7080/10MHz
3EM04235AC	RF Diplexer Space Diversity Filter 6440-6580/30MHz
3EM04235AD	RF Diplexer Space Diversity Filter 6580-6740/30MHz
3EM04235AE	RF Diplexer Space Diversity Filter 6740-6920/30MHz
3EM04235AF	RF Diplexer Space Diversity Filter 6920-7080/30MHz
3EM24614AA	RF Diplexer Space Diversity Filter 10550-10680 / 10 MHz
3EM24310AA	RF Diplexer Space Diversity Filter 10700-11200 / 30 MHz
3EM24310AB	RF Diplexer Space Diversity Filter 11200-11700 / 30 MHz
	Waveguide Transition Kits - Table G2
3EM23511AA	Diplexer Transition Assy A2 (6Ghz) Position Kit
3EM23511AB	Diplexer Transition Assy A3 (6Ghz) Position Kit
3EM23511AC	Diplexer Transition Assy A4 (6Ghz) Position Kit
3EM23511AD	Diplexer Transition Assy A5 (6Ghz) Position Kit
3EM23511AE	Flat Bracket Kit
3EM23511AF	Diplexer Transition Assy A2 (11 Ghz) Position Kit
3EM23511AG	Diplexer Transition Assy A3 (11 Ghz) Position Kit
3EM23511AH	Diplexer Transition Assy A4 (11 Ghz) Position Kit



3EM23511AJ	Diplexer Transition Assy A5 (11 Ghz) Position Kit
3EM23511AP	6 GHz Trans Kit A3' Transition Kit A3'
3EM23511AQ	6 GHz Trans Kit A3' FD Transition Kit A3' FD
3EM23511AR	6 GHz Trans Kit A4' Transition Kit A4'
3EM23511AS	6 GHz Trans Kit A4' FD Transition Kit A4' FD
3EM23511AT	11 GHz Trans Kit A3' Transition Kit A3'
3EM23511AU	11 GHz Trans Kit A3' FD Transition Kit A3' FD
3EM23511AV	11 GHz Trans Kit A4' Transition Kit A4'
3EM23511AW	11 GHz Trans Kit A4' FD Transition Kit A4' FD
3EM23511BC	6 GHz Ext Kit Top - A8
3EM23511BD	11 GHz Ext Kit Top - A8
	Waveguide Transition Kits - Table G3 (note 1007)
1AB077940016	Diplexer to Transition Cable Assy 228.6mm
1AB077940017	Diplexer to Transition Cable Assy 304.8mm
1AB077940018	Diplexer to Transition Cable Assy 381mm
	Stacking Filter Waveguide Kits - Lower 6 Ghz - Table H
3EM24123DA	Stacking Filter L6 GHz Hot Standby W/G Kit 1st MPT
3EM24123DB	Stacking Filter L6 GHz Hot Standby W/G Kit 1st & 2nd MPT
3EM24123DC	Stacking Filter L6 GHz Hot Stby W/G Kit 3rd MPT
3EM24123DD	Stacking Filter L6 GHz Hot Stby W/G Kit 3rd & 4th MPT
3EM24123DE	Stacking Filter L6 GHz Hot Stby W/G Kit Add-On 3rd MPT
3EM24123DF	Stacking Filter L6 GHz Hot Stby W/G Kit Add-On 3rd & 4th MPT
3EM24123DG	Stacking Filter L6 GHz Hot Stby W/G Kit Add-On 2nd or 4th MPT
	Stacking Filter Waveguide Kits - Upper 6 Ghz - Table H
3EM24123EA	Stacking Filter U6 GHz Hot Standby W/G Kit 1st MPT
3EM24123EB	Stacking Filter U6 GHz Hot Standby W/G Kit 1st & 2nd MPT
3EM24123EC	Stacking Filter U6 GHz Hot Stby W/G Kit 3rd MPT
3EM24123ED	Stacking Filter U6 GHz Hot Stby W/G Kit 3rd & 4th MPT
3EM24123EE	Stacking Filter U6 GHz Hot Stby W/G Kit Add-On 3rd MPT
3EM24123EF	Stacking Filter U6 GHz Hot Stby W/G Kit Add-On 3rd & 4th MPT
3EM24123EG	Stacking Filter U6 GHz Hot Stby W/G Kit Add-On 2nd or 4th MPT
	Stacking Filter Waveguide Kits - 6 Ghz - Table H
3EM24123AE	Stacking Filter 6 GHz Add-on Space Kit 1st MPT (HSB)
3EM24123AF	Stacking Filter 6 GHz Add-on Space Kit 1st & 2nd MPT (HSB)
3EM24123BF	Stacking Filter 6 GHz Add-on Space Kit 3rd MPT (HSB)
3EM24123BG	Stacking Filter 6 GHz Add-on Space Kit 3rd & 4th MPT (HSB)
3EM24123AG	Stacking Filter 6 GHz Add-on Space Kit 3rd MPT (HSB)



3EM24123AH	Stacking Filter 6 GHz Add-on Space Kit 3rd & 4th MPT (HSB)
3EM24123BR	Stacking Filter 6 GHz Add-on Space Kit 2nd or 4th MPT (HSB)
3EM24123AJ	Stacking Filter Initial Bracket Kit
3EM24123AK	Stacking Filter Flat Bracket Kit
3EM24123AW	Stacking Filter Stacker Bracket Kit
3EM24123AL	Stacking Filter Add-on Xmt & Rcv Circulators
3EM24123AY	Stacking Filter 6 GHz Freq Div W/G Kit 1st MPT 1x(1+0)
3EM24123AM	Stacking Filter 6 GHz Freq Div W/G Kit 1st MPT 2x(1+0)
3EM24123AZ	Stacking Filter 6 GHz Freq Div W/G Kit 1st & 2nd MPT 3x(1+0)
3EM24123AN	Stacking Filter 6 GHz Freq Div W/G Kit 1st & 2nd MPT 4x(1+0)
3EM24123BA	Stacking Filter 6 GHz Freq Div W/G Kit 3rd MPT 2nd dir 1x(1+0)
3EM24123AP	Stacking Filter 6 GHz Freq Div W/G Kit 3rd MPT 2nd dir 2x(1+0)
3EM24123BB	Stacking Filter 6 GHz Freq Div W/G Kit 3rd & 4th MPT 2nd dir 3x(1+0)
3EM24123AQ	Stacking Filter 6 GHz Freq Div W/G Kit 3rd & 4th MPT 2nd dir 4x(1+0)
3EM24123BV	Stacking Filter 6 GHz Freq Div W/G Kit 2nd MPT 2nd Dir 2x(1+0)
3EM24123BU	Stacking Filter 6 GHz Freq Div W/G Kit 2nd MPT 2nd Dir 1x(1+0)
3EM24123BC	Stckg Fltr 6 GHz Freq Div W/G Kit Add-on 2nd/4th MPT Grow to 3x(1+0)
3EM24123BD	Stckg Fltr 6 GHz Freq Div W/G Kit Add-on 2nd/4th MPT Grow to 4x(1+0)
3EM24123BE	Stacking Filter 6 GHz Freq Div W/G Kit Add-On Kit Grow 2nd or 4th MPT
3EM24123BH	1st MPT Add Space Div to 1x(1+0) Kit (SD FD)
3EM24123BJ	1st MPT Add Space Div to 2x(1+0) Kit (SD FD)
3EM24123BK	1st & 2nd MPT Add Space Div to 3x(1+0) Kit (SD FD)
3EM24123BL	1st & 2nd MPT Add Space Div to 4x(1+0) Kit (SD FD)
3EM24123BM	3rd MPT Add Space Div to 1x(1+0) Kit (SD FD)
3EM24123BN	3rd MPT Add Space Div to 2x(1+0) Kit (SD FD)
3EM24123BP	3rd & 4th MPT Add Space Div to 3x(1+0) Kit (SD FD)
3EM24123BQ	3rd & 4th MPT Add Space Div to 4x(1+0) Kit (SD FD)
3EM24123BS	Field Add-On 2nd MPT to 1x(1+0) Kit or 4th MPT to 3x(1+0) (SD FD)
3EM24123BT	Field Add-On 3rd MPT to 2x(1+0) Kit (SD FD)
	Waveguide Extension Kits - Table L
3EM24123AR	6 GHz W/G Extension Kit Xmt/Rcv A8-A11
3EM24123AS	6 GHz W/G Extension Kit Space Div A8-A11 (MPT-HL)
3EM24123AV	6 GHz W/G Extension Kit Space Div A8-A11 (MPT-HLC)
3EM24123AU	6 GHz W/G Extension A8 to Top (Xmt/Rcv or Space Div)
3EM24123AT	6 GHz W/G Extension A3 to A8, A5 to A10 (Xmt/Rcv or Space Div)
3EM17592AA	Bracket, WG Support (1 hole)
3EM17592AB	Bracket, WG Support (2 hole)
3EM23867AC	Bracket, WG Support (2 hole)
	Stacking Filter Waveguide Kits- 11 Ghz - Table H



3EM24166EA	Stacking Filter WG Initial Comb Assy 11 GHz 1st MPT HSB
3EM24166EB	Stacking Filter WG Initial Comb Assy 11 GHz 1st & 2nd MPT HSB
3EM24166EC	Stacking Filter WG Add-on Assy 11 GHz 3rd MPT HSB
3EM24166ED	Stacking Filter WG Add-on Assy 11 GHz 3rd & 4th MPT HSB
3EM24166EE	Stacking Filter 11 GHz Hot Stby W/G Kit Add-On 3rd MPT
3EM24166EF	Stacking Filter 11 GHz Hot Stby W/G Kit Add-On 3rd & 4th MPT
3EM24166EG	Stacking Filter 11 GHz Hot Stby W/G Kit Add-On 2nd or 4th MPT
3EM24166FE	Stacking Filter WG Add SD Assy 11 GHz 1st MPT (HSB)
3EM24166FF	Stacking Filter WG Add SD Assy 11 GHz 1st & 2nd MPT (HSB)
3EM24166GF	Stacking Filter 11 GHz Add-on Space Kit 3rd MPT (HSB)
3EM24166GG	Stacking Filter 11 GHz Add-on Space Kit 3rd & 4th MPT (HSB)
3EM24166FG	Stacking Filter WG Add SD Assy 11 GHz 3rd MPT (HSB)
3EM24166FH	Stacking Filter WG Add SD Assy 11 GHz 3rd & 4th MPT (HSB)
3EM24166GR	Stacking Filter 11 GHz Add-on Space Kit 2nd or 4th MPT (HSB)
3EM24166AJ	Stacking Filter Initial Bracket Kit
3EM24123AK	Stacking Filter Flat Bracket Kit
3EM24123AW	Stacking Filter Stacker Bracket Kit
3EM24166AK	Stacking Filter Add-on XMT & RCV Circulators
3EM24166FY	Stacking Filter 11 GHz Freq Div W/G Kit 1st MPT 1x(1+0)
3EM24166FL	Stacking Filter 11 GHz Freq Div W/G Kit 1st MPT 2x(1+0)
3EM24166FZ	Stacking Filter 11 GHz Freq Div W/G Kit 1st & 2nd MPT 3x(1+0)
3EM24166FM	Stacking Filter 11 GHz Freq Div W/G Kit 1st & 2nd MPT 4x(1+0)
3EM24166GA	Stacking Filter 11 GHz Freq Div W/G Kit 3rd MPT 2nd dir 1x(1+0)
3EM24166FN	Stacking Filter 11 GHz Freq Div W/G Kit 3rd MPT 2x(1+0)
3EM24166GB	Stacking Filter 11 GHz Freq Div W/G Kit 3rd & 4th MPT 2nd dir 3x(1+0)
3EM24166FP	Stacking Filter 11 GHz Freq Div W/G Kit 3rd & 4th MPT 4x(1+0)
3EM24166GV	Stacking Filter 11 GHz Freq Div W/G Kit 2nd MPT 2nd Dir 2x(1+0)
3EM24166GU	Stacking Filter 11 GHz Freq Div W/G Kit 2nd MPT 2nd Dir 1x(1+0)
3EM24166GC	Stckg Fltr 11 GHz Freq Div W/G Kit Add-on 2nd/4th MPT Grow to 3x(1+0)
3EM24166GD	Stckg Fltr 11 GHz Freq Div W/G Kit Add-on 2nd/4th MPT Grow to 4x(1+0)
3EM24166GE	Stacking Filter 11 GHz Freq Div W/G Kit Add-On Kit Grow 2nd MPT
3EM24166GW	Stacking Filter 11 GHz Freq Div W/G Kit Add-On Kit Grow 4th MPT
3EM24166GH	1st MPT Add Space Div to 1x(1+0) Kit (SD FD)
3EM24166GJ	1st MPT Add Space Div to 2x(1+0) Kit (SD FD)
3EM24166GK	1st & 2nd MPT Add Space Div to 3x(1+0) Kit (SD FD)
3EM24166GL	1st & 2nd MPT Add Space Div to 4x(1+0) Kit (SD FD)
3EM24166GM	3rd MPT Add Space Div to 1x(1+0) Kit (SD FD)
3EM24166GN	3rd MPT Add Space Div to 2x(1+0) Kit (SD FD)
3EM24166GP	3rd & 4th MPT Add Space Div to 3x(1+0) Kit (SD FD)
3EM24166GQ	3rd & 4th MPT Add Space Div to 4x(1+0) Kit (SD FD)
3EM24166GS	Field Add-On 2nd MPT to 1x(1+0) Kit (SD FD)



3EM24166GY	Field Add-On 4th MPT to 3x(1+0) Kit (SD FD)
3EM24166GT	Field Add-On 3rd MPT to 2x(1+0) Kit (SD FD)
	Waveguide Extension Kits - Table L
3EM24166AQ	11 GHz WG Ext Xmt-Rcv Kit Positions A8-A11 Left or Right
3EM24166AR	11 GHz W/G Extension Kit Space Div A8-A11 (MPT-HL)
3EM24166AV	11 GHz W/G Extension Kit Space Div A8-A11 (MPT-HLC)
	RF Stacking Filters - 6 GHz Table J
3EM16948AG	RCV RF Stacking Filter 5725-5850 MHz
3EM16949AG	XMT RF Stacking Filter 5725-5850 MHz
3EM16948AA	RCV RF Stacking Filter 5925-6175 MHz
3EM16949AB	XMT RF Stacking Filter 6175-6425 MHz
3EM16948AB	RCV RF Stacking Filter 6175-6425 MHz
3EM16949AA	XMT RF Stacking Filter 5925-6175 MHz
3DB76113AA	RF Stacking Filter 5925-6175 MHz (XMT or RCV)
3DB76114AA	RF Stacking Filter 6175-6425 MHz (XMT or RCV)
3DB76092AA	60 MHz Filter Flange Adapter Kit
3EM16948AD	RCV RF Stacking Filter 6525-6875 MHz
3EM16949AD	XMT RF Stacking Filter 6525-6875 MHz
3EM16948AE	RCV RF Stacking Filter 6440-6740 MHz
3EM16949AF	XMT RF Stacking Filter 6740-7080 MHz
3EM16948AF	RCV RF Stacking Filter 6740-7080 MHz
3EM16949AE	XMT RF Stacking Filter 6440-6740 MHz
	RF Stacking Filters - 11 GHz - Table J
3EM24166JC	RF Filter Kit, Rcv 10.7 - 11.2, 30 MHz BW
3EM24166JD	RF Filter Kit, Rcv 11.2 - 11.7, 30 MHz BW
3EM24166JA	RF Filter Kit, Xmt 10.7 - 11.2, 30 MHz BW
3EM24166JB	RF Filter Kit, Xmt 11.2 - 11.7, 30 MHz BW
3EM24166JE	RF Filter Kit, 10.7 - 11.2, 60 MHz CH
3EM24166JF	RF Filter Kit, 11.2 - 11.7, 60 MHz CH
	Cable Kits - Table J1
3EM23523AJ	Stacking Cable Assy Hot Standby 1:10 Coupler
3EM23523AK	Stacking Cable Assy Hot Standby W/ Space Diversity
3EM23523AL	Stacking Cable Assy Freq Diversity 2x(1+0)
3EM23523AM	Stacking Cable Assy 1+0 Non-Standby Circulators Right-Rear
3EM23523AN	Stacking Cable Assy 1+0 Non-Standby Circulators Left-Rear
3EM23523AP	Stacking Cable Assy Expansion to 2x(1+0) Circulators Right-Rear
3EM23523AQ	Stacking Cable Assy Expansion to 2x(1+0) Circulators Left-Rear



3EM23523AR	Stacking Cable Assy Hot-Standby, Space Div with Combiner
3EM23523AS	Stacking Cable Assy Freq Diversity 2x(1+0), Space Div with Combiner
3EM23523AT	Freq Div 1x(1+0), Space Div w/Combiner Circulators Right-Rear
3EM23523AU	Freq Div 1x(1+0), Space Div w/Combiner Circulators Left-Rear
3EM23523AV	Expansion to 2x(1+0), SD w/ Combiner Circulators Right-Rear
3EM23523AW	Expansion to 2x(1+0), SD w/ Combiner Circulators Left-Rear
3EM23523AY	Hot Standby w/ Transmitter Diversity Antenna
	Isolator Kits - L6 - Table J2
3EM23524AA	Isolator Assy Lower 6 GHz Hot Standby 1:10 Coupler
3EM23524AB	Isolator Assy Lower 6 GHz Hot Standby Space Diversity or FD
3EM23524AC	Isolator Assy Lower 6 GHz 1+0 (Non-Standby)
3EM23524AG	Isolator Assy Lower 6 GHz 1+1 HSB, Space Div w/ Combiner
3EM23524AH	Isolator Assy Lower 6 GHz 2x(1+0), Space Div w/ Combiner
3EM23524AJ	Isolator Assy Lower 6 GHz 1+0, Space Div w/ Combiner
3EM23524AK	Isolator Assy Lower 6 GHz Hot-Standby w/ Transmit Diversity Antenna
	Isolator Kits - U6 - Table J2
3EM23524AD	Isolator Assy Upper 6 GHz Hot Standby 1:10 Coupler
3EM23524AE	Isolator Assy Upper 6 GHz Hot Standby Space Diversity or FD
3EM23524AF	Isolator Assy Upper 6 GHz 1+0 (Non-Standby)
3EM23524AL	Isolator Assy Upper 6 GHz 1+1 HSB, Space Div w/ Combiner
3EM23524AM	Isolator Assy Upper 6 GHz 2x(1+0), Space Div w/ Combiner
3EM23524AN	Isolator Assy Upper 6 GHz 1+0, Space Div w/ Combiner
3EM23524AP	Isolator Assy Upper 6 GHz Hot-Standby w/ Transmit Diversity Antenna
	Isolator Kits - 10.5/11 GHz - Table J2
3EM24189AA	Isolator Assy 10.5/11 GHz Hot Standby 1:10 Coupler
3EM24189AB	Isolator Assy 10.5/11 GHz Hot Standby Space Diversity or FD
3EM24189AC	Isolator Assy 10.5/11 GHz 1+0 (Non-Standby)
3EM24189AD	Isolator Assy 10.5/11 GHz 1+1 HSB, Space Div w/ Combiner
3EM24189AE	Isolator Assy 10.5/11 GHz 2x(1+0), Space Div w/ Combiner
3EM24189AF	Isolator Assy 10.5/11 GHz 1+0, Space Div w/ Combiner
3EM24189AH	Isolator Assy 10.5 GHz Hot-Standby w/ Transmit Diversity Antenna
3EM24189AG	Isolator Assy 11 GHz Hot-Standby w/ Transmit Diversity Antenna
	Flange Adapter Kit - Table J3
3MU00179CA	W/G Flange CPR-137 Kit, 1 Port
3MU00179CB	W/G Flange CPR-159 Kit, 1 Port
3MU00179CC	W/G Flange CMR -159 Kit, 1 Port
3MU00179CE	W/G Flange CPR-90 Kit, 1 Port

	Waveguide - Table H
3EM24197AA	6 GHz WAVEGUIDE, STRAIGHT
3EM24197AB	6 GHz WAVEGUIDE, STRAIGHT
3EM24191AA	6 GHz E-E BEND WAVEGUIDE ADAPTER
3EM24191AB	6 GHz E-E BEND WAVEGUIDE ADAPTER
3EM24197AC	6 GHz WAVEGUIDE, STRAIGHT
3EM24190AA	6 GHz E-E-H-H BEND WAVEGUIDE ADAPTER
3EM24190AB	6 GHz E-E-H-H BEND WAVEGUIDE ADAPTER
3EM24190AD	6 GHz E-E-H-H BEND WAVEGUIDE ADAPTER
	ACCP Lower 6 GHz
3DB76151AB	KIT SUPPORT WG R70 UP/DOWN
3DB76152AC	KIT BRANCHING CH1 SIDE UP
3DB76153AC	KIT BRANCHING CH1 DOWN
3DB76154AB	KIT EXPANSION BRACKETS CHANNELS 3-5-7 UP/DOWN
3DB76155AB	KIT EXPANSION TX-RX CHANNELS 3-5-7
3DB76156AB	KIT EXPANSION TX-RX CH.2-4-6-8
3DB76157AC	KIT BRANCHING RX-DIV CH1 UP
3DB76158AC	KIT BRANCHING RX-DIV CH1 DOWN
3DB76159AB	KIT EXTENSION RX DIV. CHANNELS 3-5-7
3DB76161AB	KIT EXTENSION RX-DIV.CHANNELS 2-4-6-8 UP/DOWN
3DB76285AA	5.9-6.95 GHz circulator, RX
3DB76285BA	5.9-6.95 GHz circulator, TX
3DB01185AA	WR137 Power Absorber 5,6-7,1 GHz
3DB02412AA	FLANGED STUB L=47MM (x CH2)
3DB02414AA	FLANGED STUB L=141 MM (x CH3)
3DB02415AA	FLANGED STUB L=188 MM (x CH4)
3DB02417AA	FLANGED STUB L=282 MM (x CH5)
3DB02418AA	FLANGED STUB L=329 MM (x CH6)
3DB24240AA	FLANGED STUB L=423 MM (x CH7)
3DB76146AA	FLANGED STUB R70 L=470 MM (x CH8)
3DB76145AA	FLANGED STUB R70 (CPR137)
3DB76246AA	FLANGED STUB R70 (L=210mm) (CMR137)
3DB76131AA	TUNED 6 CAV FILTER 5.90-6.20 GHz CH 30 MHz
3DB76132AA	TUNED 6 CAV FILTER 6.15-6.45 GHz CH 30 MHz
3DB76286AA	TUNED 6 CAV FILTER 6,4-6,75 GHz CH 30 MHz (BW 25,5MHz)
3DB76287AA	TUNED 6 CAV FILTER 6.7-7,1 GHz CH 30 MHz (BW 25,5 MHz)
3DB76197AA	REJECTION FILTER 3 cav. 6L INF
3DB76198AA	REJECTION FILTER 3 cav. 6L SUP
3DB76113AA	RF Stacking Filter 5925-6175 MHz (XMT or RCV) 60 MHz



3DB76114AA	RF Stacking Filter 6175-6425 MHz (XMT or RCV) 60 MHz
3DB76199AA	REJECTION FILTER 6 CAV. 6L INF (Only for Ch 60 Mhz)
3DB76200AA	REJECTION FILTER 6 CAV. 6L SUP (Only for Ch 60 Mhz)
3CC50266AB	KIT SCREW FOR DOUBLE REJECTION FILTERS
3DB80438AA	SHORTING PLATE KIT
3DB76258AB	KIT BRANCHING TX SPLIT ON RXD 1+0 UP
3DB76259AB	KIT BRANCHING TX SPLIT ON RXD 1+0 DOWN
3DB76261AB	KIT EXP. CONFIG. 3+0 5+0 7+0 UP/DOWN
3DB76260AB	KIT.EXP. CONFIG. 2+0 4+0 6+0 8+0 UP/DOWN
3DB76162AA	KIT FIXING BRACKET BRANCH. CONFIG. 5+0 7+0
3DB76262AA	KIT FIX BRACKETS TX ON RXD FOR EVEN CONFIGURATION
1AB441920005	UW ISOLATOR COAX 5,73-6,43GHZ - 51A32-27*20dB
1AB456210001	UW ISOLATOR COAX 5,73-6,43GHZ - 51A32-29*20dB
1AB443880001	UW ISOLATOR COAX 6,43-7,25GHZ - 51A27-06* 20dB
1AB470490001	UW ISOLATOR COAX 6,43-7,13GHZ - 60D294-29* 20dB
3DB76304AA	KIT EXPANSION TX-RX CH9 6L-6U
3DB76305AA	KIT EXPANSION RX DIV. CH9 6L-6U
3DB76306AA	KIT EXPANSION CONFIG 9+0 TX-RX SPLIT ON RXD
3DB76307AA	KIT BRANCHING CONFIG. 10+0 TX-RX SPLIT ON RXD
	ACCP Cable Kits Lower 6 GHz
3EM23523CA	MPT-HLC ACCP Ch 1, 3, 5, 7 Cable Kit
3EM23523CB	MPT-HLC ACCP Ch 2, 4, 6, 8 Cable Kit
3EM23523CC	6 G MPT-HLC ACCP SD Ch 1,3,5,7 Cable Kit
3EM23523CD	6 G MPT-HLC ACCP SD Ch 2,4,6,8 Cable Kit
	ACCP 11 GHz
3DB76151AB	KIT SUPPORT WG UP/DOWN
3DB76151AC	KIT SUPPORT WG UP/DOWN
3DB76201AB	KIT BRANCHING TX-RX CH1 SIDE UP 11 GHz
3DB76202AB	KIT BRANCHING CH1 SIDE DOWN 11 GHz
3DB76203AB	KIT EXT. BRACKETS CHANNELS 3-5-7 11 GHz
3DB76204AA	KIT EXT. TX-RX CH 3-5-7 UP/DOWN 11 GHz
3DB76205AA	KIT EXT. TX-RX CH 2-4-6-8 UP/DOWN 11GHz
3DB76206AB	KIT BRANCHING RX-DIV CH1 UP 11 GHz
3DB76207AB	KIT BRANCHING RX-DIV CH1 DOWN 11 GHz
3DB76208AA	KIT EXT RX-DIV. CH 3-5-7 UP/DOWN 11 GHz
3DB76209AA	KIT EXT RX-DIV.CH 2-4-6-8 UP/DOWN 11 GHz
3DB02132AA	11 GHZ CIRCULATOR
3DB80566AA	FILTER 11,2-11,7 GHZ 6 CAV.BW 40 MHZ
3DB80567AA	FILTER 10,7-11,2 GHZ 6 CAV.BW 40 MHZ



3DB76228AA	FILTER 11,2-11,7 GHZ 6 CAV.BW 40 MHZ
3DB76229AA	FILTER 10,7-11,2 GHZ 6 CAV.BW 40 MHZ
3DB02189AA	TERMINATION 11-13GHZ WR75
3DB76215AA	FLANGED STUB R120 L=261mm (TX-RX and RXD - UP)
3DB76223AA	DOUBLE BEND E PLANE R120 (TX-RX - DOWN)
3DB76222AA	FLANGED STUB R120 L=39mm (2CH)
3DB76216AA	FLANGED STUB R120 L=141mm (3CH)
3DB76217AA	FLANGED STUB R120 L=180mm (4CH)
3DB76218AA	FLANGED STUB R120 L=282mm (5CH)
3DB76219AA	FLANGED STUB R120 L=321mm (6CH)
3DB76220AA	FLANGED STUB R120 L=423mm (7CH)
3DB76221AA	FLANGED STUB R120 L=462mm (8CH)
3DB80699AA	CLOSED KIT CHANNEL CIRCULATOR
3DB76264AA	FLANGED STUB R120 L=564mm (9CH)
3DB76265AA	FLANGED STUB R120 L=603mm (10CH)
3DB76266AA	FLANGED STUB R120 L=705mm (11CH)
3DB76270AA	KIT CLOSURE EMPTY SLOT
3DB76271AA	KIT BRANCHING TX SPLIT ON RXD 1+0 UP
3DB76272AA	KIT BRANCHING TX SPLIT ON RXD 1+0 DOWN
3DB76281AA	KIT EXP. 2+0 TX SPLIT ON RXD UP AND DOWN
3DB76273AA	KIT EXP. CONFIG. 3+0 5+0 7+0 9+0 11+0
3DB76274AA	KIT EXP. CONFIG. 4+0 6+0 8+0 9+0 10+0
3DB76275AA	KIT FIX. BRACK. BRANCH. CONFIG. 1+0 5+0 7+0 9+0 11+0
3DB76276AA	KIT FIX. BRACKET TX ON RXD FOR EVEN CONFIG
	ACCP Cable Kits 11 GHz
3EM23523CE	MPT-HLC ACCP Ch 1, 3, 5, 7 Cable Kit
3EM23523CF	MPT-HLC ACCP Ch 2, 4, 6, 8 Cable Kit
3EM23523CG	11 G MPT-HLC ACCP SD Ch 1,3,5,7 Cable Kit
3EM23523CH	11 G MPT-HLC ACCP SD Ch 2,4,6,8 Cable Kit
	MPT-HCv2 5.8G 64MHz
3DB20913BA	MPT-HC V2 5,8GHz 5725.5-5785.5
3DB20914BA	MPT-HC V2 5,8GHz 5789.5-5849.5
3DB20913BB	MPT-HC V2 5,8GHz 5725.5-5785.5 (GR-3108 version)
3DB20914BB	MPT-HC V2 5,8GHz 5789.5-5849.5 (GR-3108 version)
	MPT-HC/XP-HQAM 6Ghz
3DB20800DA	MPT-HC-HQAM L6GHz low
3DB20802DA	MPT-HC-HQAM L6GHz high
3DB20760DA	MPT-XP-HQAM L6GHz low



3DB20761DA	MPT-XP-HQAM L6GHz high
3DB20804DA	MPT-HC-HQAM U6GHz low
3DB20806DA	MPT-HC-HQAM U6GHz high
3DB20763DA	MPT-XP-HQAM U6GHz low
3DB20764DA	MPT-XP-HQAM U6GHz high
	MPT-HC/XP-HQAM 11Ghz
3DB22000DA	MPT-HC-HQAM 11GHz low
3DB22001DA	MPT-HC-HQAM 11GHz high
3DB22002DA	MPT-XP-HQAM 11GHz low
3DB22003DA	MPT-XP-HQAM 11GHz high
	MPT-HC/XP-HQAM 18Ghz
3DB20432DA	MPT-HC-HQAM 18GHz 1560 1/1P
3DB20433DA	MPT-HC-HQAM 18GHz 1560 1P/1
	MPT-HC/XP-HQAM 23Ghz
3DB20473DA	MPT-HC-HQAM 23GHz 1200 1/1P
3DB20474DA	MPT-HC-HQAM 23GHz 1200 2/2P
3DB20475DA	MPT-HC-HQAM 23GHz 1200 1P/1
3DB20476DA	MPT-HC-HQAM 23GHz 1200 2P/2
	MPT-HC/XP-HQAM 11 GHz Diplexer
3DB20991BD	11 GHz : 10695 - 10961 / 11199 - 11485
3DB20991BE	11 GHz : 10933 - 11200 / 11430 - 11705
3DB20991BF	11GHz CH3-3P SH.490-530MHz (ANSI special apps)
	MPT-HC Coupler Equal 3:3 Table E10
3CC13472AA	13-15GHz 3dB coupler
3CC13473AA	18-25GHz 3dB coupler
3CC13474AA	28-38GHz 3dB coupler
3CC58276AC	coupler 3 dB 5.7-7.1 GHz GR3108
3CC58224AB	coupler 3 dB 10-11.7 GHz flat GR3108
3CC13473AC	18/23/25 GHz 3dB COUPLER GR3108
3CC13474AC	38GHz 3dB coupler GR3108
	MPT-HC Coupler Unequal 1:10 Table E9
3CC58276AB	5.8GHz 10dB coupler
3CC13472AB	13-15GHz 10dB coupler
3CC13473AB	18-25GHz 10dB coupler
3CC13474AB	28-38GHz 10dB coupler



3CC58056AD	Coupler 10dB 6 GHz GR3108
3CC58276AD	coupler 10 dB 5.7-7.1 GHz GR3108
3CC58226AB	coupler 10 dB 10-11.7 GHz flat GR3108
3CC13473AD	18/23/25 GHz 10dB COUPLER GR3108
3CC13474AD	Coupler 38 GHz 10dB GR3108
	MPT-HC 4x OMT Table E12
3CC58244AA	OMT-C 6LGHz
3CC58266AA	OMT-C U6 GHz
3CC58246AA	OMT-C 15 GHz
3CC58201AA	OMT-C 18GHz
3CC58202AA	OMT-C 23GHz
	MPT-HC 2xOMT Table E11
3CC58134AA	OMT 6LGHz
3CC58186AA	OMT 6UGHz
3CC58229AA	OMT 11 GHz - flat
3CC58163AA	OMT 15GHz
3CC58164AA	OMT 18GHz
3CC58165AA	OMT 23GHz
	MPT-HC OMT Coupler Termination Table E13
3CC58225AA	6 GHz 50 Ohm Termination
3CC58223AA	11 GHz 50 Ohm Termination
3CC58228AA	13/15 GHz 50 Ohm Termination
3CC58221AA	18/25 GHz 50 Ohm Termination
3CC58220AA	38 GHz 50 Ohm Termination
	MPT-HC Mounting Table E7
3DB10137AB	Non-integrated Pole Mount (GR-3108)
3CC50172AA	5.8 GHz N-Type nose adapter
3DB01460AB	6 GHz Nose for not integrated ant
3CC50125AA	11GHz nose WR90 (flange UBR100)
3CC50179AA	13 GHz nose
3CC50177AA	15 GHz nose
3CC50178AA	18-23 GHz nose adapter
3DB02082AA	38 GHz nose adapter
3EM24705AA	Rack mount panel / Star adapter kit
3EM24705AB	ODU RACK MOUNT MPT-HC/MPre 6 GHz
	Outdoor PoE



3DB19194AA	PD-9501GO/FP/AC-NA
3DB19195AA	PD-OUT-MBK
	MPT-HC Cables
3CC52191AA	Light Service alignment kit with LEMO connector
	MPT-HC CAT5e IM Table A6
1AC016760006	Cat5e cable - GLP is per foot
1AD040130004	Ground kit – (qty 3 per run, based on length)
3CC50251AA	Ground kit, 2M – (qty 3 per run, based on length)
1AB074610027	RJ-45 connector for indoor and outdoor ends of cat5e
1AB150990002	R2CT connector protection for RJ45 outdoor
1AD160490001	Tool HIROSE RJ45 IDU-ODU cable assembling
	MPT-HC CAT5e Cords A4
3CC52199AE	3m Preassembled CAT5e R2TC/RJ45
3CC52199AF	5m Preassembled CAT5e R2TC/RJ45
3CC52199AG	10m Preassembled CAT5e R2TC/RJ45
3CC52199AA	25m Preassembled CAT5e R2TC/RJ45
3CC52199AJ	40m Preassembled CAT5e R2TC/RJ45
3CC52199AB	50m Preassembled CAT5e R2TC/RJ45
3CC52199AC	75m Preassembled CAT5e R2TC/RJ45
3CC52199AD	100m Preassembled CAT5e R2TC/RJ45
	MPT-HC CAT5e Cords A4
3CC52170BA	Preassembled fiber cord LC-LC/Q-XCO 80m (multimode)
3CC52170BB	Preassembled fiber cord LC-LC/Q-XCO 100m (multimode)
3CC52170BC	Preassembled fiber cord LC-LC/Q-XCO 120m (pref) (multimode)
3CC52170BD	Preassembled fiber cord LC-LC/Q-XCO 140m (multimode)
3CC52170BE	Preassembled fiber cord LC-LC/Q-XCO 160m (multimode)
3CC52170BF	Preassembled fiber cord LC-LC/Q-XCO 180m (multimode)
3CC52170BG	Preassembled fiber cord LC-LC/Q-XCO 200m (pref) (multimode)
3CC52170BH	Preassembled fiber cord LC-LC/Q-XCO 220m (multimode)
3CC52170BY	Preassembled fiber cord LC-LC/Q-XCO 250m (multimode)
3CC52170BL	Preassembled fiber cord LC-LC/Q-XCO 300m (multimode)
3CC52170BM	Preassembled fiber cord LC-LC/Q-XCO 50m (multimode)
3CC52170BN	Preassembled fiber cord LC-LC/Q-XCO 25m (multimode)
3CC52212AB	Preassembled fiber cord LC-LC/Q-XCO 400m (singlemode)
3CC52212AC	Preassembled fiber cord LC-LC/Q-XCO 480m (singlemode)
3CC50097AA	Fiber storage -pole/wall mount (100m)
3CC50095AA	Fiber storage - rack mount (25 m)



	MPT-HC RPS Cables Table E5
3CC52169BA	RPS LC-LC optical jumper preassembled L=1m
3CC52169BB	RPS LC-LC optical jumper preassembled L=10m
3CC52169BC	RPS LC-LC optical jumper preassembled L=20m
	MPT-HC XPIC Cables Table E5
3CC52186CA	XPIC cable 1 m
3CC52186CB	XPIC cable 2.5 m
3CC52186CC	XPIC cable 8 m
	MPT-HC Battery IM
3CC50030AA	Single Lightning Arrest Kit
1AB251350001	LPF for batt, 2 wire N adapter (filters 48v from ODU)
1AB328430001	Lightning arrestor RJ-45 router output (MPRe)
3CC50158AA	Support for 1AB37230001 LA, max 8 LA
3CC52188AA	N- to Free Wire
3CC52159AA	Pig-tail, 2 wires to N-connector, 4 m (batt to N then LA, LPF...)
3CC52167AA	N- to RJ45
3EM23272AA	KIT SUPPORT FOR 3 CORDS N/QMA IDU
3EM23311AA	N Jack Bulkhead to QMA Plug (14 inch)
3EM23311AB	N Jack Bulkhead to QMA Plug (108 inch)
1AC014320002	Coaxial Cable LMR-400 FR - price per foot
357-9194-000	STRAIGHT MALE N MALE N COAXIAL Barrel
1AB095530045	Connector N PPC Straight Male
1AB095530044	Connector N PPC Right Angle Male
1AB095530046	Connector N PPC Straight Female
1AB383930001	Compression Tool for PPC
1AB350440001	LMR grounding kit
3CC50029AA	Single Lightning Arrest Bracket
	UBT 5.8-6 GHz
3DB29105AA	UBT-S 6GHz
3DB29106AA	UBT-S 5.8-6GHz HP
3DB29205AA	UBT-T 6GHz
3DB29206AA	UBT-T 5.8-6GHz HP
3DB28582AA	AIM-S 5.8GHz 63 MHz SB1
3DB28582BA	AIM-S 5.8GHz 63 MHz SB2
3DB28584AA	AIM-S 6GHz 150 MHz SB1
3DB28584BA	AIM-S 6GHz 150 MHz SB2



3DB28589AA	AIM-S 6GHz 160/170/180 MHz SB1
3DB28589BA	AIM-S 6GHz 160/170/180 MHz SB2
3DB28589CA	AIM-S 6GHz 160/170/180 MHz SB3
3DB28589DA	AIM-S 6GHz 160/170/180 MHz SB4
3DB28590AA	AIM-S 6GHz 252,04 MHz SB1
3DB28590BA	AIM-S 6GHz 252,04 MHz SB2
3DB28590CA	AIM-S 6GHz 252,04 MHz SB3
3DB28591AA	AIM-S 6GHz 340 MHz SB1
3DB28591BA	AIM-S 6GHz 340 MHz SB2
3DB28591CA	AIM-S 6GHz 340 MHz SB3
3DB28768AA	AIM-T-C L6GHz 252.04MHz SB1 SB2
3DB28769AA	AIM-T-C L6GHz 252.04MHz SB2 SB3
3DB28552AA	AIM-T-C 6GHz 150 MHz SB1/SB1
3DB28552BA	AIM-T-C 6GHz 150 MHz SB2/SB2
3DB28553AA	AIM-T-C 6GHz 160/170/180 MHz SB1/SB1
3DB28553BA	AIM-T-C 6GHz 160/170/180 MHz SB2/SB2
3DB28553CA	AIM-T-C 6GHz 160/170/180 MHz SB3/SB3
3DB28553DA	AIM-T-C 6GHz 160/170/180 MHz SB4/SB4
3DB28554AA	AIM-T-C 6GHz 252,04 MHz SB1/SB1
3DB28554BA	AIM-T-C 6GHz 252,04 MHz SB2/SB2
3DB28554CA	AIM-T-C 6GHz 252,04 MHz SB3/SB3
3DB28556AA	AIM-T-C 6GHz 340 MHz SB1/SB1
3DB28556BA	AIM-T-C 6GHz 340 MHz SB2/SB2
3DB28556CA	AIM-T-C 6GHz 340 MHz SB3/SB3
3DB28915AA	AIM-T-O 5.8GHz 63 MHz SB1
3DB28915BA	AIM-T-O 5.8GHz 63 MHz SB2
3DB28622AA	AIM-T-O 6GHz 150 MHz SB1/SB1
3DB28622BA	AIM-T-O 6GHz 150 MHz SB2/SB2
3DB28623AA	AIM-T-O 6GHz 160/170/180 MHz SB1/SB1
3DB28623BA	AIM-T-O 6GHz 160/170/180 MHz SB2/SB2
3DB28623CA	AIM-T-O 6GHz 160/170/180 MHz SB3/SB3
3DB28623DA	AIM-T-O 6GHz 160/170/180 MHz SB4/SB4
3DB28624AA	AIM-T-O 6GHz 252,04 MHz SB1/SB1
3DB28624BA	AIM-T-O 6GHz 252,04 MHz SB2/SB2
3DB28624CA	AIM-T-O 6GHz 252,04 MHz SB3/SB3
3DB29574AA	AIM-T-O L6GHz 252.04MHz SB1/SB2
3DB28625AA	AIM-T-O 6GHz 340 MHz SB1/SB1
3DB28625BA	AIM-T-O 6GHz 340 MHz SB2/SB2
3DB28625CA	AIM-T-O 6GHz 340 MHz SB3/SB3
3DB28507AA	AIM-T-D 5.8GHz 63 MHz SB1
3DB28507BA	AIM-T-D 5.8GHz 63 MHz SB2



3DB28510AA	AIM-T-D 6GHz 150 MHz SB1/SB1
3DB28510BA	AIM-T-D 6GHz 150 MHz SB2/SB2
3DB28514AA	AIM-T-D 6GHz 160/170/180 MHz SB1/SB1
3DB28514BA	AIM-T-D 6GHz 160/170/180 MHz SB2/SB2
3DB28514CA	AIM-T-D 6GHz 160/170/180 MHz SB3/SB3
3DB28514DA	AIM-T-D 6GHz 160/170/180 MHz SB4/SB4
3DB28520AA	AIM-T-D 6GHz 252,04 MHz SB1/SB1
3DB28520BA	AIM-T-D 6GHz 252,04 MHz SB2/SB2
3DB28520CA	AIM-T-D 6GHz 252,04 MHz SB3/SB3
3DB29575AA	AIM-T-D L6GHz 252.04MHz SB1/SB2
3DB28521AA	AIM-T-D 6GHz 340 MHz SB1/SB1
3DB28521BA	AIM-T-D 6GHz 340 MHz SB2/SB2
3DB28521CA	AIM-T-D 6GHz 340 MHz SB3/SB3
	UBT 11 GHz
3DB29110AB	UBT-S 10-11 GHz
3DB29111AB	UBT-S 10-11 GHz HP
3DB29210AB	UBT-T 10-11 GHz
3DB29211AB	UBT-T 10-11 GHz HP
3DB29110AC	UBT-S 10-11 GHz
3DB29111AC	UBT-S 10-11 GHz HP
3DB29210AC	UBT-T 10-11 GHz
3DB29211AC	UBT-T 10-11 GHz HP
3DB28210AA	AIM-S 11GHz 490-500-520-530MHz SB1
3DB28210BA	AIM-S 11GHz 490-520-530MHz SB2
3DB28210CA	AIM-S 11GHz 490-520-530MHz SB3
3DB28210DA	AIM-S 11GHz 490-500-520-530MHz SB4
3DB28211AA	AIM-T-C 11GHz 490-500-520-530MHz SB1
3DB28211BA	AIM-T-C 11GHz 490-520-530MHz SB2
3DB28211CA	AIM-T-C 11GHz 490-520-530MHz SB3
3DB28211DA	AIM-T-C 11GHz 490-500-520-530MHz SB4
3DB28212AA	AIM-T-O 11GHz 490-500-520-530MHz SB1
3DB28212BA	AIM-T-O 11GHz 490-520-530MHz SB2
3DB28212CA	AIM-T-O 11GHz 490-520-530MHz SB3
3DB28212DA	AIM-T-O 11GHz 490-500-520-530MHz SB4
3DB28227AA	AIM-T-C 11GHz 490-520-530MHz SB1 SB2
3DB28228AA	AIM-T-C 11GHz 490-520-530MHz SB2 SB3
3DB28229AA	AIM-T-C 11GHz 490-520-530MHz SB3 SB4
3DB28289AA	AIM-T-D 11GHz 490-520-530MHz SB1
3DB28289BA	AIM-T-D 11GHz 490-520-530MHz SB2
3DB28289CA	AIM-T-D 11GHz 490-520-530MHz SB3



3DB28289DA	AIM-T-D 11GHz 490-520-530MHz SB4
	UBT 13-15 GHz
3DB29115AC	UBT-S 13-15 GHz
3DB29215AC	UBT-T 13-15 GHz
3DB28093AA	AIM-S 13GHz 225MHz SB1
3DB28093BA	AIM-S 13GHz 225MHz SB2
3DB28093CA	AIM-S 13GHz 225MHz SB3
3DB28093DA	AIM-S 13GHz 225MHz SB4
3DB28094AA	AIM-T-C 13GHz 225MHz SB1
3DB28094BA	AIM-T-C 13GHz 225MHz SB2
3DB28094CA	AIM-T-C 13GHz 225MHz SB3
3DB28094DA	AIM-T-C 13GHz 225MHz SB4
3DB28095AA	AIM-T-O 13GHz 225MHz SB1
3DB28095BA	AIM-T-O 13GHz 225MHz SB2
3DB28095CA	AIM-T-O 13GHz 225MHz SB3
3DB28095DA	AIM-T-O 13GHz 225MHz SB4
3DB28171AA	AIM-T-D 13GHz 225MHz SB1
3DB28171BA	AIM-T-D 13GHz 225MHz SB2
3DB28171CA	AIM-T-D 13GHz 225MHz SB3
3DB28171DA	AIM-T-D 13GHz 225MHz SB4
3DB28096AA	AIM-S 13GHz 266MHz SB1
3DB28096BA	AIM-S 13GHz 266MHz SB2
3DB28096CA	AIM-S 13GHz 266MHz SB3
3DB28097AA	AIM-T-C 13GHz 266MHz SB1
3DB28097BA	AIM-T-C 13GHz 266MHz SB2
3DB28097CA	AIM-T-C 13GHz 266MHz SB3
3DB28098AA	AIM-T-O 13GHz 266MHz SB1
3DB28098BA	AIM-T-O 13GHz 266MHz SB2
3DB28098CA	AIM-T-O 13GHz 266MHz SB3
3DB28172AA	AIM-T-D 13GHz 266MHz SB1
3DB28172BA	AIM-T-D 13GHz 266MHz SB2
3DB28172CA	AIM-T-D 13GHz 266MHz SB3
3DB28114BA	AIM-S 15GHz 475MHz SB2
3DB28114DA	AIM-S 15GHz 475MHz SB4
3DB28115BA	AIM-T-C 15GHz 475MHz SB2
3DB28115DA	AIM-T-C 15GHz 475MHz SB4
3DB28116BA	AIM-T-O 15GHz 475MHz SB2
3DB28116DA	AIM-T-O 15GHz 475MHz SB4
3DB28123AA	AIM-S 15GHz 640MHz SB1
3DB28124AA	AIM-T-C 15GHz 640MHz SB1



3DB28125AA	AIM-T-O 15GHz 640MHz SB1
3DB28177BA	AIM-T-D 15GHz 475MHz SB2
3DB28177DA	AIM-T-D 15GHz 475MHz SB4
3DB28180AA	AIM-T-D 15GHz 640MHz SB1
	UBT 18 GHz
3DB29118AB	UBT-S 18 GHz
3DB29218AB	UBT-T 18 GHz
3DB28066AB	AIM-S 18GHz 1560MHz SB1 (integrated and non-integrated antenna)
3DB28071AA	AIM-T-C 18GHz 1560MHz SB1
3DB28072AA	AIM-T-O 18GHz 1560MHz SB1
3DB28185AA	AIM-T-D 18GHz 1560MHz SB1
	UBT 23 GHz
3DB29123AB	UBT-S 23 GHz
3DB29223AB	UBT-T 23 GHz
3DB28090AA	AIM-S 23GHz 1200MHz SB1
3DB28090BA	AIM-S 23GHz 1200MHz SB2
3DB28090CA	AIM-S 23GHz 1200MHz SB3
3DB28091AA	AIM-T-C 23GHz 1200MHz SB1
3DB28091BA	AIM-T-C 23GHz 1200MHz SB2
3DB28091CA	AIM-T-C 23GHz 1200MHz SB3
3DB28222AA	AIM-T-C 23GHz 1200MHz SB1 SB2
3DB28223AA	AIM-T-C 23GHz 1200MHz SB2 SB3
3DB28092AA	AIM-T-O 23GHz 1200MHz SB1
3DB28092BA	AIM-T-O 23GHz 1200MHz SB2
3DB28092CA	AIM-T-O 23GHz 1200MHz SB3
3DB28189AA	AIM-T-D 23GHz 1200MHz SB1
3DB28189BA	AIM-T-D 23GHz 1200MHz SB2
3DB28189CA	AIM-T-D 23GHz 1200MHz SB3
	UBT 24-26 GHz
3DB29126AA	UBT-S 24-26 GHz
3DB29226AA	UBT-T 24-26 GHz
3DB28152AA	AIM-S 24GHz 800MHz SB1
3DB28153AA	AIM-T-C 24GHz 800MHz SB1
3DB28154AA	AIM-T-O 24GHz 800MHz SB1
3DB28190AA	AIM-T-D 24GHz 800MHz SB1
	UBT 28-32 GHz
3DB29132AA	UBT-S 28-32 GHz



3DB29232AA	UBT-T 28-32 GHz
3DB28666AA	AIM-S 28GHz 430-450MHz SB1
3DB28666BA	AIM-S 28GHz 430-450MHz SB2
3DB28666CA	AIM-S 28GHz 430-450MHz SB3
3DB28666DA	AIM-S 28GHz 430-450MHz SB4
3DB28669AA	AIM-T-C 28GHz 430-450MHz SB1
3DB28669BA	AIM-T-C 28GHz 430-450MHz SB2
3DB28669CA	AIM-T-C 28GHz 430-450MHz SB3
3DB28669DA	AIM-T-C 28GHz 430-450MHz SB4
3DB28672AA	AIM-T-O 28GHz 430-450MHz SB1
3DB28672BA	AIM-T-O 28GHz 430-450MHz SB2
3DB28672CA	AIM-T-O 28GHz 430-450MHz SB3
3DB28672DA	AIM-T-O 28GHz 430-450MHz SB4
3DB28675AA	AIM-T-D 28GHz 430-450MHz SB1
3DB28675BA	AIM-T-D 28GHz 430-450MHz SB2
3DB28675CA	AIM-T-D 28GHz 430-450MHz SB3
3DB28675DA	AIM-T-D 28GHz 430-450MHz SB4
3DB28668AA	AIM-S 32GHz 812MHz SB1
3DB28668BA	AIM-S 32GHz 812MHz SB2
3DB28671AA	AIM-T-C 32GHz 812MHz SB1
3DB28671BA	AIM-T-C 32GHz 812MHz SB2
3DB28674AA	AIM-T-O 32GHz 812MHz SB1
3DB28674BA	AIM-T-O 32GHz 812MHz SB2
3DB28677AA	AIM-T-D 32GHz 812MHz SB1
3DB28677BA	AIM-T-D 32GHz 812MHz SB2
	UBT 38 GHz
3DB29138AB	UBT-S 38 GHz
3DB29238AB	UBT-T 38 GHz
3DB28058AA	AIM-S 38GHz 700MHz SB1
3DB28058BA	AIM-S 38GHz 700MHz SB2
3DB28058CA	AIM-S 38GHz 700MHz SB3
3DB28058DA	AIM-S 38GHz 700MHz SB4
3DB28060AA	AIM-T-C 38GHz 700MHz SB1
3DB28060BA	AIM-T-C 38GHz 700MHz SB2
3DB28060CA	AIM-T-C 38GHz 700MHz SB3
3DB28060DA	AIM-T-C 38GHz 700MHz SB4
3DB28061AA	AIM-T-O 38GHz 700MHz SB1
3DB28061BA	AIM-T-O 38GHz 700MHz SB2
3DB28061CA	AIM-T-O 38GHz 700MHz SB3
3DB28061DA	AIM-T-O 38GHz 700MHz SB4



3DB28193AA	AIM-T-D 38GHz 700MHz SB1
3DB28193BA	AIM-T-D 38GHz 700MHz SB2
3DB28193CA	AIM-T-D 38GHz 700MHz SB3
3DB28193DA	AIM-T-D 38GHz 700MHz SB4
	UBT-m
3DB29170AB	UBT-m 80 GHz Low
3DB29180AB	UBT-m 80 GHz High
3DB29171AA	UBT-mX 80 GHz Low
3DB29181AA	UBT-mX 80 GHz High
3DB29178AA	UBT-mU 80 GHz Low
3DB29188AA	UBT-mU 80 GHz High
	Network Interface Module
3DB28691AA	Network Interface Module (NIM)
	UBT Ancillary Equipment
3CC52225AA	Q-XCO to Octis optical pigtail
3DB28411AA	UBT-m XPIC cable 0,70 m
3DB28410AA	XPIC cable 2.5 m for UBT-S
3DB28410AB	XPIC cable 10 m for UBT-S
3DB28410AC	XPIC cable 15 m for UBT-S
3DB28410AD	XPIC cable 1 m for UBT-S
3CC50306AA	Adaptor nose 6 GHz
3CC50318AA	Adaptor nose 11GHz
3CC50321AA	Adaptor nose 38-42GHz
3CC50316AA	Adaptor nose 28-32GHz
3CC50310AA	Adaptor nose 13GHz
3CC50312AA	Adaptor nose 15GHz
3CC50314AA	Adaptor nose 18-26GHz
3CC58368AA	Coupler 3 dB 6GHz UBT
3CC58367AA	Coupler 10 dB 6GHz UBT
3CC58351AA	Coupler 3 dB 10/11 GHz UBT
3CC58350AA	Coupler 10 dB 10/11 GHz UBT
3CC58344AA	Coupler 3 dB 13-15 GHz UBT
3CC58348AA	Coupler 10 dB 13-15 GHz UBT
3CC58345AA	Coupler 3 dB 18-26 GHz UBT
3CC58341AA	Coupler 10 dB 18-26 GHz UBT
3CC58346AA	Coupler 3 dB 28-32 GHz UBT
3CC58342AA	Coupler 10 dB 28-32 GHz UBT
3CC58347AA	Coupler 3 dB 38-42 GHz UBT



3CC58343BA	Coupler 10 dB 38-42 GHz UBT
3CC58407AA	hybrid coupler 6 GHz 10 dB
3CC58406AA	hybrid coupler 6 GHz 3 dB
3CC58366AA	hybrid coupler 11 GHz 10 dB
3CC58365AA	hybrid coupler 11 GHz 3 dB
3CC58378AA	hybrid coupler 13 GHz 10 dB
3CC58379AA	hybrid coupler 13 GHz 3 dB
3CC58393AA	hybrid coupler 15 GHz 10 dB
3CC58394AA	hybrid coupler 15 GHz 3 dB
3CC58380AA	hybrid coupler 18-26 GHz 10 dB
3CC58381AA	hybrid coupler 18-26 GHz 3 dB
3CC58382AA	hybrid coupler 28-32 GHz 10 dB
3CC58383AA	hybrid coupler 28-32 GHz 3 dB
3CC58384AA	hybrid coupler 38 GHz 10 dB
3CC58385AA	hybrid coupler 38 GHz 3 dB
3CC56939AA	Ortho Mode Transducer UBT 6 GHz
3CC56875AA	Ortho Mode Transducer UBT 10/11 GHz
3CC56876AA	Ortho Mode Transducer UBT 13 GHz
3CC56877AA	Ortho Mode Transducer UBT 15 GHz
3CC56878AA	Ortho Mode Transducer UBT 18 GHz
3CC56879AA	Ortho Mode Transducer UBT 23 GHz
3CC56880AA	Ortho Mode Transducer UBT 26 GHz
3CC56881AA	Ortho Mode Transducer UBT 28 GHz
3CC56882AA	Ortho Mode Transducer UBT 32 GHz
3CC56883AA	Ortho Mode Transducer UBT 38 GHz
3CC56884AA	Ortho Mode Transducer UBT 42 GHz
3CC58402AA	OMT-C UBT 6GHz
3CC58389AA	OMT-C UBT 10/11 GHz
3CC58395AA	OMT-C UBT 13 GHz
3CC58390AA	OMT-C UBT 15 GHz
3CC58391AA	OMT-C UBT 18 GHz
3CC58396AA	OMT-C UBT 23 GHz
3CC58397AA	OMT-C UBT 26 GHz
3CC58398AA	OMT-C UBT 28 GHz
3CC58399AA	OMT-C UBT 32 GHz
3CC58400AA	OMT-C UBT 38 GHz
3CC58401AA	OMT-C UBT 42 GHz
1AF30445AAAA	Sway Bar for OMT-C 6-8GHz
3CC58363AA	Load for Unused Coupler 6GHz
3CC58334AA	Pole mount for remote UBT/non-integrated ant config with AIM-C (nose adapter is needed)
3CC58338AA	Pole mount for remote UBT/non integ ant config with AIM-D (no nose adptr needed)



3CC50367AA	Waveguide to N-type for 5.8Ghz
3MU00189AA	UBT-S 5.8Ghz Non-Ingreated Antenna Kit
3MU00189AB	UBT-T 5.8Ghz Non-Ingreated Antenna Kit
	UBT-m Install Material
3DB29343AA	UBT-mU pole mount
3DB29526AA	L-shaped wall bracket for UBT-mU mount
3DB29337AA	Spacers for UBT-mU + NIM
3DB28731AA	UBT-m optical alignment tool
3DB28731AB	UBT-m optical alignment tool (needed for UBT-mU)
	Dual Band
3CC56820AB	Dual Band Antenna 18/80Ghz
3CC56826AB	Dual Band Antenna 23/80Ghz
3CC56825AB	Dual Band Antenna 15/80Ghz
3CC58386AA	OMT for Dual Band antenna 15/80 GHz
3CC58387AA	OMT for Dual Band antenna 18/80 GHz
3CC58388AA	OMT for Dual Band antenna 23/80 GHz
	Flex twist
3CC50328AA	Flex twist 13 GHz WR75 PBR120/PBR140 1,2m
3CC50329AA	Flex twist 15 GHz WR62 PBR140/PBR140 1,2m
3CC50330AA	Flex twist 18 GHz WR42 PBR220/PBR220 1,2m
3CC50341AA	Flex twist 11GHz WR90 PBR100/PBR120 1.2m
	UBT Indoor
3CC50332AA	ASSY Bracket UBT-S or AIM-T-C std rack
3CC50336AA	ASSY bracket AIM-T-D std and sismic rack
3CC50345AA	ASSY Bracket UBT-S or AIM-T-C sism. rack
3CC50348AA	ASSY Bend E-plane UDR70 6 GHz
3CC50350AA	ASSY Bend E-plane UBR84 7-8 GHz
3CC50351AA	ASSY Bend E-plane UBR100 10-11 GHz
3CC50352AA	ASSY Bend E-plane UBR120 13 GHz
3CC50353AA	ASSY Bend E-plane UBR140 15 GHz
3CC50354AA	ASSY Bend E-plane UBR220 18-26 GHz
3CC50355AA	ASSY Bend E-plane UBR320 28-42 GHz
	UBT AIM Replacement Gaskets
3DB28829AA	Kit gasket AIM-S 10-42GHz - spare only
3DB28830AA	Kit gasket AIM-T 10-42GHz - spare only
3DB28834AA	Kit gasket AIM-S 6/7/8GHz - spare only



3DB28835AA	Kit gasket AIM-T 6/7/8GHz - spare only
	UBT Installation Material - OCTIS
1AB235300006	OCTIS housing for powering (high protec)
1AB235300007	OCTIS connector housing for powering
1AB235300005	OCTIS connector housing for fibers
1AB235300004	OCTIS connector housing for RJ45
3CC52229AA	OCTIS Pigtail N for DC
3CC52230AA	OCTIS Pigtail N for DC with protection
1AB469760001	OCTIS Extendstion Tube
	UBT Installation Material - Misc Coax
3EM23311AA	N Jack Bulkhead to QMA Plug (14 inch)
3EM23311AB	N Jack Bulkhead to QMA Plug (108 inch)
3CC52159AA	Pigtail 2-wires with N-female twd battery (indoor)
3CC52159BA	DC pigtail N to 2 wires outdoor
1AB357780003	QMA for coax (6.85mm) at EAC
3CC50030AA	Lightning arrestor for coax
1AB119710002	BNC-bananas adapter for antenna alignment
	UBT Installation Material - 6.85mm Coax
1AC041350002	Coax cable 6.85mm to power UBT (meter)
1AB095530048	N-female for coax cable 6.85mm
1AB095530036	N-male for coax cable 6.85mm
1AB095530037	N-male 90 for coax cable 6,85mm
1AD040130004	grounding kit for coax cable 6.85mm
3CC50251AA	Ground kit, 2M – (qty 3 per run, based on length)
	UBT Installation Material - 10.3 Coax
1AC001100022	Coax cable 10.3mm to power UBT (meter)
1AB095530047	N female connector for 10.3mm
1AB095530023	N-male straight for coax cable 10,3mm
1AB095530021	N-male 90 for coax cable 10,3mm
1AB128500002	Grounding kit for coax cable 10,3mm
	UBT Installation Material - Power Injector
3DB19491AA	Outdoor Power Injector (OPI)
3DB19158AA	OPI Install Kit
3DB19739AA	Outdoor AC Power Supply (OACPS)
1AC052600002	Outdoor AC Power Cable (meter)



	UBT Installation Material - SFP
3CC50387AA	SFP+ 10GBASE-SR
3CC50388AA	SFP+ 10G Base-LR
3CC50322AA	SFP+ 10G Base-ER
3CC50302AA	SFP 1000Base-SX 2,5Gbps
3CC50167AA	1000BASE-SX SFP (mm fiber only)
3CC50168AA	1000BASE-LX/LH SFP (mm or sm fiber)
	UBT Installation Material - MM Fiber UBT to MSS/SAR
3CC52210BA	fiber cord MM LC-LC for UBT 5m
3CC52210BB	fiber cord MM LC-LC for UBT 10m
3CC52210BC	fiber cord MM LC-LC for UBT 25m
3CC52210BD	fiber cord MM LC-LC for UBT 50m
3CC52210BE	fiber cord MM LC-LC for UBT 80m
3CC52210BF	fiber cord MM LC-LC for UBT 100m
3CC52210BG	fiber cord MM LC-LC for UBT 120m
3CC52210BH	fiber cord MM LC-LC for UBT 140m
3CC52210BL	fiber cord MM LC-LC for UBT 160m
3CC52210BM	fiber cord MM LC-LC for UBT 180m
3CC52210BN	fiber cord MM LC-LC for UBT 200m
3CC52210BP	fiber cord MM LC-LC for UBT 220m
3CC52210BR	fiber cord MM LC-LC for UBT 250m
3CC52210BS	fiber cord MM LC-LC for UBT 300m
	UBT Installation Material - SM Fiber UBT to MSS/SAR
3CC52218BL	fiber cord SM LC-LC for UBT 5m
3CC52218BM	fiber cord SM LC-LC for UBT 10m
3CC52218BN	fiber cord SM LC-LC for UBT 25m
3CC52218BP	fiber cord SM LC-LC for UBT 50m
3CC52218BR	fiber cord SM LC-LC for UBT 80m
3CC52218BD	fiber cord SM LC-LC for UBT 100m
3CC52218BE	fiber cord SM LC-LC for UBT 120m
3CC52218BF	fiber cord SM LC-LC for UBT 140m
3CC52218BG	fiber cord SM LC-LC for UBT 160m
3CC52218BH	fiber cord SM LC-LC for UBT 180m
3CC52218BA	fiber cord SM LC-LC for UBT 200m
3CC52218BB	fiber cord SM LC-LC for UBT 250m
3CC52218BC	fiber cord SM LC-LC for UBT 300m
	UBT Installation Material - Fiber For UBT InterConnect
3CC52211BA	fiber cord MM LC-LC UBT-UBT 1m



3CC52211BE	fiber cord MM LC-LC UBT-UBT 2m
3CC52211BF	fiber cord MM LC-LC UBT-UBT 5m
3CC52211BB	fiber cord MM LC-LC UBT-UBT 10m
3CC52211BG	fiber cord MM LC-LC UBT-UBT 15m
3CC52211BC	fiber cord MM LC-LC UBT-UBT 20m
3CC52211BD	fiber cord MM LC-LC UBT-UBT 40m
	UBT Installation Material - Hybrid UBT Cable
1AB503120001	Hybrid UBT Cable - 4x4 Coax/Fiber - 120m
1AB503130001	Hybrid UBT Cable - 4x4 Coax/Fiber - 100m
1AB503140001	Hybrid UBT Cable - 4x4 Coax/Fiber - 80m
1AB503150001	Hybrid UBT Cable - 4x4 Coax/Fiber - 50m
1AB503160001	Hybrid UBT Cable - 4x4 Coax/Fiber - 25m
1AB503170001	Hybrid UBT Cable - 2x2 Coax/Fiber - 120m
1AB503180001	Hybrid UBT Cable - 2x2 Coax/Fiber - 80m
1AB503190001	Hybrid UBT Cable - 2x2 Coax/Fiber - 100m
1AB503200001	Hybrid UBT Cable - 2x2 Coax/Fiber - 50m
1AB503210001	Hybrid UBT Cable - 2x2 Coax/Fiber - 25m
HTPT-1-058-CT	Cutting Tool HYBRIFLEX 58 armor US
HTPT-1-078-CT	Cutting Tool HYBRIFLEX 78 armor US
HTRT-1-001-KIT	Ripcord removal kit US
	ASLM Capacity RTU - per UBT (single/twin)
3MU00177AAAA	RTU 50Mbps UBT-S Capacity
3MU00177ABAA	RTU 100Mbps UBT-S Capacity
3MU00177ACAA	RTU 160Mbps UBT-S Capacity
3MU00177ADAA	RTU 200Mbps UBT-S Capacity
3MU00177AEAA	RTU 300Mbps UBT-S Capacity
3MU00177AFAA	RTU 400Mbps UBT-S Capacity
3MU00177AGAA	RTU 600Mbps UBT-S Capacity
3MU00177AHAA	RTU 800Mbps UBT-S Capacity
3MU00177AJAA	RTU 1000Mbps UBT-S Capacity
3MU00177AKAA	RTU 300Mbps UBT-T Capacity
3MU00177ALAA	RTU 400Mbps UBT-T Capacity
3MU00177AMAA	RTU 600Mbps UBT-T Capacity
3MU00177ANAA	RTU 800Mbps UBT-T Capacity
3MU00177APAA	RTU 1Gbps UBT-T Capacity
3MU00177AQAA	RTU 1.5Gbps UBT-T Capacity
3MU00177ARAA	RTU 2Gbps UBT-T Capacity
3MU00177ASAA	RTU 1Gbps UBT-m Capacity
3MU00177ATAA	RTU 1.5Gbps UBT-m Capacity



3MU00177AUAA	RTU 2Gbps UBT-m Capacity
3MU00177AVAA	RTU 3Gbps UBT-m Capacity
3MU00177AWAA	RTU 4Gbps UBT-m Capacity
3MU00177AXAA	RTU 5Gbps UBT-m Capacity
3MU00177AYAA	RTU 6Gbps UBT-m Capacity
3MU00177AZAA	RTU 10Gbps UBT-m Capacity
	Optional Features per UBT
3MU00177BAAA	RTU UBT-T 2nd TxRx activation
3MU00177BBAA	RTU UBT-m Large Channel Spacing
	Adaptive modulation - per UBT
3MU00177BDAA	RTU UBT-S Adp Mod
3MU00177BEAA	RTU UBT-T Adp Mod
3MU00177BFAA	RTU UBT-m Adp Mod Ad Bd Rate
	HQAM - per UBT
3MU00177BGAA	RTU UBT-S HQAM 2k/4k
3MU00177BHAA	RTU UBT-T HQAM 2k/4k
3MU00177BJAA	RTU UBT-m HQAM
	XPIC - per UBT
3MU00177BKAA	RTU UBT- S XPIC
3MU00177BLAA	RTU UBT-T XPIC
3MU00177BMAA	RTU UBT-m XPIC
	LAG/CA - per UBT link
3MU00177BNAA	RTU UBT CarrierAggreg. Multi freq
3MU00177BPAA	RTU UBT CarrierAggreg Eband+MW
	PTB - per UBT
3MU00177BQAA	RTU UBT-S PTB
3MU00177BRAA	RTU UBT-T PTB
3MU00177BSAA	RTU UBT-m PTB
	10G UBT
3MU00177DCAA	UBT-T 10G Full Outdoor
3MU00177DDAA	UBT-m 10G Full Outdoor
3MU00177DEAA	UBT-S 10G Full Outdoor
	Capacity Upgrades - per UBT



3MU00177BTAA	UBT-T Upgrade 300Mb to 400Mb
3MU00177BUAA	UBT-T Upgrade 400Mb to 600Mb
3MU00177BVAA	UBT-T Upgrade 600Mb to 800Mb
3MU00177BWAA	UBT-T Upgrade 800Mb to 1000Mb
3MU00177BXAA	UBT-T Upgrade 1000Mb to 1500Mb
3MU00177BYAA	UBT-T Upgrade 1500Mb to 2000Mb
3MU00177BZAA	UBT-m Upgrade 1000Mb to 1500Mb
3MU00177CAAA	UBT-m Upgrade 1500Mb to 2000Mb
3MU00177CBAA	UBT-m Upgrade 2000Mb to 3000Mb
3MU00177CCAA	UBT-m Upgrade 3000Mb to 4000Mb
3MU00177CDAA	UBT-m Upgrade 4000Mb to 5000Mb
3MU00177CEAA	UBT-m Upgrade 5000Mb to 6000Mb
3MU00177CFAA	UBT-m Upgrade 6000Mb to 10Gb
3MU00177CGAA	UBT-S Upgrade 50Mb to 100Mb
3MU00177CHAA	UBT-S Upgrade 100Mb to 160Mb
3MU00177CJAA	UBT-S Upgrade 160Mb to 200Mb
3MU00177CKAA	UBT-S Upgrade 200Mb to 300Mb
3MU00177CLAA	UBT-S Upgrade 300Mb to 400Mb
3MU00177CMAA	UBT-S Upgrade 400Mb to 600Mb
3MU00177CNAA	UBT-S Upgrade 600Mb to 800Mb
3MU00177CPAA	UBT-S Upgrade 800Mb to 1000Mb
	SDN
3MU00177DAAA	Wavence Netconf RTU
3MU00177DBAA	Wavence L3VPN RTU
3MU00177DHAA	Wavence Dynamic L3 OSPF RTU
	OCM
3MU00177DGAA	RTU OCM
	MISC
3MU00177DJAA	RTU TWAMP Responder
3MU00177DKAA	RTU Y.1731
	Factory Capacity RTU - per UBT (single/twin)
3MU00180AAAA	RTU 50Mbps UBT-S Capacity
3MU00180ABAA	RTU 100Mbps UBT-S Capacity
3MU00180ACAA	RTU 160Mbps UBT-S Capacity
3MU00180ADAA	RTU 200Mbps UBT-S Capacity
3MU00180AEAA	RTU 300Mbps UBT-S Capacity
3MU00180AFAA	RTU 400Mbps UBT-S Capacity



3MU00180AGAA	RTU 600Mbps UBT-S Capacity
3MU00180AHAA	RTU 800Mbps UBT-S Capacity
3MU00180AJAA	RTU 1000Mbps UBT-S Capacity
3MU00180AKAA	RTU 300Mbps UBT-T Capacity
3MU00180ALAA	RTU 400Mbps UBT-T Capacity
3MU00180AMAA	RTU 600Mbps UBT-T Capacity
3MU00180ANAA	RTU 800Mbps UBT-T Capacity
3MU00180APAA	RTU 1Gbps UBT-T Capacity
3MU00180AQAA	RTU 1.5Gbps UBT-T Capacity
3MU00180ARAA	RTU 2Gbps UBT-T Capacity
3MU00180ASAA	RTU 1Gbps UBT-m Capacity
3MU00180ATAA	RTU 1.5Gbps UBT-m Capacity
3MU00180AUAA	RTU 2Gbps UBT-m Capacity
3MU00180AVAA	RTU 3Gbps UBT-m Capacity
3MU00180AWAA	RTU 4Gbps UBT-m Capacity
3MU00180AXAA	RTU 5Gbps UBT-m Capacity
3MU00180AYAA	RTU 6Gbps UBT-m Capacity
3MU00180AZAA	RTU 10Gbps UBT-m Capacity
	Optional Features per UBT
3MU00180BAAA	RTU UBT-T 2nd TxRx activation
3MU00180BBAA	RTU UBT-m Large Channel Spacing
	Adaptive modulation - per UBT
3MU00180BDAA	RTU UBT-S Adp Mod
3MU00180BEAA	RTU UBT-T Adp Mod
3MU00180BFAA	RTU UBT-m Adp Mod Ad Bd Rate
	HQAM - per UBT
3MU00180BGAA	RTU UBT-S HQAM 2k/4k
3MU00180BHAA	RTU UBT-T HQAM 2k/4k
3MU00180BJAA	RTU UBT-m HQAM
	XPIC - per UBT
3MU00180BKAA	RTU UBT- S XPIC
3MU00180BLAA	RTU UBT-T XPIC
3MU00180BMAA	RTU UBT-m XPIC
	LAG/CA - per UBT link
3MU00180BNAA	RTU UBT CarrierAggreg. Multi freq
3MU00180BPAA	RTU UBT CarrierAggreg Eband+MW



	StandAlone - UBT
3MU00180VAAA	RTU UBT-S Stand Alone
3MU00180VBAA	RTU UBT-T Stand Alone
3MU00180VCAA	RTU UBT-m Stand Alone
3MU00180VDAA	RTU UBT-I Stand Alone
	OCM - UBT
3MU00180DGAA	RTU OCM
	MISC - per UBT
3MU00180DJAA	RTU TWAMP Responder
3MU00180DKAA	RTU Y.1731
	L6Ghz OCM Body
3DB28888AA	OCM 5.9-6.95GHz 4Ch CP MAIN
3DB28889AA	OCM 5.9-6.95GHz 4Ch CP EXTENSION
3DB28890AA	OCM 5.9-6.95GHz 2x2Ch AP
	U6Ghz OCM Body
3DB28927AA	OCM 6U 4Ch CP MAIN
3DB28928AA	OCM 6U 4Ch CP EXTENSION
3DB28929AA	OCM 6U 2x2Ch AP
	11GHz OCM Body
3DB28891AA	OCM 10.7-11.7GHz 4Ch CP MAIN
3DB28892AA	OCM 10.7-11.7GHz 4Ch CP EXTENSION
3DB28893AA	OCM 10.7-11.7GHz 2x2Ch AP
	6Ghz Filters
3DB76131AA	TUNED 6 CAV FILTER 5.90-6.20 GHz CH 30 MHz
3DB76132AA	TUNED 6 CAV FILTER 6.15-6.45 GHz CH 30 MHz
3DB76286AA	TUNED 6 CAV FILTER 6,4-6,75 GHz CH 30 MHz (BW 25,5MHz)
3DB76287AA	TUNED 6 CAV FILTER 6.7-7,1 GHz CH 30 MHz (BW 25,5 MHz)
3DB76113AA	RF Stacking Filter 5925-6175 MHz (XMT or RCV) 60 MHz
3DB76114AA	RF Stacking Filter 6175-6425 MHz (XMT or RCV) 60 MHz
3DB76197AA	REJECTION FILTER 3 cav. 6L INF
3DB76198AA	REJECTION FILTER 3 cav. 6L SUP
3DB76199AA	REJECTION FILTER 6 CAV. 6L INF (Only for Ch 60 MHz)
3DB76200AA	REJECTION FILTER 6 CAV. 6L SUP (Only for Ch 60 MHz)

	11Ghz Filters
3DB28982AAAA	FILTER 10.7-11.2 GHZ Hardened 30Mhz
3DB28983AAAA	FILTER 11.2-11.7 GHZ Hardened 30Mhz
3DB28984AAAA	FILTER 10.7-11.2 GHZ Hardened 40Mhz
3DB28985AAAA	FILTER 11.2-11.7 GHZ Hardened 40Mhz
3DB28991AAAA	FILTER 10,7-11,2 GHZ Hardened 60Mhz
3DB28992AAAA	FILTER 11,2-11,7 GHZ Hardened 60Mhz
3DB28996AAAA	FILTER 10,7-11,2 GHZ Hardened 80Mhz
3DB28997AAAA	FILTER 11,2-11,7 GHZ Hardened 80Mhz
	OCM Flex Twist to Antenna
1AF02951ABAA	Flex twist 5,85GHz-8,2GHz PDR70/UDR70 1m
1AF11977AAAA	Flex twist 7,05GHz-10GHz PDR84/UBR84 1m
3CC50018AA	Flex twist 8,2-12,4GHz PDR100/UBR100 1m
	Extension from 1m -> 2m
1AF02951ABAA	Flex twist 5,85GHz-8,2GHz PDR70/UDR70 1m
3CC08010AB	Flex twist 7,05GHz-10GHz PDR84/UBR84 1m
1AF02957ABAA	Flex twist 8,2-12,4GHz PDR100/UBR100 1m
	Connection between OCM
	When two OCM must be interconnected, use one bend and one flex twist.
3CC50392AA	BEND H PLANE PDR70/UDR70 for OCM
3CC50393AA	BEND H PLANE PDR84/UDR84 for OCM
3CC50366AA	Flex twist 6 GHz WR137 PDR70/PDR70 1,2m for OCM
3CC50369AA	Flex twist WR112 PDR84/PDR84 7/8 GHz 1.2 m for OCM
3CC50370AA	Flex twist WR90 PDR100/PDR100 11 GHz 1.2 m for OCM



TSM-8000 Network Management System	
Part No	Description
TSM-8000 Fully Redundant Workstation Kit	
3EM16790EP	Server Wkstn Kit, Win Server, 110 VAC
TSM-8000 Single Client Workstation Kit	
3EM16790BV	Single Client as Server Wkstn Kit, Win , 110 VAC
TSM-8000 SNMP / TL1 Workstation Kit	
3EM16790GW	Server Wkstn Kit, 1U, Win Server, 110 VAC
TSM-8000 Server ONLY	
3EM16790DH	Server workstation (rack mount) - with 17" LCD monitor, WIN Server OS 110 VAC
3EM16790GY	Server, 1U High (rack mount) SNMP Only, WIN Server OS 110 VAC
SNMP Software	
3EM16790BA	Server License, 24 NE Ltd, SNMP
3EM16790BB	Server License, 32 NE Ltd, SNMP
3EM16790BC	Server License, 64 NE Ltd, SNMP
3EM16790BD	Server License, 128 NE Ltd, SNMP
3EM16790FS	Server License, 256 NE Ltd, SNMP
3EM16790FM	Server License, 512 NE Ltd, SNMP
3EM16790BE	Server License, 1024 NE, SNMP
MCS-11 + TL1 Software	
3EM16790BF	Server License, 24 NE Ltd, MCS/TL1
3EM16790BG	Server License, 32 NE Ltd, MCS/TL1
3EM16790BH	Server License, 64 NE Ltd, MCS/TL1
3EM16790BJ	Server License, 128 NE Ltd, MCS/TL1
3EM16790FU	Server License, 256 NE Ltd, MCS-11/TL1
3EM16790FP	Server License, 512 NE Ltd, MCS-11/TL1
3EM16790BK	Server License, 1024 NE, MCS-11/TL1
SNMP + MCS-11 + TL1 Software	
3EM16790BL	Server License, 24 NE Ltd, SNMP/MCS/TL1
3EM16790BM	Server License, 32 NE Ltd, SNMP/MCS/TL1
3EM16790BN	Server License, 64 NE Ltd, SNMP & MCS/TL1
3EM16790BP	Server License, 128 NE Ltd, SNMP & MCS/TL1
3EM16790FT	Server License, 256 NE Ltd, SNMP & MCS/TL1
3EM16790FN	Server License, 512 NE Ltd, SNMP & MCS/TL1
3EM16790BQ	Server License, 1024 NE, SNMP & MCS/TL1
SNMP Upgrade Pricing - From MCS-11+ TL1 to SNMP + MCS-11 + TL1	
3EM16790CA	Client License and Software SNMP Upgrade
3EM16790CC	Server License Upgrade, 24 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1
3EM16790CD	Server License Upgrade, 32 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1
3EM16790CE	Server License Upgrade, 64 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1
3EM16790CF	Server License Upgrade, 128 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1



3EM16790FV	Server License Upgrade, 256 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1
3EM16790FQ	Server License Upgrade, 512 NE Ltd, MCS-11/TL1 to SNMP & MCS-11/TL1
3EM16790CG	Server License Upgrade, 1024 NE, MCS-11/TL1 to SNMP & MCS-11/TL1
	MCS-11+TL1 Upgrade Pricing - From SNMP Only to SNMP+ MC-11 + TL1
3EM16790CB	Client Log-in License, MCS-11/TL-1 Upgrade
3EM16790EY	Server License Upgrade, 24 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790EW	Server License Upgrade, 32 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790EV	Server License Upgrade, 64 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790EU	Server License Upgrade, 128 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790FW	Server License Upgrade, 256 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790FR	Server License Upgrade, 512 NE Ltd, SNMP to SNMP & MCS-11/TL1
3EM16790ET	Server License Upgrade, 1024 NE, SNMP to SNMP & MCS-11/TL1
	NE Upgrade - Only from same Software type
3EM16790HA	NE Upgrade 24 NE to 32 NE
3EM16790HB	NE Upgrade 32 NE to 64 NE
3EM16790HC	NE Upgrade 64 NE to 128 NE
3EM16790HD	NE Upgrade 128 NE to 256 NE
3EM16790HE	NE Upgrade 256 NE to 512 NE
3EM16790HF	NE Upgrade 512 NE to 1000 NE
	TSM-8000 Software Feature Options
3EM16790BS	SNMP Upstream Reporting
3EM16790GJ	Web Interface Feature, All Protocols
3EM16790GK	Interactive Voice Response System
3EM16790HM	Farscan Monitor License
3EM16790HQ	Badger Monitor License
3EM16790HG	TSM-8000 Non-Nokia NE Support RTU
3EM16790HN	TSM-8000 Software Subscription
	TSM-8000 Client Software / Misc
3EM16790BR	Client Log-in License
	TSM-8000 Software Upgrades
3EM16790JB	TSM-8000 Version 7.0 Upgrade
3EM16790JC	TSM-8000 Version 7.1 Upgrade
3EM16790JD	TSM-8000 Version 8.0 Upgrade
3EM16790JE	TSM-8000 Version 18.0 Upgrade
3EM16790JF	TSM-8000 Version 18.1 Upgrade
3EM16790JG	TSM-8000 Version 19.0 Upgrade
3EM16790JH	TSM-8000 Version 19.1 Upgrade
3EM16790JJ	TSM-8000 Version 20.0 Upgrade
	TSM-8000 Client Workstations - Optional
3EM16790AC	Client workstation (tower) - Non-redundant, with 19" LCD monitor, WIN XP PRO, 110 VAC
	TSM-8000 Spares Kits
3EM16790EJ	Server Spares Kit



3EM16790EK	Client Spares Kit
	Standard Workstation Accessories
3EM16790AG	Server LAN Switch, 16 Ports, 110 VAC
3EM16790AJ	Cable set
	Server Workstation Spares
3EM16790AL	Server Motherboard, incl. video and NIC functions
3EM16790AM	Server Processor w/Fan
3EM16790AN	Server Memory 1024MB ea
3EM16790CW	Server Removable Hard Drive (cloned)
3EM16790GM	Hard Drive Bay Spare
3EM16790AQ	Server Removable Power Supply
3EM16790AS	Server 4 Port Serial Card
3EM16790CV	Server Dual Power Supply w/Cage
3EM16790HL	Server 8 port Serial Card
	Spare Server/Client Computers
3EM16790FB	Spare Server computer (rack mount) - with keyboard, WIN 2003, 110 VAC
	Monitors
3EM16790EE	Server Monitor, LCD, 17", with bezel, 110 VAC
3EM16790EG	Client/TSM2532 Monitor, LCD, 19", 110 VAC
	Client Workstation Spares
3EM16790AT	Client Motherboard
3EM16790AU	Client Processor w/Fan
3EM16790AV	Client Memory 512MB ea
3EM16790EC	Client Hard Drive (cloned)
3EM16790AY	Client Power Supply
3EM16790AZ	Client Network Card
3EM16790ED	Client Video Card
	Polling Engine
3EM16790CL	Model 2601, MCS-11 Polling Engine, Linear, TSM-8000 only, 110 VAC
3EM16790CQ	Model 2603, MCS-11 Polling Engine, High Stability Clk, Linear, TSM-8000 only, 110 VAC
	IP Tunnels
3EM18968BQ	Model 2701, IP Tunnel, 1 port
3EM18968BR	Model 2705, IP Tunnel, 5 port
	Alarm Encoders
3EM18968BF	Model 2311, SNMP Alarm Encoder
3EM18968BG	Model 2311, SNMP Alarm Encoder with analog option
3EM18968DU	Model 2314, SNMP Alarm Encoder
3EM18968DY	Model 2316, SNMP Alarm Encoder
3EM18968DV	2314 66M Punch Block w/ 5ft cable
3EM18968DW	2314 66M Punch Block w/ 25ft cable

Wavence
ULTRA BROADBAND INTEGRATED ANTENNAS FROM RFS

Part Number	Model	Frequency Band	Description	Size (ft)	# Struts	Pol
10046179	SB4-W60E3UBTR	5.925 - 7.125	Ant int UBT 4ft 6GHz SP	4	1	Single
10046187	SB4-W60E3UBTC	5.925 - 7.125	Ant int UBT 4ft 6GHz DP	4	1	Dual
10046195	SB6-W60D2UBTR	5.925 - 7.125	Ant int UBT 6ft 6GHz SP	6	1	Single
10046202	SB6-W60D2UBTC	5.925 - 7.125	Ant int UBT 6ft 6GHz DP	6	1	Dual
10046209	SC3-W60BUBTR	5.925 - 7.125	Ant int UBT 3ft 6GHz SP	3	0	Single
10046875	SC2-W100CUBTR	10 - 11,7	Ant UBT Int 2ft 10/11 GHz SP	2	0	Single
10046887	SC2-W100CUBTC	10 - 11,7	Ant UBT Int 2ft 10/11 GHz DP	2	0	Dual
10046211	SC3-W100BUBTR	10 - 11,7	Ant UBT Int 3ft 10/11 GHz SP	3	0	Single
10046219	SC3-W100BUBTC	10 - 11,7	Ant UBT Int 3ft 10/11 GHz DP	3	0	Dual
10046181	SB4-W100EUBTR	10 - 11,7	Ant UBT Int 4ft 10/11 GHz SP	4	1	Single
10046189	SB4-W100EUBTC	10 - 11,7	Ant UBT Int 4ft 10/11 GHz DP	4	1	Dual
10046197	SB6-W100D2UBTR	10 - 11,7	Ant UBT Int 6ft 10/11 GHz SP	6	1	Single
10046204	SB6-W100D2UBTC	10 - 11,7	Ant UBT Int 6ft 10/11 GHz DP	6	1	Dual
10046161	SC1-127AUBTR	12,75 - 13,25	Ant UBT Int 1ft 13 GHz SP	1	0	Single
10046170	SC1-127AUBTC	12,75 - 13,25	Ant UBT Int 1ft 13 GHz DP	1	0	Dual
10046876	SC2-127CUBTR	12,75 - 13,25	Ant UBT Int 2ft 13 GHz SP	2	0	Single
10046888	SC2-127CUBTC	12,75 - 13,25	Ant UBT Int 2ft 13 GHz DP	2	0	Dual
10046212	SC3-127BUBTR	12,75 - 13,25	Ant UBT Int 3ft 13 GHz SP	3	0	Single
10046220	SC3-127BUBTC	12,75 - 13,25	Ant UBT Int 3ft 13 GHz DP	3	0	Dual
10046182	SB4-127EUBTR	12,75 - 13,25	Ant UBT Int 4ft 13 GHz SP	4	1	Single
10046190	SB4-127EUBTC	12,75 - 13,25	Ant UBT Int 4ft 13 GHz DP	4	1	Dual
10046198	SB6-127D2UBTR	12,75 - 13,25	Ant UBT Int 6ft 13 GHz SP	6	1	Single
10046205	SB6-127D2UBTC	12,75 - 13,25	Ant UBT Int 6ft 13 GHz DP	6	1	Dual
10046162	SC1-142AUBTR	14,2 - 15,35	Ant UBT Int 1ft 15 GHz SP	1	0	Single
10046171	SC1-142AUBTC	14,2 - 15,35	Ant UBT Int 1ft 15 GHz DP	1	0	Dual
10046877	SC2-142CUBTR	14,2 - 15,35	Ant UBT Int 2ft 15 GHz SP	2	0	Single
10046889	SC2-142CUBTC	14,2 - 15,35	Ant UBT Int 2ft 15 GHz DP	2	0	Dual
10046213	SC3-142BUBTR	14,2 - 15,35	Ant UBT Int 3ft 15 GHz SP	3	0	Single
10046221	SC3-142BUBTC	14,2 - 15,35	Ant UBT Int 3ft 15 GHz DP	3	0	Dual
10046183	SB4-142EUBTR	14,2 - 15,35	Ant UBT Int 4ft 15 GHz SP	4	1	Single
10046191	SB4-142EUBTC	14,2 - 15,35	Ant UBT Int 4ft 15 GHz DP	4	1	Dual
10046199	SB6-142D2UBTR	14,2 - 15,35	Ant UBT Int 6ft 15 GHz SP	6	1	Single
10046206	SB6-142D2UBTC	14,2 - 15,35	Ant UBT Int 6ft 15 GHz DP	6	1	Dual
10046163	SC1-190AUBTR	17,7 - 19,7	Ant UBT Int 1ft 18 GHz SP	1	0	Single
10046172	SC1-190AUBTC	17,7 - 19,7	Ant UBT Int 1ft 18 GHz DP	1	0	Dual
10046878	SC2-190CUBTR	17,7 - 19,7	Ant UBT Int 2ft 18 GHz SP	2	0	Single
10046890	SC2-190CUBTC	17,7 - 19,7	Ant UBT Int 2ft 18 GHz DP	2	0	Dual

10046214	SC3-190BUBTR	17,7 - 19,7	Ant UBT Int 3ft 18 GHz SP	3	0	Single
10046222	SC3-190BUBTC	17,7 - 19,7	Ant UBT Int 3ft 18 GHz DP	3	0	Dual
10046184	SB4-190EUBTR	17,7 - 19,7	Ant UBT Int 4ft 18 GHz SP	4	1	Single
10046192	SB4-190EUBTC	17,7 - 19,7	Ant UBT Int 4ft 18 GHz DP	4	1	Dual
10046200	SB6-190D2UBTR	17,7 - 19,7	Ant UBT Int 6ft 18 GHz SP	6	1	Single
10046207	SB6-190D2UBTC	17,7 - 19,7	Ant UBT Int 6ft 18 GHz DP	6	1	Dual
10046164	SC1-220AUBTR	21,2 - 23,6	Ant UBT Int 1ft 23 GHz SP	1	0	Single
10046173	SC1-220AUBTC	21,2 - 23,6	Ant UBT Int 1ft 23 GHz DP	1	0	Dual
10046891	SC2-220CUBTC	21,2 - 23,6	Ant UBT Int 2ft 23 GHz DP	2	0	Dual
10046215	SC3-220BUBTR	21,2 - 23,6	Ant UBT Int 3ft 23 GHz SP	3	0	Single
10046223	SC3-220BUBTC	21,2 - 23,6	Ant UBT Int 3ft 23 GHz DP	3	0	Dual
10046193	SB4-220EUBTC	21,2 - 23,6	Ant UBT Int 4ft 23 GHz DP	4	1	Dual
10046201	SB6-220D2UBTR	21,2 - 23,6	Ant UBT Int 6ft 23 GHz SP	6	1	Single
10046208	SB6-220D2UBTC	21,2 - 23,6	Ant UBT Int 6ft 23 GHz DP	6	1	Dual
10046165	SC1-250AUBTR	24,25 - 26,5	Ant UBT Int 1ft 26 GHz SP	1	0	Single
10046174	SC1-250AUBTC	24,25 - 26,5	Ant UBT Int 1ft 26 GHz DP	1	0	Dual
10046880	SC2-250CUBTR	24,25 - 26,5	Ant UBT Int 2ft 26 GHz SP	2	0	Single
10046892	SC2-250CUBTC	24,25 - 26,5	Ant UBT Int 2ft 26 GHz DP	2	0	Dual
10046216	SC3-250BUBTR	24,25 - 26,5	Ant UBT Int 3ft 26 GHz SP	3	0	Single
10046224	SC3-250BUBTC	24,25 - 26,5	Ant UBT Int 3ft 26 GHz DP	3	0	Dual
10046186	SB4-250EUBTR	24,25 - 26,5	Ant UBT Int 4ft 26 GHz SP	4	1	Single
10046194	SB4-250EUBTC	24,25 - 26,5	Ant UBT Int 4ft 26 GHz DP	4	1	Dual
10046166	SC1-280AUBTR	27,5 - 29,5	Ant UBT Int 1ft 28 GHz SP	1	0	Single
10046175	SC1-280AUBTC	27,5 - 29,5	Ant UBT Int 1ft 28 GHz DP	1	0	Dual
10046881	SC2-280CUBTR	27,5 - 29,5	Ant UBT Int 2ft 28 GHz SP	2	0	Single
10046834	SC2-280CUBTC	27,5 - 29,5	Ant UBT Int 2ft 28 GHz DP	2	0	Dual
10046168	SC1-380AUBTR	37,0 - 39,5	Ant UBT Int 1ft 38 GHz SP	1	0	Single
10046177	SC1-380AUBTC	37,0 - 39,5	Ant UBT Int 1ft 38 GHz DP	1	0	Dual
10046884	SC2-380CUBTR	37,0 - 39,5	Ant UBT Int 2ft 38 GHz SP	2	0	Single
10046836	SC2-380CUBTC	37,0 - 39,5	Ant UBT Int 2ft 38 GHz DP	2	0	Dual
10046169	SC1-420AUBTR	40,5 - 43,5	Ant UBT Int 1ft 42 GHz SP	1	0	Single
10046178	SC1-420AUBTC	40,5 - 43,5	Ant UBT Int 1ft 42 GHz DP	1	0	Dual
10046885	SC2-420CUBTR	40,5 - 43,5	Ant UBT Int 2ft 42 GHz SP	2	0	Single
10046837	SC2-420CUBTC	40,5 - 43,5	Ant UBT Int 2ft 42 GHz DP	2	0	Dual
10046957	SB1-W800CUBT-FCC	71 - 86	Ant UBT Int 1ft 80 GHz SP - FCC	1	0	Single
10046955	SB1-W800CUBT	71 - 86	Ant UBT Int 1ft 80 GHz SP	1	0	Single
10047070	SBX1-W800CUBT	71 - 86	Ant UBT Int 1ft DP 80 GHz (with OMT)	1	0	Dual
10048893	SBX1-W800CUBT-FCC	71 - 86	Ant UBT Int 1ft DP 80 GHz (with OMT)	1	0	Dual
10046956	SC2-W800BUBT	71 - 86	Ant UBT Int 2ft 80 GHz SP	2	0	Single
10047071	SCX2-W800BUBT	71 - 86	Ant UBT Int 2ft DP 80 GHz (with OMT)	2	0	Dual

WAVENCE MICROWAVE NON-INTEGRATED ANTENNA SYSTEMS					
Part No	Manufacture P/N	Frequency Band	Description	Size (ft)	# Struts
			Microwave Antennas		
10036116	SPF2-52CN1S1R	5.25-5.85	Ant/Radome Kt SPF2-52CN1S1R 5.25-5.85GHz	2	0
37400112	SPF6-52CN	5.25-5.85	Antenna SPF6-52CN1S 5.25-5.85 GHz	6	1
37400113	SPF6-52CN1S1R	5.25-5.85	Ant/Radome Kt SPF6-52CN1S1R 5.25-5.85GHz	6	1
10036179	PADX10-W57AC1S1R	5.725-6.875	ANT PADX10-W57AC1S1R	10	1
10036753	PADX6-W57AC7S1R	5.725-6.875	ANT/RAD/SWAY BAR KIT PADX6-W57AC7S1R	6	2
10036754	PADX8-W57AC7S1R	5.725-6.875	ANT/RAD/SWAY BAR KIT PADX8-W57AC7S1R	8	2
10037381	UXA6-W57AC7	5.725-6.875	Antenna Sway Bar Kit UXA6-W57AC7S1	6	1
10037382	UXA8-W57AC7	5.725-6.875	ANT SWAY BAR KIT UXA8-W57AC7S1	8	1
10037383	UXA10-W57AC7	5.725-6.875	ANT SWAY BAR KIT UXA10-W57AC7S1	10	1
10038202	PADX8-W57AC7SGR	5.725-6.875	ANT/RAD/SWAY BAR KIT PADX8-W57AC7SGR 5.7	8	1
10046461	PA4-W57DC1S1R	5.725-6.875	PA4-W57DC1S1R	4	1
37400097	PAD6-W57BC7S1R	5.725-6.875	ANT/RAD KIT PAD6-W57BC7S1R	6	2
37500079	PAD8-W57AC7S1R	5.725-6.875	ANT/RAD/SWAY BAR KIT PAD8-W57AC7S1R	8	2
10038231	PADX6-U57AC7S1R	5.725-7.125	ANT/RAD/SWAY BAR KIT PADX6-U57AC7S1R	6	2
10038232	PADX8-U57AC7S1R	5.725-7.125	ANT/RAD/SWAY BAR KIT PADX8-U57AC7S1R	8	2
10038233	PADX10-U57AC7S1R	5.725-7.125	ANT/RAD/SWAY BAR KIT PADX10-U57AC7S1R	10	2
10038274	UXA6-U57AC7	5.725-7.125	ANT SWAY BAR KIT UXA6-U57AC7S1	6	1
10038276	UXA8-U57AC7	5.725-7.125	ANT SWAY BAR KIT UXA8-U57AC7S1	8	1
10038461	PADX6-U57AC1SGR	5.725-7.125	ANT/RAD KIT PADX6-U57AC1SGR 5.725-7.125A	6	1
10038464	UXA6-U57AC1SG	5.725-7.125	ANT UXA6-U57AC1SG 5.725-7.125 GHZ	6	1
10039971	UXA10-U57AC7	5.725-7.125	UXA10-U57AC7	10	1
10025486	DA8-59AC	5.925-6.425	ANT DA8-59AC1S1 5.925-6.425 GHz	8	1
10025500	DAX8-59AC	5.925-6.425	ANT DAX8-59AC1S1 5.925-6.425 GHz	8	1
10025681	DAX12-59AC	5.925-6.425	DAX12-59AC	12	1
10027913	DA12-59AC	5.925-6.425	ANT DA12-59AC1S1 5.925-6.425 GHz	12	1
10036822	UXA6-59CC	5.925-6.425	UXA6-59BC1S1	6	1
10036823	UXA8-59BC	5.925-6.425	UXA8-59BC1S1	8	1
10036824	UXA10-59BC	5.925-6.425	UXA10-59BC1S1	10	1
10038951	UXA8-59BC1SG	5.925-6.425	UXA8-59BC1SG	8	1
10041161	UXA12-59AC4	5.925-6.425	UXA12-59AC4	12	1
10045664	DA12-59AC1SG	5.925-6.425	DA12-59AC1SG	12	1
10047242	SU6-59BC2	5.925-6.425	SU6-59BC2	6	1
37400100	PAD6-59BC7S1R	5.925-6.425	ANT/RAD/SWAY BAR KIT PAD6-59BC7S1R	6	2
37500031	PAD8-59AC	5.925-6.425	ANT PAD8-59AC1S 5.925-6.425GHZ	8	1
37500055	PAD8-59AC1S1R	5.925-6.425	Antenna/Radome Kit PAD8-59AC1S1R	8	1
37500069	PADX8-59AC1S1R	5.925-6.425	ANT/RAD KIT PADX8-59AC1S1R 5.925-6.425	8	1

37500082	PAD8-59AC7S1R	5.925-6.425	ANT/RAD/SWAY BAR KIT PAD8-59AC7S1R	8	2
10036720	UXA6-W59BC7	5.925-6.875	ANT/SWAY BAR KIT UXA6-W59BC7S1	6	1
10036721	UXA8-W59AC7	5.925-6.875	ANT/SWAY BAR KIT UXA8-W59AC7S1	8	1
10040920	UXA6W59ACTF4HGW	5.925-6.875	KIT ANT UXA6-W59 TF CC4FT HANGERASSY&HDW	6	1
10040923	UXA8W59ACTF4HGW	5.925-6.875	KIT ANT UXA8-W59 TF CC4FT HANGERASSY&HDW	8	1
10043090	PADX6-W59BC7S1R	5.925-6.875	PADX6-W59BC7S1R	6	2
37400102	PAD6-W59BC7S1R	5.925-6.875	ANT/RAD/SWAY BAR KIT PAD6-W59BC7S1R	6	2
37400155	PADX6-W59BC1S1R	5.925-6.875	Antenna/Radome Kit PADX6-W59BC1S1R	6	1
37500025	UXA8-W59AC	5.925-6.875	ANT UXA8-W59AC1S1 5.925-6.875	8	1
37500059	PAD8-W59AC1S1R	5.925-6.875	Antenna PAD8-W59AC1S1R 5.925-6.875	8	1
37500084	PAD8-W59AC7S1R	5.925-6.875	ANT/RAD/SWAY BAR KIT PAD8-W59AC7S1R	8	2
37500130	PADX8-W59AC1S1R	5.925-6.875	Antenna/Radome Kit PADX8-W59AC1S1R	8	1
37500138	PADX8-W59AC7S1R	5.925-6.875	ANT/RAD KIT PADX8-W59AC7S1R	8	2
37600055	UXA10-W59AC	5.925-6.875	ANT UXA10-W59AC1S1 5.925-6.875	10	1
37700040	UXA12-W59AC	5.925-6.875	ANT UXA12-W59AC1S1 5.925-6.875	12	1
10041177	SB6-W60CC	5.925-7.125	SB6-W60CC	6	1
10045572	SUX4B-W60DC1SG	5.925-7.125	SUX4B-W60DC1SG	4	1
10049627	SB4-W60EC	5.925-7.125	SB4-W60EC	4	1
10049629	SBX4-W60EC	5.925-7.125	SBX4-W60EC	4	1
10049631	SB6-W60DC2	5.925-7.125	SB6-W60DC2	6	1
10049633	SBX6-W60DC2	5.925-7.125	SBX6-W60DC2	6	1
10050119	SC3-W60BC	5.925-7.125	SC3-W60BC	3	0
10050120	SCX3-W60BC	5.925-7.125	SCX3-W60BC	3	0
10050366	SB4-W60EC2	5.925-7.125	SB4-W60EC2	4	1
10025520	DA8-65AC	6.425-7.125	ANT DA8-65AC1S1 6.425-7.125 GHz	8	1
10025535	UXA8-65AC	6.425-7.125	ANT UXA8-65AC1S1 6.425-7.125 GHz	8	1
10031083	UXA6-65BD	6.425-7.125	UXA6-65BD	6	1
10032346	SUX6-65BC	6.425-7.125	Antenna SUX6-65BC1S1 6.425-7.125 GHz	6	1
10032475	UXA6-65BC	6.425-7.125	ANT UXA6-65BC1S1 6.425-7.125 GHz	6	1
10036663	PAD10-65AC7S1R	6.425-7.125	PAD10-65AC7S1R	10	2
10036722	PAD6-65BC7	6.425-7.125	PAD6-65BC7S1	6	1
10043088	PAD6-65BC7S1R	6.425-7.125	PAD6-65BC7S1R	6	2
10043089	PAD8-65AC7S1R	6.425-7.125	PAD8-65AC7S1R	8	2
37400161	PAD6-65BC1SGR	6.425-7.125	ANT/RAD KIT PAD6-65BC1SGR	6	1
37500133	PAD8-65AC1SGR	6.425-7.125	Antenna/Radome Kit PAD8-65AC1SGR	8	1
10041660	SB6-W100CC	10.0-11.7	SB6-W100CC	6	1
10049683	SC2-W100CC	10.0-11.7	SC2-W100CC	2	0
10049685	SCX2-W100CC	10.0-11.7	SCX2-W100CC	2	0
10049692	SC3-W100BC	10.0-11.7	SC3-W100BC	3	0
10049695	SCX3-W100BC	10.0-11.7	SCX3-W100BC	3	0
10049698	SB4-W100EC	10.0-11.7	SB4-W100EC	4	1
10049701	SBX4-W100EC	10.0-11.7	SBX4-W100EC	4	1
10049704	SB6-W100DC2	10.0-11.7	SB6-W100DC2	6	1
10049707	SBX6-W100DC2	10.0-11.7	SBX6-W100DC2	6	1
10050364	SB4-W100EC2	10.0-11.7	SB4-W100EC2	4	1

10050365	SBX4-W100EC2	10.0-11.7	SBX4-W100EC2	4	1
10050368	SCX3-W100BC8	10.0-11.7	SCX3-W100BC8	3	0
10050373	SCX3-W100BC-MODG	10.0-11.7	SCX3-W100BC-MODG	3	0
10011716	UXA8-107AD	10.7-11.7	UXA8-107AD	8	1
10011719	UXA10-107AD	10.7-11.7	UXA10-107AD	10	1
10025551	UXA8-107AC	10.7-11.7	ANT UXA8-107AC1S1 10.7-11.7GHZ	8	1
10025552	DAX8-107AC	10.7-11.7	ANT DAX8-107AC1S1 10.7-11.7GHZ	8	1
10031625	UXA6-107BC	10.7-11.7	ANT UXA6-107BC1S1 10.7-11.7GHZ	6	1
10031862	SU6-107BC	10.7-11.7	ANT SU6-107BC1S1 10.7-11.7 GHZ	6	1
10032174	SUX6-107BC	10.7-11.7	ANT SUX6-107BC1S1 10.7-11.7GHZ	6	1
10034124	SU6-107BC2	10.7-11.7	ANT SU6-107BC2S1 10.7-11.7 GHz	6	1
10036307	SUX3-107BFC1SG	10.7-11.7	SUX3-107BFC1SG	3	0
10036350	SU6-107BC7	10.7-11.7	ANT/RAD/SWAY BAR KIT SU6-107BC7S1	6	1
10040922	UXA6107BDF4HGW	10.7-11.7	KIT ANT UXA6-107 TF VB4FT HANGERASSY&HDW	6	1
10044370	SU4-107DD	10.7-11.7	SU4-107DD	4	1
10044372	SU4-107DC	10.7-11.7	SU4-107DC	4	1
10044375	SUX4-107DC	10.7-11.7	SUX4-107DC	4	1
10044417	UXA4-107DC	10.7-11.7	UXA4-107DC	4	1
10045205	UXA4-107DC1SG	10.7-11.7	UXA4-107DC1SG	4	1
10045206	SU4-107DC1SG	10.7-11.7	SU4-107DC1SG	4	1
10045207	SUX4-107DC1SG	10.7-11.7	SUX4-107DC1SG	4	1
10045212	SU4-107DC2	10.7-11.7	SU4-107DC2	4	1
10045244	SUX4-107DC7	10.7-11.7	SUX4-107DC7	4	1
10045245	SUX4-107DC7SG	10.7-11.7	SUX4-107DC7SG	4	1
10045451	UXA10-107AC8SG	10.7-11.7	UXA10-107AC8SG	10	1
409120391	UXA10-107AC8SG	10.7-11.7	ANTENNA, UHX10-107-P3A, PARABOLIC, 10.7-11.7GHZ, 10FT, CPRG FLANGE, GR	10	1
10045796	SUX4-107DC2HG	10.7-11.7	SUX4-107DC2HG	4	1
10045860	SUX4-107DC2H	10.7-11.7	SUX4-107DC2H	4	1
10047243	UA8-107AC2	10.7-11.7	UA8-107AC2	8	1
10049853	UXA6-107BC1SM	10.7-11.7	UXA6-107BC1SM	6	1
37600089	UXA8-107AC7SG	10.7-11.7	ANT UXA8-107AC7SG 10.7-11.7GHZ	8	1
PADX8-107AC1S	PADX8-107AC	10.7-11.7	ANT PADX8-107AC1S 10.7-11.7GHZ	8	1
10047770	SBX4-127EB	12.7-13.25	SBX4-127EB	4	1
10030680	UXA6-142BB	14.2-15.35	UXA6-142BB	6	1
10047771	SBX4-142EB	14.2-15.35	SBX4-142EB	4	1
10044324	UXA4-142DB	14.2-15.35	UXA4-142DB	4	1
10046714	SCX2-142CB	14.2-15.35	SCX2-142CB	2	0
10038398	SUX2-190BB2H	17.7-19.7	SUX2-190BB2H	2	0
10044326	UXA4-190DB	17.7-19.7	UXA4-190DB	4	1
10045872	SC1-190AB	17.7-19.7	SC1-190AB	1	0
10046704	SC2-190CB	17.7-19.7	SC2-190CB	2	0
10046715	SCX2-190CB	17.7-19.7	SCX2-190CB	2	0
10047707	SC3-190BB	17.7-19.7	SC3-190BB	3	0
10047730	SB4-190EB	17.7-19.7	SB4-190EB	4	1
10047739	SB6-190DB2	17.7-19.7	SB6-190DB2	6	1

10047757	SBX6-190DB2	17.7-19.7	SBX6-190DB2	6	1
10047764	SCX3-190BB	17.7-19.7	SCX3-190BB	3	0
10047772	SBX4-190EB	17.7-19.7	SBX4-190EB	4	1
10049861	UXA4-190DB1SM	17.7-19.7	UXA4-190DB1SM	4	1
10049993	SBX4-190EB2	17.7-19.7	SBX4-190EB2	4	1
10044328	UXA4-220DB	21.2-23.6	UXA4-220DB	4	1
10045903	SCX1-220AB	21.2-23.6	SCX1-220AB	1	0
10046705	SC2-220CB	21.2-23.6	SC2-220CB	2	0
10046716	SCX2-220CB	21.2-23.6	SCX2-220CB	2	0
10047765	SCX3-220BB	21.2-23.6	SCX3-220BB	3	0
10047773	SBX4-220EB	21.2-23.6	SBX4-220EB	4	1
10045907	SCX1-380AB	37.0-40.0	SCX1-380AB	1	0
10046720	SCX2-380CB	37.0-40.0	SCX2-380CB	2	0
			Radomes and Sway Kits		
10011400			Kit Sway Bar 4ft SL (SMA-WK-4) SB		
10031054			Kit Sway Bar 6ft Refl (SMA-SK-60-2000A)		
10031053			Kit Sway Bar 8-12ft Refl (SMA-SK-60-3000A)		
10041020			KIT ADDITIONAL SWAY-BAR SC3 SMA-SK-3		
10042784			Sway Bar/Tower Universal Connecting Kit (SMA-SKO-Universal)		
311793-003-W			6ft Unheated Radome, Fiberglass (white deep)		
			Dehydrator and Manifolds		
10042202			APD20-D-35XH0R00S0 , 120v, Lo psi, no purge, < 7800' 6-12GHz		
10042194			APD20-D-35XH0R00S1 120v, 3-5psi, Lo psi alm, 10 day purge, < 7800' 6-12GHz		
1AF24848ABAA			Dehydrator MT050C, 115/230 Vac, 50/60 Hz		
409085271			KIT, AE01D-D1658-100, MT050/MT/XT300 WALL SHELF		
20040835			Dehydrator Wall Shelf for APD20 (20040835)		
920202-W			Gas Distribution Manifold, 2 Port, 0-15PSIG (920202)		
920204-W			Gas Distribution Manifold, 4 Port, 0-15PSIG (920204)		
920206-W			Gas Distribution Manifold, 6 Port, 0-15PSIG (920206)		
920208-W			Gas Distribution Manifold, 8 Port, 0-15PSIG (920208)		
10042196			Automatic Dehydrator (APD20-D-35EH2R24S1), 120v, 3-5 psi,		
			Waveguide, Connectors and Associated Parts		
810265-001			Standard Elliptical Waveguide, E60 (5.6 - 6.425 GHz)		
810265-002			Premium Elliptical Waveguide, EP60 (5.6 - 6.425 GHz)		
399269-101			Connector, Tunable / CPR137G (bottom) (C137-060TG)		
399269-103			Connector, Non-Tunable / CPR137G (top) (C137-060FG)		
916534-158			Hoisting Grip (HOIST1-158L) - Lace-up (LCF158,HCA158,E60,EP60,EP65)		
921234-061			Grounding Kit - 60in wire, E60 (GKIT-60-060)		
920981-003			Hanger Kit for E60 (CLAMP-060) (10 pack, bolt-on)		
915255			Angle Member Adapter Kit, 3/8in Stainless Steel (ANGLE-CLPI) (10 pack)		
ANGLE-CLPI			Angle Member Adapter Kit, 3/8in Stainless Steel (ANGLE-CLPI) (10 pack)		
CEIL12-5I			Ceiling Adapter Kit, 12in (CEIL12-5I, 514608-003) (5 pack) - waveguide only		

920831			Wall/Roof Feed Thru E/EP60 (WFT-060) - 1 per boot		
400108			Pressure Window (WPW-137EP) - mates to CPR137G		
915663			4in Boot with 1 Hole for E60 (BOOT4-060)		
815487-001			Standard Elliptical Waveguide E105 (10.0 - 11.7 GHz)		
815487-002			Premium Elliptical Waveguide EP105 (10.0 - 11.7 GHz)		
399503-101			Connector, Tunable (C90-105TG)		
399503-103			Connector, Non-Tunable (top) (C90-105FG)		
916533-108			Hoisting Grip (HOIST1-105L) - Lace-up (E105,E78)		
921234-108			Grounding Kit - 60in wire, E105 (GKIT-60-105)		
920981-007			Hanger Kit for E105, 7/8in coax (CLAMP-105) (10 pack, bolt-on)		
920745			Wall/Roof Feed Thru E/EP105 - 1 per boot (WFT-105)		
400130			Pressure Window (WPW-090EP) - mates to CPR90G		
400124			2ft Twistflex (TF090-CC1-024I) - CPR90G/CPR90G		
915665			4in Boot with 1 Hole for E105 (BOOT4-105)		
15008330-STD-V			Standard Elliptical Waveguide, E65 (5.9 - 7.125 GHz)		
15008330-PREM-V			Premium Elliptical Waveguide, EP65 (5.9 - 7.125 GHz)		
399289-101			Connector, Tunable / CPR137G (C137-065TG)		
399289-103			Connector, Non-Tunable (top) (C137-065FG)		
921234-065			Grounding Kit - 60in wire, E65 (GKIT-60-065)		
920981-004			Hanger Kit for E65-70 (CLAMP-114) (10 pack, bolt-on, 1.25in)		
CLAMP-114			Kit Hngr E/Ep65 10/Kt		
920738			Wall/Roof Feed Thru E/EP65 (WFT-065) - 1 per boot		
915006-W			Hardware Kit, HDWK3/8-16X1, 3/8 – 16 x 1 bolt (915006) - 10 each lock washers, hex nuts and fillister head screws		
915751			4in Boot with 1 Hole for E65 (BOOT4-065)		
810268-001			Standard Elliptical Waveguide, E185 (17.3 - 19.7 GHz)		
810268-002			Premium Elliptical Waveguide, EP185 (17.3 - 19.7 GHz)		
916534-012			Hoisting Grip (HOIST1-185L) - Lace-up (L12,E185)		
921234-191			Grounding Kit, 60in wire, E185 (GKIT-60-185)		
920981-010			Hanger Kit for E185 (CLAMP-185) (10 pack, bolt-on)		
920726			Wall/Roof Feed Thru (WF-185) - 1 per boot		
400184			Pressure Window (PW-BW220) PBR220/UBR220		
915664			4in Boot with 1 Hole for E185 (BOOT4-185)		
914791-W			Load Termination WR-90 / CPR90G Flange (91479)		
915422-W			Load Termination WR-137 / CPR137G Flange (915422)		
311372-W			Cover Plate kit WR-137 / CPR137G Flange (311372)		
10037094			Cover Plate kit WR-90 / PDR100 or UDR100 Flange (10037094)		
913412			CPR137G Flange Rebuild Kit (when reusing antennas OR waveguide) (used at end only) (913412)		
409081635			UNIV ADJ LEG MT- UP TO 10 3/4 LEG (Ant. Pipe Mount/Ice Shield)		
20036962			BASIC FEED 02-190 F2 BF 055 MM		
1AF06466AAAA			VSTRUT-P3KIT,Inner, 4'-6' antenna, 5' pipe		
1AF29408AAAA			Non-Penetrating Tripod (TRPD1 / TRPD-HD)		
1AF26069AAAA			4-1/2" x 126" Mast Pipe (P4126)		
1AF29407AAAA			1/2"x18"x48" Rubber Mat (6 Required) (MAT18)		
1AF29406AAAA			Ballast Tie Down Kit (3 Required) (BHD-K)		

30033358			TUBING, POLYURETHANE 3/8 OD X .245 (per ft)		
409082377			BOOT-BAZERO PROT RUB 4IN 4IN BK		
1AF29406AAAA			Ballast Tie Down Kit		
1AF29407AAAA			Rubber Mat 1/2inch x 18inch x 48inch		
1AF29408AAAA			Heavy-Duty Non-Penetrating Tri		
WPGF-1			KIT WTHPRF CONNS&SPICE		
15347601			GKIT E220 Grounding Kit 0.25m Wire		
1AD127790001			Hanger Kit for EW180/EW220/EW240 (43211A) (10 pack)		
1AD082220001			PIPE, P2126, SCHEDULE 40 PLAIN END HOT		
SNAP-ST-158			Hanger, Stackable 1-5/8 10 Kit		
409085024			Cable, 25-pr, Conn -Conn, 25, RTU -66 Blk		
3CC50097AB			Fiber storage -pole/wall mount (100m) GR3108		
15006830-STD			FLEXWELL Elliptical Waveguide, 21.2 - 23.6 GHz (Per Ft) E220J		
15347020			Connector FLEXWELL waveguide PBR220		
15347702			Wall Feed Through for FLEXWELL Elliptical Waveguide E220/EO38		
1AF25375AAAA			Hanger Kit with three holes for EW90 wav		
HOIST1-114L			Grip Hoisting L114 E65 Lace-Up		
HOIST1-158L			Grip Hoisting L158 E60 Lace-Up		
			Twistflex, Hanger Kits and Accessories		
916705-W			Twistflex hanger kit WR90 (916705)		
1AF15840AAAA			Twistflex Hanger Kit WR42 (PBR220) - RFS does not have a 220 hanger - Andrew part: (244106A-220)		
916933-W			Twistflex hanger kit WR137 (916933)		
400015			3ft Twistflex (TF137-CC1-036I) - CPR137G/CPR137G		
400125			3ft Twistflex (TF090-CC1-036I) - CPR90G/CPR90G		
10038689			Twistflex Flexible Waveguide for Microwave Radio System, 11GHz, 1.2m TF R 220 PBR/UBR 18.0-26.5		
400013			1ft Twistflex (TF137-CC1-012I) - CPR137G/CPR137G		
916626			CLAMP SNAP-IN LCF158 Stack Kit 10 - HANGER, STACKABLE 1-5/8 10 KIT		
HOIST2-L01			Hoisting Grip (HOIST2-L01) - Lace-up, 2 loop		
			Times Microwave Systems (TMS) LMR Parts and Accessories		
1AC014320002			LMR400 (HS: 2 runs, NS: 1 run) + (if non-integ, dual pol and 2 channels: 2 runs) (TMS)		
1AB095530045			PPC Connector (compression) - straight male (3 per LMR run) (TMS)		
1AB095530046			PPC Connector (compression) - straight female (1 per LMR run) (TMS)		
1AB383930001			PPC Compression Tool (1 per deployment) (TMS)		
1AB350440001			LMR grounding kit (GKS400TT) (TMS)		
			SitePro1 (Valmont) Ice Shields, Tieback Steel, Parts and Accessories		
409081593			Valmont flat Ice Shield - 4ft (ISMD4, 800250) ADD PIPE MOUNT		
409081601			Valmont flat Ice Shield - 6ft (ISMD6, 800251) ADD PIPE MOUNT		
409081619			Valmont flat Ice Shield - 8ft (ISMD8, 800252) ADD PIPE MOUNT AND WELDMENT		
1AF19234AAAA			Valmont flat Ice Shield - 10ft (ISMD10, 800253) ADD PIPE MOUNT AND WELDMENT		
409108073			Valmont Pipe Mount Extension weldment for Ice Shields (PME2, B1935)		

1AF24588AAAA			Valmont ice shield KIT - 4ft (ISMD4-R5LL = 800250 (ice shield) + 409081365 (leg mount))		
1AF24589AAAA			Valmont ice shield KIT - 6ft (ISMD6-R5LL = 800251 (ice shield) + 409081365 (leg mount))		
1AF24587AAAA			Valmont ice shield KIT - 8ft (ISMD8-R5LL = 800252 (ice shield) + 409081365 (leg mount))		
1AF24586AAAA			Valmont ice shield KIT - 10ft (ISMD10-R5LL = 800253 (ice shield) + 409081365 (leg mount))		
1AF28451AAAA			Tieback Steel - Bulk Angle 4" X 4" X 1/4" x 20' (ANG414) - (1 per antenna)		
1AF03676ABAA			Bulk Pipe (for pipe mount) - 4 1/2" x 72" (Valmont: P472)		
1AF22298AAAA			4 1/2" Universal Ring Mount (Valmont: 801068, LWRM) - PREFERRED - 1 required for 3' or smaller antennas		
409081494			MTG-B1656 BRKT OIN OIN OIN STL CHN MNT *		
1AF25795AAAA			FLUSH MOUNT ADAPTER DUAL LEVEL		
			SitePro1 (Valmont) Misc. Microwave Parts and Accessories		
409081510			LMR Cushion Hanger (4 hole) - (Valmont: B1676, SRLR44-K) - complete with clamp and clamp head (5 per package)		
1AD173640001			BRL Cushion BC141X 1-5/8,10@0.24,10p (Valmont BC1410)		
END of NON-INTEGRATED ANTENNA SYSTEMS Price Catalog					



9500 MPR COMMScope ANTENNA SYSTEMS					
Part No	CommScope P/N	Frequency Band	Description	Size (ft)	# Struts
1AF32561AAAA	SHP3-6W-6WH/A	5.925-7.125	Microwave Ant. 6GHz 3ft SHP3-6W-6WH/A	3	0
1AF21072AAAA	VHLP4-6W-6WH/B	5.925-7.125	ANT VHLP4-6W-6WH/C 4FT 5.9-7.1 CPR137G	4	0
1AF21838AAAA	VHLPX4-6W-6WH/A	5.925-7.125	VHLPX4-6W-6WH - 4' Hi Perf, Dual Pol A	4	0
1AF31728ABAA	HX6-6W-6GR	5.925-7.125	Microwave Antenna, 6GHz, HX6-6W-6GR	6	1
1AF20097AAAA	VHLPX6-6W-6WH/A	5.925-7.125	ANT*HP_Ant_6GHz*1.8m*Dual_1.8d	6	1
1AF20657AAAA	VHLP6-6W-6WH/A	5.925-7.125	VHLP6-6W-6WH/B ANTEN 1.8M Pol-sing.	6	1
1AF31753AAAA	VHLPX6-6W-6WH/B	5.925-7.125	ANT VHLPX 6FT Dual-pol 5.925-7.125GHz	6	1
1AF31775AAAA	USX6-6W-6GR	5.925-7.125	Microwave Antenna, 6GHz, USX6-6W-6GR	6	1
1AF31727ABAA	HX8-6W-6GR	5.925-7.125	Microwave Antenna, 6GHz, 8ft, HX8-6W-6GR	8	1
1AF31900AAAA	USX8-6W-6GR	5.925-7.125	Microwave Antenna, 6GHz, 8ft,USX8-6W-6GR	8	1
1AK18988AAAA	USX10-6W-6GR	5.925-7.125	Microwave Antenna, 6GHz, USX10-6W-6GR	10	2
1AF32586AAAA	USX12-6W-6GR	5.925-7.125	Microwave Ant, 6GHz, 12FT, USX12-6W-6GR	12	2
3CC57029AA	VHLP4-6W-AUBTR	5.925-7.125	Ant UBT Int 4ft 6 GHz SP A.	4	0
3CC57037AA	VHLP4-6W-AUBTC	5.925-7.125	Ant UBT Int 4ft 6 GHz DP A.	4	0
3CC57096AA	VHLPX4-6W-AUBTR	5.925-7.125	Ant UBT Int 4ft 6 GHz (with OMT) A.	4	0
3CC57051AA	VHLP6-6W-AUBTR	5.925-7.125	Ant UBT Int 6ft 6 GHz SP A.	6	1
3CC57058AA	VHLP6-6W-AUBTC	5.925-7.125	Ant UBT Int 6ft 6 GHz DP A.	6	1
3CC57104AA	VHLPX6-6W-AUBTR	5.925-7.125	Ant UBT Int 6ft 6 GHz (with OMT) A.	6	1
1AF32560AAAA	VHLP2-11W-6WH/A	10.7-11.7	Microwave Ant. 11GHz 2ft VHLP2-11W-6WH/A	2	0
1AF09221AAAA	VHLP3-11W-AW1	10.7-11.7	VHLP3-11W-AW1A -3' HP,HC Integ,SP,Radome	3	0
1AF20518AAAA	VHLPX3-11W-6WH	10.7-11.7	Ant HP 3ft DP 10.125-11.7GHz CPR90G	3	0
1AF20754AYAA	VHLP3-11W-6WH	10.7-11.7	VHLP3-11W-6WH/A-3' HP,SP,Radome NO strut	3	0
1AF23936AAAA	VHLP4-11W-6WH	10.7-11.7	ANTENNA_4FT_HP_SP_11GHz_VHLP4-11W-6WH/A	4	0
1AF24251AAAA	VHLPX4-11W-6WH	10.7-11.7	ANTENNA_4FT_HP_DP_11GHz_VHLPX4-11W-6WH	4	0
1AF10741ABAA	VHLP6-11W-6WH/A	10.7-11.7	ValuLine Antenna 6ft, VHLP6-11W-6WH/A	6	1
1AF31774AAAA	USX6-11W-6GR	10.7-11.7	Microwave Antenna, 11GHz, USX6-11W-6GR	6	1
1AF31902AAAA	USX8-11W-6GR	10.7-11.7	Microwave Antenna,11GHz,8ft,USX8-11W-6GR	8	1
3CC56990AA	VHLP2-11W-AUBTR	10.7-11.7	Ant UBT Int 2ft 10/11 GHz SP A.	2	0
3CC57002AA	VHLP2-11W-AUBTC	10.7-11.7	Ant UBT Int 2ft 10/11 GHz DP A.	2	0
3CC57014AA	VHLP3-11W-AUBTR	10.7-11.7	Ant UBT Int 3ft 10/11 GHz SP A.	3	0
3CC57022AA	VHLP3-11W-AUBTC	10.7-11.7	Ant UBT Int 3ft 10/11 GHz DP A.	3	0
3CC57031AA	VHLP4-11W-AUBTR	10.7-11.7	Ant UBT Int 4ft 10/11 GHz SP A.	4	0
3CC57039AA	VHLP4-11W-AUBTC	10.7-11.7	Ant UBT Int 4ft 10/11 GHz DP A.	4	0
3CC57077AA	VHLPX2-11W-AUBTR	10.7-11.7	Ant UBT Int 2ft DP 10/11 GHz (w/ OMT) A.	2	0
3CC57090AA	VHLPX3-11W-AUBTR	10.7-11.7	Ant UBT Int 3ft DP 10/11 GHz (w/ OMT) A.	3	0
3CC57098AA	VHLPX4-11W-AUBTR	10.7-11.7	Ant UBT Int 4ft 10/11 GHz (with OMT) A.	4	0
1AF32504AAAA	VHLPX2-18-1GR/C	17.7-19.7	Antenna,18GHz,2ft,VHLPX2-18-1 ANSI	2	0

1AF30158AAAA	VHLPX1-18-2WH/E	17.7-19.7	Microwave Antenna,18GHz,1FT,VHLPX1-18-2W	1	0
1AF06970AUAA	VHLP2-18-2GR/B	17.7-19.7	ANT_2FT_HP_PBR220_SP_Gray_VHLP2-18-2GR/B	2	0
3CC56971AA	VHLP1-18-AUBTR	17.7-19.7	Ant UBT Int 1ft 18 GHz SP A.	1	0
3CC56982AA	VHLP1-18-AUBTC	17.7-19.7	Ant UBT Int 1ft 18 GHz DP A.	1	0
3CC56993AA	VHLP2-18-AUBTR	17.7-19.7	Ant UBT Int 2ft 18 GHz SP A.	2	0
3CC57005AA	VHLP2-18-AUBTC	17.7-19.7	Ant UBT Int 2ft 18 GHz DP A.	2	0
3CC57067AA	VHLPX1-18-AUBTR	17.7-19.7	Ant UBT Int 1ft DP 18 GHz (with OMT) A.	1	0
3CC57080AA	VHLPX2-18-AUBTR	17.7-19.7	Ant UBT Int 2ft DP 18 GHz (with OMT) A.	2	0
3CC56972AA	VHLP1-23-AUBTR	21.2-23.6	Ant UBT Int 1ft 23 GHz SP A.	1	0
3CC56983AA	VHLP1-23-AUBTC	21.2-23.6	Ant UBT Int 1ft 23 GHz DP A.	1	0
3CC56994AA	VHLP2-23-AUBTR	21.2-23.6	Ant UBT Int 2ft 23 GHz SP A.	2	0
3CC57006AA	VHLP2-23-AUBTC	21.2-23.6	Ant UBT Int 2ft 23 GHz DP A.	2	0
3CC57068AA	VHLPX1-23-AUBTR	21.2-23.6	Ant UBT Int 1ft DP 23 GHz (with OMT) A.	1	0
3CC57081AA	VHLPX2-23-AUBTR	21.2-23.6	Ant UBT Int 2ft DP 23 GHz (with OMT) A.	2	0
3CC56978AA	VHLP1-80-AUBTR	71.0-86.0	Ant UBT Int 1ft 80 GHz SP A.	1	0
3CC56979AA	VHLP1-80A-AUBTR	71.0-86.0	Ant UBT Int 1ft 80 GHz SP FCC A.	1	0
3CC57000AA	VHLP2-80-AUBTR	71.0-86.0	Ant UBT Int 2ft 80 GHz SP A.	2	0
3CC57074AA	VHLPX1-80-AUBTR	71.0-86.0	Ant UBT Int 1ft DP 80 GHz (+ OMT) A.	1	0
3CC57075AA	VHLPX1-80A-AUBTR	71.0-86.0	Ant UBT Int 1ft DP 80 GHz (+ OMT) FCC A.	1	0
3CC57087AA	VHLPX2-80-AUBTR	71.0-86.0	Ant UBT Int 2ft DP 80 GHz (with OMT) A.	2	0
409073251			4" Boot (WGB4-63) - for EW63		
1AF15943AAAA			Standard Elliptical Waveguide, EW180 (17.3 – 19.7 GHz)		
1AF16272AAAA			Connector, Fixed-tuned / PBR220 for EW180 (top) (1180SCM)		
402945372			Hoisting Grip (43094) - Lace-up (1/2" coax,EW180,EW220)		
1AF16280AAAA			Pressure Window (112587) - mates to PBR220		
1AF14480AAAF			FOR HL/C: 2' Twistflex (F042KKS2) - PBR220/PBR220 (Tin plated version is F042KKS2-A, \$191.25, No OI Code)		
1AF15937AAAA			4" Boot (WGB4-180) - for EW180		
409072832			WR137 FLEX TWIST,1200 MM,CPR137G/CPR137G		
402059869	55001-137		PRESSURE WINDOW ASSEMBLY (CPR137) - WR137 PRESSURE WINDOW		
409072873	6600D-6		6-PORT MANIFOLD, 0-15 PSISIX OUTLET GAS MANIFOLD		
402093116	55001-90		Pressure Window		
402167829	31771-4		Ceiling Adapter Kit (Threaded rod kit)		
402662936	EW52		Andrew EW52 Helix per foot		
405423773	42396A-8		Hanger Kit		
406936799	EW63		Andrew EW63 Helix per foot		
407415645	EW90		Andrew EW90 Helix per foot		
408668911	6600D-2		2-Port Manifold, 0-15 PSI		
408781177	29958		Hoisting Grip		
408985216	31768A		Angle Member Adapter		
409072758	F090CCB2		2' Twistflex		
409073269	WGB4-90		4" Boot		
409083920	42396A-7		Hanger Kit		
409083938	EWSH-90		Hanger Kit		

409084308	220498		1 5/8 Grounding Kit (EW52, EW63, EW64), 60: Field attach lug		
409085107	252SE		Connector		
409085255	6600D-4		4-Port Manifold, 0-15 PSI		
409085271	AE01D-D1658-100		Dehydrator Wall Shelf, MT050/MT/XT300		
409085370	39099-137		Waveguide Termination		
409093101	190SE		Connector		
409085123	163SE		Connector, Tunable / CPR137G (bottom & top) (163SE)		
900358177	24312A		Hoisting Grip (24312A) - Lace-up (1-5/8" coax,EW44,EW52,EW63)		
409084381	204673-1		Wall/Roof Feed Thru, 4" (204673-1) - 1 per boot		
1AF13516AAAA	31769-1		Hardware Kit- 3/8" x 1" for Hangers (31769-1) (10 pack)		
409072790	F137CCD2		2' Twistflex (F137CCD2) - CPR137G/CPR137G		
409073244	WGB4-52		4" Boot (WGB4-52) - for EW52		
408948867	220497		Grounding kit (220497) (5/8", 7/8" coax, EW85,90,127,132), 60", Field attach lug		
408944288	42396A-5		Hanger Kit for EW90 / EW85 (42396A-5) (10 pack)		
409085388	39099-90		Waveguide Termination Load (39099-90) - CPR90G		
409073269	WGB4-90 (replaces 204679-90)		4" Boot (WGB4-90) - for EW90		
409072873	6600D-6		Gas Distribution Manifold, 6 Port (6600D-6)		
409072832	F137CCS5		WR137 FLEX TWIST,1200 MM,CPR137G/CPR137G		
409073251			4" Boot (WGB4-63) - for EW63		
1AF32122AAAA			Optional Strut Kit - USX8/HX8 & USX10 7819854		
1AF15842AAAA			CPR137G & PDR70 Termination Load (VHLP) (112614-70)		
1AF25570AAAA			SREW63-K Cushion Hanger kit (5) 1 hole		
1AF25570ABAA			SREW632-K Cushion Hanger kit (5) 2 hole		
409019122			CA COAX-LDF4-50A 0.5IN 50OHM BC SOLID C Per Meter		
409054814			CONN COAX-L4TNM-PS 50OHM N PLUG MALE ST*		





Nokia Microwave Engineering Services	
Part No	Description
Line of Sight - Path Survey (15- 38 GHz)	
SVC-KWIE-ENG-TSE1	LOS Path Survey (single hop system)
SVC-KWIE-ENG-TSE2	LOS Path Survey (1st hop for a connected multi-hop system)
SVC-KWIE-ENG-TSE3	LOS Path Survey (2nd hop+ for a connected multi-hop system)
SVC-KWIE-ENG-TSE4	LOS Path Survey (Each single path in a multi-hop system, not connected)
SVC-KWIE-ENG-TSE5	Path Survey Air Fare (per survey)(1 Surveyor with equipment shipment)
SVC-KWIE-ENG-TSE6	Additional Survey Reports (on CD ROM)
SVC-KWIE-ENG-TSE7	Additional Survey Reports (printed copies)
SVC-KWIE-ENG-TSE8	Path Survey (Per Man Day)
Path Survey (< 11 GHz)	
SVC-KWIE-ENG-TSE9	Path Survey (single hop system)
SVC-KWIE-ENG-TSE10	Path Survey (1st hop for a connected multi-hop system)
SVC-KWIE-ENG-TSE11	Path Survey (2nd hop+ for a connected multi-hop system)
SVC-KWIE-ENG-TSE12	Path Survey (Each single path in a multi-hop system, not connected)
SVC-KWIE-ENG-TSE13	Path Survey Air Fare (per survey)(1 Surveyor with equipment shipment)
SVC-KWIE-ENG-TSE14	Additional Survey Reports (on CD ROM)
SVC-KWIE-ENG-TSE15	Additional Survey Reports (printed copies)
SVC-KWIE-ENG-TSE8	Path Survey (Per Man Day)
Path Design	
SVC-KWIE-ENG-TSE16	System Map (1–10 paths)
SVC-KWIE-ENG-TSE17	System Map (10+ paths)
SVC-KWIE-ENG-TSE18	Path Design (per path)
SVC-KWIE-ENG-TSE19	Path Performance Calculations (per path)
Frequency Selection/Coordination	
SVC-KWIE-ENG-TSE20	Frequency Selection (all bands except 80 GHz / per freq pair)
SVC-KWIE-ENG-TSE22	Normal 30–day Prior Coordination (per system)
SVC-KWIE-ENG-TSE23	Expedited Prior Coordination (1st path)
SVC-KWIE-ENG-TSE24	Expedited Prior Coordination (2nd path)
SVC-KWIE-ENG-TSE25	Major Change Analysis (per path)
SVC-KWIE-ENG-TSE26	Minor Change Analysis (per path)
SVC-KWIE-ENG-TSE27	Prior Coordination Renewal within 6 months of PCN date (1st path)
SVC-KWIE-ENG-TSE28	Prior Coordination Renewal within 6 months of PCN 2nd path+ (per path)
FCC License Application	
SVC-KWIE-ENG-TSE29	FCC License Application Prep (New/Mod) (per site / Form 601) (Note 1)
SVC-KWIE-ENG-TSE31	Waiver Preparation (Note 1)
SVC-KWIE-ENG-TSE43	FCC License Fees (Note 1.5)(new site)(per site)
SVC-KWIE-ENG-TSE44	FCC License Fees (Note 1.5)(modification to existing license)(per site)
SVC-KWIE-ENG-TSE45	FCC Application - Waiver Application (Note 1.5)(per site)

SVC-KWIE-ENG-TSE37	80 GHz Nationwide Licensing (US applications only) (One Time Charge)
SVC-KWIE-ENG-TSE38	80 GHz Link Registration (US applications only)(Per Path)Each link registration after initial
SVC-KWIE-ENG-TSE54	80 GHz Registration (US Applications only) (Per Path) (Not required if licensee is fee-exempt, e.g governmental entities)
	FCC Regulatory Services
SVC-KWIE-ENG-TSE46	AM Broadcast Tower Proximity Check
SVC-KWIE-ENG-TSE47	FAA Non-Hazard FAA Determination filing
SVC-KWIE-ENG-TSE48	FCC ASR Filing
SVC-KWIE-ENG-TSE30	STA Form Preparation (Note 1.5)
SVC-KWIE-ENG-TSE49	FCC STA Filing Fees - Part 101 (Note 1.5) (private only)
SVC-KWIE-ENG-TSE50	FCC STA Filing Fees - Part 101 (Note 1.5) (Common Carrier i.e. Wireless)
SVC-KWIE-ENG-TSE51	FCC STA Filing Fees - Part 74
SVC-KWIE-ENG-TSE52	License Extension (per Call Sign)
SVC-KWIE-ENG-TSE53	FCC Filing Fee for License Extension Waiver (Private only)
	Transmission Engineering
SVC-KWIE-ENG-TSE32	Senior Transmission Systems Engineer (per Hour)
SVC-KWIE-ENG-TSE33	Transmission Systems Engineer (per Hour)
	Network Engineering
SVC-KWIE-ENG-TSE34	Senior Network Engineer (per hour)
SVC-KWIE-ENG-TSE35	Network Engineer (per hour)
SVC-KWIE-ENG-TSE36	Network Engineering Drawings (per hour)
SVC-KWIE-ENG-NE1	Application and Network Engineer (per site)
SVC-QHIE-INST-PO1	Application and configuration release (per site)
3EM24226AF	Customer Witness Test & Integration Certificate (Per Test Element)
	Factory Integration / Staging
	Customer Witness Test
	MW Product Freight
SVC-YGRL-RF1	MW Product Freight per radio rack
SVC-YGRL-AS1	MW Product Freight per small antenna
SVC-YGRL-AS2	MW Product Freight per medium antenna
SVC-YGRL-AS3	MW Product Freight per large antenna (or HI and AK)
SVC-YGRL-AS4	MW Product Freight per Ice Shield

Notes:

- 1 Does not include FCC fees, if any
- 1.5 No fees for State and Local Government including education
- 2 Pricing does not apply to states with prevailing wages statutes and can be quoted upon request
- 3 SVC-KWIE-ENG, SVC-YGRL requires the description to be included with all orders
- 4 A Man Day is considered to be 8 hours.





Nokia Microwave Services	
Part No	Description
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SVC-KWIE-ENG-TSE1	LOS Path Survey (single hop system)
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SVC-KWIE-ENG-TSE3	LOS Path Survey (2nd hop+ for a connected multi-hop system)
SVC-KWIE-ENG-TSE4	LOS Path Survey (Each single path in a multi-hop system, not connected)
SVC-KWIE-ENG-TSE5	Path Survey Air Fare (per survey)(1 Surveyor with equipment shipment)
SVC-KWIE-ENG-TSE6	Additional Survey Reports (on CD ROM)
SVC-KWIE-ENG-TSE7	Additional Survey Reports (printed copies)
SVC-KWIE-ENG-TSE8	Path Survey (Per Man Day)
	Path Survey (< 11 GHz)
SVC-KWIE-ENG-TSE9	Path Survey (single hop system)
SVC-KWIE-ENG-TSE10	Path Survey (1st hop for a connected multi-hop system)
SVC-KWIE-ENG-TSE11	Path Survey (2nd hop+ for a connected multi-hop system)
SVC-KWIE-ENG-TSE12	Path Survey (Each single path in a multi-hop system, not connected)
SVC-KWIE-ENG-TSE13	Path Survey Air Fare (per survey)(1 Surveyor with equipment shipment)
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SVC-KWIE-ENG-TSE16	System Map (1–10 paths)
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SVC-KWIE-ENG-TSE19	Path Performance Calculations (per path)
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SVC-KWIE-ENG-TSE22	Normal 30–day Prior Coordination (per system)
SVC-KWIE-ENG-TSE23	Expedited Prior Coordination (1st path)
SVC-KWIE-ENG-TSE24	Expedited Prior Coordination (2nd path)
SVC-KWIE-ENG-TSE25	Major Change Analysis (per path)
SVC-KWIE-ENG-TSE26	Minor Change Analysis (per path)
SVC-KWIE-ENG-TSE27	Prior Coordination Real within 6 months of PCN date (1st path)
SVC-KWIE-ENG-TSE28	Prior Coordination Real 2nd path+ (per path)
	FCC License Application
SVC-KWIE-ENG-TSE29	FCC License Application Prep (/Mod) (per site / Form 601) (2)
SVC-KWIE-ENG-TSE30	STA Form Preparation (Note 1)
SVC-KWIE-ENG-TSE31	Waiver Preparation (Note 1)
SVC-KWIE-ENG-TSE43	FCC License Fees (Note 1.5)(new site)(per site)
SVC-KWIE-ENG-TSE44	FCC License Fees (Note 1.5)(modification to existing license)(per site)

SVC-KWIE-ENG-TSE45	FCC Application - Waiver Application (Note 1.5)(per site)
SVC-KWIE-ENG-TSE37	80 GHz Nationwide Licensing (US applications only) (One Time Charge)
SVC-KWIE-ENG-TSE38	80 GHz Link Registration (US applications only)(Per Path)
SVC-KWIE-ENG-TSE54	Each link registration after initial 80 GHz Registration (US Applications only) (Per Path) (Not required if licensee is fee-exempt, e.g governmental entities)
	FCC Regulatory Services
SVC-KWIE-ENG-TSE46	AM Broadcast Tower Proximity Check
SVC-KWIE-ENG-TSE47	FAA Non-Hazard FAA Determination filing
SVC-KWIE-ENG-TSE48	FCC ASR Filing
SVC-KWIE-ENG-TSE30	STA Form Preparation (Note 1.5)
SVC-KWIE-ENG-TSE49	FCC STA Filing Fees - Part 101 (Note 1.5) (private only)
SVC-KWIE-ENG-TSE50	FCC STA Filing Fees - Part 101 (Note 1.5) (Common Carrier i.e. Wireless)
SVC-KWIE-ENG-TSE51	FCC STA Filing Fees - Part 74
SVC-KWIE-ENG-TSE52	License Extension (per Call Sign)
SVC-KWIE-ENG-TSE53	FCC Filing Fee for License Extension Waiver (Private only)
	Transmission Engineering
SVC-KWIE-ENG-TSE32	Senior Transmission Systems Engineer (per Hour)
SVC-KWIE-ENG-TSE33	Transmission Systems Engineer (per Hour)
	Network Engineering
SVC-KWIE-ENG-TSE34	Senior Network Engineer (per Hour)
SVC-KWIE-ENG-TSE35	Network Engineer (per Hour)
SVC-KWIE-ENG-TSE36	Network Engineering Drawings (per Hour)
SVC-KWIE-ENG-NE1	Application and Network Engineer (per site)
SVC-QHIE-INST-P01	Application & Configuration Release
	MW Product Freight
SVC-YGRL-RF1	MW Product Freight per radio rack
SVC-YGRL-AS1	MW Product Freight per small antenna
SVC-YGRL-AS2	MW Product Freight per medium antenna
SVC-YGRL-AS3	MW Product Freight per large antenna (or HI and AK)
SVC-YGRL-AS4	MW Product Freight per Ice Shield
	Field Engineering
SVC-QHIE-ENG-FE1	Field Service Engineer (Per Man Hour)
SVC-QHIE-ENG-FE2	Field Living Expenses (per man per calendar day)
SVC-QHIE-ENG-FE3	Air Fare (per man) (1 Engineer with equipment shipment)
	Field Engineering - Outside Plant
300054129-FEOSP1	Outside Plant Engineering e.g. Tower Structural Analysis, Grounding, etc. (Per Man Hour)
300054129-FEOSP2	Field Living Expenses (per man per calendar day)
300054129-FEOSP3	Air Fare (per man)(1 Engineer with equipment shipment)
	Installation & Commission (Microwave)
SVC-QHIE-INST-INCOM1	Microwave Antenna / Tower Installation Services (Per Man Hour)
SVC-QHIE-INST-INCOM2	Radio Installation Services (Per Man Hour)
SVC-QHIE-INST-INCOM3	Radio Commissioning and Test Services (Per Man Hour)
SVC-QHIE-INST-INCOM4	Ancillary Equipment Installation and Test Services (Per Man Hour)
SVC-QHIE-INST-INCOM5	Deployment Project Management (Per Man Hour)

SVC-QHIE-INST-INCOM6	Field Supervisor (Per Man Hour)
SVC-QHIE-INST-INCOM7	Network Management Engineering (Per Man Hour)
SVC-QHIE-INST-INCOM8	Field Living Expenses (Per calendar day) (1 Field Engineer)
SVC-QHIE-INST-INCOM9	Air Fare (per man)(1 Engineer with equipment shipment)
	Program Management Office (PMO)
300702487	PMI certified project manager skilled in all aspects of managing network deployment projects. (Per Hour)
	Product Maintenance (Wavence)
301090767-9500	Technical Support Gold (7x24x365 annual rate per hop)
301090775-9500	Standard Repair 45 days (annual rate after warranty per hop)
301090791-9500	Advanced Exchange Next Day (annual rate per hop)
3EM24592AAAB	9500 MPR Software Subscription (Per Node)
301094843	Radio Field Maintenance (Per Man Hour)
301094843	Field Living Expenses (Per calendar day) (1 Technician)
301094843	Air Fare (per man)(1 Technician with equipment shipment)
	Product Maintenance (TSM-8000)
301090767-TSM	Technical Support Gold (7x24x365 annual rate per Network Element)
301090775-TSM	Standard Repair 45 days (annual rate after warranty per server)
3EM16790HN	TSM-8000 Software Subscription
	Product Training (9500 MPR) at Nokia Facility
3HE09335AA-TWT42035	TWT42035 9500 MPR (Microwave Packet Radio) Global Market Node Functional and Hardware Description Per Student @ Nokia facility. Class is 1 day.
3HE09335AA-TWT42036	TWT42036 9500 MPR (Microwave Packet Radio) Global Market Node Common functionality Operation and Maintenance Per Student @ Nokia facility. -Class is 2 days
3HE09335AA-TWT42037	TWT42037 9500 MPR Global Market Ethernet Traffic-NETO CT Operations & Maintenance Per Student @ Nokia facility Class is 2 days.
3HE09335AA-TWT42038	TWT42038 9500 MPR Global Market Terminal (MPR-e/MSS-1c) Functional and Hardware Description Per Student @ Nokia facility. Class is 1 day.
3HE09335AA-TWT42039	TWT42039 9500 MPR Global Market Terminal (MPR-e/MSS-1c) Operations & Maintenance Per Student @ Nokia facility. Class is 1 day.
3HE09335AA-TWT63052	TWT63052 - 7705 SAR Rel. 7.0 and 9500 MPR-e Rel. 6.0 Integration Per Student @ Nokia Facility
3HE09335AA-TER36055	TER36055 - 7705 SAR Strategic Industries Per Student @ Nokia Facility (NOTE: abbreviated version is available if 5620 SAM / NFM-P module isn't needed)
	Product Training (TSM-8000) at Nokia Facility
3HE09335AA-3FL30698-CF	3FL30698 TSM-8000 Operations Per Min 6 Students @ Customer facility. . Class is 2 days.
3HE09335AA-3FL30699-CF	3FL30699 TSM-8000 Administration Per Min 6 Students @ Customer facility. Class is 3 days.
	NFM-P Web Based Training Options
3HE09335AA-TOS00059W	TOS00059W NSP (Network Services Platform) Overview (Online Class) Duration: 1 hour
3HE09335AA-TOS00060W	TOS00060W NFM-P (Network Functions Manager – Packet) Fundamentals (Online Class) Duration: 6 hours
3HE09335AA-TER36084W	TER36084W 7705 SAR Product Overview Duration: 3 hours
	NFM-P Training at Nokia Facility

3HE09335AA-TOS00060	TOS00060 NFM-P (Network Functions Manager - Packet) Fundamentals Class is 2 days. Per student @ Nokia Facility
3HE09335AA-TOS00061	TOS00061 NSP (Network Services Platform) Fault Management Application Class is 1 day. Per student @ Nokia Facility
3HE09335AA-TOS00062	TOS00062 NSP (Network Services Platform) Service Supervision Application Class is 1 day. Per student @ Nokia Facility
3HE09335AA-TOS00063	TOS00063 NFM-P (Network Functions Manager - Packet) Network Troubleshooting using Fault Analysis Class is 4 days. Per student @ Nokia Facility
3HE09335AA-TOS41001	TOS41001 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning – Fundamentals Class is 3 days. Per student @ Nokia Facility
3HE09335AA-TOS41002	TOS41002 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning – Resiliency Class is 2 days. Per student @ Nokia Facility
3HE09335AA-TOS41003	TOS41003 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning - Multi-Area Scaling Class is 3 days. Per student @ Nokia Facility
3HE09335AA-TOS42101	TOS42101 NFM-P (Network Functions Manager - Packet) Service Operations and Provisioning – Fundamentals Class is 2 days. Per student @ Nokia Facility
3HE09335AA-TOS42102	TOS42102 NFM-P (Network Functions Manager - Packet) Service Operations and Provisioning - Enhanced OAM Class is 3 days. Per student @ Nokia Facility
3HE09335AA-TOS42103	TOS42103 NFM-P (Network Functions Manager - Packet) Rel 17 Services Operation and Provisioning - Service Interconnection Class is 2 days. Per student @ Nokia Facility
NFM-P Training at Customer Facility	
3HE09335AA-TOS00060-CF	TOS00060 NFM-P (Network Functions Manager - Packet) Fundamentals Class is 2 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS00061-CF	TOS00061 NSP (Network Services Platform) Fault Management Application Class is 1 day. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS00062-CF	TOS00062 NSP (Network Services Platform) Service Supervision Application Class is 1 day. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS00063-CF	TOS00063 NFM-P (Network Functions Manager - Packet) Network Troubleshooting using Fault Analysis Class is 4 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS41001-CF	TOS41001 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning – Fundamentals Class is 3 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS41002-CF	TOS41002 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning – Resiliency Class is 2 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS41003-CF	TOS41003 NFM-P (Network Functions Manager - Packet) IP/MPLS Network Provisioning - Multi-Area Scaling Class is 3 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS42101 -CF	TOS42101 NFM-P (Network Functions Manager - Packet) Service Operations and Provisioning – Fundamentals Class is 2 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS42102-CF	TOS42102 NFM-P (Network Functions Manager - Packet) Service Operations and Provisioning - Enhanced OAM Class is 3 days. Per Min 6 Students @ Customer facility.
3HE09335AA-TOS42103-CF	TOS42103 NFM-P (Network Functions Manager - Packet) Services Operation and Provisioning - Service Interconnection Class is 2 days. Per Min 6 Students @ Customer facility.
3HE09335AA-OSF-CF-5	Instructor T&L On-Site Fee - for each 5 days of training.
3HE09335AA-OSF-CF-4	Instructor T&L On-Site Fee - for each 4 days of training.
3HE09335AA-OSF-CF-3	Instructor T&L On-Site Fee - for each 3 days of training.

3HE09335AA-OSF-CF-2	Instructor T&L On-Site Fee - for each 2 days of training.
3HE09335AA-OSF-CF-1	Instructor T&L On-Site Fee -for each 1 days of training.
3HE09335AA-OSF-EF-S	On-site Equipment Fee, if shipped from Nokia (9500 MPR or TSM-8000) to customer site for use during training.
Notes: 1 Does not include FCC fees, if any 3 SVC-KWIE-ENG, SVC-QHIE-ENG, SVC-QHIE-INST requires the description to be included with all orders 4 A Man Day is considered to be 8 hours. 6 The maximum number of students allowable for instructor-led classes is 8 students. Minimum class size for onsite training is 6 students. 7 Customer is responsible for all travel arrangements and expenses for their students when traveling to an Alcatel-Lucent site for training 8 Training prices do not include duties or taxes, which shall be Customer's responsibility. 9 For Training classes - Customer cancellation within business fifteen (15) days of the scheduled training will result in the full amount of the course being billed. 10 Onsite Training - A suitable classroom and classroom equipment to meet the student's needs, including the use of an overhead projector, whiteboard/chalkboard & markers, along with customer technical documentation should be provided by the customer. 11 If the Customer is providing the training equipment for a practical (hands-on) course, it must be free of live traffic, dedicated and available for training purposes only. 12 An adequate supply of terminals (PC/laptop) connected to the training platform with access to internet is required. The standard is one terminal for two trainees.	



IPR Products	
Part No	Description
3HE00014AA	7x50 ESS-6v/12 SR-12 Fan Filter
3HE00027CA	1-port 1000BASE-SX Small Form-Factor Pluggable (SFP) Optics Module, Multimode Fiber (MMF), 550 meters, 850 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00028CA	1-port 1000BASE-LX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10 km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00029CA	1-port 1000BASE-ZX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 70km, 1550 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00034CA	1-port OC-3/STM-1 SONET/SDH Optics Module, Multimode Fiber (MMF), 2km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00035CA	1-port OC-3/STM-1 SONET/SDH Optics Module, IR-1 / I-1, Single Mode Fiber (SMF), 15-21km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00036CA	1-port OC-3/STM-1 SONET/SDH Optics Module, LR-1 / L-1.1, Single Mode Fiber (SMF), 40-50km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00107WA	7750 SR-1/7/12/12e Release 16.0 Operating Software License. Notes: One (1) Operating Software License is required for each SR-1/7/12/12e in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software.
3HE00190AA	7x50 SR-7/ESS-7 Fan Filter
3HE00192AA	7750 SR-12 slot Cable Management Accessory.
3HE00241WA	7450 ESS-7/12 Release 16.0 Operating Software License. Notes: One (1) Operating Software License is required for each 7450 ESS-7/12 in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software.
3HE00271AA	AC Power Cable NEMA 5-15P to IEC 60320 C13 10A/110V 1.8 meter- United States / Canada / South America
3HE00271AB	AC Power Cable NEMA 6-15P to IEC 60320 C13 10A/220V, 1.8 meter - United States / Canada / South America
3HE00271AC	AC Power Cable CEE 7/7 to IEC 60320 C13 10A/220V 2.8 meter - Continental Europe
3HE00271AD	AC Power Cable BS 1363 to IEC 60320 C13 10A/220V, 2.8 meter- United Kingdom / Hong Kong /Singapore
3HE00271AE	AC Power Cable Blunt cut to IEC 60320 C13, 2.4 meter, 10A/220V,USA / Canada / South America
3HE00271AF	AC Power Cable NEMA 5-15P to IEC 60320 C19 15A/110V 2.8 meter - United States / Canada / South America

3HE00271AG	AC Power Cord NEMA 5-15P to IEC 60320 C13 13A/110V 2.5 meter- United States / Canada / South America
3HE00271AH	AC Power Cable blunt cut with IEC 60320 locking C19 20A/250V, 4.5 meter - USA
3HE00271AJ	AC Power Cable blunt cut with IEC 60320 locking C19 16A/250V, 4.5 meter - Europe
3HE00271BA	AC Power Cable NEMA 5-15P to IEC 60320 C15 15A/110V 1.8 meter- United States / Canada / South America
3HE00271BB	AC Power Cable NEMA 6-15P to IEC 60320 C15 15A/220V, 1.8 meter - United States / Canada / South America
3HE00271BC	AC Power Cable CEE 7/7 to IEC 60320 C15 10A/220V 2.8 meter - Continental Europe
3HE00271BD	AC Power Cable BS 1363 to IEC 60320 C15 10A/220V, 2.8 meter- United Kingdom / Hong Kong /Singapore
3HE00271BE	AC Power Cable Blunt cut to IEC 60320 C15, 2.4 meter, 10A/220V International
3HE00514AA	AC Power Cable IEC 320 C-14 to Blunt cut 15A/220V.
3HE00564CA	1-port 10GBASE-LW/LR Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 10km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant
3HE00566CA	1-port 10GBASE-SW/SR Small Form-Factor Pluggable (XFP) Optics Module, 850 nm, 26 to 300 meters, LC Connector, RoHS 6/6 compliant
3HE00867CA	1-port 1000BASE-EX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1310nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00868CA	1-port 1000BASE-BX10-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10km, TX:1310 nm, RX: 1490 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE00868CB	1-port 1000BASE-BX10-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10km, TX: 1490 nm, RX: 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Extended Temperature -40/85C
3HE01049AA	Cable 7x50 CONSOLE CABLE, NULL MODEM, 6', CROSSOVER PIN-OUT, DB9F-DB9F
3HE01051AA	7750 SR MDA slot blank cover
3HE01389CA	1-port 1000BASE-EZX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 120km, 1550nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE01619AA	SR/ESS/SAS/SAR 2 GB Compact Flash - Spare (Blank)
3HE01672AA	7750 SR-7 19-inch Rack Mount Brackets, 1 pair - spare
3HE01673AA	7750 SR-12 19-inch Rack Mount Brackets , 1 pair - spare
3HE01807AC	Contracted Annual Software Subscription Plan (SSP) for 7x50, 7710 and 7210. Entitles customer to unlimited nodal OS software upgrade licenses for one year. Annual contracts must be purchased against the total installed base for a given customer network or channel, for a particular product family (i.e. all 7450 ESS1 elements). Contact local B&P team or IPD BD for more information. Customer must complete Export Control Doc. prior to release of any S/W. Part numbers for use on all orders outside of NAR.
3HE01881AA	7750 SR-7, 7450 ESS-6/7 Ground and Power Lug Kit for Qty=5 shelves, spare, includes: (5) #6 AWG Ground Lugs (10) Ground Screws (20) #6 AWG DC Power Lugs

3HE01882BA	7750 SR-12/7450 ESS-12 Ground and Power Lug Kit for PEM-3 Qty=5 shelves, spare, includes: (40) #4 Lugs for Power (40) #2 Lugs for Power (10) #2 Lugs for Ground
3HE02772AA	The Auxiliary Alarm Card provides additional alarm support for high density digital inputs and outputs, as well as 2 analog inputs. Access to all the signal pins is via the AMP 68 pin connector. The 16 AWG open-ended cables of 15 and 30 meters length (3HE03398AB/3HE03399AB), as well as the SCSI to AMP 64 pin cable (3HE02783AA), can be used in conjunction with this card. This card is supported in both -48 VDC and +24 VDC systems.
3HE02772BA	Conformal Coated Variant of Auxiliary Alarm. The Card provides additional alarm support for high density digital inputs and outputs, as well as 2 analog inputs. Access to all the signal pins is via the AMP 68 pin connector. The 16 AWG open-ended cables of 15 and 30 meters length (3HE03398AB/3HE03399AB), as well as the SCSI to AMP 64 pin cable (3HE02783AA), can be used in conjunction with this card. This card is supported in both -48 VDC and +24 VDC systems.
3HE02774AB	SAR Control and Switch Module Version 2. One (1) required per SAR-8 shelf or up to two (2) per SAR-8 Shelf for CPU and fabric redundancy. -48/+24VDC
3HE02774CB	Conformal Coated Variant of SAR Control and Switch Module Version 2. One (1) required per SAR-8 shelf or up to two (2) per SAR-8 Shelf for CPU and fabric redundancy. -48/+24VDC
3HE02775AB	16-port Channelized/Unchannelized T1/E1 Any Service Any Port (ASAP) Card V2, supports channelization down to DS0 and ATM/PPP/TDM encapsulations. Each port can be independently configured for the different services and can be used for access or network ports. This card is supported in both -48 VDC and +24 VDC systems.
3HE02775CB	Conformal Coated Variant of 16-port Channelized/Unchannelized T1/E1 Any Service Any Port (ASAP) Card V2, supports channelization down to DS0 and ATM/PPP/TDM encapsulations. Each port can be independently configured for the different services and can be used for access or network ports. This card is supported in both -48 VDC and +24 VDC systems.
3HE02780AA	Terminates 6 analog FXS subscriber interfaces from local telephone set. RJ45 connector access (2 ports/connector). On-premise applications only. -48/+24VDC
3HE02780BA	Conformal Coated FXS line card. Terminates 6 analog FXS subscriber interfaces from local telephone set. RJ45 connector access (2 ports/connector). On-premise applications only. -48/+24VDC
3HE02781AA	32-port Channelized/Unchannelized T1/E1 Any Service Any Port (ASAP) Card, supports channelization down to DS0 and ATM/PPP/TDM encapsulations. Each port can be independently configured for the different services and can be used for access or network ports. This card is supported in both -48 VDC and +24 VDC systems.
3HE02782AA	Packet Microwave Card has two 10/100/1000 RJ45 ports and six GigE SFP ports. The two RJ45 ports and the first two SFP ports can be connected to MPR-e radio with microwave awareness capabilities. Each port can be used for access or network ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE02782BA	Conformal Coated Variant of Packet Microwave Card has two 10/100/1000 RJ45 ports and six GigE SFP ports. The two RJ45 ports and the first two SFP ports can be connected to MPR-e radio with microwave awareness capabilities. Each port can be used for access or network ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE02783AA	Provides access to all the inputs and outputs for the Aux Alarm card. AMP 68 pin (SCSI-2) connector attaches to the module and AMP 64 pin connector can be directly attached to other telecom equipment or breakout unit. 3 meters in length.

3HE02784MA	SAR Release 9.0 OS License. One (1) OS Upgrade is required for each SAR-8, SAR-M, SAR-A, SAR-W, SAR-Wx, SAR-H, SAR-Hc, SAR-X, SAR-Ax in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE02784NA	SAR Release 20.x OS License. One (1) OS Upgrade is required for each SAR-8, SAR-M, SAR-A, SAR-W, SAR-Wx, SAR-H, SAR-Hc, SAR-X, SAR-Ax in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE02785MA	SAR Release 9.0 OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-8, SAR-M, SAR-A, SAR-W, SAR-Wx, SAR-H, SAR-Hc, SAR-X, SAR-Ax in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE02785NA	SAR Release 20.x OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-8, SAR-M, SAR-A, SAR-W, SAR-Wx, SAR-H, SAR-Hc, SAR-X, SAR-Ax in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE02786BA	Valere AC Split Power Shelf, one (1) required for AC operation of Nokia SR-7, ESS-7/6/6v chassis. Shelf is electrically split with two (2) power outputs for 1+1 redundancy. Accepts of up to four (4) SR/ESS 2500W AC Power Supplies and/or SR/ESS AC Split Power Shelf Blanks (all sold separately). Includes four (4) power lugs for the supply cables from the Power Shelf. SR-7, ESS-7/6/6v Status Cable recommended (sold separately).
3HE02787AA	Valere 2500 Watt AC Power Supply for the Valere AC Split Power Shelf. For 1 + 1 redundancy for the SR-12/ESS-12, four (4) supplies required. For 1+ 1 Redundancy on the ESS-6: two (2) supplies required and two SR/ESS AC Split Power Shelf Blanks (recommended) (sold separately). One (1) SR/ESS 2500W AC Power Supply Cord required for each Power Supply (sold separately).
3HE02944AA	SR/ESS AC Split Power Shelf Slot Blanks, one (1) blank recommended for each unoccupied power supply position in the SR/ESS AC Split Power Shelf
3HE02946AA	AC Power Cable IEC 60320-C19 to Blunt cut 2.4 meter 220V for SR/ESS 2500 Watt AC Power Supply for the SR/ESS AC Split Power Shelf, Blunt Cut - United States / Canada / South America, one (1) cord required per 2500 AC Power Supply, appropriate wall end connector needs to be installed
3HE02947AA	Cable SR/ESS AC Split Power Shelf SR-12/ESS-12 Status Cable, one (1) cable recommended to connect the SR-12/ESS-12 chassis to the SR/ESS AC Split Power Shelf
3HE03054AA	Replacement blanking plates for the SAR-8 slots and the smaller SAR-18 adapter card slots. To be installed in empty slots for air flow and EMI. Package of 6.
3HE03065BA	Valere External AC Rectifier Bundle, includes: (1) 3HE02786BA Redundant AC power for SR-7, ESS-7 with AC split shelf, (4) 3HE02787AA AC power supplies, (1) 3HE04519AA status cable, (4) 3HE02946AA DC lugs and blunt-cut AC International power cords, User must supply DC power cables, chassis lugs and AC wall connectors.

3HE03125AA	4-port OC3/STM1 Clear Channel Card, supporting ATM services and POS network links. Includes 4 SFP cages for interfaces. Each port can be used for access or network ports. SFPs sold separately. -48VDC
3HE03125BA	Conformal Coated Variant of 4-port OC3/STM1 Clear Channel Card, supporting ATM services and POS network links. Includes 4 SFP cages for interfaces. Each port can be used for access or network ports. SFPs sold separately. -48VDC
3HE03126AA	6 port E&M analog voice interface card configurable for 2 or 4 wire operation. Supports Type I, II and V signaling and A-law and μ -Law encoding. 600ohm interface with programmable TLP ranges. -48VDC
3HE03126BA	Conformal Coated Variant of 6 port E&M analog voice interface card configurable for 2 or 4 wire operation. Supports Type I, II and V signaling and A-law and μ -Law encoding. 600ohm interface with programmable TLP ranges. -48VDC
3HE03127AA	2-port OC3/STM1 Card, with channelization down to DS0 and ATM/PPP/TDM encapsulations. Each port can be independently configured for the different services and access/network. SFPs sold separately.
3HE03127BA	Conformal Coated Variant of 2-port OC3/STM1 Card, with channelization down to DS0 and ATM/PPP/TDM encapsulations. Each port can be independently configured for the different services and access/network. SFPs sold separately.
3HE03391AC	12 port Serial Data Interface - Version 3 (SDIv3) card. Supports RS232, RS530, X.21 and V.35 protocols. This card provides a SCSI-68 connector per 2 ports. Supports DTE/DCE port configs utilizing generic cables 3HE12409AA/3HE12410AA applicable to all available port distribution panels (3HE12442AA, 3HE12443AA, 3HE12444AA, 3HE12445AA).
3HE03391BC	Conformal Coated Variant of 12 port Serial Data Interface - Version 3 (SDIv3) card. Supports RS232, RS530, X.21 and V.35 protocols. This card provides a SCSI-68 connector per 2 ports. Supports DTE/DCE port configs utilizing generic cables 3HE12409AA/3HE12410AA applicable to all available port distribution panels (3HE12442AA, 3HE12443AA, 3HE12444AA, 3HE12445AA).
3HE03397BB	This cable connects a 16 port T1/E1 ASAP connector to a breakout panel. SCSI connector at both ends in cross-over configuration. 1.6 meter in length.
3HE03399AB	Provides access to 16 ports of a T1/E1 ASAP card; the 32 port T1/E1 ASAP card requires 2 cables. AMP 68 pin connector attaches to the module and the open end (26 AWG) can be directly attached to other telecom equipment or a punch-down/terminal block. 30 meters in length.
3HE03401AA	Mini coax Y-cable to connect a single synchronization reference to the input ports of the two 7705 CSMs.
3HE03661AA	7750 SR-7 DC 100 AMP PEM-3 for Slot 2. 7750 SR-7 DC 100 AMP PEM-3 provides 1+1 redundant DC power. Note: Requires the 3HE04498AA - 7750 SR-7 DC 100Amp Power Filter to be installed in the front of the SR-7
3HE03662AA	7750 SR-7 DC 100 AMP PEM-3 for Slot 1. 7750 SR-7 DC 100 AMP PEM-3 provides 1+1 redundant DC power. Note: Requires the 3HE04498AA - 7750 SR-7 DC 100Amp Power Filter to be installed in the front of the SR-7
3HE03663AA	7750 SR, 12-slot Shelf 175 AMP DC Power Entry Module-3 for the 7750 SR-12 DC Shelf.

3HE03664AA	7450 ESS-7 DC 100 AMP PEM-3 for Slot 2. 7450 ESS-7 DC 100 AMP PEM-3 provides 1+1 redundant DC power. Note: Requires the 3HE04500AA - 7450 ESS-7 DC 100Amp Power Filter to be installed in the front of the 7450 ESS-7.
3HE03665AA	7450 ESS-7 DC 100 AMP PEM-3 for Slot 1. 7450 ESS-7 DC 100 AMP PEM-3 provides 1+1 redundant DC power. Note: Requires the 3HE04500AA - 7450 ESS-7 DC 100Amp Power Filter to be installed in the front of the 7450 ESS-7.
3HE03666AA	7450 ESS-12, 12-slot Shelf 175 AMP DC Power Entry Module-3 for the 7450 ESS-12 DC Shelf.
3HE04147AA	ACC - 7750 SR Impedance Panel Qty 1
3HE04148AA	ACC - 7750 SR Impedance Panel Qty 5
3HE04172AA	Valere AC Un-Split power shelf for the Nokia ESS/SR-12; The Valere AC un-split power shelf accepts up to four (4) ESS/SR 2500 Watt AC Power supplies. (Requires 2 Valere AC un-split power shelves for AC redundancy for the Nokia ESS/SR-12 with PEM-3) Includes: One (1) 3HE04172AA - ESS/SR-12 Valere AC un-Split Power Shelf (includes four (4) power lugs) Power Cables, Status Cable and Power Supplies are sold separately.
3HE04173AA	Valere AC Un-Split Power Shelf for the ESS/SR-12 Status Cable, two (2) cable recommended to connect the ESS/SR-12 chassis to the SR/ESS AC Un-Split Power Shelf.
3HE04174AA	Valere AC Power Bundle for the ESS/SR-12 for 175 Amp PEM-3 The AC power shelf converts AC power from an external AC power source into DC power that is suitable for the ESS/SR-12 Chassis. On systems using the PEM-3, a 1:1 power shelf to PEM-3 ratio exists with a maximum of two shelves and two PEM-3s per chassis; Bundle includes the following; (2) 3HE04172AA - ESS/SR-12 Valere AC Un-Split Shelves (8) 3HE02787AA - ESS/SR Valere 2.5KW Power Supplies (2) 3HE04173AA - ESS/SR-12 AC Rectifier Status Cable (8) 3HE02946AA - ESS/SR 2500W Valere International Power Cords Blunt Cut
3HE04324AA	1-port 1000BASE-BX-U Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, TX: 1310 nm, RX: 1490nm, 40km, LC Connector
3HE04324AB	1-port 1000BASE-BX-D Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, TX: 1490nm, RX: 1310nm, 40km, LC Connector
3HE04414AB	PS - 7210 SAS M/Mxp/T AC PS (NON-ETR) 200W
3HE04415AB	PS - 7210 SAS M/Mxp/T DC -48V PS (NON-ETR) 200W
3HE04416AA	FAN - 7210 SAS M/Mxp/T Fan Tray (ETR & Non ETR) (Spare)
3HE04498AA	7750 SR-7 100 AMP Power Filter is required for the 7750 SR-7 100Amp PEM-3 for Slot 1 and Slot 2 (installs in the front of the 7750 SR-7 Chassis)

3HE04500AA	7450 ESS-7 100 AMP Power Filter is required for the 7450 ESS-7 100Amp PEM-3 for Slot 1 and Slot 2 (installs in the front of the 7450 ESS-7 Chassis)
3HE04509AD	Connects Serial Data Interface card to external equipment. Mini-SCSI connector attaches to the SDI card and the open end can be directly attached to other telecom equipment. Supports 6 data ports. 10 meters in length. Each Serial Data Interface Card can support two cable assemblies. Uses 30 AWG wire and may not be compatible with some connector panels.
3HE04517AA	Bundle for the 7450 ESS-7 Slot Chassis for Slot 1 PEM-3's, bundle includes the following: 7450 ESS-7 DC PEM-3 Slot 1 and 100 AMP DC Filter Bundle: Includes: (1) 3HE03665AA - 7450 ESS-7 100 AMP DC Power Entry Module-3 Slot 1 with (1) 3HE04500AA PWR FLT - 7450 ESS-7 100 AMP PWR FILTER Note: The 3HE04500AA - PWR FLT - 7450 ESS-7 100 AMP PWR FILTER (installed in the front of the chassis) is required for the 3HE03665AA - PEM - 7450 ESS-7 100A DC PEM-3 SLOT 1.
3HE04518AA	Bundle for the 7450 ESS-7 Slot Chassis for Slot 2 PEM-3's: 7450 ESS-7 DC PEM-3 Slot 2 and 100 AMP DC Filter Bundle: Includes: (1) 3HE03664AA - 7450 ESS-7 100 AMP DC Power Entry Module-3 Slot 2 with (1) 3HE04500AA PWR FLT - 7450 ESS-7 100 AMP PWR FILTER Note: The 3HE04500AA - PWR FLT - 7450 ESS-7 100 AMP PWR FILTER (installed in the front of the chassis) is required for the 3HE03664AA - PEM - 7450 ESS-7 100A DC PEM-3 SLOT 2.
3HE04519AA	Valere AC Power Shelf Status Cable, cable recommended to connect the ESS/SR-7 chassis to the AC Split Power Shelf (split or unsplit).
3HE04521AA	Bundle for the 7750 SR-7 Slot Chassis for Slot 1 PEM-3's; 7750 SR-7 DC 100 AMP PEM-3 for Slot 1 and 100 AMP DC Filter Bundle, includes: (1) 3HE03662AA - 7750 SR-7 100A DC PEM-3 SLOT 1 with (1) 3HE04498AA PWR FLT - 7750 SR-7 100 AMP PWR FILTER Note: The 3HE04498AA - PWR FLT - 7750 SR-7 100 AMP PWR FILTER (installed in the front of the chassis) is required for the 3HE03662AA -7750 SR-7 100A DC PEM-3 SLOT 1.
3HE04522AA	Bundle for the 7750 SR-7 Slot Chassis for Slot 2 PEM-3's; 7750 SR-7 DC 100 AMP PEM-3 for Slot 1 and 100 AMP DC Filter Bundle, includes: (1) 3HE03661AA - 7750 SR-7 100A DC PEM-3 SLOT 2 with (1) 3HE04498AA PWR FLT - 7750 SR-7 100 AMP PWR FILTER Note: The 3HE04498AA - PWR FLT - 7750 SR-7 100 AMP PWR FILTER (installed in the front of the chassis) is required for the 3HE03661AA -7750 SR-7 100A DC PEM-3 SLOT 2.
3HE04606AA	ACC - 7750 SR-12 SLOT PEM-3 Upgrade Kit, includes: Lugs, Installations guide and Agency overlay
3HE04607AA	ACC - 7750 SR-7 SLOT PEM-3 Upgrade Kit, includes: Lugs, Installations guide and Agency overlay
3HE04707AA	SR/ESS/SAS/SAR4 GB Compact Flash - Spare (Blank)
3HE04708AA	SR/ESS/SAS/SAR 8 GB Compact Flash - Spare (Blank)

3HE04795WA	7750 SR-12 or SR-7 Release 11.0 Mobile Gateway (MG) OS License. Notes: (1) One OS License is required for each SR-7 or SR-12 in the network. Includes two (2) programmed 4GB Compact Flash cards with the OS.
3HE04796AA	7750 SR MG-ISM Serving GW Attached Bearer License for 10,000 Bearers. Per Network license.
3HE04797AA	7750 SR MG-ISM P-GW/GGSN Attached Bearer License for 10,000 Bearers/PDP Contexts. Per Network license.
3HE04798AA	7750 SR MG-ISM Serving GW Application Software License Note: One license is required for each active MG-ISM (License is not required on the standby MG-ISM).
3HE04799AA	7750 SR MG-ISM P-GW/GGSN Application Software License Note: One license is required for each active MG-ISM (License is not required on the standby MG-ISM).
3HE04823AA	1-port 10GBASE-LR Small Form-Factor Pluggable+ (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant
3HE04824AA	1-port 10GBASE-SR Small Form-Factor Pluggable+ (SFP+) Optics Module, 850 nm, 26 to 300 meters, LC Connector, RoHS 6/6 compliant
3HE04923AA	SROS L2-aware NAT license. This is a per system license. Flow licenses not required for L2-Aware.
3HE04925AA	SROS license to enable LNS capability. Per system license.
3HE04927AA	SROS Residential Aggregate Control license - per 10 Gbps. Must use with equivalent capacity ID RTU. Aggregate means for traffic without per-subscriber context. Not used for VPN services. Per system and per active ISA license, or per network license.
3HE04930AA	SROS Residential Aggregate Control license - per 1Gb/s. Aggregate means for traffic without per-subscriber context. Not used for VPN services. Per system and per active ISA license, or per network license.
3HE04939CA	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1471 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CB	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1491 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CC	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1511 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CD	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1531 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CE	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) OpticsModule, Single Mode Fiber (SMF), 40km, 1551 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CF	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1571 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CG	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1591 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04939CH	1-port 1000BASE CWDM Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, 1611 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE04991AA	SAR-18 shelf that accepts up to 2 SAR-18 Control Switch Modules (CSMs) and up to 16 interface cards. Up to 12 SAR 8-type interface cards can be used. Other 4 slots are high speed interface cards specific to the SAR-18. Blanking plates included. -48VDC only.
3HE04992AA	SAR-18 Control and Switch Module. Up to two per SAR-18 Shelf for CPU and fabric redundancy.
3HE04993AA	SAR-18 Fan Module with a set of 8 fans

3HE04994AA	SAR-18 Alarm Module with Alarm LEDs and I/O, as well as two BITS timing input/output ports.
3HE04995AA	SAR-18 Replaceable Air Filters, 4 pack
3HE05036AA	1-port 10GBASE-ER Small Form-Factor Pluggable+ (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1550 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant
3HE05037AA	1-port 10GBASE-BX10-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Temperature 0/70C
3HE05037AB	1-port 10GBASE-BX10-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Temperature 0/70C
3HE05037BA	1-port 10GBASE-BX10-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Temperature 0/70C
3HE05037BB	1-port 10GBASE-BX10-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Temperature 0/70C
3HE05051AB	1RU SAR-M with 1 modular position configuration with redundant universal (-48V/+24V) DC power feeds. Node has 16 T1/E1 ASAP and 7 10/100/1000 Mbps Ethernet ports (4 SFP/3 RJ45) and built-in Control/Switch functionality. OS and other licenses sold separately.
3HE05051BB	Conformal Coated 1RU SAR-M with 1 modular position configuration with redundant universal (-48V/+24V) DC power feeds. Node has 16 T1/E1 ASAP and 7 10/100/1000 Mbps Ethernet ports (4 SFP/3 RJ45) and built-in Control/Switch functionality. OS and other licenses sold separately.
3HE05106AA	FAN - 7750 SR-12 Reduced Depth - Enhanced Fan Tray
3HE05143AA	SROS initial 1Gb/s ID and control RTU license. Not needed if purchasing the 10G RTUs. Per system and active ISA license.
3HE05144AA	SROS identification only license - per 1Gb/s increment. Not needed for first Gb/s. Per system and per active ISA license, or per network license.
3HE05145AA	SROS identification only license - up to 10Gb/s. Per system and per active ISA license, or per network license.
3HE05146AA	SROS Residential per-subscriber or VPN per-site control license - per additional 1Gb/s increment. Not needed for first Gb/s. Per system and per active ISA license, or per network license.
3HE05147AA	SROS Residential per-subscriber or VPN per-site control license - per 10Gb/s. Must use with equivalent capacity identification RTU. Per system and per active ISA license, or per network license.
3HE05148AA	SROS Software license to enable use of the ISA1 for IPsec Tunneling Applications, this is a per system and per active ISA1 license.
3HE05149AA	SROS license to be able to use the MS-ISA for advanced video processing. Additional licenses are required for each video application. Per system and per active ISA license.
3HE05150AA	SROS license to be able video add insertion per splice. Requires MS-ISA card + video base software license. Per system and per active ISA license.
3HE05151AA	SROS license to be able Fast Channel Change (FCC) / Retransmissions (RET) for 1k subscribers. Requires MS-ISA card + video base software license. Per system and per active ISA license.
3HE05152AA	SROS license to be able Fast Channel Change (FCC) / Retransmissions (RET) for 10k subscribers. Requires MS-ISA card + video base software license. Per system and per active ISA license.
3HE05153AA	SROS NAT license for 6 Million bi-directional flows. This is a per system license.

3HE05163AA	1-port 100/1000Base Dual Rate SGMII Small Form-Factor Pluggable (SFP) Optics Module, 1310nm, 40km, DDM Compliant
3HE05164AA	1-port 100/1000Base Dual Rate SGMII Small Form-Factor Pluggable (SFP) Optics Module, 1310nm, 10km, DDM Compliant
3HE05180AA	FAN - 7750 SR-7 Reduced Depth - Enhanced Fan Tray
3HE05260AA	Optional mounting adapters for the 7705 SAR-M to install into ETSI racks
3HE05574HA	SAR Release 9.0 OS License. One (1) OS License is required for each SAR-18 in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE05574JA	SAR Release 20.x OS License. One (1) OS License is required for each SAR-18 in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE05580AB	PS - 7210 SAS-T/Mxp ETR (200W) AC Power Supply
3HE05581AB	PS - 7210 SAS-T/Mxp ETR -48V (200W) DC Power Supply
3HE05581BB	PS - 7210 SAS-T/Mxp ETR -48V (200W) DC Conformal Coated Power Supply Must be used with Conformal Coated System to maximize benefit of CC.
3HE05610AB	Same as 3HE05610AA. Part number for NAR Quote to cash (QTC) orders only.
3HE05610AC	Contracted Annual Software Subscription Plan (SSP) for 7705 SAR. Entitles Customer to unlimited nodal OS software upgrade licenses for one year. Annual contracts must be purchased against the total installed base for a given Customer network or channel, for a particular product family (i.e. all 7705 SAR elements). Contact local B&P team or IPD BD for more information. Customer must complete Export Control Doc. prior to release of any S/W. Part number for use on all orders outside of NAR.
3HE05653AA	1RU SAR-M with 1 modular position with Ethernet ports only configuration with redundant universal (-48V/+24V) DC power feeds. Node has 7 10/100/1000 Mbps Ethernet ports (4 SFP/3 RJ45) and built-in Control/Switch functionality. OS and other licenses sold separately.
3HE05653BA	Conformal Coated 1RU SAR-M with 1 modular position with Ethernet ports only configuration with redundant universal (-48V/+24V) DC power feeds. Node has 7 10/100/1000 Mbps Ethernet ports (4 SFP/3 RJ45) and built-in Control/Switch functionality. OS and other licenses sold separately.
3HE05676AC	'7210 SAS-D 6F4T Extended Temperature Range Ethernet AC system includes: (1) integrated AC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts(6) 100/1000 SFP. 128MB CF
3HE05676AD	'7210 SAS-D 6F4T Extended Temperature Range Ethernet DC system includes: (1) 7210 SAS -48V DC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts(6) 100/1000 SFP. 128MB CF
3HE05677AC	7210 SAS-D 6F4T Ethernet AC system includes: (1) integrated AC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128MB CF
3HE05677AD	'7210 SAS-D 6F4TEthernet DC system includes: (1) 7210 SAS -48V DC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts(6) 100/1000 SFP. 128MB CF
3HE05681AD	'7210 SAS-D 6F4T Ethernet AC system includes: (1) integrated AC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128MB CF w NAR Power Cord
3HE05681AE	'7210 SAS-D 6F4T Ethernet AC system includes: (1) integrated AC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128MB CF w UK Power Cord
3HE05681AF	'7210 SAS-D 6F4T Ethernet AC system includes: (1) integrated AC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128MB CF w EUR Power Cord

3HE05682AD	'7210 SAS-D 6F4T Extended Temperature Range Ethernet AC system includes: (1) integrated AC Power Supply , 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128 MB CF w NAR Power Cord
3HE05682AE	'7210 SAS-D 6F4T Extended Temperature Range Ethernet AC system includes: (1) integrated AC Power Supply , 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP.128MB CF w UK Power Cord
3HE05682AF	'7210 SAS-D 6F4T Extended Temperature Range Ethernet AC system includes: (1) integrated AC Power Supply , 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts (6) 100/1000 SFP. 128MB CF w EUR Power Cord
3HE05830CA	1-port 10GBASE-SR Small Form-Factor Pluggable (XFP) Optics Module, 850nm, 26 to 300 meters, LC Connector, RoHS 6/6 compliant, Extended Temperature -40/85C
3HE05831CA	1-port 10GBASE-LR Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 10km, 1310 nm, LC Connector, Digital Diagnostic Monitor(DDM), RoHS 6/6 compliant , Extended Temperature -40/85C
3HE05832CA	1-port 10GBASE-ER Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 40km, 1550 nm, LC Connector, Digital Diagnostic Monitor(DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE05833CA	1-port 10GBASE-ZR Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 80km, 1550nm, LC Connector, Digital Diagnostic Monitor(DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE05837BA	Used to connect 3HE05838AA 250W 120/240V AC power converter to SAR-8 Shelf v2, SAR-A/F/M shelves and any other shelf supporting O-ring connectors
3HE05838AA	250W power adapter brick converting 120/240V AC to -48V DC. Requires separate pigtail for specific 7705 products.
3HE06006AA	8 port multi-function card with 2 x FXS and 2 x FXO ports for analog voice, 2 x G.703 co-directional ports and 2 x C37.94 optical teleprotection ports. This card is supported in both -48 and +24VDC systems.
3HE06006BA	Conformal Coated Variant of 8 port multi-function card with 2 x FXS and 2 x FXO ports for analog voice, 2 x G.703 co-directional ports and 2 x C37.94 optical teleprotection ports. This card is supported in both -48 and +24VDC systems.
3HE06022AA	SAR-18 CSM Blanking Plate
3HE06083AA	SR/ESS 32 GB Compact Flash - Spare (Blank)
3HE06151AA	8-port GigE SFP Enhanced Performance Ethernet Card, supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06151AC	8-port GigE SFP Enhanced Performance Ethernet Card v3 w. Large Tables, encryption capable and supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems. Note: SW license (3HE09302AA) required to enable hardware encryption (RTU-8 PORT GE SFP CARD V3 Encrypt)
3HE06151BA	8-port GigE SFP Enhanced Performance Ethernet Card, supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06151BC	Conformal Coated Variant of 8-port GigE SFP Enhanced Performance Ethernet Card v3 w. Large Tables, encryption capable and supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems. Note: SW license (3HE09302AA) required to enable hardware encryption (RTU-8 PORT GE SFP CARD V3 Encrypt)

3HE06153AC	1-port 10GigE or 10-port 1GigE 10G-Card v2, encryption capable. Supports one of two modes. In 1-port 10GigE mode, only one SFP+ based port can be used for nw connectivity with the other ports disabled. In 10-port 1GigE mode, ten SFP based ports can be used for access or nw connectivity. SFP/SFP+ sold separately. Additional RTU (3HE09302BA) required to use HW Encryption.
3HE06289AA	7x50 IMM RTU license for limited VPRN support on IMM with capacity of up to 50Gb/s. This is a per IMM license, limited to 8 VPRNs. Required for access as well as network facing ports.
3HE06290AA	7x50 IMM RTU license for full VPRN support on IMM with capacity of up to 50Gb/s. This is a per IMM license to scale up to the max VPRNs supported on the IMM.
3HE06305AA	IMM RTU License Upgrade from L3BQ to L3HQ for 12 port 10GE IMM. RTU license upgrade is tied to the specific IMM linecard for which it is purchased. Customers are required to provide the serial number of the IMM linecard for which the RTU license is being purchased.
3HE06336AA	PS – 7210 SAS-M/Mxp/T ETR +24V DC Power supply
3HE06336AB	PS - 7210 SAS-T/Mxp ETR +24V (200W) DC Power Supply
3HE06338AA	ACC - 7210 SAS-M/Mxp/T 23" rack mount (5 set pack)
3HE06339AA	ACC - 7210 SAS-M/Mxp/T Fan tray filter (10 pack)
3HE06418AA	SROS RTP Performance Measurement per 10G/s traffic license. Per system and per active ISA license, or per network license.
3HE06420AA	Kit used to upgrade existing 7705 T1/E1 distribution panels (3HE03394AA, 3HE03395AA, 3HE04430AA) to meet IEEE1613 and IEC 61850-3 environmental specifications
3HE06485AA	1-port 40GBase LR4 10km QSFP+ Optics Module, 10km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE06486AA	SROS Enhanced Subscriber Management (ESM) base license. This base ESM license is required for using the ESM features on 7x50 platforms for IPoE, PPPoE, PPPOA, and L2TP subscribers. Use of embedded DHCPv4 and DHCPv6 server functionality on 7x50 is also included in this license. This is a per system license applicable to all 7x50 platforms using any flavor or IMM, IOM, MDA or CMA. It applies to both layer-2 and layer-3 (routed CO) ESM models, and includes IPv4, IPv6 and dual-stack access. Requires L2HQ or L3HQ licenses on the IMM modules. Additional per subscriber licenses apply.
3HE06487AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 4K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers targetted to be supported on the chassis.
3HE06488AA	RTU - 7x50 Enhanced Subscriber Management (ESM) subscriber-host license for up to 16K subscriber-hosts. This is a per chassis license. Multiple of these RTUs could be bought to match the total number of subscribers targetted to be supported on the chassis.
3HE06489AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 32K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers targetted to be supported on the chassis.

3HE06490AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 64K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers targetted to be supported on the chassis.
3HE06491AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 128K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers targetted to be supported on the chassis.
3HE06520AA	SROS Enable RTP Performance license. Must be ordered as a pre-requisite to the RTP 1G or 10G RTUs. Per system and per active ISA license, or per network license.
3HE06537AB	'7210 SAS-D 6F4T Extended Temperature Range Ethernet +24V DC system includes: (1) 7210 SAS DC Power Supply, 7210 SAS Operating Software, (4) 10/100/1000 TX + Accepts(6) 100/1000 SFP. 128MB CF
3HE06582AA	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1471 nm is filtered by East and West directions.
3HE06582AB	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1491 nm is filtered by East and West directions.
3HE06582AC	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1511 nm is filtered by East and West directions.
3HE06582AD	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1531 nm is filtered by East and West directions.
3HE06582AE	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1551 nm is filtered by East and West directions.
3HE06582AF	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1571 nm is filtered by East and West directions.
3HE06582AG	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1591 nm is filtered by East and West directions.
3HE06582AH	1-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1611 nm is filtered by East and West directions.
3HE06582BA	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1471 nm is filtered by East and West directions.
3HE06582BB	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1491 nm is filtered by East and West directions.
3HE06582BC	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1511 nm is filtered by East and West directions.
3HE06582BD	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1531 nm is filtered by East and West directions.
3HE06582BE	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1551 nm is filtered by East and West directions.
3HE06582BF	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1571 nm is filtered by East and West directions.
3HE06582BG	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1591 nm is filtered by East and West directions.
3HE06582BH	1-color CWDM add-drop OADM module for the SAR-M. 1 Tx and 1 Rx at 1611 nm is filtered by East and West directions.

3HE06583AA	2-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1471 and 1491 nm are filtered by East and West directions.
3HE06583AB	2-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1511 and 1531 nm are filtered by East and West directions.
3HE06583AC	2-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1551 and 1571 nm are filtered by East and West directions.
3HE06583AD	2-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1591 and 1611 nm are filtered by East and West directions.
3HE06584AA	4-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1471, 1491, 1511 and 1531 nm are filtered from the line (single direction) with expansion port.
3HE06584AB	4-color CWDM add-drop OADM module for the SAR-8/18. 1 Tx and 1 Rx at 1551, 1571, 1591 and 1611 nm are filtered from the line (single direction) with expansion port.
3HE06585AA	8-color CWDM optical Mux/Demux module for the SAR-8/18. 1 Tx and 1 Rx at 1471, 1491, 1511, 1531, 1551, 1571, 1591 and 1611 nm are filtered from the line (single direction).
3HE06681HA	SAR Release 9.0 OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-18 in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE06681JA	SAR Release 20.x OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-18 in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE06693AA	PS - PS - 7210 SAS-D ETR External power supply AC. Needs ETR External PS tray to rack mount
3HE06694AA	PS - 7210 SAS-D ETR External power supply DC -48V. Needs ETR External PS tray to rack mount.
3HE06695AA	PS - 7210 SAS-D ETR External power supply DC +24V. Needs ETR External PS tray to rack mount.
3HE06696AA	ACC - 7210 SAS-D rack mount kit Not suitable for ETR version with external PS
3HE06697AA	ACC - 7210 SAS-D ETR external PS tray Only required when installing ETR version external PS Replaces ACC - 7210 SAS-D rack mount kit
3HE06788AA	Expansion module with 2-port 10GigE XFPs for Network (Ring) connectivity. 10GigE switching between ports. XFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06788BA	Conformal Coated Variant of Expansion module with 2-port 10GigE XFPs for Network (Ring) connectivity. 10GigE switching between ports. XFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06789AA	2-port 10GigE Network connectivity (Ring) Card. 10GigE switching between ports. XFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06789BA	Conformal Coated Variant of 2-port 10GigE Network connectivity (Ring) Card. 10GigE switching between ports. XFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE06791AA	SAR-8 Shelf V2 that accepts redundant DC-power feeds and up to 2 CSMs (V1 or V2) and up to 6 interface cards. Fan Module must be version associated with this V2 shelf. 6 Blanking plates included.

3HE06791BA	Conformal Coated SAR-8 Shelf V2 that accepts redundant DC-power feeds and up to 2 CSMs (V1 or V2) and up to 6 interface cards. Fan Module must be version associated with this V2 shelf. 6 Blanking plates included.
3HE06792EA	Fan Module with extended temperature Range. Installs into SAR-8 Shelf v2 (3HE06791AA). -48/+24 VDC
3HE06792FA	Conformal Coated Variant of Fan Module with extended temperature Range. Installs into SAR-8 Shelf v2 (3HE06791AA). -48/+24 VDC
3HE06794AA	Terminates 8 analog FXO interfaces to a central PBX. RJ45 connector access (2 ports/connector). This card is supported in both -48 VDC and +24 VDC systems.
3HE06794BA	Conformal Coated Variant of FXO card. Terminates 8 analog FXO interfaces to a central PBX. RJ45 connector access (2 ports/connector). This card is supported in both -48 VDC and +24 VDC systems.
3HE06796AA	1RU SAR-A with redundant -48V DC power feeds. Node has 4xRJ45/SFP combo GigE ports, 4xSFP GigE ports and 4xRJ45 FE ports. OS and other licenses sold separately.
3HE06797AA	1RU SAR-A with redundant -48V DC power feeds. Node has 4xRJ45/SFP combo GigE ports, 4xSFP GigE ports, 4xRJ45 FE ports and 8 T1/E1 ports. OS and other licenses sold separately.
3HE06936AA	7950 XRS-20 XCM (XMA Control Module). Provides 800G of Slot Switching Capacity. Accepts (2) XMAs and/or C-XMAs.
3HE06969AA	SAR-H shelf with high voltage power input (88 - 300V AC or DC). Contains 4 x SFP GigE and 4 x RJ45 10/100/1000 PoE-capable ethernet ports and two module positions. AC power cord 3HE10447AA for Japan is sold separately. OS and other licenses sold separately.
3HE06969BA	SAR-H shelf with low voltage power input (+24/-48V DC). Contains 4 x SFP GigE and 4 x RJ45 10/100/1000 PoE-capable ethernet ports and two module positions. OS and other licenses sold separately.
3HE06969CA	Conformal Coated SAR-H shelf with high voltage power input (88 - 300V AC or DC). Contains 4 x SFP GigE and 4 x RJ45 10/100/1000 PoE-capable ethernet ports and two module positions. AC power cord 3HE10447AA for Japan is sold separately. OS and other licenses sold separately.
3HE06969DA	Conformal Coated SAR-H shelf with low voltage power input (+24/-48V DC). Contains 4 x SFP GigE and 4 x RJ45 10/100/1000 PoE-capable ethernet ports and two module positions. OS and other licenses sold separately.
3HE06970AA	External supply required to supply additional PoE power to the SAR-H. Can also be used to provide 48VDC (nominal) to other equipment via 9 pin D-sub connector. 85-265V AC or 88-300V DC input. 100W output power. -40 to +65C operation. IP40 enclosure rating. AC power cord 3HE10447AA for Japan is sold separately.
3HE06970BA	External supply required to supply additional PoE power to the SAR-H. Can be used to provide 48VDC (nominal) to other equipment via 9 pin D-sub connector. 20-75V DC input. 100W output power. -40 to +65C operation. IP40 enclosure rating.
3HE06971AA	1RU tray to house up to 2 x 3HE06970xA 100W power supplies
3HE06972AB	PSE Certified 100W High Voltage Power Supply – Requires a single 85-264VAC or 88-300VDC input, and provides a single 54VDC output (6' cable length) to provide power to one terminal of a 7705 SAR main chassis. This supply is DIN rail or wall/panel mountable with mounting hardware included. Does not include AC cord. AC cords (3HE10447AA or 3HE10040AA or 3HE10041AA) needs to be ordered separately.
3HE06973AA	Combo module supporting 2 x T1/E1 ports with TDM and IP functionality and 2 x RS232 serial data ports. RJ45 connectors for interconnection to end equipment.

3HE06973BA	Conformal Coated Variant of Combo module supporting 2 x T1/E1 ports with TDM and IP functionality and 2 x RS232 serial data ports. RJ45 connectors for interconnection to end equipment.
3HE07112AA	7950 XRS-20 Integrated Chassis bundle, includes the following; (1) 3HE07113AA - CHAS - 7950 XRS-20 Spare Chassis, (2) 3HE07119AA - FAN - 7950 XRS-20 Fan Tray, (2) 3HE07117AA - CCM - 7950 XRS-20 CCM (1) 3HE07389AA - ACC - 7950 SFM/CPM Impedance Panel Accessory kit & Air Filters included
3HE07113AA	CHAS - 7950 XRS-20 Spare Chassis
3HE07116AA	7950 XSR-20 Control Processor Module (CPM) -(Spare)
3HE07116AB	7950 XSR-20 Control Processor Module (CPM) -(Spare)
3HE07117AA	7950 XRS-20 Connection and Control Module (CCM) - (Spare)
3HE07118AB	7950 XRS-20 Air Filter - (Spare); Includes both main system and APEQ air filters
3HE07119AA	7950 XRS-20 Fan Tray - (Spare)
3HE07152AA	Power injector card allows up to two MPR-e to draw power from SAR-8/18 chassis directly via copper 1000BaseT link . Lightning protection and voltage surge suppression is supported. -48VDC
3HE07161CA	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1471 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CB	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1491 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CC	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1511 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CD	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1531 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CE	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) OpticsModule, Single Mode Fiber (SMF), 40km, 1551 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CF	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1571 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CG	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1591 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07161CH	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1611 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE07165AA	7750 SR12e DC Integrated Chassis bundle, includes the following; (1) 3HE07440AB - 7750 SR12e Chassis (3) 3HE07168AA - 7750 SR12e Fan Trays
3HE07168AA	FAN - 7750 SR12e Fan Tray
3HE07279AA	SROS RTP Performance Measurement per 1Gb/s of traffic license. Per system and per active ISA license, or per network license.

3HE07297AA	7950 XRS 40-port 10GE SFP+ XMA. Includes License for IP Core feature set. Provides support for a total IP FIB size of up to 1M entries (IPv4+IPv6; actual maximum number of entries achievable depends on route distribution), a MAC FIB size of 128k entries, and 8 ingress + 8 egress user defined queues per physical port.
3HE07297BA	7950 XRS 40-port 10GE SFP+ XMA. Includes License for LSR Feature set. Provides support for a total IP FIB size of 64k (IPv4+IPv6), and 8 ingress + 8 egress user defined queues per physical port.
3HE07310AA	SROS Base WIFI aggregation License. This is a per system license.
3HE07310AB	SROS Diameter Credit Control License. This is a per system license.
3HE07310AC	SROS Multiple SSID Support License. This is a per system license.
3HE07310AD	SROS Inter-AP WIFI Mobility License. This is a per system license.
3HE07310AE	SROS WIFI Agg. 4K - shaped AP tunnels. This is a per system license.
3HE07310AF	SROS WIFI Agg. 8K - shaped AP tunnels. This is a per system license.
3HE07310AG	SROS WIFI Agg. 16K - shaped AP tunnels. This is a per system license.
3HE07310AH	SROS WIFI Agg. 32K - shaped AP tunnels. This is a per system license.
3HE07310AJ	SROS WIFI Agg. 64K - shaped AP tunnels. This is a per system license.
3HE07310AK	SROS WIFI Agg. 128K - shaped AP tunnels. This is a per system license.
3HE07310AL	SROS WLAN to 3G/4G Interworking License. This is a per system license.
3HE07310AM	SROS WLAN to 3G/4G - 4K Bearers. This is a per system license.
3HE07310AN	SROS WLAN to 3G/4G - 8K Bearers. This is a per system license.
3HE07310AP	SROS WLAN to 3G/4G - 16K Bearers. This is a per system license.
3HE07310AR	SROS WLAN to 3G/4G - 32K Bearers. This is a per system license.
3HE07310AT	SROS WLAN to 3G/4G - 64K Bearers. This is a per system license.
3HE07310AU	SROS WLAN to 3G/4G - 128K Bearers. This is a per system license.
3HE07310AV	SROS WLAN to 3G/4G - 256K Bearers. This is a per system license.
3HE07315AA	7750 SR P-GW/GGSN Application Assurance License for 10,000 active Bearers/PDP Contexts. Per Network license.
3HE07353AA	SAR-Hc with redundant (20-75V) DC power feeds. DIN rail or panel mountable. Node has 6 10/100/1000 Mbps Ethernet ports (2 SFP, 2 RJ45, 2 POE RJ45), and 2 RS232 ports . OS and other licenses sold separately. DIN rail or panel mounting hardware sold separately.
3HE07353BA	SAR-Hc with conformal coating on internal PCBs. Has redundant (20-75V) DC power feeds. DIN rail or panel mountable. Node has 6 10/100/1000 Mbps Ethernet ports (2 SFP, 2 RJ45, 2 POE RJ45), and 2 RS232 ports . OS and other licenses sold separately. DIN rail or panel mounting hardware sold separately.
3HE07354AA	RTU - PoE/PoE+ license for PoE-capable ports in the SAR-W/H/Hc as well as the SAR-M Ethernet Module. One (1) OS License is required for each SAR-W/H/Hc/M in the network (not needed for PoE variants of the SAR-Wx).
3HE07354AB	RTU - IP Multicast license. One (1) OS License is required for each SAR in the network.
3HE07354AC	RTU - IP IEEE1588 PTP Time/Phase license. Applicable to 1588 Slave or Bourndary or Grandmaster Clocks. OAM performance can be improved with PTP time accuracy. One (1) OS License is required for each SAR in the network.

3HE07354AF	RTU - 7705 SAR-8/18 Multi Drop Data Bridging (MDDb) RTU License for use on the 3HE07942AA Integrated Services Card (ISC). One (1) MDDb License required for up to 25 SAR-8/18s in the network using the ISC card. Incremental license (3HE07354AH) required for each node beyond 25 in network. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches. SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AH	RTU - 7705 SAR-8/18 Multi Drop Data Bridging (MDDb) RTU License for additional nodes using the 3HE07942AA Integrated Services Card (ISC). One (1) MDDb License required for up each SAR-8/18 in the network using the ISC card beyond the 25 associated with the 3HE07354AF RTU- MDDb License. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches. SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AJ	RTU - 7705 SAR-8/18 PCM Multidrop Bridging RTU License for use on the 3HE07942AA Integrated Services Card (ISC). One (1) PCM Multidrop License required for up to 25 SAR-8/18s in the network using the ISC card. Incremental license (3HE07354AK) required for each node beyond 25 in network. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches (E1) or 24 branches (T1). SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AK	RTU - 7705 SAR-8/18 PCM Multidrop Bridging RTU License for additional nodes using the 3HE07942AA Integrated Services Card (ISC). One (1) PCM Multidrop License (Additional Nodes) required for up each SAR-8/18 in the network using the ISC card beyond the 25 associated with the 3HE07354AJ RTU- PCM Multidrop Bridging License. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches (E1) or 24 branches (T1). SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AN	RTU - 7705 SAR-8/18 Voice Conference Bridging (VCB) RTU License for use on the 3HE07942AA Integrated Services Card (ISC). One (1) VCB License required for up to 25 SAR-8/18s in the network using the ISC card. Incremental license (3HE07354AP) required for each node beyond 25 in network. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches (E1) or 24 branches (T1). SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AP	RTU - 7705 SAR-8/18 Voice Conference Bridging (VCB) RTU License for additional nodes using the 3HE07942AA/BA Integrated Services Card (ISC). One (1) VCB Multidrop License (Additional Nodes) required for up each SAR-8/18 in the network using the ISC card beyond the 25 associated with the 3HE07354AN RTU- VCB License. Supports a maximum of 16 bridges per card with each bridge supporting 30 branches (E1) or 24 branches (T1). SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/
3HE07354AR	RTU – VPN Multicast license. One (1) OS License is required for each SAR in the network.
3HE07357AA	Kit contains DIN rail bracket and hardware to mount the SAR-Hc to a DIN rail from the rear of the chassis.

3HE07357AB	Kit contains DIN rail bracket and hardware to mount the SAR-Hc to a DIN rail from the side of the chassis.
3HE07373AA	7950 XRS-20 Top air flow deflector (plenum accessory)
3HE07388AA	7950 XRS-20 XCM Impedance Panel. Must be installed in each and every empty XCM slot.
3HE07389AA	7950 XRS-20 SFM and CPM Impedance Panel. Must be installed in each and every empty SFM slot and each empty CPM slot.
3HE07390AA	7950 XRS-20 XMA Impedance Panel. Must be installed in each and every empty XMA slot.
3HE07391AA	7950 XRS-20 C-XMA Mechanical Adapter. (Spare)
3HE07392AA	7950 XRS-20 C-XMA Impedance Panel. (Spare)
3HE07440AB	7750 SR12e Chassis Spare. Includes; 7750 SR12e Chassis & Fan Filter.
3HE07442AA	7750 SR-12e LUG KIT contains the following; #4AWG 1/4" with 0.625" spacing - Qty 18
3HE07457AA	7750 SR12e Air & APEQ Filter Qty 5
3HE07460AA	7750 SR12e Accessory Kit Includes: Mounting Hardware, Wrist Strap, 6' Null Cable DB9F - DB9F
3HE07463AA	SROS VPLS Service Right To Use License. A per system license. Allows the use of up to 64 VPLS service instances in one system (any mix of VPLS types). Not controlled by this license: Number of SAPs, queues, policers, RTU for EVPN in VPLS instances.
3HE07464AA	SROS VPLS Service Right To Use License. A per system license. Allows the use of up to 512 VPLS service instances in one system (any mix of VPLS types). Not controlled by this license: Number of SAPs, queues, policers, RTU for EVPN in VPLS instances.
3HE07465AA	SROS VPLS Service Right To Use License. A per system license. Allows the use of up to 2,000 VPLS service instances in one system (any mix of VPLS types). Not controlled by this license: Number of SAPs, queues, policers, RTU for EVPN in VPLS instances.
3HE07466AA	SROS VLL Service Right To Use License. A per system license. Allows the use of up to 256 terminating VLL service instances in one system. This license also adds the RTU for support of full scale dynamic multi-segment pseudowire routing (stitching). The RTU for statically configured pseudowire switching is also included, and each static switched VLL counts towards the 256 VLL limit. Not controlled by this license: Number of SAPs, queues or policers, RTU for EVPN in VLL instances.
3HE07467AA	SROS VLL Service Right To Use License. A per system license. Allows the use of up to 4,000 terminating VLL service instances in one system. This license also adds the RTU for support of full scale dynamic multi-segment pseudowire routing (stitching). The RTU for statically configured pseudowire switching is also included, and each static switched VLL counts towards the 4095 VLL limit. Not controlled by this license: Number of SAPs, queues or policers, RTU for EVPN in VLL instances.
3HE07468AA	SROS VLL Service Right To Use License. A per system license. Allows the use of up to 32,000 terminating VLL service instances in one system. This license also adds the RTU for support of full scale dynamic multi-segment pseudowire routing (stitching). The RTU for statically configured pseudowire switching is also included, and each static switched VLL counts towards the 32767 VLL limit. Not controlled by this license: Number of SAPs, queues or policers, RTU for EVPN in VLL instances.
3HE07469AA	SROS SAP Right To Use License. A per system license. Allows the use of up to 32767 SAPs across all services. Not controlled by this license: RTU for VLL, VPLS or VPRN service instances.

3HE07470AA	7950 XRS Advanced Peering Right To Use License. A per system license. Allows the use of Inter-AS support for unicast and multicast L2 and L3 services (actual services at the PE are licensed separately). Not controlled by this license: Number of VPRN, VPLS or VLL service instances. Prerequisites: No LSR Level C-XMAs or XMAs can be present in the system unless they have the associated ""LIC UP - LSR to IPCore"" license."
3HE07471AA	7950 XRS Advanced BGP Right To Use License. A per system license. Allows the use of the QPPB, FlowSpec and Policy Accounting features. Prerequisites: No LSR Level C-XMAs or XMAs can be present in the system unless they have the associated "LIC UP - LSR to IPCore" license.
3HE07473AA	SROS basic cFlowd license. A per system license. Allows the use of all cFlowd functionality.
3HE07475AA	7950 XRS QoS Right To Use License. A per C-XMA/XMA license. Allows the use of up to 8191 ingress policers/queues (combined sum of policers plus queues) and up to 8191 egress policers/queues (combined sum of policers plus queues) on a C-XMA/XMA. QoS RTU license is tied to the specific C-XMA/XMA (tied to the serial number) for which it is purchased.
3HE07476AA	C-XMA Right To Use License Upgrade from LSR to IPCore for 20-port 10GE SFP+ C-XMA. RTU license is tied to the specific C-XMA (tied to the serial number) for which it is purchased.
3HE07477AA	C-XMA Right To Use License Upgrade from LSR to IPCore for 2-port 100GE CFP C-XMA. RTU license is tied to the specific C-XMA (tied to the serial number) for which it is purchased.
3HE07479AA	XMA Right To Use License Upgrade from LSR to IPCore for 40-port 10GE SFP+ XMA. RTU license is tied to the specific XMA (tied to the serial number) for which it is purchased.
3HE07481AA	XMA Right To Use License Upgrade from LSR to IPCore for 4-port 100GE XMA. RTU license is tied to the specific XMA (tied to the serial number) for which it is purchased.
3HE07529AA	OSP cabinet 10/100/1000BT Ethernet surge protector, single line
3HE07592AA	SROS VLL Service Right To Use License. A per system license. Allows the use of up to 64,000 terminating VLL service instances in one system. This license also adds the RTU for support of full scale dynamic multi-segment pseudowire routing (stitching). The RTU for statically configured pseudowire switching is also included, and each static switched VLL counts towards the 65535 VLL limit. Not controlled by this license: Number of SAPs, queues or policers, RTU for EVPN in VLL instances.
3HE07593AA	SROS 64K SAP Right To Use License. A per system license. Allows the use of up to 65535 SAPs across all services. Not controlled by this license: RTU for VLL,VPLS or VPRN service instances.
3HE07594AA	7950 XRS QoS Right To Use License. A per C-XMA/XMA license. Allows the use of up to 32767 ingress policers/queues (combined sum of policers plus queues) and up to 32767 egress policers/queues (combined sum of policers plus queues) on a C-XMA/XMA. QoS RTU license is tied to the specific C-XMA/XMA (tied to the serial number) for which it is purchased.
3HE07595AA	7950 XRS QoS Right To Use License. A per C-XMA/XMA license. Allows the use of all queues and policers that are available and supported on a particular C-XMA/XMA, subject to any h/w limitations on the C-XMA/XMA and any s/w limitations. QoS RTU license is tied to the specific C-XMA/XMA (tied to the serial number) for which it is purchased.
3HE07614AA	10Gb/s HD, environmentally hardened in IP65 rated, fan-less (-40°C to +65°C), with 5 GigE Ethernet ports (3 x SFP, 2 x RJ45). OS and other licenses sold separately.

3HE07617AA	10Gb/s HD, environmentally hardened in IP65 rated, fan-less (-40°C to +65°C), with 5 GigE Ethernet ports (3 x SFP, 2 x RJ45) and integrated GPS receiver and PoE+ port. OS and other licenses sold separately.
3HE07645AA	SROS VPLS Service Right To Use License. A per system license. Allows the use of up to 8,000 VPLS service instances in one system (any mix of VPLS types). Not controlled by this license: Number of SAPs, queues, policers, RTU for EVPN in VPLS instances.
3HE07671AA	OSP cabinet -48VDC incoming power surge protector, din rail mount. Min order Qty of 25 required on all orders.
3HE07672AA	Bracket to hold up to 16 Ethernet surge protectors with ground wire, used with ALP-7705/7210 5RU cabinet. Min order Qty of 25 required on all orders
3HE07673AA	low profile 12 position Fiber splice tray and termination tray for ALP-7705/7210 5RU cabinet. Min order Qty of 10 required on all orders
3HE07675AB	ALP-7705/7210 Cabinet battery Compartment to house batteries when the cabinet is fed with AC and the deployment requires battery hold up time. Min order Qty of 25 required on all orders
3HE07676AA	battery cable kit to hook up batteries from the rectifier to the battery string. Min order Qty of 25 required on all orders
3HE07677AB	ALP-7705/7210 cabinet pole mount kit required when mounting the cabinet to a pole. Min order Qty of 10 required on all orders
3HE07678AA	ALP-7705/7210 5RU Cabinet concrete Pad mounting pour in place anchor plate. Used in conjunction with a concrete pad installations. Min order Qty of 25 required on all orders
3HE07679AA	10-position DC distribution / GMT fuse panel.Used with DC input power. Min order Qty of 10 required on all orders
3HE07757AA	ACC - 7x50 Power Terminal Cover (2 pack).Only used on the SR-12
3HE07769AA	Kit contains brackets to wall mount or reverse rack mount a 7705 SAR-H.
3HE07776AA	SROS Software license to enable use of IPsec Multi-Chassis Redundancy feature. This is a per system and per active ISA1 license. Multiple of these RTUs could be bought to match the total number of ISA1 that need IPsec Multi-Chassis Redundancy support.
3HE07777AA	SROS Stateful Firewall License per 10Gbps. Per system and per active ISA license, or per network license.
3HE07778AA	7750 SR P-GW/GGSN AA Stateful Firewall License for 10,000 active Bearers/PDP Contexts. Per Network license.
3HE07800AA	Mounting bracket kit for individual SAR-W mounting to pole/wall. Hardware not included. This unit may not be required in all installation scenarios.
3HE07801AA	Ergonomic handles compatible with the SAR-W/Wx. Handles are removable/reusable. There are two handles per kit.
3HE07803AA	12m AC Power Cable for the SAR-W/Wx.
3HE07804AA	Weather proof kit for termination of Ethernet copper cables on the SAR-W/Wx. Includes five (5) cable terminations per kit. Not suitable for fiber terminations.
3HE07804BA	Weather proof flexible kit for termination of both Ethernet fiber/copper on the SAR-W/Wx. Includes five (5) cable terminations per kit.
3HE07904AA	Accessory Kit - Dust Covers Qty 2 for CFP
3HE07905AA	Accessory Kit - Dust Covers Qty 20 for SFP/SFP+
3HE07906AA	Accessory Kit - Dust Covers Qty 10 for XFP/QSFP+
3HE07907AA	Accessory Kit - Dust Covers Qty 10 for CXP

3HE07928AA	1-port 40GBase SR4 QSFP+ Optics Module, 100m, MMF, MPO Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE07938AA	4-port OC3/STM1 or 1-port OC12/STM4 Card, with support for clear channel or channelization down to DS1/E1. In the OC3/STM1 mode, each port can be independently configured for the different services and access/network. In access mode, each port must be configured for TDM. In network mode, each port must be configured for MLPPP or POS. This card is supported in both -48 VDC & +24 VDC systems. SFPs sold separately.
3HE07939AA	SAR-O outdoor system for passive optical CWDM OADM of 4 wavelengths (1471/1491/1511/1531 nm) with an expansion port (including 1310 nm passthrough) over a dual fiber cable
3HE07942AA	Application resource card. Requires purchase of application-specific RTU - MDDDB LICENSE - 3HE07354AF, .RTU - MDDDB LICENSE (ADDITIONAL NODES) -3HE07354AH This card is supported in both -48 VDC and +24 VDC systems
3HE07942BA	Conformal Coated Variant of Application resource card. Requires purchase of application-specific RTU - MDDDB LICENSE - 3HE07354AF, .RTU - MDDDB LICENSE (ADDITIONAL NODES) -3HE07354AH This card is supported in both -48 VDC and +24 VDC systems
3HE07943AA	6 port (2 x 10G SFP+, 4 x 1G – SFP) Ethernet 10Gbps card. Optics (SFP, SFP+) are sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE07943BA	Conformal Coated Variant of 6 port (2 x 10G SFP+, 4 x 1G – SFP) Ethernet 10Gbps card. Optics (SFP, SFP+) are sold separately. This card is supported in both -48 VDC and +24 VDC systems.
3HE07945AA	Kit contains bracket hardware for mounting the SAR-Hc to a panel from the rear of the chassis.
3HE07945AB	Kit contains bracket hardware for mounting the SAR-Hc to a panel from the side of the chassis.
3HE07954AA	SAR-8/18 card supporting an integrated GNSS receiver which can provide a PRC-traceable frequency, PRTC-traceable time of day clock and geographic location. It can be used in conjunction with integrated IEEE1588v2 for GM capabilities.-48/+24 VDC.
3HE07955AA	SAR-H GPS Receiver Module plus Integrated and Distributed 1588v2 GrandMasters
3HE07957AA	SAR-Wx Pole/Wall Mounting Bracket
3HE07958AA	SAR-Wx Strand Mounting Bracket
3HE07959AA	SAR-Wx GPS Antenna Mounting
3HE07960AA	SAR-Wx 0.35m GPS Cable
3HE07961AA	1.0/2.3 DIN right-angle plug at SAR-H/8/18, 7/16 DIN straight plug towards antenna
3HE07962AA	1.0/2.3 DIN right-angle plug at SAR-H/8/18, N-type straight plug towards antenna
3HE07979AA	7950 XRS-20 XCM Impedance Panel Multi Pack Qty 5. Must be installed in each and every empty XCM slot.
3HE08116AB	SYS - 7210 SAS-T 12F 10T 4XFP system includes; 2 GB CPU memory (1) Fan Tray, (10) 10/100/1000 TX + Accepts(12) 100/1000 SFP + (4) XFP(s). Does not include 7210 SAS Operating Software or usage licenses.
3HE08117AB	SYS - 7210 SAS-T 12F 10T 4XFP Extended Temperature Range system includes; 2 GB CPU memory (1) Fan Tray, (10) 10/100/1000 TX + Accepts(12) 100/1000 SFP + (4) XFP(s). Does not include 7210 SAS Operating Software or usage licenses.
3HE08151AA	CHAS - 7210 SAS-R6 CHASSIS SPARE
3HE08152AA	FAN - 7210 SAS-R6 Fan Tray
3HE08153AA	PEM - 7210 SAS-R6 -48V
3HE08154AB	SF/CPM - 7210 SAS-R6
3HE08159AA	ACC - 7210 SAS-R IMM Impedance Panel
3HE08166AA	ACC - 7210 SAS-R6 SF/CPM Impedance Panel

3HE08167AA	ACC - 7210 SAS-R6 PEM Impedance Panel
3HE08168AA	ACC - 7210 SAS-R6 Air Filter 5 pack
3HE08174AA	7x50 10-port 10GE SFP+ + 20-ports GE SFP MultiCore CPU IMM. Provides 10 physical 10GE SFP+ port + 20 physical GE SFP ports. Full Service Routing Functionality, Full Queuing, hierarchical policing, IPv4/IPv6 routing services. Available upgrades/licenses: VPRN
3HE08174BA	7x50 10-port 10GE SFP+ + 20-ports GE SFP MultiCore CPU IMM. Provides 10 physical 10GE SFP+ port + 20 physical GE SFP ports. Includes "Layer-3 basic Queuing" IMM Software License/functionality for full IPv4/IPv6 routing services. Limited to 8 ingress and 8 egress queues per port. Does not include Hierarchical Policers. Available upgrades/licenses: VPRN, upgrade to L3HQ
3HE08174CA	7x50 10-port 10GE SFP+ + 20-ports GE SFP MultiCore CPU IMM. Provides 10 physical 10GE SFP+ port + 20 physical GE SFP ports. Includes "Layer-2 High Queuing" IMM Software License/functionality for full ESS functionality which includes the use of full queuing and policing with layer-2 services. Excludes use of multicast routing protocol or services, IPv6 routing services, VPRN services (including IPv4 and IPv6 VPNs), network interfaces when installed in a chassis running the above mentioned restricted services. Available upgrades/licenses: upgrade to L3HQ
3HE08216AA	C-XMA Right To Use License Upgrade from LSR to ICore for 6-port 40G C-XMA. RTU license is tied to the specific C-XMA (tied to the serial number) for which it is purchased.
3HE08217AA	1-port 100GBaseLR4 Low Power 10km CFP2 Optics Module, 10km, LC Connector, RoHS 6/6 compliant
3HE08228AA	SROS IBN Res 10K Subs - Right to Use (RTU) required for Application Assurance IBN rules for in-browser notification (IBN) for wifi DSM subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per network license.
3HE08279AA	OSP cabinet AC incoming power surge protector. Min order Qty of 10 required on all orders
3HE08279BA	OSP cabinet 24VDC incoming power surge protector, din rail mount. Min order Qty of 25 required on all orders.
3HE08280AB	-48VDC OSP cabinet, with Heat Exchanger thermal system, for use with the 7210 SAS and 7705 SAR routers. AC compatible with AC to DC rectifier option. Min order Qty of 25 required on all orders
3HE08281AA	Nuage Virtualized Services Directory (VSD) - Virtual Appliance Edition - Annual RTU License for a single (non-redundant) VSD instance Nuage VSD runs as a virtual machine (VM) on a server. Includes Software Release Subscription (SRS)
3HE08283AA	Nuage Virtualized Services Controller (VSC) - Virtual Appliance Edition - Annual RTU License for a 1+1 redundant VSC instance Nuage VSC runs as a virtual machine (VM) on a dedicated server. Includes Software Release Subscription (SRS)

3HE08284AA	Nuage VMware vSphere integration - RTU License per vCenter. License to use Nuage VSP with VMware vSphere. One integration license required per vCenter Instance. Nuage VMware vSphere Integration Provides: • VRS integration for activation of ESXi VMs into Nuage Networks • VRS Integration as an Agent on each ESXi Hypervisor (vSphere Solution) • Deployment Toolbox for easy provisioning and deployment of each VRS Agent • User Plugin on vCenter Client in order to ease the provisioning of the Nuage parameter on the Nuage VMs
3HE08287DA	Nuage Virtualized Services Directory (VSD) Standalone - Virtual Appliance Edition - License for a single (non-redundant) VSD instance Nuage VSD runs as a virtual machine (VM) on a server.
3HE08289DA	Nuage Virtualized Services Controller (VSC) - Virtual Appliance Edition - Includes RTU License for a 1+1 redundant VSC instance Nuage VSC runs as a VM within a dedicated server.
3HE08312AA	1-port 100GBase SR10 100 meter CFP2 Optics Module, MultiMode, MPO Connector, RoHS 6/6 compliant, 0/70C, Non-DDM Compliant
3HE08313AA	2-ports 1000BASE-BX10-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10km, TX:1310 nm, RX: 1490 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, -40/85C
3HE08313BA	2-ports 1000BASE-BX10-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10km, TX: 1490 nm, RX: 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, -40/85C
3HE08314AA	2-ports 1000BASE-BX40-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, TX:1310 nm, RX: 1490 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, -40/85C
3HE08314BA	2-ports 1000BASE-BX40-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 40km, TX: 1490 nm, RX: 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, -40/85C
3HE08362AF	SYS - 7210 SAS-T 12F 10T 4XFP DC system includes; 2 GB CPU memory (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE06336AB PS - 7210 SAS-T/Mxp ETR +24V (200W) DC Does not include 7210 SAS Operating Software or usage licenses.
3HE08362AG	SYS - 7210 SAS-T 12F 10T 4XFP AC system includes; 2 GB CPU memory, (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt Does not include 7210 SAS Operating Software or usage licenses.
3HE08362AH	SYS - 7210 SAS-T 12F 10T 4XFP DC system includes; 2 GB CPU memory (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE04415AB PS-7210 SAS Mxp/T DC -48V PS (NON-ETR) 200W Does not include 7210 SAS Operating Software or usage licenses.

3HE08363AD	SYS - 7210 SAS-T 12F 10T 4XFP AC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE08117AB SYS -7210 SAS-T 12F 10T 4XFP ETR (1) 3HE05580AB 7210 SAS (200W) AC ETR Power supply Does not include 7210 SAS Operating Software or usage licenses.
3HE08363AE	SYS - 7210 SAS-T 12F 10T 4XFP Extended Temperature Range DC system includes; 2 GB CPU memory (1) 3HE08117AB SYS -7210 SAS-T 12F 10T 4XFP ETR (1) 3HE05581AB 7210 SAS -48V (200W) DC ETR Power supply Does not include 7210 SAS Operating Software or usage licenses..
3HE08363AF	SYS - 7210 SAS-T 12F 10T 4XFP Extended Temperature Range DC system includes; 2 GB CPU memory (1) 3HE08117AB SYS -7210 SAS-T 12F 10T 4XFP ETR (1) 3HE06336AB PS - 7210 SAS-T/Mxp ETR +24V (200W) DC Does not include 7210 SAS Operating Software or usage licenses.
3HE08364AG	SYS - 7210 SAS-T 12F 10T 4XFP AC system includes; 2 GB CPU memory (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AA CBL - AC PWR CBL 110V USA Does not include 7210 SAS Operating Software or usage licenses.
3HE08364AH	SYS - 7210 SAS-T 12F 10T 4XFP AC system includes; 2 GB CPU memory (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AD CBL - AC PWR CBL 110V UK Does not include 7210 SAS Operating Software or usage licenses.
3HE08364AJ	SYS - 7210 SAS-T 12F 10T 4XFP AC system includes; 2 GB CPU memory (1) 3HE08116AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AC CBL - AC PWR CBL 110V EUR Does not include 7210 SAS Operating Software or usage licenses.
3HE08365AD	SYS - 7210 SAS-T 12F 10T 4XFP AC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE08117AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE05580AB 7210 SAS (200W) AC ETR Power supply (1) 3HE00271AA CBL - AC PWR CBL 110V USA Does not include 7210 SAS Operating Software or usage licenses.
3HE08365AE	SYS - 7210 SAS-T 12F 10T 4XFP AC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE08117AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE05580AB 7210 SAS (200W) AC ETR Power supply (1) 3HE00271AD CBL - AC PWR CBL 110V UK Does not include 7210 SAS Operating Software or usage licenses.
3HE08365AF	SYS - 7210 SAS-T 12F 10T 4XFP AC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE08117AB SYS - 7210 SAS-T 12F 10T 4XFP (1) 3HE05580AB 7210 SAS (200W) AC ETR Power supply (1) 3HE00271AC CBL - AC PWR CBL 110V EUR Does not include 7210 SAS Operating Software or usage licenses.
3HE08421AA	Spare - 7750 SR SFM5-12e
3HE08422AA	7750 SR12e - Mini-SFM5-12e - SFM functionality
3HE08423AA	Spare - 7750 SR CPM5

3HE08428AA	Spare - 7750 SR SFM5-12
3HE08429AA	Spare - 7750 SR SFM5-7
3HE08430AA	Spare - SFM - 7450 ESS SFM5-12
3HE08431AA	Spare - SFM - 7450 ESS SFM5-7
3HE08432AA	Spare - CPM - 7450 ESS CPM5
3HE08505AA	7950 XRS-20 Switch Fabric Module-B Stand Alone (SFM-X20S-B) - (Spare)
3HE08534AA	7705 SAR-X with 2x10GE SFP+, 12x1GE (4xCombo SFP/RJ45 + 8x1G SFP) & 8 T1/E1. Accepts Redundant DC Power Input (+24V/-48V).
3HE08534BA	7705 SAR-X (Conformal Coated Variant) with 2x10GE SFP+, 12x1GE(4xCombo SFP/RJ45 + 8x1G SFP) & 8 T1/E1. Accepts Redundant DC Power Input (+24V/-48V).
3HE08590AA	Cable ASSM, QSFP+to-QSFP+ Passive Direct Attach Cable (DAC), 1 meter length - package of 4
3HE08591AA	Cable ASSM, QSFP+to-QSFP+ Passive Direct Attach Cable (DAC), 3 meter length - package of 4
3HE08592AA	Cable ASSM, QSFP+to-QSFP+ Passive Direct Attach Cable (DAC), 7 meter length - package of 4
3HE08605AA	ACC - 7210 SAS E/M/T/Mxp DC-Power input connector 10 Pack
3HE08607AA	RTU - SAR-H Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 25 IPsec Tunnels. One (1) OS License is required for each SAR-H in the network.
3HE08607AB	RTU - SAR-H Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-H in the network.
3HE08607AC	RTU - SAR-H Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-H in the network.
3HE08607BA	RTU - SAR-Hc Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 25 IPsec Tunnels. One (1) OS License is required for each SAR-Hc in the network.
3HE08607BB	RTU - SAR-Hc Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-Hc in the network.
3HE08607BC	RTU - SAR-Hc Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-Hc in the network.
3HE08607CA	RTU - SAR-W Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 10 IPsec Tunnels. One (1) OS License is required for each SAR-W in the network.
3HE08607CB	RTU - SAR-W Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-W in the network.
3HE08607CC	RTU - SAR-W Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-W in the network.
3HE08607DA	RTU - SAR-Wx Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 25 IPsec Tunnels. One (1) OS License is required for each SAR-Wx in the network.
3HE08607DB	RTU - SAR-Wx Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-Wx in the network.
3HE08607DC	RTU - SAR-Wx Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-Wx in the network.
3HE08607EA	RTU - SAR-8 Basic IPsec license. Including Encryption Throughput of 250 Mbps and Maximum of 50 IPsec Tunnels. One (1) OS License is required for each SAR-8 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA,3HE09302CA) required to enable hardware encryption
3HE08607EB	RTU - SAR-8 Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-8 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA,3HE09302CA) required to enable hardware encryption

3HE08607EC	RTU - SAR-8 Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-8 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) required to enable hardware encryption
3HE08607FA	RTU - SAR-18 Basic IPsec license. Including Encryption Throughput of 500 Mbps and Maximum of 50 IPsec Tunnels. One (1) OS License is required for each SAR-18 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) required to enable hardware encryption
3HE08607FB	RTU - SAR-18 Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-18 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) required to enable hardware encryption
3HE08607FC	RTU - SAR-18 Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-18 in the network. Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) required to enable hardware encryption
3HE08607GA	RTU - SAR-X Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 25 IPsec Tunnels. One (1) OS License is required for each SAR-X in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607GB	RTU - SAR-X Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-X in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607GC	RTU - SAR-X Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-X in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607HA	RTU – SAR-Ax Basic IPsec license. Including Encryption Throughput of 150 Mbps and Maximum of 25 IPsec Tunnels. One (1) OS License is required for each SAR-Ax. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607HB	RTU – SAR-Ax Upgrade IPsec license. Upgrade Basic IPsec license to Full IPsec license. One (1) OS License is required for each SAR-Ax. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607HC	RTU – SAR-Ax Full IPsec license. Including Maximum supported Encryption Throughput and Maximum supported IPsec Tunnels. One (1) OS License is required for each SAR-Ax. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE08607JA	RTU – SAR-Hm/Hmc IPsec license. Including maximum supported encryption throughput available on one SAR-Hm/Hmc. One (1) OS License is required for each SAR-Hm/Hmc in the network.

3HE08632AA	7950 XRS 4-port 100GE CFP2 XMA. Includes License for IPCore Feature set. Provides support for a total IP FIB size of up to 1M entries (IPv4+IPv6; actual maximum number of entries achievable depends on route distribution), a MAC FIB size of 128k entries, and 8 ingress + 8 egress user defined queues per physical port.
3HE08632BA	7950 XRS 4-port 100GE CFP2 XMA. Includes License for LSR Feature set. Provides support for a total IP FIB size of 64k (IPv4+IPv6), and 8 ingress + 8 egress user defined queues per physical port.
3HE08703AA	SAR-Wx/W, 7450 ESS/7750 SR CPM5, XRS-16c/20/40 - CONSOLE CBL, 5 FT w RJ45 to DB9 adapter.
3HE08898AA	BNDL - 7210 SAS-R6 (1) 3HE08151AA CHAS - 7210 SAS-R6 CHASSIS SPARE (1) 3HE08154AB SF/CPM - 7210 SAS-R6 (1) 3HE08166AA ACC - 7210 SAS-R6 SF/CPM Impedance Panel (1) 3HE08152AA FAN - 7210 SAS-R6 Fan Tray (2) 3HE08153AA PEM - 7210 SAS-R6 -48V (5) 3HE08159AA ACC - 7210 SAS-R IMM Impedance Panel
3HE08961AA	7950 XRS-20 FRONT PROTECTION PANEL
3HE08996GA	OS – 7210 SAS-R Base OS License Release 20.X Base OS license. This is a per chassis license, valid for release 20.X. It provides the base OS and includes support for native and MPLS-based Ethernet services (e.g. VPLS and Epipe services) to operate 7210 SAS-R6 and 7210 SAS-R12 chassis.. It excludes the use of MPLS-TP and IP services (e.g. VPRNs and IES services). It must be also purchased for upgrade to release 20.X. One (1) Operating Software License is required for each 7210 SAS-R6 or 7210 SAS-R12 in the network. Includes two (2) 2GB Compact Flashes with the Operating Software.
3HE08997AA	RTU – 7210 SAS-R IP Services License. This is a per chassis license and is required for each 7210 SAS-R6 and 7210 SAS-R12 chassis. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107).
3HE08998AA	RTU – 7210 SAS-R MPLS-TP Services License. This is a per chassis license and is required for each 7210 SAS-R6 and 7210 SAS-R12 chassis. It enables MPLS-TP based Ethernet services (i.e. Epipe services).
3HE08999AA	RTU – 7210 SAS-R PTP/1588 & Timing Interfaces License. This is a per chassis license and is required for each 7210 SAS-R6 and 7210 SAS-R12 chassis. It enables the following Timing interfaces and software – BITS, 1pps, 10MHz, ToD and PTP/1588. NOTE: SyncE is available with the base OS software license and does not require a separate license.

3HE09001AA	SFM - 7750 SR SFM5-12e + CPM5 Bundle includes: (1) 3HE08421AA - SFM - 7750 SR SFM5-12e (1) 3HE08423AA - CPM - 7750 SR CPM5
3HE09017AA	SROS Software license to enable 1K IPsec IKEv2 Remote-Access Tunnels. Per network license.
3HE09018AA	SROS Software license to enable 10K IPsec IKEv2 Remote-Access Tunnels. Per network license.
3HE09022AA	SROS VPLS Service Right To Use License. A per system license. Allows the use of up to 40,000 VPLS service instances in one system (any mix of VPLS types). Not controlled by this license: Number of SAPs, queues, policers
3HE09023AA	SROS VLL Service Right To Use License. A per system license. Allows the use of up to 192,000 terminating VLL service instances in one system. This license also adds the RTU for support of full scale dynamic multi-segment pseudowire routing (stitching). The RTU for statically configured pseudowire switching is also included, and each static switched VLL counts towards the 196607 VLL limit. Not controlled by this license: Number of SAPs, queues or policers, RTU for EVPN in VLL instances.
3HE09024AA	SROS 256K SAP Right To Use License. A per system license. Allows the use of up to 262143 SAPs across all services. Not controlled by this license: RTU for VLL,VPLS or VPRN service instances.
3HE09025AA	RTU - 7950 XRS Performance cFlowd license. A per system license. Allows the use of all cFlowd functionality with up to 1,500,000 cached flows and up to 2,500,000 pps total sampling performance. The maximum pps sampling performance and flow cache capacity can only be achieved when sampling is being performed on a variety of interfaces.
3HE09026AA	RTU - 7950 XRS IP FIB Scaling license. A per system license. Allows the use of all IPv4 and IPv6 FIB entries that are achievable on the system subject to limitations imposed by the particular SR OS release deployed and the capabilities of the deployed hardware in the system. Prerequisites: No LSR Level C-XMAs or XMAs can be present in the system unless they have the associated "LIC UP - LSR to IPCore" license.
3HE09027AA	RTU - 7950 XRS MAC FIB Scaling license. A per system license. Allows the use of all MAC FIB entries that are achievable on the system subject to limitations imposed by the particular SR OS release deployed and the capabilities of the deployed hardware in the system. Not controlled by this license: Number of VPLS service instances, number of SAPs. Prerequisites: No LSR Level C-XMAs or XMAs can be present in the system unless they have the associated "LIC UP - LSR to IPCore" license
3HE09028AA	SROS Hybrid OpenFlow Switch license. A per system license. Allows configuration of Hybrid OpenFlow switch functionality for traffic steering subject to limitations imposed by the particular SROS release deployed and the capabilities of the deployed hardware in the system
3HE09043AA	Nuage Professional Services, Covers all Professional Services for Nuage products (Nuage VCS, Nuage VNS, Nuage White Label, Nuage VSS). Includes Design, Integration, Audit & Migration services, Solutions Architecture, NMS/OSS Integration, Upgrade & Operational Consultation services, as well as onboarding to the Nuage VNS White label Service
3HE09095AA	Rear attachable tray for SAR-A/SAR-Ax (3HE06797AA, 3HE06796AA, 3HE10329AA) designed to hold two 100W Power Supplies (3HE06972AB).

3HE09116AA	ACC - 7210 R6 ETSI Cabinet & Cable Management bracket (This includes sufficient brackets to mount 1 Chassis)
3HE09117AA	Multi-Service Integrated Services Module which could be used for AA, LNS, NAT, and Tunnel/IPsec applications
3HE09118AA	Multi-Service Integrated Services Module which could be used for AA, BB (LNS, NAT), and Tunnel/IPsec applications (no Encryption)
3HE09119AA	SROS Software license to enable use of IP Tunneling Applications (GRE, IP in IP) per 10Gbps capacity. Per network or per system and active ISA license.
3HE09120AA	SROS NAT license for 12 Million bi-directional flows. This is a per system license.
3HE09121AA	SROS NAT license for 24 Million bi-directional flows. This is a per system license.
3HE09152AA	IMM - 7210 SAS-R-b 10SFP - 1SFP+
3HE09153AA	IMM - 7210 SAS-R-b 2SFP+
3HE09154AA	IMM - 7210 SAS-R-b 4SFP+
3HE09155AA	IMM - 7210 SAS-R-b 11SFP/22cSFP
3HE09156AA	IMM - 7210 SAS-R-b 16TX
3HE09157AA	ACC - 7210 SAS-R6 DC-Power input connector 10 Pack
3HE09170AA	6 port Ethernet Module (2xFE SFP ports, 4xGE (2xRJ.5, 2xCombo(SFP, RJ.5) for SAR-M with Poe/PoE+ capability. PoE RTU sold separately
3HE09171AA	C-XMA Right To Use License Upgrade from LSR to IPCore for 72-port 1GE C-XMA. RTU license is tied to the specific C-XMA (tied to the serial number) for which it is purchased.
3HE09180AA	SSF VSR-RR Route Reflector – Level 1 - Software Subscription Fee (SSF) that allows for the upgrade of the VSR-RR software to any currently available software releases, including new major releases, as long as the annual support contract is in effect. One (1) Level 1 SSF is required for each instance of the level 1 VSR-RR purchased. The SSF must be purchased at the time the VSR-RR license is purchased and must be renewed annually to retain access to new versions of the VSR-RR software. VSR-RR license is sold for the specified SROS release. Licenses for different releases must be purchased separately, unless covered by an SSF for VSR-RR
3HE09181AA	SSF VSR-RR Route Reflector – Level 2 - Software Subscription Fee (SSF) that allows for the upgrade of the VSR-RR software to any currently available software releases, including new major releases, as long as the annual support contract is in effect. One (1) Level 2 SSF is required for each instance of the level 2 VSR-RR purchased. The SSF must be purchased at the time the VSR-RR license is purchased and must be renewed annually to retain access to new versions of the VSR-RR software. VSR-RR license is sold for the specified SROS release and is not covered by any other Nokia software support contract. Licenses for different releases must be purchased separately
3HE09195AA	7750 SR-a4 4-slot Chassis Spare (Includes Air Filter)
3HE09196AA	7750 SR-a8 8-slot Chassis Spare (Includes Air Filter)
3HE09197AA	7750 SR-a4 fan Tray Module Spare
3HE09198AA	7750 SR-a8 fan Tray Module Spare
3HE09199AA	7750 SR-a Family -48v DC Power Supply Unit.
3HE09200AA	7750 SR-a Family AC Power Supply Unit. Cables Purchased Separately.
3HE09201AA	7750 SR-a Control & Processor Module (CPM) with 6-core 800Mhz CPU and 4GB DRAM.
3HE09201AB	7750 SR-a Control & Processor Module (CPM) with 6-core 800Mhz CPU and 8GB DRAM.
3HE09202AA	7750 SR-a 100Gbps Input Output Module (IOM-a). Includes License for Layer 3 with High Queuing (L3HQ) Features Set.

3HE09202BA	7750 SR-a 100Gbps Input Output Module (IOM-a). Includes License for Layer 3 with Basic Queuing (L3BQ) Features Set.
3HE09202CA	7750 SR-a 100Gbps Input Output Module (IOM-a). Includes License for Layer 2 with High Queuing (L2HQ) Features Set.
3HE09204AA	10-port 10GE SFP+ MDA-a XP for the 7750 SR-a family. Optics Module must be purchased separately.
3HE09205AA	2-port 10GE SFP+ and 12-port GE SFP Combo MDA-a for the 7750 SR-a family. Optics Module must be purchased separately.
3HE09206AA	20-port 10/100/1000 TX RJ45 MDA-a for the 7750 SR-a family.
3HE09207AA	22-port GE SFP/44-port GE cSFP MDA-a for the 7750 SR-a family. Optics Module must be purchased separately.
3HE09240AA	4-port 10GE SFP+ MDA-a For The 7750 SR-a Family. Optics Module must be purchased separately.
3HE09242AA	DC BNDL - 7750 SR-a4. Non-Redundant Bundle Includes: (1) 3HE09195AA - CHAS - 7750 SR-a4 CHASSIS (Including filter), (1) 3HE09197AA - FAN - 7750 SR-a4 Fan Tray, (1) 3HE09199AA - PSU - 7750 SR-a DC -48v, (1) 3HE09201AA - CPM - 7750 SR-a, (4) 3HE09417AA - ACC - 7750 SR-a CPM/MDA Impedance Panels, (3) 3HE09419AA - ACC - 7750 SR-a PSU Impedance Panels.
3HE09242AB	DC BNDL - 7750 SR-a4. Non-Redundant Bundle Includes: (1) 3HE09195AA CHAS - 7750 SR-a4 CHASSIS (Including filter), (1) 3HE09197AA FAN - 7750 SRa4 Fan Tray, (1) 3HE09199AA PSU - 7750 SR-a DC -48v, (1) 3HE09201AB CPM - 7750 SR-a CPM 8GB, (4) 3HE09417AA ACC - 7750 SR-a CPM/MDA Impedance Panels, (3) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panels.
3HE09243AA	AC BNDL - 7750 SR-a4. Non-Redundant Bundle Includes: (1) 3HE09195AA - CHAS - 7750 SR-a4 CHASSIS (Including filter), (1) 3HE09197AA - FAN - 7750 SR-a4 Fan Tray, (1) 3HE09200AA - PSU - 7750 SR-a AC, (1) 3HE09201AA - CPM - 7750 SR-a, (4) 3HE09417AA - ACC - 7750 SR-a CPM/MDA Impedance Panels, (3) 3HE09419AA - ACC - 7750 SR-a PSU Impedance Panels.
3HE09243AB	AC BNDL - 7750 SR-a4. Non-Redundant Bundle Includes: (1) 3HE09195AA CHAS - 7750 SR-a4 CHASSIS (Including filter), (1) 3HE09197AA FAN - 7750 SRa4 Fan Tray, (1) 3HE09200AA PSU - 7750 SR-a AC, (1) 3HE09201AB CPM - 7750 SR-a CPM 8GB, (4) 3HE09417AA ACC - 7750 SR-a CPM/MDA Impedance Panels, (3) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panels

3HE09244AA	DC BNDL - 7750 SR-a8 Non-Redundant Bundle Includes; (1) 3HE09196AA - CHAS - 7750 SR-a8 CHASSIS (includes filter), (1) 3HE09198AA - FAN - 7750 SRa8 Fan Tray, (2) 3HE09199AA - PSU - 7750 SR-a DC -48V, (1) 3HE09201AA - CPM - 7750 SR-a, (8) 3HE09417AA - ACC - 7750 SR-a CPM/MDA Impedance Panels, (2) 3HE09418AA - ACC - 7750 SR-a PSU Impedance Panels, (1) 3HE09419AA - ACC - 7750 SR-a IOM Impedance Panel
3HE09244AB	DC BNDL - 7750 SR-a8 Non-Redundant Bundle Includes; (1) 3HE09196AA CHAS - 7750 SR-a8 CHASSIS (includes filter), (1) 3HE09198AA FAN - 7750 SRa8 Fan Tray, (2) 3HE09199AA PSU - 7750 SR-a DC -48V, (1) 3HE09201AB CPM - 7750 SR-a CPM 8GB, (8) 3HE09417AA ACC - 7750 SR-a CPM/MDA Impedance Panels, (2) 3HE09418AA ACC - 7750 SR-a PSU Impedance Panels, (1) 3HE09419AA ACC - 7750 SR-a IOM Impedance Panel
3HE09245AA	AC BNDL - 7750 SR-a8 Non-Redundant Bundle Includes: (1) 3HE09196AA - CHAS - 7750 SR-a8 CHASSIS (includes filter), (1) 3HE09198AA - FAN - 7750 SRa8 Fan Tray, (2) 3HE09200AA - PSU - 7750 SR-a -AC, (1) 3HE09201AA - CPM - 7750 SR-a, (8) 3HE09417AA - ACC - 7750 SR-a CPM/MDA Impedance Panels, (2) 3HE09418AA - ACC - 7750 SR-a PSU Impedance Panels, (1) 3HE09419AA - ACC - 7750 SR-a IOM Impedance Panel
3HE09245AB	AC BNDL - 7750 SR-a8 Non-Redundant Bundle Includes: (1) 3HE09196AA CHAS - 7750 SR-a8 CHASSIS (includes filter), (1) 3HE09198AA FAN - 7750 SRa8 Fan Tray, (2) 3HE09200AA PSU - 7750 SR-a -AC, (1) 3HE09201AB CPM - 7750 SR-a CPM 8GB, (8) 3HE09417AA ACC - 7750 SR-a CPM/MDA Impedance Panels, (2) 3HE09418AA ACC - 7750 SR-a PSU Impedance Panels, (1) 3HE09419AA ACC - 7750 SR-a IOM Impedance Panel
3HE09255AA	1-port 100GBase-ER4 CFP2 (Dual rate 100GE and OTU4) Optics Module, 40km, LC Connector, RoHS 6/6 compliant, 0/70C
3HE09257AA	7705 SAR-X Air Filter Media replacement kit (10 pack)
3HE09259AA	RTU - SAR-H Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-H node. One (1) OS License is required for each SAR-H in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09259BA	RTU - SAR-Hc Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-Hc node. One (1) OS License is required for each SAR-Hc in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .

3HE09259CA	RTU - SAR-W Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-W node. One (1) OS License is required for each SAR-W in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09259DA	RTU - SAR-Wx Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-Wx node. One (1) OS License is required for each SAR-Wx in the network.
3HE09259EA	RTU - SAR-8 Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-8 node. One (1) OS License is required for each SAR-8 in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ . Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) are required to enable hardware encryption on the SAR-8.
3HE09259FA	RTU - SAR-18 Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-18 node. One (1) OS License is required for each SAR-18 in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ . Note: Additional licenses (3HE09302AA, 3HE09302BA, 3HE09302CA) are required to enable hardware encryption on the SAR-18.
3HE09259GA	RTU - SAR-X Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-X node. One (1) OS License is required for each SAR-X in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09259HA	RTU - SAR-Ax Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-H node. One (1) OS License is required for each SAR-Ax in the network. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09259JA	RTU - SAR-Hm/Hmc Network Group Encryption license. Includes maximum supported network group encryption throughput available on one SAR-Hm node. One (1) OS License is required for each SAR-Hm/Hmc in the network.
3HE09259KA	ASL VSR Standard NGE 10Gbps - Application Software License (ASL) is required to enable up to 10Gbps (Full Duplex, for IMIX traffic distribution) of VSR Network Group Encryption (NGE) throughput. One (1) of these ASLs is required for every 10Gbps of NGE traffic required. Multiple instances may be applied to a single VSR to allow the desired throughput.
3HE09260AA	7750 SR SFM5-12 & CPM5, one (1) required per 7750 SR12 slot Shelf, up to two (2) per 7750 SR12 slot Shelf for CPU and fabric redundancy Bundle includes; (1) 3HE08428AA - SFM - 7750 SR SFM5-12 (1) 3HE08423AA - CPM - 7750 SR CPM5

3HE09261AA	7750 SR SFM5-7 & CPM5, one (1) required per 7750 SR7 slot Shelf, up to two (2) per 7750 SR7 slot Shelf for CPU and fabric redundancy Bundle includes; (1) 3HE08429AA - SFM - 7750 SR SFM5-7 (1) 3HE08423AA - CPM - 7750 SR CPM5
3HE09262AA	7450 ESS SFM5-12 & CPM5, one (1) required per 7450 ESS-12 slot Shelf, up to two (2) per 7450 ESS-12 slot Shelf for CPU and fabric redundancy Bundle includes; (1) 3HE08430AA - SFM - 7450 ESS SFM5-12 (1) 3HE08432AA - CPM - 7450 ESS CPM5
3HE09263AA	7450 ESS-7 SFM5-7 & CPM5, one (1) required per 7450 ESS-7 slot Shelf, up to two (2) per 7450 ESS-7slot Shelf for CPU and fabric redundancy Bundle Includes: (1) 3HE08431AA - SFM - 7450 ESS SFM5-7 (1) 3HE08432AA - CPM - 7450 ESS CPM5
3HE09285AA	SROS Software license to enable use of the ISA2 for IPsec Tunneling Applications, this is a per system and per active ISA2 license.
3HE09286AA	SROS Software license to enable use of IPsec Multi-Chassis Redundancy feature. This is a per system and per active ISA2 license. Multiple of these RTUs could be bought to match the total number of ISA2 that need IPsec Multi-Chassis Redundancy support.
3HE09287AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 256K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers targeted to be supported on the chassis.
3HE09288AA	SROS Selective offload with single IP. This is a per system license.
3HE09289AA	SROS WIFI-GW Inter-chass Redundancy. This is a per system license.
3HE09290AA	SROS WIFI Migrant User Support. This is a per system license.
3HE09291AA	SROS WIFI 256K migrant Users. This is a per system license.
3HE09292AA	SROS WIFI 512K migrant Users. This is a per system license.
3HE09293AA	SROS WIFI 1M migrant Users. This is a per system license.
3HE09294AA	SROS WIFI 2M migrant Users. This is a per system license.
3HE09295AA	SROS Distributed Subscriber Management (DSM) base license. This base DSM license is required for using the subscriber management features implemented on MS-ISA on 7750 platforms for IPoE subscribers. This is a per system license.
3HE09296AA	SROS 64K DSM hosts. This is a per system license.
3HE09297AA	SROS 128K DSM hosts. This is a per system license.
3HE09298AA	SROS 256K DSM hosts. This is a per system license.
3HE09299AA	SROS 512K DSM hosts. This is a per system license.
3HE09300AA	SROS 1M DSM hosts. This is a per system license.
3HE09301AA	SROS 2M DSM hosts. This is a per system license.
3HE09302AA	Encryption LICENSE for 3HE06151AC 8 PORT GE SFP CARD V3. One (1) License needed per card performing packet encryption and/or decryption. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .

3HE09302BA	Encryption LICENSE for 3HE06153AC 1 PORT 10GE / 10 PORT 1GE 10G-CARD V2. One (1) License needed per card performing packet encryption and/or decryption. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09302CA	Encryption LICENSE for 3HE07943AA 2P 10GE+4P GE 10G ETH CARD. One (1) License needed per card performing packet encryption and/or decryption. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09303AA	Fast ETHERNET module supporting 4xRJ45 10/100 ethernet data ports .
3HE09303BA	Conformal Coated Variant of Fast ETHERNET module supporting 4xRJ45 10/100 ethernet data ports .
3HE09326AA	1-port 10GBASE-SR Small Form-Factor Pluggable+ (SFP+) Optics Module, 850 nm, 26 to 300 meters, LC Connector, RoHS 6/6 compliant, -40/85C
3HE09327AA	1-port 10GBASE-LR Small Form-Factor Pluggable+ (SFP+) Optics Module, Single Mode Fiber (SMF), 10km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, -40/85C
3HE09328AA	1-port 10GBASE-ER Small Form-Factor Pluggable+ (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, 1550 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, -40/85C
3HE09329AA	1-port 10GBASE-ZR Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 80km, 1550nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, -40/85C
3HE09407FA	ASL R16.0 VSIM Simulator - Application Software License (ASL) supporting the VSIM functionality. One (1) ASL is required for each VSIM system, independent of the number of virtual machines that form the system. The VSIM supports most functionality of all 7x50 router HW and is intended to be used to test new SROS functionality in a release and or to test deployment architectures in a lab setting. The VSIM is intended to be used as a lab tool only and should not be used in a production or customer facing role. The ASL allows a forwarding rate of 250 packets per second per interface. The VSIM product carries limited technical support and software defects should be replicated on a hardware based 7x50 node before a customer defect report can be opened. A unique software license key is required to operate each individual VSIM system. The VSIM license is sold for the specified SROS release and is not covered by any other Nokia software support contract. Licenses for different releases must be purchased separately
3HE09407GA	ASL R19 VSIM Simulator - Application Software License (ASL) supporting the VSIM functionality. One (1) ASL is required for each VSIM system, independent of the number of virtual machines that form the system. The VSIM supports most functionality of all 7x50 router HW and is intended to be used to test new SROS functionality in a release and or to test deployment architectures in a lab setting. The VSIM is intended to be used as a lab tool only and should not be used in a production or customer facing role. The ASL allows a forwarding rate of 250 packets per second per interface. The VSIM product carries limited technical support and software defects should be replicated on a hardware based 7x50 node before a customer defect report can be opened. A unique software license key is required to operate each individual VSIM system. The VSIM license is sold for the specified SROS release and is not covered by any other Nokia software support contract. Licenses for different releases must be purchased separately

3HE09407HA	ASL R20 VSIM Simulator - Application Software License (ASL) supporting the VSIM functionality. One (1) ASL is required for each VSIM system, independent of the number of virtual machines that form the system. The VSIM supports most functionality of all 7x50 router HW and is intended to be used to test new SROS functionality in a release and or to test deployment architectures in a lab setting. The VSIM is intended to be used as a lab tool only and should not be used in a production or customer facing role. The ASL allows a forwarding rate of 250 packets per second per interface. The VSIM product carries limited technical support and software defects should be replicated on a hardware based 7x50 node before a customer defect report can be opened. A unique software license key is required to operate each individual VSIM system. The VSIM license is sold for the specified SROS release and is not covered by any other Nokia software support contract. Licenses for different releases must be purchased separately
3HE09411AA	ETHERNET CABLE WITH RJ.5 AND RJ-45 (6M) for use with 3HE10113AA
3HE09411BA	ETHERNET CABLE WITH RJ.5 AND RJ-45 (20M) for use with 3HE10113AA
3HE09411CA	ETHERNET CABLE WITH RJ.5 AND RJ-45 (50M) for use with 3HE10113AA
3HE09417AA	7750 SR-a Slot Filler/Impedance Panel for unused CPM or MDA slots.
3HE09418AA	7750 SR-a Slot Filler/Impedance Panel for unused IOM slots.
3HE09419AA	7750 SR-a Slot Filler/Impedance Panel for unused PSU slots.
3HE09420AA	7750 SR-a4 Air Filter 5-Pack
3HE09421AA	ACC - 7750 SR-a8 AIR FILTER-5 pack
3HE09422AA	APEQ-DC-2200-2800 Power Equalizer Module
3HE09423AA	APEQ-AC-3000 Power Equalizer Module
3HE09425AA	7210 SAS-K 2F2T1C Ethernet system includes: (1) 7210 SAS + AC Power Adapter (No AC power cable included), (2) 10/100/1000 TX + Accepts(2) 1000 SFP + 1 Combo, Does not include 7210 SAS Operating Software
3HE09426AA	7210 SAS-K 2F2T1C Ethernet system Extended Temperature Range includes: (1) 7210 SAS-K Does not include a power supply, (2) 10/100/1000 TX + Accepts(2) 1000 SFP + 1 Combo, Does not include 7210 SAS Operating Software
3HE09427AA	CHAS - 7210 SAS-R12 CHASSIS SPARE
3HE09428AA	FAN - 7210 SAS-R12 Fan Tray
3HE09429AA	PEM - 7210 SAS-R12 -48V
3HE09430AA	SF/CPM - 7210 SAS-R12
3HE09431AA	PS 7210 SAS-R AC Power shelve
3HE09432AA	PS 7210 SAS-R AC Power modules
3HE09434DA	Nuage Virtualized Services Directory (VSD) Cluster - Virtual Appliance Edition - Add-on license for a clustered (redundant) VSD instance. Requires VSD Standalone license purchase.
3HE09435AA	Nuage Virtualized Services Directory (VSD) Cluster - Virtual Appliance Edition - Add-on licence for an annual RTU License for a (redundant) VSD cluster. Requires VSD (non-redundant) Standalone subscription. Nuage VSD runs as a virtual machine (VM) on a server. Includes Software Release Subscription (SRS)

3HE09469DA	Nuage Virtual Routing and Switching Software License per server (upto 4x40GigE interface) with VMware ESXi. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09479DA	Nuage Virtual Routing and Switching Software License per server (upto 4x40GigE interface) with KVM. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09495DA	Nuage Virtual Routing and Switching Software Gateway License per server (upto 4x40GigE interface). Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09500AA	1-port 100BASE-FX Small Form-Factor Pluggable (SFP) Optics Module, Multimode Fiber (SMF), 2 km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE09507FA	OS - 7210 SAS-T Release 20.X Base OS. This is a per chassis license, valid for release 20.XRx. It provides the base OS and includes support for native and MPLS-based Ethernet services (e.g. VPLS and Epipe services). It excludes the use of MPLS-TP and IP services (e.g. VPRNs and IES services). It must also be purchased to upgrade to release 20.X. Includes one (1) programmed 2GB Compact Flash cards with the Operating Software.
3HE09540DA	Nuage Virtual Routing and Switching Software License per server (upto 4x10GigE interface) with VMware ESXi. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09542DA	Nuage Virtual Routing and Switching Software License per server (upto 4x10GigE interface) with KVM. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09546DA	Nuage Virtual Routing and Switching Software Gateway License per server (upto 4x10GigE interface) for Release 4.0. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE09548AA	Power Supply Unit (PSU) - 7750 SR-e -48V DC
3HE09549AA	Power Supply Unit (PSU)PSU - 7750 SR-e AC PSU
3HE09550WA	7750 SR-a4/8 Release 16.0 Operating Software License. Notes: One (1) Operating Software License is required for each SR-a4 and SR-a8 in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software.
3HE09551AA	License to upgrade a 3HE09202CA L2HQ IOM-a to a 3HE09202BA L3BQ Feature set.
3HE09552AA	License to upgrade a 3HE09202BA L3BQ IOM-a to a 3HE09202AA L3HQ Feature set.
3HE09553AA	License to upgrade a 3HE09202CA L2HQ IOM-a to a 3HE09202AA L3HQ Feature set.

3HE09569AA	RTU – 7210 SAS-T IP Services License. This is a per chassis license. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107).
3HE09570AA	RTU – 7210 SAS-T MPLS-TP Services License. This is a per chassis license. It enables MPLS-TP based Ethernet services (i.e. Epipe services).
3HE09571AA	RTU – 7210 SAS-T PTP/1588 & Timing Interfaces License. This is a per chassis license. It enables the following Timing interfaces and software – BITS, 1pps, 10MHz, ToD and PTP/1588. NOTE: SyncE is available with the base OS software license and does not require a separate license.
3HE09577AA	ePDG Application Software License
3HE09578AA	ePDG RTU LIC FOR 10K Bearers
3HE09608AA	ACC - 7750/7705/7210 Vertical Rack Mount 300mm
3HE09609AA	ACC - 7750/7705/7210 Cable Management Tray (Fits the vertical rack mount)
3HE09648AA	7750 SR IOM4-e Baseboard. Accepts up to 2 MDA-e Full Service Routing Functionality, Full Queuing, hierarchical policing, IPv4/IPv6 routing services. Available upgrades/licenses: VPRN
3HE09648BA	7750 SR IOM4-e Baseboard. Accepts up to 2 MDA-e Includes "Layer-3 basic Queuing" IMM Software License/functionality for full IPv4/IPv6 routing services. Limited to 8 ingress and 8 egress queues per port. Does not include Hierarchical Policers. Available upgrades/licenses: VPRN, upgrade to L3HQ
3HE09648CA	7750 SR IOM4-e Baseboard. Accepts up to 2 MDA-e Includes "Layer-2 High Queuing" IMM Software License/functionality for full ESS functionality which includes the use of full queuing and policing with layer-2 services. Excludes use of multicast routing protocol or services, IPv6 routing services, VPRN services (including IPv4 and IPv6 VPNs), network interfaces when installed in a chassis running the above mentioned restricted services. Available upgrades/licenses: upgrade to L3HQ
3HE09649AA	7750 SR 10-port 10GBASE MDA-e. Accepts ten (10) SFP+ 10GBase Optics Modules.
3HE09697AA	Contracted Annual Software Release Subscription (SRS) for Nuage outside of NAR. Entitles customer to unlimited software upgrade licenses for one year. Annual contracts must be purchased against the total installed base for a given customer network or channel based on the perpetual license pricing. Contact local B&P team or IPD BD for more information. Customer must complete Export Control Doc. prior to release of any S/W. Part number for use on all orders outside of NAR.
3HE09697AB	Same as 3HE09697AA. Part number for NAR Quote to cash (QTC) orders only.
3HE09698AA	A mechanical Rack/Cabinet Mounting Kit for SAR-W and SAR-O. Can be used in 19 inch or 23 inch racks.
3HE09704AA	PS 7210 SAS-R AC Power shelve impedance panel

3HE09711DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router License 100Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE09712DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router License 200Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE09713DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router License 500Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE09714DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router RTU License 1Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE09715DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router RTU License 2Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE09716DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router RTU License 10Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support

3HE09717DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router License 100Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09718DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router License 200Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09719DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router License 500Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09720DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router RTU License 1Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09721DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router RTU License 2Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09722DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router RTU License 10Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE09723DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Right-To-Use 100Mbps

3HE09724DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Right-To-Use 200Mbps
3HE09725DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Right-To-Use 500Mbps
3HE09726DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) RTU License 1Gbps
3HE09727DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) RTU License 2Gbps
3HE09728DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) RTU License 10Gbps
3HE09729DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Right-To-Use 100Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09730DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Right-To-Use 200Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09731DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Right-To-Use 500Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09732DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) RTU License 1Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09733DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) RTU License 2Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09734DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) RTU License 10Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE09735DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Right-To-Use 100Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes
3HE09736DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Right-To-Use 200Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes
3HE09737DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Right-To-Use 500Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE09738DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics RTU License 1Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"

3HE09739DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics RTU License 2Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE09740DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics RTU License 10Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE09741DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Right-To-Use 100Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09742DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Right-To-Use 200Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09743DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Right-To-Use 500Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09744DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining RTU License 1Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09745DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining RTU License 2Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09746DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining RTU License 10Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE09747AA	RTU - SAR-8/18H/Hc/Wx/X Basic Firewall license. One (1) OS License is required for each SAR-8/18/H/Hc/Wx/X in the network. Note: additional hardware firewall RTU is needed for HW performing firewall functionality.
3HE09747BA	Firewall LICENSE for 8 PORT GE SFP CARD (All versions). One (1) License needed per card performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747BB	Hardware Firewall LICENSE for 2 PORT 10GE XFP CARD. One (1) License needed per card performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.

3HE09747BC	Hardware Firewall LICENSE for Packet Microwave CARD. One (1) License needed per card performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747BD	Hardware Firewall LICENSE for 1 PORT 10GE / 10 PORT 1GE 10G-CARD (All versions). One (1) License needed per card performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747BE	Hardware Firewall LICENSE for 6 PORT 10GE CARD (3HE06789AA, 3HE06789BA). One (1) License needed per card performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747CA	Hardware Firewall LICENSE for SAR-H. One (1) License needed per SAR-H performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality..
3HE09747CB	Hardware Firewall LICENSE for SAR-Hc. One (1) License needed per SAR-Hc performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747CC	Hardware Firewall LICENSE for SAR-Wx. One (1) License needed per SAR-Wx performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747CD	Hardware Firewall LICENSE for SAR-X. One (1) License needed per SAR-X performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality.
3HE09747CE	Hardware Firewall LICENSE for SAR-Ax. One License needed per SAR-Ax performing Firewall functionality. Note: additional Basic SW firewall RTU is needed to enable firewall functionality. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE09749AA	ACC - 7210 SAS-K AC Non-ETR Power Cable - 5 pack - United States / Canada / South America
3HE09749AB	ACC - 7210 SAS-K AC Non-ETR Power Cable - (1) - United States / Canada / South America
3HE09750AA	ACC - 7210 SAS-K AC Non-ETR Power Cable - 5 pack - Continental Europe
3HE09751AA	ACC - 7210 SAS-K AC Non-ETR Power Cable - 5 pack - United Kingdom / Hong Kong /Singapore
3HE09752AA	PS - 7210 SAS-K AC Non-ETR Universal Power Supply - 5 pack Suits 7210 SAS-K 5 port device only
3HE09752AB	PS - 7210 SAS-K AC Non-ETR Universal Power Supply - (1) Suits 7210 SAS-K 5 port device only
3HE09879AA	7950 XRS-20 main system honeycomb Air Filter assembly
3HE09881AA	7750 SR 1-port 100GBASE MDA-e. Accepts one (1) CFP2 100GBase Optic Module.
3HE09904AA	ACC - Dust Cover - CFP2 (x4)
3HE09905AA	ACC - Dust Cover - CFP4 (x10)
3HE09914AB	ACC - 7210 SAS-K 2F2T1C & 2F4T6C rack mount, fits two side by side 7210 SAS-K5 or a single K12 and their AC power supply in a single RU 19" rack
3HE09915AA	ACC - 7210 SAS-M/Mxp/T 19" rack mount (5 set pack)
3HE09968AA	SROS URL Filter Res 10k Subs - Right to Use (RTU) required for Application Assurance local list URL filtering for residential (ESM or transit-AA) subscribers. One (1) of these RTUs is required for URL filtering for every increment of 10,000 subscribers.s. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE09969AA	SROS URL Filter 10 Gbps - Right to Use (RTU) required for Application Assurance local list URL filtering for aggregate traffic without subscriber context. One (1) of these RTUs is required for URL filtering on every increment of 10 Gbps traffic. Required only if the per-subscriber URL filter RTU is not purchased. Multiple instances may be applied to allow the desired scale. Per Network license.

3HE09970AA	RTU MGW AA URL Filter 10k Subs - Right to Use (RTU) required for Application Assurance local list URL filtering for subscribers. One (1) of these RTUs is required for URL filtering for every increment of 10,000 subscribers, in addition to AA identification and control RTUs. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE09976AA	Compact Flash dust cover for the SF/CPM2/3/4 for cf1 & cf2 slots, 10 pack
3HE09977AA	Compact Flash dust cover for the CPM5 10 pack
3HE09978AA	Compact Flash cover for CPM-a 10pkg
3HE09980AA	SROS URL Filter Wifi 10k Subs - Right to Use (RTU) required for Application Assurance local list URL filtering for Wifi DSM subscribers. One (1) of these RTUs is required for URL filtering for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10016AA	RTU - Enable FEC/G.709 support per 6x10GE, 10x10GE or 1x100GE MDA-e
3HE10017AA	RTU AA ICAP Control Res 10k Subs - Right to Use (RTU) required for Application Assurance ICAP session control for residential (ESM and transit-AA) subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10018AA	SROS ID and CTL Wifi 10k Subs - Right to Use (RTU) required for Application Assurance traffic identification and control for wifi DSM subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE10019AA	SROS IBN Wifi 10K Subs - Right to Use (RTU) required for Application Assurance IBN rules for in-browser notification (IBN) for wifi DSM subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10020AA	SROS 3M DSM hosts. This is a per system license.
3HE10021AA	SROS 4M DSM hosts. This is a per system license.
3HE10022AA	SROS 5M DSM hosts. This is a per system license.
3HE10023AA	SROS 6M DSM hosts. This is a per system license.
3HE10024AA	RTU MGW IBN 10K Subs - Right to Use (RTU) required for Application Assurance IBN rules for in-browser notification (IBN) for subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10025AA	RTU MGW AA ICAP Control 10k Subs - Right to Use (RTU) required for Application Assurance ICAP session control for subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10026AA	RTU MGW AA RTP Perf 10k Subs - Right to Use (RTU) required for Application Assurance RTP Performance Measurement, including enable RTP Performance license. One (1) of these RTUs is required for every increment of 10,000 subscribers undergoing RTP performance measurement. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10028AA	ACC - 7210 SAS-K 2F4T6C ETR wall mount, fits one 7210 SAS-K 2F4T6C ETR and its power supplies
3HE10029AA	PS - 7210 SAS-K (5) ETR AC power supply (Can also be used in the 7210 SAS-K Non-ETR)
3HE10030AA	PS - 7210 SAS-K (5) ETR -48V DC power supply (Can also be used in the 7210 SAS-K Non-ETR)
3HE10040AA	Includes a single 6 ft (1.8M) long AC ETR auto-Lock Power Cord (NEMA 5-15P to IEC 320-C13). Can be used for North American deployments with SAR-X or SAR-H.
3HE10041AA	Includes a single 8.2 ft (2.5M) long AC ETR auto-Lock Power Cord (Schuko CEE 7/7 to IEC 320-C13). Can be used for European deployments with SAR-X or SAR-H.

3HE10075AB	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ system includes; 2 GB CPU memory (1) Fan Tray, Accepts (22) 100/1000 SFP + (2) Combo ports + (4) SFP+ Does not include 7210 SAS Operating Software or usage licenses.
3HE10076AB	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ Extended Temperature Range system includes; 2 GB CPU memory, (1) Fan Tray, Accepts(22) 100/1000 SFP + (2) Combo ports + (4) SFP+ Does not include 7210 SAS Operating Software or usage licenses.
3HE10076BB	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ Extended Temperature Range, Conformal Coated system includes; 2 GB CPU memory, (1) Fan Tray, Accepts(22) 100/1000 SFP + (2) Combo ports + (4) SFP+ Does not include 7210 SAS Operating Software or usage licenses. Must be used with Conformal Coated Power Supply to maximize benefit of CC.
3HE10113AA	2-port 10/100/1000BASE-T Compact Small Form-Factor Pluggable (SFP) Copper Module, Cat5, RJ.5 Connector, RoHS 6/6 compliant.
3HE10114AA	ACC 7750 SR-12e AC bezel
3HE10199AA	1-port OC-3/STM-1 SFP ,OC-3/STM-1 TSOP over GE, IR-1 / I-1, Single Mode Fiber (SMF), 15-21km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE10202AA	1-port OC-12/STM-4 SFP ,OC-12/STM-4 TSOP over GE, IR-1 / I-1, Single Mode Fiber (SMF), 15-21km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE10212AA	SROS ICAP Control Wifi 10k Subs - Right to Use (RTU) required for Application Assurance ICAP session control for Wifi DSM subscribers. One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE10218GA	OS - 7210 SAS-K 2F1C2T, Release 20.X Base OS license / Native Ethernet L2 VPNs license. This license is required for both ETR and non-ETR variants. This is a per chassis license valid for release 20.X. It provides the Base OS and includes support for native Ethernet services (e.g. Layer-2 VPLS and Epipe services). It also includes support for syncE and PTP. It must also be purchased for upgrade to release 20.X. It will shipped on a SD Card.
3HE10219AA	PS - 7210 SAS-K (5) ETR +24V DC power supply (Can also be used in the 7210 SAS-K Non-ETR)
3HE10275AA	7950 XRS-20 pwr stud repair kit to replace broken studs in the rear power panel. Includes tool to remove studs and two (different sizes) replacement studs. This kit is compatible with the SR-12e chassis for power stud replacement.
3HE10295AA	ACC - 7750 SR-e CCM-e Impedance Panel Qty 1
3HE10296AA	ACC - 7750 SR-e CPM-e Impedance Panel Qty 1
3HE10297AA	ACC - 7750 SR-e IOM-e Impedance Panel Qty 1
3HE10298AA	ACC - 7750 SR-1e Air Filters (5 pack)
3HE10299AA	ACC - 7750 SR-2e Air Filters (5 pack)
3HE10300AA	ACC - 7750 SR-3e Air Filters (5 pack)
3HE10301AA	7750 SR-1e Chassis Spare. Includes; 7750 SR-1e Chassis & Fan Filter
3HE10302AA	7750 SR-2e Chassis Spare. Includes; 7750 SR-2e Chassis & Fan Filter
3HE10303AA	7750 SR-3e Chassis Spare. Includes; 7750 SR-3e Chassis & Fan Filter
3HE10304AA	FAN - 7750 SR-1e Fan Tray

3HE10305AA	FAN - 7750 SR-2e Fan Tray
3HE10306AA	FAN - 7750 SR-3e Fan Tray
3HE10309AA	CCM - 7750 SR-e CCM-e
3HE10310AA	CPM - 7750 SR-e CPM-e
3HE10311AA	7750 SR IOM-e Baseboard. Full Service Routing Functionality, Full Queuing, hierarchical policing, IPv4/IPv6 routing services. Available upgrades/licenses: VPRN
3HE10311BA	7750 SR IOM-e Baseboard. Includes "Layer-2 High Queuing" IMM Software License/functionality for full ESS functionality which includes the use of full queuing and policing with layer-2 services. Excludes use of multicast routing protocol or services, IPv6 routing services, VPRN services (including IPv4 and IPv6 VPNs), network interfaces when installed in a chassis running the above mentioned restricted services. Available upgrades/licenses: upgrade to L3HQ.
3HE10311CA	7750 SR IOM-e Baseboard. Includes "Layer-3 basic Queuing" IMM Software License/functionality for full IPv4/IPv6 routing services. Limited to 8 ingress and 8 egress queues per port. Does not include Hierarchical Policers. Available upgrades/licenses: VPRN, upgrade to L3HQ
3HE10312AA	ACC - MDA-e & MDA-e-XP Impedance Panel Qty 1
3HE10328AA	7210 SAS-Sx SONET/SDH satellite system can be configured as a 4-port OC3/STM1 or 1-port OC12/STM4, with support for channelization to DS1/E1. The system is managed by the 7750 SR host to provide TDM services on access.
3HE10329AA	1RU SAR-Ax with redundant DC power feeds (-48V/+24V), 12x1GE (4 RJ45/SFP combo, 8 SFP) ports and an integrated GNSS. It supports built-in Control/Switch functionality. OS and other licenses sold separately.
3HE10338AA	Includes two CPX Modules and one 19 inch 1RU CPX chassis to hold up to 8 CPX modules. The SPD kit is required to meet IEEE1613/IEC61850-3 surge requirements on SAR-18 and SAR-8
3HE10339AA	CPX Defender module designed to fit in the CPX 1 RU Chassis, with 3 mode protection.
3HE10365CA	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1471 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CB	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1491 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CC	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1511 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CD	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1531 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CE	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1551 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CF	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1571 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10365CG	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1591 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.

3HE10365CH	1-port 10GBASE CWDM Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 70km, 1611 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant.
3HE10413AF	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ System includes; 2 GB CPU memory (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE06336AB 7210 SAS-M/T/Mxp ETR +24V (200W) DC Power Supply Does not include 7210 SAS Operating Software or usage licenses.
3HE10413AG	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC system includes; 2 GB CPU memory (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt Does not include 7210 SAS Operating Software or usage licenses.
3HE10413AH	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ DC system includes; 2 GB CPU memory (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE04415AB PS-7210 SAS Mxp/T DC -48V PS (NON-ETR) 200W Does not include 7210 SAS Operating Software or usage licenses.
3HE10414AD	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE05580AB 7210 SAS (200W) AC ETR Power supply Does not include 7210 SAS Operating Software or usage licenses.
3HE10414AE	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ -48V DC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE05581AB 7210 SAS -48V (200W) DC ETR Power supply Does not include 7210 SAS Operating Software or usage licenses.
3HE10414AF	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ +24V DC Extended Temperature Range system includes; 2 GB CPU memory (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE06336AB 7210 SAS +24V (200W) DC Power supply, Does not include 7210 SAS Operating Software or usage licenses.
3HE10415AG	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC system includes; 2 GB CPU memory. With NAR AC Cable (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AA CBL - AC PWR CBL 110V USA Does not include 7210 SAS Operating Software or usage licenses.
3HE10415AH	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC system includes; 2 GB CPU memory. With UK AC Cable (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AD CBL - AC PWR CBL 110V UK Does not include 7210 SAS Operating Software or usage licenses.
3HE10415AJ	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC system includes; 2 GB CPU memory. With EUR AC Cable (1) 3HE10075AB SYS-7210 SAS-Mxp 22F2C4SFP+ (1) 3HE04414AB PS-7210 SAS Mxp/T AC PS (NON-ETR) 200 Watt (1) 3HE00271AC CBL - AC PWR CBL 110V EUR Does not include 7210 SAS Operating Software or usage licenses.

3HE10416AD	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC Extended Temperature Range system includes; 2 GB CPU memory w NAR Power cord (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE05580AB 7210 SAS (200W) AC Power supply, (1) 3HE00271AA CBL - AC PWR CBL 110V USA Does not include 7210 SAS Operating Software or usage licenses.
3HE10416AE	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC Extended Temperature Range system includes; 2 GB CPU memory w UK Power cord (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE05580AB 7210 SAS (200W) AC Power supply (1) 3HE00271AD CBL - AC PWR CBL 110V UK Does not include 7210 SAS Operating Software or usage licenses.
3HE10416AF	SYS - 7210 SAS-Mxp 22F 2C 4SFP+ AC Extended Temperature Range system includes; 2 GB CPU memory w UK Power cord (1) 3HE10076AB SYS - 7210 SAS-Mxp 22F2C4SFP+ ETR (1) 3HE05580AB 7210 SAS (200W) AC Power supply (1) 3HE00271AC CBL - AC PWR CBL 110V EUR Does not include 7210 SAS Operating Software or usage licenses.
3HE10417EA	OS - 7210 SAS-Mxp Release 20.X Base OS license, Standalone mode. This is a per chassis license, valid for release 20.X. It provides the base OS and includes support for native and MPLS-based Ethernet services (e.g. VPLS and Epipe services). It excludes the use of IP services (e.g. VPRNs and IES services). It is required to operate 7210 SAS-Mxp ETR and non-ETR chassis, in standalone mode. It excludes the use satellite mode of operation. It must also be purchased for upgrade to release 20.X. Includes one (1) programmed 2GB Compact Flash cards with the Operating Software.
3HE10418AA	RTU – 7210 SAS-Mxp IP Services License. This is a per chassis license. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107).
3HE10420AA	RTU – 7210 SAS-Mxp PTP/1588 & Timing Interfaces License. This is a per chassis license. It enables the following Timing interfaces and software – BITS, 1pps, 10MHz, ToD and PTP/1588. NOTE: SyncE is available with the base OS software license and does not require a separate license.
3HE10421AA	1-port 100GE CFP2 MDA-a XP for the 7750 SR-a family. Optics Module must be purchased separately.
3HE10427AA	Multi-Service Integrated Services Module-2 which could be used for AA, LNS, NAT
3HE10428AA	Multi-Service Integrated Services Module-2 which could be used for AA, BB, LNS, NAT (no Encryption)
3HE10429AA	7750 SR 6-port 10GBASE MDA-e. Accepts six (6) SFP+ 10GBase Optics Modules.
3HE10439AA	ACC - 7210 SAS-R12 PEM Impedance Panel
3HE10440AA	ACC – 7210 SAS-R12 AIR FILTER 5 pack
3HE10441AA	ACC - 7210 SAS-R12 SF/CPM Impedance Panel

3HE10447AA	Includes a single 8.2 ft (2.5M) long PSE certified auto-locking Japanese AC power cord ,12A/125V with (JIS 8303 plug to IEC320-C13). Can be used for Japan deployments with SAR-X or SAR-H
3HE10452AA	1-port 10GBASE-BX40-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, TX: 1270nm, RX: 1330nm; LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE10452AB	1-port 10GBASE-BX40-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 40km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE10468AA	7750 SR-1e Chassis DC PSU starter bundle. Bundle Includes: (2) 3HE09419AA - ACC - 7750 SR-a PSU Impedance Panel (2) 3HE09548AA - PSU - 7750 SR-e -48V DC PSU (1) 3HE10295AA - ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA - ACC - 7750 SR-e CPM Impedance Panel (1) 3HE10301AA - CHAS - 7750 SR-1e Chassis Spare (1) 3HE10304AA - FAN - 7750 SR-1e Fan Tray (1) 3HE10309AA - CCM - 7750 SR-e CCM-e (1) 3HE10310AA - CPM - 7750 SR-e CPM-e (3) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP
3HE10469AA	7750 SR-1e AC PSU starter bundle Bundle includes; (2) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panel (2) 3HE09549AA PSU - 7750 SR-e AC PSU (1) 3HE10295AA ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA ACC - 7750 SR-e CPM Impedance Panel (1) 3HE10301AA CHAS - 7750 SR-1e Chassis Spare (1) 3HE10304AA FAN - 7750 SR-1e Fan Tray (1) 3HE10309AA CCM - 7750 SR-e CCM-e (1) 3HE10310AA CPM - 7750 SR-e CPM-e (3) 3HE10312AA ACC - Impedance PNL MDA-e MDA-e-XP
3HE10470AA	7750 SR-2e Chassis DC PSU starter bundle. Bundle Includes: (6) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panel (2) 3HE09548AA PSU - 7750 SR-e -48V DC PSU (1) 3HE10295AA ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA ACC - 7750 SR-e CPM Impedance Panel (1) 3HE10297AA ACC - 7750 SR-e IOM Impedance Panel (1) 3HE10302AA CHAS - 7750 SR-2e Chassis Spare (1) 3HE10305AA FAN - 7750 SR-2e Fan Tray (1) 3HE10309AA CCM - 7750 SR-e CCM-e (1) 3HE10310AA CPM - 7750 SR-e CPM-e (7) 3HE10312AA ACC - Impedance PNL MDA-e MDA-e-XP

3HE10471AA	7750 SR-2e AC PSU starter bundle Bundle includes; (6) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panel (2) 3HE09549AA PSU - 7750 SR-e AC PSU (1) 3HE10295AA ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA ACC - 7750 SR-e CPM Impedance Panel (1) 3HE10297AA ACC - 7750 SR-e IOM Impedance Panel (1) 3HE10302AA CHAS - 7750 SR-2e Chassis Spare (1) 3HE10305AA FAN - 7750 SR-2e Fan Tray (1) 3HE10309AA CCM - 7750 SR-e CCM-e (1) 3HE10310AA CPM - 7750 SR-e CPM-e (7) 3HE10312AA ACC - Impedance PNL MDA-e MDA-e-XP
3HE10472AA	7750 SR-3e Chassis DC PSU starter bundle. Bundle Includes: (5) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panel (3) 3HE09548AA PSU - 7750 SR-e -48V DC PSU (1) 3HE10295AA ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA ACC - 7750 SR-e CPM Impedance Panel (2) 3HE10297AA ACC - 7750 SR-e IOM Impedance Panel (1) 3HE10303AA CHAS - 7750 SR-3e Chassis Spare (1) 3HE10306AA FAN - 7750 SR-3e Fan Tray (1) 3HE10309AA CCM - 7750 SR-e CCM-e (1) 3HE10310AA CPM - 7750 SR-e CPM-e (11) 3HE10312AA ACC - Impedance PNL MDA-e MDA-e-XP
3HE10473AA	7750 SR-3e AC PSU starter bundle Bundle includes; (5) 3HE09419AA ACC - 7750 SR-a PSU Impedance Panel (3) 3HE09549AA PSU - 7750 SR-e AC PSU (1) 3HE10295AA ACC - 7750 SR-e CCM Impedance Panel (1) 3HE10296AA ACC - 7750 SR-e CPM Impedance Panel (2) 3HE10297AA ACC - 7750 SR-e IOM Impedance Panel (1) 3HE10303AA CHAS - 7750 SR-3e Chassis Spare (1) 3HE10306AA FAN - 7750 SR-3e Fan Tray (1) 3HE10309AA CCM - 7750 SR-e CCM-e (1) 3HE10310AA CPM - 7750 SR-e CPM-e (11) 3HE10312AA ACC - Impedance PNL MDA-e MDA-e-XP
3HE10474AA	ACC 7950 XRS-20 80A BREAKERS (x24)
3HE10475AA	ACC 7750 SR-12e 80A breakers (x16)

3HE10476AA	7750 SR12e Chassis Bundle includes: (1) 3HE07165AA - CH-BN - 7750 SR12e Integrated Chassis (1) 3HE08421AA - SFM - 7750 SR SFM5-12e (1) 3HE08423AA - CPM - 7750 SR CPM5 (2) 3HE08422AA - SFM - 7750 SR mini-SFM5-12e (3) 3HE09423AA - APEQ-AC-3000 Power Equalizer Module (1) 3HE10114AA - ACC 7750 SR-12e AC bezel (1) 3HE10475AA - ACC 7750 SR-12e 80A Breakers x16
3HE10477AA	7750 SR12e Chassis Bundle includes: (1) 3HE07165AA - CH-BN - 7750 SR12e Integrated Chassis (1) 3HE08421AA - SFM - 7750 SR SFM5-12e (1) 3HE08423AA - CPM - 7750 SR CPM5 (2) 3HE08422AA - SFM - 7750 SR mini-SFM5-12e (3) 3HE09422AA - APEQ-DC-2200-2800 Power Equalizer Module (1) 3HE10475AA - ACC 7750 SR-12e 80A Breakers x16
3HE10481AA	7950 XRS-20 Stand-Alone Complete Chassis 60A/80A DC Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE09422AA - APEQ-DC-2200-2800 Power Equalizer Module , (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B, (2) 3HE07116AA - CPM - 7950 XRS-20 CPM, (1) 3HE10474AA - ACC - 7950 XRS-20 80A BREAKERS (x24) Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE10492AB	SYS - 7210 SAS-Sx 46F 2C 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, Accepts(46) 100/1000 SFP + 2 Combo + (4) SFP+. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.
3HE10493AB	SYS - 7210 SAS-Sx 22F 2C 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, Accepts (22) 100/1000 SFP + 2 Combo + (4) SFP+. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.
3HE10494AB	SYS - 7210 SAS-Sx 48T 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, (48) 10/100/1000 TX (4) SFP+) Non-PoE. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.
3HE10495AB	SYS - 7210 SAS-Sx 24T 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, (24) 10/100/1000 TX (4) SFP+) Non-PoE. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.

3HE10496AB	SYS - 7210 SAS-Sx 48Tp 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, (48) 10/100/1000 TX (4) SFP+) 720W PoE capability. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.
3HE10497AB	'SYS - 7210 SAS-Sx 24Tp 4SFP+ system includes; (1) Fixed Fans, (2) Hot swappable power supply slots, (2) Replaceable Air Filters, (24) 10/100/1000 TX (4) SFP+) 720W PoE Capability. Supports stacking. Does not include power supplies. Does not include 7210 SAS Operating Software or usage licenses.
3HE10498AA	PS – 7210 SAS-Sx Power Supply (fits fiber 1/10G Sx units only) AC 400W
3HE10499AA	PS – 7210 SAS-Sx Power Supply (fits fiber 1/10G Sx units only) DC -48V 400W
3HE10500AA	PS - 7210 SAS-Sx Power Supply (Fits Copper 1/10G Sx units only) AC
3HE10501AA	PS - 7210 SAS-Sx Power Supply (Fits Copper 1/10G Sx units only) DC -48V
3HE10502AA	PS - 7210 SAS-Sx Power Supply PoE (Fits Copper PoE 1/10G Sx units only) AC 920W
3HE10503AA	ACC - 7210 SAS-Sx Fan Tray Filter (10)
3HE10515AA	BNDL - 7210 SAS-R12 (1) 3HE09427AA CHAS - 7210 SAS-R12 CHASSIS SPARE (1) 3HE09430AA SF/CPM - 7210 SAS-R12 (1) 3HE10441AA ACC - 7210 SAS-R12 SF/CPM Impedance Panel (1) 3HE09428AA FAN - 7210 SAS-R12 Fan Tray (2) 3HE09429AA PEM - 7210 SAS-R12 -48V (11) 3HE08159AA ACC - 7210 SAS-R IMM Impedance Panel
3HE10530AB	SYS - 7210 SAS-S 48F4SFP+ system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (48) 100/1000 SFP (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10531AB	SYS - 7210 SAS-S 48F4SFP+ system includes; (1) Fixed Fans, (1) Fixed DC -48V Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (48) 100/1000 SFP (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.

3HE10532AB	SYS - 7210 SAS-S 24F4SFP+ system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (24) 100/1000 SFP (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10533AB	SYS - 7210 SAS-S 24F4SFP+ system includes; (1) Fixed Fans, (1) Fixed DC -48V Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (24) 100/1000 SFP (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10534AB	SYS - 7210 SAS-S 48T4SFP+ system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (48) 10/100/1000 TX (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10535AB	SYS - 7210 SAS-S 48T4SFP+ system includes; (1) Fixed Fans, (1) Fixed DC -48V Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (48) 10/100/1000 TX (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10536AB	SYS - 7210 SAS-S 24TF4SFP+ system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (24) 10/100/1000 TX (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.

3HE10537AB	SYS - 7210 SAS-S 24T4SFP+ system includes; (1) Fixed Fans, (1) Fixed DC -48V Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (24) 10/100/1000 TX (4) SFP+. Does not include 7210 SAS Operating Software or usage licenses.
3HE10538AB	SYS - 7210 SAS-S 48Tp4SFP+ PoE AC system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (48) 10/100/1000 TX (4) SFP+. Requires a C15 compliant Power cable
3HE10540AB	SYS - 7210 SAS-S 24Tp4SFP+ PoE AC system includes; (1) Fixed Fans, (1) Fixed AC Power supply, (1) Hot swappable power supply slot, No Air Filters, Accepts (24) 10/100/1000 TX (4) SFP+. Requires a C15 compliant Power cable
3HE10542AA	PS - 7210 SAS-S Power Supply AC (Fits Fiber & Copper 1/10G NON-PoE "S" units)
3HE10543AA	PS - 7210 SAS-S Power Supply DC -48V (Fits Fiber & Copper 1/10G NON-PoE "S" units)
3HE10544AA	PS - 7210 SAS-S Power Supply AC 1050W (Fits Copper PoE "S" units). Requires a C16 compliant Power cable
3HE10550AA	1-port 100GBase LR4 QSFP28 Optics Module, 10km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE10551AA	1-port 100GBase SR4 QSFP28 Optics Module, 100m, MMF, MPO Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE10552AA	1-port 100GBase CWDM4 QSFP28 Optics Module, 2km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE10556AA	Integrated Services Module - Mobile Gateway (ISM-MG-C).
3HE10557AA	Integrated Services Module - Mobile Gateway (ISM-MG-C-E). (no encryption)
3HE10581AA	IMM - 7210 SAS-R-c 100GE QSFP28
3HE10640AA	SROS GMPLS-UNI Right To Use License. A per system license. Allows the use of the GMPLS-UNI functionality.

3HE10641AA	SROS Advanced Data Center Gateway (DC GW) and Service Chaining Right To Use License. A per system license. Allows the use of advanced DC GW and service chaining and steering functions, subject to platform feature limitations and support, such as: Fully Dynamic VSD Integration for Nuage driven service creation, use of a BGP EVPN control plane for L2/L3 service chaining and steering, Ethernet Segment Identifier (ESI) traffic steering using filter policies (including L3 ESM subscriber downstream traffic steering) and other related functions.
3HE10642AA	7750 SR 20 port SFP, 40port cSFP GE MDA-e, Accepts twenty (20) cSFP/SFP 1000Base Optics Modules.
3HE10671WA	7750 SR-1e/2e/3e Release 16.0 Operating Software License. Notes: One (1) Operating Software License is required for each SR-7/12/12e in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software.
3HE10717AA	7750 SR IOM4-e-B Baseboard. Accepts up to 2 MDA-e Full Service Routing Functionality, Full Queuing, hierarchical policing, IPv4/IPv6 routing services. Available upgrades/licenses: VPRN
3HE10717BA	7750 SR IOM4-e-B Baseboard. Accepts up to 2 MDA-e Includes "Layer-3 basic Queuing" IMM Software License/functionality for full IPv4/IPv6 routing services. Limited to 8 ingress and 8 egress queues per port. Does not include Hierarchical Policers. Available upgrades/licenses: VPRN, upgrade to L3HQ
3HE10717CA	7750 SR IOM4-e-B Baseboard. Accepts up to 2 MDA-e Includes "Layer-2 High Queuing" IMM Software License/functionality for full ESS functionality which includes the use of full queuing and policing with layer-2 services. Excludes use of multicast routing protocol or services, IPv6 routing services, VPRN services (including IPv4 and IPv6 VPNs), network interfaces when installed in a chassis running the above mentioned restricted services. Available upgrades/licenses: upgrade to L3HQ
3HE10757EA	OS - 7210 SAS-D Release 20.X (or upgrade to rel 20.X).
3HE10759EA	OS - 7210 SAS-M Release 20.X (or upgrade to rel 20.X).
3HE10766AA	7750 SR-7-B Chassis Spare. Includes; 7750 SR-7-B Chassis & Fan Filter. (5) impedance panels are included within the 3HE10766AA - CHAS - 7750 SR-7-B CHASSIS SPARE RoHS6/6
3HE10768AA	7750 SR-12-B Chassis Spare. Includes; 7750 SR-12-B Chassis & Fan Filter. (10) impedance panels and cable management tray included
3HE10833AB	Nuage 7850 Network Services Gateway-X (NSG-X). AC powered with 2-ports 10GigE SFP+, 4-ports 1000BASE-T, 4-ports GigE SFP, 2 ports USB, 1 port RJ-45 serial. Pre-loaded with 5.2.1-8 software. Included in bundle is Qty=2 3HE10834AA AC power supplies for 1+1 AC power redundancy. Two C13 power cords must be purchased separately, one for each of the two power supplies. Includes hardware for mounting in EIA/ECA-310 racks. Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE10834AA	PS - Nuage 7850 NSG-X 300W AC Power Supply. NSG-X ships with redundant power supplies and this is an additional spare power supply.

3HE10836AA	PS - 7210 SAS-Sx 64SFP+4CFP4/4QSFP28 NETR AC Fits both CFP4 and QSFP28 models
3HE10837AA	PS - 210 WBX, 7210 Sx 100G -48VDC (FtoB) supports also: 3HE15622AA SYS - 7220 IXR-D2 48SFP28 8QSFP28 3HE15623AA SYS - 7220 IXR-D3 32QSFP28 2SFP+
3HE10852AA	7750 SR-7-B Chassis bundle includes the following: (1) 3HE03661AA - PEM - 7750 SR-7 100A DC PEM-3 SLOT 2 (1) 3HE03662AA - PEM - 7750 SR-7 100A DC PEM-3 SLOT 1 (2) 3HE04498AA - PWR FLT - 7750 SR-7 100 AMP PWR FILTER (1) 3HE05180AA - FAN - 7750 SR-7 Enhanced Fan Tray (1) 3HE10766AA - CHAS - 7750 SR-7-B CHASSIS SPARE RoHS6/6 Note: (1) 3HE04148AA - 7750 SR Impedance Panels (5 pkg) are part of the 3HE10766AA - CHAS - 7750 SR-7-B CHASSIS SPARE RoHS6/6
3HE10854AA	7750 SR-12-B Chassis bundle includes the following: (2) 3HE03663AA - PEM - 7750 SR-12 175A DC PEM-3 (3) 3HE05106AA - FAN - 7750 SR-12 ENHANCED FAN TRAY (1) 3HE10768AA - CHAS - 7750 SR-12-B CHASSIS SPARE RoHS6/6 Note: (10) impedance panels and cable management tray included with the 3HE10768AA - CHAS - 7750 SR-12-B CHASSIS SPARE RoHS6/6
3HE10866EA	OS - 7210 SAS-Sx and 7210 SAS-S, 1GE/10GE variant, Release 20.X Base OS License / Native and MPLS Ethernet L2 VPNs License, Standalone Mode. This is a per chassis license, valid for release 20.X. It provides the Base OS and includes support for native and MPLS-based Ethernet services (e.g. Layer-2 VPLS and Epipe services) for operating the chassis in standalone mode. It also includes support for syncE and PTP. It excludes the use IP services (e.g. VPRNs and IES services). In a stacked/VC configuration, it must be purchased for every node in the stack/VC. <u>It must also be purchased for upgrade to release 20.X. It will shipped on a SD Card.</u>
3HE10867AA	RTU - 7210 SAS-Sx and 7210 SAS-S IP services License, 1GE variant, Standalone Mode. This is a per chassis license. It is a one-time license to enable IP services on the node. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107). In a stacked/VC configuration this license must be purchased for every node in the stack/VC.

3HE10869EA	OS - 7210 SAS-Sx and 7210 SAS-S, 1GE/10GE variant, Release 20.X Base OS License, Satellite Mode. This is a per chassis license for release 20.X. It allows for operating the chassis in satellite mode. It excludes the use standalone mode of operation and use of stacking/VC configuration. It must also be purchased for upgrade to release 20.X. It will be shipped on a SD card.
3HE10871DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Right-To-Use 100Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10872DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Right-To-Use 200Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10873DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Right-To-Use 500Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10874DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec RTU License 10Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10875DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec RTU License 1Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10876DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec RTU License 2Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE10877AA	SROS UPnP IGD License - A per system license for UPnP IGD function on BB-ISA
3HE10934FA	ASL R16.0 VSR Distributed Base - Application Software License (ASL) required to create a single distributed VSR instance. One (1) of these ASLs is required for each instance of VSR distributed system and supports a single control plane VM. Additional ASLs will be required to add control plane redundancy, bandwidth capacity, services and value added services such as AA, SEGW, BNG, WLGW & NAT.
3HE10935FA	ASL R16.0 VSR Dist Redundant Control Plane - Application Software License (ASL) required to enable a redundant control plane VM. One (1) of these ASL is required to instantiate a redundant control plane VM per VSR system.
3HE10936FA	ASL R16.0 VSR Distributed Base < 60Gbps - Application Software License (ASL) required to create a single distributed VSR instance under 60Gbps. Not required if using ASL R15.0 VSR Distributed Base. One (1) of these ASLs is required for each instance of a <60Gbps VSR distributed system and supports a single control plane VM. Additional ASLs will be required to add control plane redundancy, bandwidth capacity, services and value added services such as AA, SEGW, BNG, WLGW & NAT.
3HE10937AA	Kit contains two spare adapter brackets and fastener hardware to secure the 7750 SR-a4 chassis to an ETSI rack.

3HE10958AA	SROS IEEE1588 Precision Time Protocol Right To Use License. A per system license. Allows the use of IEEE1588 PTP support including Ordinary Clock-Master, Ordinary Clock-Slave, Boundary clock and 1588 Port Based Timestamping
3HE10959AA	7210 SAS-K 2F4T6C Ethernet system includes: (1) 7210 SAS + AC Power Adapter (No AC power cable included), (4) 10/100/1000 TX + Accepts(2) 1000 SFP + 6 Combo, Does not include 7210 SAS Operating Software
3HE10960AA	7210 SAS-K 2F4T6C Ethernet system Extended Temperature Range includes: (4) 10/100/1000 TX + Accepts (2) 1000 SFP + 6 Combo, Does not include power supplies, does not include 7210 SAS Operating Software
3HE10962AA	PS - 7210 SAS-K 2F4T6C Non-ETR AC, includes AC power supply. Suits 12 port device only.
3HE10963AA	PS - 7210 SAS-K 2F4T6C Non-ETR -48V DC Suits 12 port device only
3HE10964AA	PS - 7210 SAS-K 2F4T6C ETR AC Suits 12 port device ETR and 7210 SAS-Dxp ETR
3HE10965AA	PS - 7210 SAS-K 2F4T6C ETR -48V DC Suits 12 port device ETR and 7210 SAS-Dxp ETR
3HE10966AA	PS - 7210 SAS-K 2F4T6C ETR +24V DC Suits 12 port device ETR only
3HE11031AA	7750 SR 2-ports 40/100GBASE MDA-e. Accepts two (2) QSFP+/QSFP28 100GBase Optic Module.
3HE11035AA	GNSS antenna for global GNSS timing reference featuring 26 dB low noise, high gain amplifier with a nominal impedance of 50 Ohms and uses a N-Type Female Connector and supports a Temp Range of -40C to +85C. Includes mounting collar.
3HE11035AB	GNSS antenna for global GNSS timing reference featuring 40 dB low noise, high gain amplifier with a Nominal impedance of 50 Ohms and uses a N-Type Female Connector and supports a Temp Range of -40C to +85C. Includes mounting collar
3HE11036AA	GPS timing reference antenna featuring 26 dB amplifier and narrow band high rejection filtering. Antenna has a Nominal impedance of 50 Ohms and uses a N-Type Female Connector and supports a Temp Range of -40C to +85C Includes mounting collar
3HE11036AB	GPS timing reference antenna featuring 40 dB amplifier and narrow band high rejection filtering. Antenna has a Nominal impedance of 50 Ohms and uses a N-Type Female Connector and supports a Temp Range of -40C to +85C. Includes mounting collar
3HE11085AA	7950 XRS-20e Universal chassis supporting any of LVDC, AC or HVDC. Chassis only.
3HE11086AA	7950 XRS-20e chassis supporting only AC/HVDC. Chassis only
3HE11087AA	7950 XRS-20e XCM (XMA Control Module). Provides 800G of Slot Switching Capacity. Accepts (2) XMAs and/or C-XMAs. *1
3HE11088AA	7950 XRS-20e Fan Tray - (Spare)
3HE11089AA	7950 XRS-20e XCM Impedance Panel. Must be installed in each and every empty XCM slot.
3HE11090AA	ACC-7950 XRS-20e Air filter Kit includes all filters for a single XRS-20e (1) APEQ intake filter, (1) main fan intake filter, (1) XCM intake filter, (1) CCM intake filter
3HE11091AA	ACC-7950 XRS-20e FRONT PROTECTION PANEL
3HE11092AA	ACC-7950 XRS-20e REAR PROTECTION PANEL
3HE11093AA	7950 XRS-20e Dual Power Connect Module (PCM). To be used in conjunction with a 2KW or 2.2/2.8KW APEQ. APEQs not included with this part.

3HE11094AA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance to 2.4T FD and 24 connectors Universal QSFP28 in the XRS-20e, performance restricted to 1.6T and 16 connectors universal QSFP28 in the XRS-20. Core Router (CR) scale feature set (2048 = h/w queues, 2048 = egress policers) Software scale upgradeable to ER or HE feature set.
3HE11094BA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance to 2.4T FD and 24 connectors Universal QSFP28 in the XRS-20e, performance restricted to 1.6T and 16 connectors universal QSFP28 in the XRS-20. Edge Router (ER) scale feature set (32768 = h/w queues, 32768 = egress policers) Software scale upgradeable to HE feature set.
3HE11094CA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance to 2.4T FD and 24 connectors Universal QSFP28 in the XRS-20e, performance restricted to 1.6T and 16 connectors universal QSFP28 in the XRS-20. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set.
3HE11097AA	7950 XRS-20e power input module (PIM). Accepts (1) Dual PCM or (1) quad PCM. PCM not included with the PIM.
3HE11099AA	APEQ-DC-4275 Low Voltage DC Advanced Power Equalizer Module. A Quad PCM must be ordered in conjunction with each APEQ.
3HE11115FA	ASL R16.0 VSR Redundant Ctl Plane <60Gbps - Application Software License (ASL) required to enable a redundant control plane VM in a distributed system under 60 Gbps. Not required if using ASL R15.0 VSR Dist Redundant Control Plane. One (1) of these ASL is required to instantiate a redundant control plane VM per VSR system.
3HE11116FA	ASL R16.0 VSR Integrate System Base - Application Software License (ASL) required to create a single integrated system VSR instance. One (1) of these ASLs is required for each instance of VSR integrated system and supports a single VM with both control plane and data plane. Additional ASLs will be required to add bandwidth capacity, services and value added services such as AA, SEGW, BNG, WLGW & NAT.
3HE11116GA	ASL R19 VSR Integrate System Base - Application Software License required to create a single integrated system VSR instance. One of these ASLs is required for each instance of VSR integrated system and supports a single VM with both control plane and data plane. Additional ASLs will be required to add bandwidth capacity, services and value added services such as AA, SEGW, BNG, WLGW & NAT.
3HE11116HA	ASL R20 VSR Integrate System Base - Application Software License required to create a single integrated system VSR instance. One of these ASLs is required for each instance of VSR integrated system and supports a single VM with both control plane and data plane. Additional ASLs will be required to add bandwidth capacity, services and value added services such as AA, SEGW, BNG, WLGW & NAT.

3HE11117AA	ASL VSR 10Gbps BW w Standard QoS - Application Software License (ASL) is required to enable up to 10Gbps (Half Duplex / ingress traffic, for IMIX traffic distribution) of incremental VSR throughput. One (1) of these ASLs is required for every increment of 10Gbps of vNIC bandwidth throughput on a VSR system supporting standard QoS functionality. Standard QoS functionality is restricted to queuing and policing, with a maximum of 8 queues or policers per vNIC port. Multiple ASLs may be applied to a single VSR instance to allow the desired bandwidth scale. All bandwidth ASLs applied to a single system must be of the same type (standard or Advanced).
3HE11118AA	ASL VSR 10Gbps BW w Advanced QoS - Application Software License (ASL) is required to enable up to 10Gbps (Half Duplex / ingress traffic, for IMIX traffic distribution) of VSR incremental throughput. One (1) of these ASLs is required for every increment of 10Gbps of vNIC bandwidth throughput on a VSR system supporting Advanced QoS functionality. Advanced QoS functionality enables queuing, shaping and policing per SAP or subscriber. Multiple ASLs may be applied to a single VSR instance to allow the desired bandwidth scale. All bandwidth ASLs applied to a single system must be of the same type (Standard or Advanced).
3HE11119AA	ASL VSR 1Gbps BW Standard QoS - Application Software License (ASL) is required to enable up to 1 Gbps (Half Duplex / ingress traffic, for IMIX traffic distribution) of incremental VSR throughput. One (1) of these ASLs is required for every increment of 1 Gbps of vNIC bandwidth throughput on a VSR system supporting standard QoS functionality. Standard QoS functionality is restricted to queuing and policing, with a maximum of 8 queues or policers per vNIC port. Multiple ASLs may be applied to a single VSR instance to allow the desired bandwidth scale. All bandwidth ASLs applied to a single system must be of the same type (standard or Advanced).
3HE11120AA	ASL VSR 1Gbps BW w Advanced QoS - Application Software License (ASL) is required to enable up to 1 Gbps (Half Duplex / ingress traffic, for IMIX traffic distribution) of VSR incremental throughput. One (1) of these ASLs is required for every increment of 1 Gbps of vNIC bandwidth throughput on a VSR system supporting Advanced QoS functionality. Advanced QoS functionality enables queuing, shaping and policing per SAP or subscriber. Multiple ASLs may be applied to a single VSR instance to allow the desired bandwidth scale. All bandwidth ASLs applied to a single system must be of the same type (Standard or Advanced).
3HE11121AA	ASL VSR VPN Service 500 instances - Application Software License (ASL) is required to enable support for VPN service within a VSR instance. One (1) of these ASLs allows for up to 500 VPN instances, including VPRN, VPLS and VLL services. Multiple ASLs may be applied to a single VSR instance to allow the desired service scale.
3HE11122AA	ASL VSR VPN Service 100 instances - Application Software License (ASL) is required to enable support for VPN service within a VSR instance. One (1) of these ASLs allows for up to 100 VPN instances, including VPRN, VPLS and VLL services. Multiple ASLs may be applied to a single VSR instance to allow the desired service scale.
3HE11123AA	ASL VSR VPN Service 25 instances - Application Software License (ASL) is required to enable support for VPN service within a VSR instance. One (1) of these ASLs allows for up to 25 VPN instances, including VPRN, VPLS and VLL services. Multiple ASLs may be applied to a single VSR instance to allow the desired service scale.
3HE11124AA	ASL VSR IP-Tunnel 1k Tunnels - Application Software License is required to enable IP tunnel scale in increments of 1,000 - One (1) license is required for 1,000 IP tunnels per VSR. Multiple ASLs may be applied to a single VSR instance to allow the required tunnel scale.

3HE11125AA	ASL VSR IP-Tunnel 100 Tunnels - Application Software License is required to enable IP tunnel scale in increments of 100 - One (1) license is required for 100 IP tunnels per VSR. Multiple ASLs may be applied to a single VSR instance to allow the required tunnel scale.
3HE11126AA	ASL VSR Lawful Intercept (LI) - Application Software License (ASL) is required to enable the lawful intercept feature. One (1) license is required per VSR.
3HE11127AA	ASL VSR ADV DC GW and Svc Chain - Application Software License (ASL) is required to enable Advanced Data Center Gateway (DC GW) and Service Chaining., subject to platform feature limitations and support, such as use of a BGP EVPN control plane for L2/L3 service chaining and steering, Ethernet Segment Identifier (ESI) traffic steering using filter policies (including L3 ESM subscriber downstream traffic steering) and other related functions. One (1) license is required per VSR.
3HE11128AA	ASL VSR Hybrid OpenFlow Switch - Application Software License (ASL) is required to enable the Hybrid OpenFlow Switch feature, subject to limitations imposed by the particular SR OS release. One (1) license is required per VSR.
3HE11129AA	ASL VSR-BNG 10k Hosts - Application Software License is required to enable subscriber management in increments of 10,000 subscriber hosts. One (1) of these ASLs is required for every increment of 10,000 BNG subscriber hosts. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber hosts scale.
3HE11130AA	ASL VSR-BNG 4k Hosts - Application Software License is required to enable subscriber management in increments of 10,000 subscriber hosts. One (1) of these ASLs is required for every increment of 4,000 BNG subscriber hosts. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber hosts scale.
3HE11131AA	ASL VSR-vRGW 10k Hosts - Application Software License is required to enable virtual residential gateway subscriber management in increments of 10,000 subscriber hosts. One (1) of these ASLs is required for every increment of 10,000 vRGW subscriber hosts. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber hosts scale.
3HE11132AA	ASL VSR-LNS 1k L2TP Tunnels - Application Software License is required for LNS providing support for up to 1,000 L2TP tunnels. Multiple ASLs may be applied to a single VSR instance to allow the required tunnel scale.
3HE11133AA	ASL VSR-LNS 10k Hosts - Application Software License is required to enable subscriber management in increments of 10,000 subscriber hosts. One (1) of these ASLs is required for every increment of 10,000 LNS subscriber hosts. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber hosts scale.
3HE11134AA	ASL VSR-LNS 4k Hosts - Application Software License is required to enable subscriber management in increments of 10,000 subscriber hosts. One (1) of these ASLs is required for every increment of 4,000 LNS subscriber hosts. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber hosts scale.
3HE11135AA	ASL VSR-WLW 10k Hosts - Application Software License is required to enable WLAN GW subscriber hosts in increments of 10,000. One (1) license is required for every increments of 10,000 WIFI subscriber hosts per VSR. Multiple ASLs may be applied to a single VSR instance to allow the required host scale.

3HE11136AA	ASL VSR-WLW Multiple SSID - Application Software License is required to enable Multiple SSID support within the WLAN GW - One (1) license is required to enable WIFI Multiple SSID Support per VSR.
3HE11137AA	ASL-VSR-WLW Mobility - Application Software License is required to enable WiFi Inter-AP mobility. One (1) license is required to enable WIFI Inter-AP WIFI Mobility per VSR.
3HE11139AA	ASL VSR-WLW Geo Redundancy - Application Software License is required to enable geo redundancy between WLAN GWs. One (1) license is required to enable WLAN GW Geo-Redudancy per VSR.
3HE11140AA	ASL VSR-AA ID and CTL Res 10k Subs - Application Software License (ASL) required for Application Assurance traffic identification and control for residential subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11141AA	ASL VSR-AA IBN Res 10k Subs - Application Software License (ASL) required for Application Assurance IBN rules for in-browser notification (IBN) for residential subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11142AA	ASL VSR-AA ICAP Control Res 10k Subs - Application Software License (ASL) required for Application Assurance ICAP session control for residential subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11143AA	ASL VSR-AA URL Filter Res 10k Subs - Application Software License (ASL) required for Application Assurance local list URL filtering for residential subscribers. One (1) of these ASLs is required for URL filtering for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11144AA	ASL VSR-AA RTP Perf Res 10k Subs - Application Software License (ASL) required for Application Assurance RTP Performance Measurement for residential subscribers, including enable RTP Performance license. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11145AA	ASL VSR-AA ID and CTL Wifi 10k Subs - Application Software License (ASL) required for Application Assurance traffic identification and control for wifi subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11146AA	Application Software License - Application Software License (ASL) required for Application Assurance IBN rules for in-browser notification (IBN) for wifi subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11147AA	ASL VSR-AA ICAP Control 10k Subs - Application Software License (ASL) required for Application Assurance ICAP session control for Wifi (DSM) subscribers. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11148AA	Application Software License - Application Software License (ASL) required for Application Assurance local list URL filtering for wifi subscribers. One (1) of these ASLs is required for URL filtering for every increment of 10,000 subscribers. Multiple instances may be applied to a single VSR to allow the desired scale. .

3HE11149AA	ASL VSR-AA ID and CTL VPN 1 Gbps - Application Software License (ASL) required for Application Assurance traffic identification and control for VPN subscribers. One (1) of these ASLs is required for every increment of 1 Gbps of AA traffic for IMIX traffic distribution. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11150AA	ASL VSR-I AA ID and CTL VPN 100 Mbps - Application Software License (ASL) required for Application Assurance traffic identification for VPN subscribers. One (1) of these ASLs is required for every increment of 100 Mbps of AA traffic for IMIX traffic distribution. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11151AA	ASL VSR-AA Stateful FW 1 Gbps - Application Software License (ASL) required for Application Assurance Stateful Firewall. One (1) of these ASLs is required for every increment of 1 Gbps of AA traffic. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11152AA	ASL VSR-AA Stateful FW 100 Mbps - Application Software License (ASL) required for Application Assurance Stateful Firewall. One (1) of these ASLs is required for every increment of 100 Mbps of AA traffic. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11153AA	ASL VSR-AA RTP Perf VPN 1 Gbps - Application Software License (ASL) required for Application Assurance RTP Performance Measurement for VPN subscribers, including enable RTP Performance license. One (1) of these ASLs is required for every increment of 1 Gbps of AA traffic for IMIX traffic distribution. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11154AA	ASL VSR-I AA RTP Perf 100 Mbps - Application Software License (ASL) required for Application Assurance RTP Performance Measurement for VPN subscribers, including enable RTP Performance license. One (1) of these ASLs is required for every increment of 100 Mbps for IMIX traffic distribution. Multiple instances may be applied to a single VSR to allow the desired scale.
3HE11155AA	ASL VSR-NAT 10k Subs - Application Software License is required to enable NAT subscriber scale in increments of 10,000. One (1) license is required for every increment of 10,000 active subscribers in a Large Scale NAT (LSN) deployment. The total number of subscribers can include any subscriber type: IPv4 address in LSN44, B4 element (IPv6 address or prefix) in DS-Lite, IPv6 prefix in NAT64 or ESM subscriber in L2-Aware NAT. Multiple ASLs may be applied to a single VSR instance to allow the required subscriber scale.
3HE11156AA	ASL VSR-NAT 1 Gbps - Application Software License required to enable NAT in bandwidth in increments of 1 Gbps. One (1) license is required for every increment of 1 Gbps of NAT capacity per VSR for IMIX traffic distribution. Multiple ASLs may be applied to a single VSR instance to allow the required bandwidth scale.
3HE11157AA	ASL VSR-NAT Geo Redundancy - Application Software License required to enable geo redundancy for the NAT function. One (1) license is required to enable stateless GEO LSN redundancy per VSR. Separate NAT subscriber licenses are required for subscriber scale on each VSR.
3HE11158AA	ASL VSR-NAT UPnP - Application Software License required to enable universal plug and play (UPnP) for the NAT function. One (1) license is required to enable UPnP per VSR.
3HE11159AA	ASL VSR L2AwareNAT - Application Software License required to enable Layer 2 aware NAT. One (1) license is required to enable L2 aware NAT per VSR.

3HE11160AA	ASL VSR MAP-T 1 Gbps - Application Software License (ASL) required for Mapping of Address and Port (MAP) in VSR. One (1) of these ASLs is required for every increment of 1 Gbps of traffic utilizing MAP. Multiple ASLs may be applied to an integrated VSR instance to allow the desired scale.
3HE11161AA	ASL VSR-IPsec 1k Tunnels - Application Software License is required to enable IPsec tunnel scale in increments of 1,000 One (1) license is required for 1,000 IPsec tunnels per VSR. Multiple ASLs may be applied to a single VSR instance to allow the required tunnel scale.
3HE11162AA	ASL VSR-IPsec 100 Mbps - Application Software License is required to enable IPsec bandwidth in increments of 100 Mbps for IMIX traffic distribution. One (1) license is required for every increment of 100 Mbps of IPsec encryption capacity per VSR. Multiple ASLs may be applied to a single VSR instance to allow the required bandwidth scale.
3HE11163AA	ASL VSR-IPsec Geo Redundancy - Application Software License is required to enable geo-redundancy. One (1) license is required to enable IPsec Geo-redundancy feature within a VSR
3HE11168AA	Kit contains two spare adapter brackets and fastener hardware to secure the 7750 SR-a8 chassis to an ETSI rack.
3HE11169AA	Kit contains two adapter bracket and fastener hardware to secure the 7750 SR-1e chassis to an ETSI rack.
3HE11170AA	Kit contains two adapter bracket and fastener hardware to secure the 7750 SR-2e chassis to an ETSI rack.
3HE11171AA	Kit contains two adapter bracket and fastener hardware to secure the 7750 SR-e3 chassis to an ETSI rack.
3HE11172AA	Contracted Annual Software Release Subscription (SRS) fee for VSR. Entitles customer to unlimited nodal OS software upgrade licenses for one year. Annual contracts must be purchased against the total installed base value (IBV) or Annual Lease Value (ALV) for a given customer network or channel for a particular VSR VNF. Contact local B&P team or ION BD for more information. Customer must complete Export Control Doc. prior to release of any S/W.
3HE11175AA	7750 SR 7-B-Slot Chassis with 7750 SR-7-B 100 Amp DC PEM-3 and 7750 SR-7 Enhanced Fan Tray + 7750 SR SFM5-7 + CPM5 Bundle. Bundle Includes: (1) 3HE10852AA - CH-BN - 7750 SR-7-B DC w/PEM3 + EFT (1) 3HE09261AA - SFM - 7750 SR SFM5-7 + CPM5
3HE11176AA	7750 SR 12-B Slot Chassis with 7750 SR-12 175 Amp DC PEM-3 and 7750 SR-12 Enhanced Fan Tray + 7750 SR SFM5-12 + CPM5 Bundle. Bundle Includes: (1) 3HE09260AA - SFM - 7750 SR SFM5-12 + CPM5 (1) 3HE10854AA - CH-BN - 7750 SR-12-B w/PEM3 + EFT
3HE11179AA	7750 SR-14s/7s AC/HVDC Power Shelf spare, Accessory Kit (mounting hardware), AC/HVDC Power Supplies and Coms module sold separately
3HE11180AA	7750 SR-14s/7s LVDC Power Shelf spare, Accessory Kit (mounting hardware) LVDC Power Supplies and Coms module sold separately
3HE11181AA	7750 SR-14s/7s Communication Card for the Power Shelf (LVDC and AC/HVDC)
3HE11183AA	Power Supply AC/HVDC 6kW for the 7750 SR-14s/7s/2s/1s
3HE11185AA	Power Supply LVDC 6kW for the 7750 SR-14s/7s/2s/1s

3HE11223AA	Hardware GNSS LICENSE for SAR-Ax. One (1) License needed per SAR-Ax performing GNSS functionality. Note: additional RTU 3HE07354AC will be needed to use IEEE 1588 Time/Phase functionality. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE11239AA	1-port 100GBase ER4Lite QSFP28 Optics Module, 40km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE11240AA	1-port 40GBase ER4 40km QSFP+ Optics Module, 40km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE11241AA	1-port 4x10GBase LR 10km QSFP+ Optics Module, 10km, MPO Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE11245AA	1-port 1000BASE-BX-U Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, TX: 1490 nm, RX: 1570 nm, 80km, LC Connector, RoHS 6/6, Extended Temperature -40/85C
3HE11245AB	1-port 1000BASE-BX-D Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP) Optics Module, TX: 1570nm, RX: 1490nm, 80km, LC Connector, RoHS 6/6, Extended Temperature -40/85C
3HE11278AA	7250 IXR-R6 Chassis. 6 MDA slots, 2 CPIOM slots. Accessories kit (3HE12384AA) included. No fan tray, fan filters and impedance panels included. Note that the 7250 IXR-R6 chassis does not have PSU slots.
3HE11279AA	7250 IXR-R6 fan tray. One per 7250 IXR-R6 system required
3HE11280AA	7250 IXR-R6 10 x 10GE SFP+ MDA. Pluggables sold separately.
3HE11282AA	7250 IXR-R6 1 x 100GE QSFP28 + 6 x 10GE SFP+ MDA. Pluggables sold separately.
3HE11282AB	7250 IXR-R6 1 x 100GE QSFP28 + 6 x 10GE SFP+ MDA-e. Pluggables sold separately.
3HE11283AA	7250 IXR-R6 CPIOM. Up to two per system for control and forwarding.
3HE11284AA	7250 IXR-R6 20 x GE cSFP MDA. This MDA provides up to 20 1GE ports using cSFP pluggables in slots 3 & 4 of the 7250 IXR-R6. Pluggables sold separately.
3HE11286AA	7250 IXR-R6 fan filter: 5-pack
3HE11287AA	7250 IXR-R6 CPIOM impedance panel
3HE11288AA	7250 IXR-R6 MDA impedance panel
3HE11298AA	35W High Voltage ETR Power Supply - Requires a single 90-264VAC or 88 to 300VDC input, and provides a single 24VDC output to provide power to the 7705 SAR-Hm main chassis or any other low power 24V DC product. This supply is DIN rail mountable.
3HE11301AA	7750 SR-14s Chassis Spare. Includes; (1)7750 SR-14s Chassis. (1) 3HE11313AA-ACC - 7750 SR-14s ACCESSORY KIT Impedance Panels, LVDC, AC/HVDC Power Shelf, Power Shelf Accessory kits, Rear mounting brackets, and Power Shelf interconnect kits all sold separately
3HE11304AA	CPM - 7750 SR-s CPM-14s/7s
3HE11305AA	7750 SR-7s XCM (XMA Control Module). Provides up to 4.8Tb of slot switching capacity. Accepts (1) 7750 SR-s XMA
3HE11307AA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out

3HE11307BA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE11307CA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE11309AA	7750 SR-14s/7s/2s XMA Impedance Panel, must be installed in each and every empty XMA slot.
3HE11310AA	7750 SR-14s XCM Impedance Panel, must be installed in each and every empty XCM-s slot.
3HE11311AA	7750 SR-14s/7s CPM Impedance Panel, must be installed in each and every empty CPM slot.
3HE11312AA	7750 SR-14s/7s Fan Tray spare
3HE11313AA	7750 SR-14s Accessory Kit, this kit includes the following; (1) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 5 FT (1) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 7 FT (2) NUT 1/4-20 (1) CONN, LUG,#2 AWG WIRE, 1/4" BOLT HOLES, .625" SPACING, 0.5" TONGUE, DOUBLE-CRIMP, 90 DEG (1) Wrist Strap (1) 3HE12566AA ACC - SR-s CLEANING TOOL, HONEYCOMB
3HE11315AA	7750 SR-s Switch Fabric Module for the 7750 SR-14s/7s
3HE11316AA	7750 SR-14s XCM (XMA Control Module). Provides up to 9.6Tb of slot switching capacity. Accepts (2) 7750 SR-s XMA
3HE11342AA	7750 SR MG -ISM Subscriber Services Gateway (SSG) Application Software License Note: One license is required for each active MG-ISM (License is not required on the standby MG-ISM).
3HE11343AA	7750 SR MG-ISM Subscriber Services Gateway (SSG) RTU LIC FOR 10,000 Subscribers
3HE11351AA	7750 SR IOM4-e-HS (High Scale) Baseboard. Accepts up to 2 MDA-e Full Service Routing Functionality, Full Queuing, hierarchical policing, IPv4/IPv6 routing services. Available upgrades/licenses: VPRN

3HE11351CA	7750 SR IOM4-e-HS (High Scale) Baseboard. Accepts up to 2 MDA-e Includes "Layer-2 High Queuing" IMM Software License/functionality for full ESS functionality which includes the use of full queuing and policing with layer-2 services. Excludes use of multicast routing protocol or services, IPv6 routing services, VPRN services (including IPv4 and IPv6 VPNs), network interfaces when installed in a chassis running the above mentioned restricted services. Available upgrades/licenses: upgrade to L3HQ
3HE11352AA	7750 SR MG -ISM Trusted WLAN Access Gateway (TWAG) Application Software License Note: One license is required for each active MG-ISM (License is not required on the standby MG-ISM).
3HE11353AA	7750 SR MG-ISM Trusted WLAN Access Gateway (TWAG) RTU LIC FOR 10,000 Subscribers
3HE11355DA	Nuage Virtual Routing and Switching License for one (1) Linux Bare Metal server with upto 4x10GigE interface. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE11356DA	Nuage Virtual Routing and Switching License for one (1) Linux Bare Metal server with upto 4x40GigE interface . Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE11357DA	Nuage Virtual Routing and Switching Annual RTU License for one (1) Linux Bare Metal server with upto 4x10GigE interface. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE11358DA	Nuage Virtual Routing and Switching Annual RTU License for one (1) Linux Bare Metal server with upto 4x40GigE interface. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE11362AA	7750 SR 7-B-Slot Chassis with 7750 SR-7-B 100 Amp DC PEM-3 and 7750 SR-7 Enhanced Fan Tray + 7450 ESS SFM5-7 + CPM5 Bundle. Bundle Includes: (1) 3HE10852AA - CH-BN - 7750 SR-7-B DC w/PEM3 + EFT (1) 3HE09263AA - SFM - 7450 ESS SFM5-7 + CPM5 7450 ESS feature set utilized via a BOF command. Requires SR-OS R14.0.R6 to support 7450 ESS within this chassis.

3HE11363AA	7750 SR 12-B Slot Chassis with 7750 SR-12 175 Amp DC PEM-3 and 7750 SR-12 Enhanced Fan Tray + 7450 ESS SFM5-12 + CPM5 Bundle. Bundle Includes: (1) 3HE09262AA - SFM - 7450 ESS SFM5-12 + CPM5 (1) 3HE10854AA - CH-BN - 7750 SR-12-B w/PEM3 + EFT 7450 ESS feature set utilized via a BOF command. Requires SR-OS R14.0.R6 to support 7450 ESS within this chassis.
3HE11367AA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) Right-To-Use 1Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required for IPsec to VxLAN
3HE11368AA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) Right-To-Use 2Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required for IPsec to VxLAN
3HE11369AA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) Right-To-Use 10Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required for IPsec to VxLAN
3HE11372DA	Nuage Hardware VxLAN VTEP Annual RTU license to enable non-virtualized assets to participate in the network overlay. This license enables up to 48x10GE ports to be connected offering L2, L3, QOS, ACL features when supported by the hardware device. This license is applicable on a single switch basis and applies to Nuage 7850, 210 WBX, as well as 3rd party VTEPs. This allows access to the latest version and automatic updates.
3HE11373DA	Nuage Hardware VxLAN VTEP Annual RTU license to enable non-virtualized assets to participate in the network overlay. This license enables up to 48x40GE ports to be connected offering L2, L3, QOS, ACL features when supported by the hardware device. This license is applicable on a single switch basis and applies to Nuage 7850, 210 WBX, as well as 3rd party VTEPs. This allows access to the latest version and automatic updates.
3HE11379AA	7750 SR-7/ 7450 ESS-7 INPUT POWER RATING LABEL. Required when at least one 200G card is installed in a system.

3HE11380AA	ASL VSR BGP Route Reflector - Application Software License (ASL) is required to enable BGP Route Reflector (RR) functionality on a VSR-I (integrated model) system. A bandwidth license for at least 1Gbps must also be purchased. If more than 20 Gbps of bandwidth is licensed to a system (advanced QoS or standard QoS) BGP route reflection functionality is available without the purchase of this license. This part number purchases a license that is only valid with VSR systems running 14.0R6 or later software images.
3HE11467EA	7210 SAS-K 2F6C4T, Release 20.X Base OS License / Native and MPLS Ethernet L2 VPNs License. This is a per chassis license valid for release 20.X and must be purchased for both 7210 SAS-K 2F6C4T (non-ETR) and 7210 SAS-K 2F6C4T ETR variant. It provides the Base OS and includes support for native and MPLS-based Ethernet services (e.g. Layer-2 VPLS and Epipe services). It also includes support for syncE and PTP. It excludes the use IP services (e.g. VPRNs and IES services). It must also be purchased for upgrade to release 20.X. It will shipped on a SD Card.
3HE11468AA	RTU - 7210 SAS-K 2F6C4T, IP services License. This is a per chassis license and must be purchased for both 7210 SAS-K 2F6C4T (non-ETR) and 7210 SAS-K 2F6C4T ETR variant. This is a per chassis license. It is a one-time license to enable IP services on the node. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107).
3HE11469DA	OS - 7210 SAS-Sx 10GE/100GE variant, Release 20.X Base OS License / Native and MPLS Ethernet L2 VPNs License, Standalone Mode. This is a per chassis license valid for release 20.X. It provides the Base OS and includes support for native and MPLS-based Ethernet services (e.g. Layer-2 VPLS and Epipe services) for operating in standalone mode. It also includes support for syncE and PTP. It is required to operate 7210 SAS-Sx 64SFP+ 4CFP4 and 7210 SAS-Sx 64SFP+ 4QSFP28 chassis, in standalone mode. It excludes the use IP services (e.g. VPRNs and IES services) and stacking/VC configuration. It must also be purchased for upgrade to release 20.X. It will shipped on a SD Card.
3HE11470AA	RTU - 7210 SAS-Sx 10GE/100GE variant, IP services License, Standalone Mode. This is a per chassis license. It is a one-time license to enable IP services on the node. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107). It is required to use IP services on 7210 SAS-Sx 64SFP+ 4CFP4 chassis, 7210 SAS-Sx 64SFP+ 4QSFP28 chassis and 7210 SAS-Sx 64SFP+ 4QSFP28 ETR chassis, in standalone mode. It excludes the use of Stacking.

3HE11471DA	7210 SAS-Sx 10GE/100GE variant, Release 20.X Base OS License, Satellite Mode. This is a per chassis license for release 20.X. It allows for operating the chassis in satellite mode. It is required to operate 7210 SAS-Sx 64SFP+ 4CFP4 and 7210 SAS-Sx 64SFP+ 4QSFP28 chassis, in satellite mode. It excludes the use standalone mode of operation and use of Stacking. It must also be purchased for upgrade to release 20.X. It will be shipped on a SD card.
3HE11502AA	7210 RPS CHASSIS
3HE11503AA	7210 RPS Fiber Satellite Power Adaptor
3HE11504AA	7210 RPS INTERPOSER DCIN 12V_150WOUT
3HE11557AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per VRS host
3HE11558AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per VRS host
3HE11559AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per VRS host
3HE11560AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per VRS host
3HE11561AA	Nuage Virtualized Security Service Layer 4 Security Insights, Threshold based Alerts with Automated Policy Action License per VSD Analytics/Stats Node (ElasticSearch Node)
3HE11562AA	Nuage Virtualized Security Service L4 Security Insights, Alerts and Automated Policy Action Annual RTU License per VSD (either Standalone VSD instance or a single VSD Cluster)
3HE11565DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 100Mbps license
3HE11566DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 200Mbps license
3HE11567DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 500Mbps license
3HE11568DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 1Gbps license
3HE11569DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 2Gbps license
3HE11570DA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with upto 10Gbps license
3HE11580AA	7950 XRS-20 60A/80A DC Stand-Alone Complete Chassis Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE09422AA - APEQ-DC-2200-2800 Power Equalizer Module (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB, (1) 3HE10474AA - ACC - 7950 XRS-20 80A BREAKERS (x24) Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.

3HE11582AA	7950 XRS-20 AC Stand-Alone Complete Chassis Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE09423AA - APEQ - APEQ-AC-3000 Power Equalizer Module (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE11588AA	SAR-Hm Release 15.0 OS License. One (1) OS license is required for each SAR-Hm in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/.
3HE11588AB	SAR-Hm Release 16.0 OS License. One (1) OS license is required for each SAR-Hm in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/.
3HE11588AC	7705 SAR-Hm/Hmc Release 19 OS License. One (1) OS license is required for each SAR-Hm/Hmc in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/.
3HE11588AD	7705 SAR-Hm/Hmc Release 20 OS License. One (1) OS license is required for each SAR-Hm/Hmc in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/.
3HE11589AA	RTU - SAR-Hm WLAN license. Includes support for enabling WLAN services on the SAR-Hm node. One (1) OS License is required for each SAR-Hm in the network.
3HE11597AA	SYS - 7210 SAS-Sx 64SFP+ 4QSFP28 system includes; (1) Fixed Fans, (2) Replaceable Air Filters (2) Hot swappable power supply slots, (64) SFP+ (4)QSFP28 ports Does not include power supplies. Does not include 7210 SAS Operating Software or usage licences.
3HE11600AA	SAR-Hm with non-redundant (10-28V) DC power feed covering NAR and EMEA LTE/3G bands. IEEE 802.11b/g/n (WLAN) and GNSS receiver supported. DIN rail or panel mountable. Node has 6 10/100BASE-T RJ-45, 2 RS-232 (RJ-45) ports. OS, firewall, encryption and WLAN software licenses are sold separately. Antennas, DIN rail or other mounting hardware sold separately.

3HE11602AA	SAR-Hm with non-redundant (10-28V) DC power feed covering APAC and rest-of-world LTE/3G bands. IEEE 802.11b/g/n (WLAN) and GNSS receiver supported. DIN rail or panel mountable. Node has 6 10/100BASE-T RJ-45, 2 RS-232 (RJ-45) ports. OS, firewall, encryption and WLAN software licenses are sold separately. Antennas, DIN rail or other mounting hardware sold separately.
3HE11642DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 100Mbps throughput
3HE11643DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 200Mbps throughput
3HE11644DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 500Mbps throughput
3HE11645DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 1Gbps throughput
3HE11646DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 2Gbps throughput
3HE11647DA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with upto 10Gbps throughput
3HE11648DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 100Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE11649DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 200Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE11650DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 500Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE11651DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 1Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support

3HE11652DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 2Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE11653DA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 10Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE11654DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 100Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE11655DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 200Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE11656DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 500Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE11657DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 1Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license

3HE11658DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 2Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE11659DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 10Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE11660DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 100Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11661DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 200Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11662DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 500Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11663DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 1Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11664DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 2Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11665DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 10Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE11666DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 100Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE11667DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 200Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE11668DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 500Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License

3HE11669DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 1Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE11670DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 2Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE11671DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 10Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE11672DA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) annual RTU License 1Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required.
3HE11673DA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) annual RTU License 2Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required.
3HE11674DA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) annual RTU License 10Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required.
3HE11675DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 100Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes
3HE11676DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 200Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes

3HE11677DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 500Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE11678DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 1Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE11679DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 2Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE11680DA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 10Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE11681DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 100Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE11682DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 200Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE11683DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 500Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE11684DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 1Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE11685DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 2Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License

3HE11686DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 10Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE11692DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 100Mbps
3HE11693DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 200Mbps
3HE11694DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 500Mbps
3HE11695DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 1Gbps
3HE11696DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 2Gbps
3HE11697DA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 10Gbps
3HE11751AA	7250 IXR Power Supply Unit. 3KW AC/HVDC power supply (200 to 240V AC or 240 to 380V DC). 80-plus Titanium rated (94% efficiency)
3HE11752AA	7250 IXR Power Supply Unit. 3KW LVDC power supply, -48V DC
3HE11753AA	7250 IXR 48-port 10G SFP+ + 2-port QSFP28 Integrated Media Module for the IXR with MACSec (IMM48-SFP+2-QSFP28).
3HE11754AA	7250 IXR 36-port QSFP28 Integrated Media Module for the IXR with MACSec (IMM36-100G-QSFP28).
3HE11755AA	7250 IXR-6 Switch Fabric Module (SFM-IXR-6) - (Spare)
3HE11756AA	7250 IXR CPM Impedance Panel. Required if a single CPM is used.
3HE11757AA	7250 IXR IMM Impedance Panel. Required in every slot not populated by an IMM.
3HE11758AA	7250 IXR PSU Impedance Panel. Required in every PSU slot not populated by a PSU.
3HE11759AA	7250 IXR-6 Fan Tray - (Spare)
3HE11760AA	7250 IXR-6 Chassis - (Spare)
3HE11761AA	7250 IXR Control Processor Module (CPM-IXR) - (Spare)
3HE11762AA	7250 IXR Control Processor Module (CPM-IXR SSD) with 128 GB SSD - (Spare)
3HE11763AA	CBL - AC Power Cable, 250V, SAF-D-GRID to IEC C20, 3M, USA
3HE11764AA	CBL - HVDC Power Cable, 400V, SAF-D-GRID Dual, 3M
3HE11768AA	7250 IXR-10 Switch Fabric Module (SFM-IXR-10) - (Spare)
3HE11769AA	7250 IXR-10 Fan Tray - (Spare)
3HE11770AA	7250 IXR-10 Chassis - (Spare)
3HE11771AA	CBL - AC Power Cable, 250V, SAF-D-GRID to CEE 7/7, 3M, EUR
3HE11772AA	CBL - Open Ended AC Power Cable, 250V, 3M, EUR

3HE11793AA	RTU MGW AA ICAP blacklist 10k Subs - Right to Use (RTU) required for Application Assurance ICAP session control for blacklist filtering of subscribers. Not required if using "RTU MGW AA ICAP control 10k Subscribers". One (1) of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license
3HE11794AA	RTU MGW TCP Optimization 10K Subs - Right to Use (RTU) required for subscriber based TCP Optimization. One (1) of these RTUs is required for every increment of 10,000 subscribers, does not require use of TCP-O 1Gbps RTU. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE11795AA	RTU MGW AA DEM Gateway 10K Subs - Right to Use (RTU) required for Application Assurance Dynamic Experience Management Gateway. One (1) of these RTUs is required for every increment of 10,000 subscribers, in addition to AA licenses. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE11816AA	Deepfield Network Intelligence Core Platform License PER ROUTER Monitored For Routers <=100 (Always use this for first 100 routers) - PERPETUAL LICENSE
3HE11817AA	Deepfield Network Intelligence Core Platform License PER ROUTER Monitored For Routers > 100 But <=199 - PERPETUAL LICENSE
3HE11818AA	Deepfield Network Intelligence Core Platform Licensee PER ROUTER Monitored For Routers >=200 - PERPETUAL LICENSE
3HE11819AA	Deepfield Network Intelligence Core Platform License PER ROUTER Monitored For Routers <=100 (Always use this for first 100 routers) - 3-Year Term License
3HE11820AA	Deepfield Network Intelligence Core Platform Licensee PER ROUTER Monitored For Routers > 100 But <=199 - 3-Year Term License
3HE11821AA	Deepfield Network Intelligence Core Platform License PER ROUTER Monitored For Routers >=200 - 3-Year Term License
3HE11822AA	Deepfield Network Intelligence Core Platform License PER ROUTER Monitored For Routers <=100 (Always use this for first 100 routers) - HOSTED 1-Year License
3HE11823AA	Deepfield Network Intelligence Singularity License PER ROUTER Monitored For Routers > 100 But <=199 - HOSTED 1-Year License
3HE11824AA	Deepfield Network Intelligence Core Platform Licensee PER ROUTER Monitored For Routers >=200 - HOSTED 1-Year License
3HE11826AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For >=50 But <=250 - PERPETUAL LICENSE *NOTE (Minimum 50 Gbps For Cloud) (CI is priced in tiers, for networks with more than 250 routers use this tier for the first 250)
3HE11827AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For >=251 But <=1000 - PERPETUAL LICENSE
3HE11828AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=1001 But <=5000 - PERPETUAL LICENSE
3HE11829AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >5000 - PERPETUAL LICENSE
3HE11830AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=50 But <=250 - 3-YEAR TERM LICENSE *NOTE (Minimum 50 Gbps For Cloud Intelligence License) (CI is priced in tiers, for networks with more than 250 routers use this tier for the first 250)
3HE11831AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=251 But <=1000 - 3-YEAR TERM LICENSE

3HE11832AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=1001 But <=5000 - 3-YEAR TERM LICENSE
3HE11833AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >5000 - 3-YEAR TERM LICENSE
3HE11834AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=50 But <=250 - HOSTED 1YR LICENSE *NOTE (Minimum 50 Gbps For Cloud Intelligence License) (CI is priced in tiers, for networks with more than 250 routers use this tier for the first 250)
3HE11835AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=251 But <=1000 - HOSTED 1YR LICENSE
3HE11836AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >=1001 But <=5000 - HOSTED 1YR LICENSE
3HE11837AA	Deepfield Network Intelligence Cloud Intelligence License PER Gbps Monitored For Gbps >5000 - HOSTED 1YR LICENSE
3HE11839AA	Deepfield Network Intelligence Internet Gehome License - PERPETUAL
3HE11840AA	Deepfield Network Intelligence Internet Gehome License - 3-YEAR TERM
3HE11841AA	Deepfield Network Intelligence Internet Gehome License - HOSTED 1-YR LICENSE
3HE11842AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With BGP-Speaking Enabled - PERPETUAL LICENSE
3HE11843AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With BGP-Speaking Enabled - 3-YEAR TERM LICENSE
3HE11844AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With BGP-Speaking Enabled - HOSTED 1-YR TERM
3HE11845AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With NO BGP-Speaking Enabled - PERPETUAL LICENSE
3HE11846AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With NO BGP-Speaking Enabled - 3-YEAR TERM LICENSE
3HE11847AA	Deepfield Network Intelligence Defender License (Price Per Router Monitored) With NO BGP-Speaking Enabled - HOSTED 1-YR TERM
3HE11848AA	Deepfield Network Intelligence Defender Management Mitigation Connector - PERPETUAL LICENSE
3HE11849AA	Deepfield Network Intelligence Defender Management Mitigation Connector - 3-YEAR TERM LICENSE
3HE11850AA	Deepfield Network Intelligence Defender Management Mitigation Connector - HOSTED 1-YR TERM
3HE11852AA	Deepfield Network Intelligence Service Intelligence PER SUB License For < 1M Subs - PERPETUAL LICENSE
3HE11853AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 5M - PERPETUAL LICENSE
3HE11854AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 10M - PERPETUAL LICENSE
3HE11855AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs >10M - PERPETUAL LICENSE
3HE11856AA	Deepfield Network Intelligence Service Intelligence PER SUB License For < 1M Subs - 3-YEAR TERM LICENSE
3HE11857AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 5M - 3-YEAR TERM LICENSE
3HE11858AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 10M - 3-YEAR TERM LICENSE

3HE11859AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs >10M - 3-YEAR TERM LICENSE
3HE11860AA	Deepfield Network Intelligence Service Intelligence PER SUB License For < 1M Subs- HOSTED 1-YR TERM
3HE11861AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 5M - HOSTED 1-YR TERM
3HE11862AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs < 10M - HOSTED 1-YR TERM
3HE11863AA	Deepfield Network Intelligence Service Intelligence PER SUB License Where Total Subs >10M - HOSTED 1-YR TERM
3HE11865AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 1M - PERPETUAL LICENSE
3HE11866AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 5M - PERPETUAL LICENSE
3HE11867AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 10M - PERPETUAL LICENSE
3HE11868AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs >10M - PERPETUAL LICENSE
3HE11869AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 1M - 3-YEAR TERM LICENSE
3HE11870AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 5M - 3-YEAR TERM LICENSE
3HE11871AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 10M - 3-YEAR TERM LICENSE
3HE11872AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs >10M - 3-YEAR TERM LICENSE
3HE11873AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 1M - HOSTED 1-YR TERM
3HE11874AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 5M - HOSTED 1-YR TERM
3HE11875AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs < 10M -HOSTED 1-YR TERM
3HE11876AA	Deepfield Network Intelligence Subscriber Intelligence PER SUB License Where Total Subs >10M - HOSTED 1-YR TERM
3HE11878AA	Deepfield Network Intelligence RADIUS Connector License
3HE11879AA	Deepfield Network Intelligence DNS Connector License
3HE11880AA	Deepfield Network Intelligence Generic Connector License
3HE11881AB	SYS - 210 WBX 32QSFP28, base platform. Includes Rail-Kit posts Does not include fans or power supplies
3HE11882AA	SYS - 210 WBX 48SFP28 6QSFP28, base platform Does not include fans or power supplies
3HE11883AA	PS - 210 WBX -48V DC (BtoF) supports also: 3HE15622AA SYS - 7220 IXR-D2 48SFP28 8QSFP28 3HE15623AA SYS - 7220 IXR-D3 32QSFP28 2SFP+

3HE11885AA	PS - 210 WBX AC (BtoF) supports also: 3HE15622AA SYS - 7220 IXR-D2 48SFP28 8QSFP28 3HE15623AA SYS - 7220 IXR-D3 32QSFP28 2SFP+
3HE11886AA	PS - 210 WBX AC (FtoB) supports also: 3HE15622AA SYS - 7220 IXR-D2 48SFP28 8QSFP28 3HE15623AA SYS - 7220 IXR-D3 32QSFP28 2SFP+
3HE11887AA	FAN - 210 WBX Fan (FtoB)
3HE11888AA	FAN - 210 WBX Fan (BtoF)
3HE11897AB	Nuage 7850 Network Services Gateway – Ethernet 200 (NSG-E200). AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X and 10/100/1000BASE-T Gigabit Ethernet, and 4 LAN 10/100/1000BASE-T Gigabit Ethernet ports. 1 ports USB, 1 port RJ-45 serial. Pre-loaded with 5.2.1-8 software. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE11898AB	Nuage 7850 Network Services Gateway – Ethernet 300 (NSG-E300). AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X and 10/100/1000BASE-T Gigabit Ethernet, and 4 LAN 10/100/1000BASE-T Gigabit Ethernet ports. 1 ports USB, 1 port RJ-45 serial. Pre-loaded with 5.2.1-8 software. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE11899AB	Nuage 7850 Network Services Gateway-X200. AC powered with 2-ports 10GigE SFP+, 4-ports 1000BASE-T, 2 ports USB, 1 port RJ-45 serial. Pre-loaded with 5.2.1-8 software. Included in bundle is qty=1 3HE10834AA AC power supply. For 1+1 power redundancy an additional 3HE10834AA must be ordered. One C13 power cord must be purchased separately for each power module. Includes hardware for mounting in EIA/ECA-310 racks. Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE11903AA	7750 SR 12-port 10/1GE MACSec MDA-e. Accepts twelve (12) SFP+ 10GBase or SFP 1000Base Optics Modules.
3HE11904AA	1-port 10/100/1000BASE-TX Small Form-Factor Pluggable (SFP) Copper Module, Cat5, RJ45 Connector, RoHS 6/6 compliant, Extended Temperature -40/85C
3HE11905AA	7750 SR-7s Chassis Spare. Includes; (1) 7750 SR-7s Chassis (1) 3HE12395AA -ACC - 7750 SR-7s ACCESSORY KIT Impedance Panels, LVDC, AC/HVDC Power Shelf, Power Shelf Accessory kits, Rear mounting brackets, and Power Shelf interconnect kits all sold separately
3HE11913AA	RTU - Integrated GNSS adapter for Grandmaster functionality. IXR-R6, IXR-e retrieves clock from a GNSS satellite and becomes Grandmaster. One (1) license per IXR-R6/IXR-e in the network
3HE11914AA	7250 IXR Extends FIB to host larger number of routes Right To Use license. One (1) License is required for each IXR in the network.
3HE11915AA	RTU - L2 VPN Services including EPIPE, VPLS, EVPN, VPWS, sap2sap on Access/Hybrid ports with 40G or more capacity One (1) License is required for each IXR port in the network
3HE11916AA	RTU - L3 VPN Services including IP-VPN, IES on Access/Hybrid ports with 40G or more capacity One (1) License is required for each IXR port in the network

3HE11925AA	PS - Nuage 7850 NSG-E200/NSG-E300 AC spare power supply. NSG-E200/E300 ships with a power supply and this is an additional spare power supply.
3HE12023AE	AC Power Cable AS/NZS 3112 to IEC 60320 C13 10A/250V 1.8 meter - Australia / New Zealand
3HE12023AF	AC Power Cable NBR 14136 Type N to IEC 60320 C13 10A/250V 1.8 meter- Brazil
3HE12023AG	AC Power Cable CPCS-CCC Type I to IEC 60320 C13 10A/250V 1.8 meter- China (excluding Hong Kong and Macau)
3HE12023AH	AC Power Cable IS 1293 to IEC 60320 C13 10A/250V 1.8 meter- India
3HE12023AJ	AC Power Cable CEI 23-50 P11 to IEC 60320 C13 10A/250V 1.8 meter- Italy
3HE12023AK	AC Power Cable JIS C 8303 Class I to IEC 60320 C13 10A/250V 1.8 meter - Japan
3HE12023AM	AC Power Cable SANS 164-1 to IEC 60320 C13 10A/250V 1.8 meter- South Africa
3HE12024AA	LC-LC Single Mode Fiber cable, 6 meter length
3HE12024AB	LC-LC Single Mode Fiber cable, 12 meter length
3HE12024AC	LC-LC Single Mode Fiber cable, 3 meter length
3HE12025AA	LC-SC Single Mode Fiber cable, 6 meter length
3HE12025AB	LC-SC Single Mode Fiber cable, 12 meter length
3HE12025AC	LC-SC Single Mode Fiber cable, 3 meter length
3HE12026AA	LC-LC Multi Mode Fiber cable, 6 meter length
3HE12026AB	LC-LC Multi Mode Fiber cable, 12 meter length
3HE12026AC	LC-LC Multi Mode Fiber cable, 3 meter length
3HE12027AA	LC-SC Multi Mode Fiber cable, 6 meter length
3HE12027AB	LC-SC Multi Mode Fiber cable, 12 meter length
3HE12027AC	LC-SC Multi Mode Fiber cable, 3 meter length
3HE12028AA	Category-6 RJ45 6 meter length
3HE12028AB	Category-6 RJ45 12 meter length
3HE12028AC	Category-6 RJ45 3 meter length
3HE12032AA	DC Power Supply Cable to be used with AirFrame DC Compute Node Power Supply Units.
3HE12037AA	7950 XRS-20e Stand-Alone Complete Chassis AC Bundle, shipped with all common hardware. Includes: (1) 3HE11086AA - CHAS-7950 XRS-20e AC/HVDC SPARE CHASSIS (5) 3HE09423AA - APEQ-AC-3000 Power Equalizer Module , (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B, (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.

3HE12038AA	7950 XRS-20e Stand-Alone Complete Chassis 60A/80A DC Bundle, shipped with all common hardware. Includes: (1) 3HE11085AA - CHAS-7950 XRS-20e Universal Spare Chassis (5) 3HE09422AA - APEQ-DC-2200-2800 Power Equalizer Module , (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B, (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (5) 3HE11093AA - 7950 XRS-20e Dual Power Connect Module (5) 3HE11097AA - 7950 XRS-20e Power Input Module (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM
3HE12080AA	7750 SR Mobile Gateway Integrated Services Module – Mobile Gateway (ISM-MG-C) Subscriber Services Gateway (SSG) base capability. Allows per MG-ISM sub context without support for policy enforcement, steering, charging, mirroring, etc. For use in SSG systems using SSG APPLICATION SOFTWARE LICENSE but without support for RTU SSG LIC FOR 10K SUB CTX
3HE12081AA	Right to Use 7750 SR MG ISM-MG-C SSG full upgrade to enable use of all SSG subscriber features. For use in SSG systems in addition to RTU SSG LIC FOR 10K SUB CTX
3HE12082AA	7750 SR Mobile Gateway Integrated Services Module – Mobile Gateway (ISM-MG-C-E) (no encryption). Subscriber Services Gateway (SSG) base capability. Allows per MG-ISM sub context without support for policy enforcement, steering, charging, mirroring, etc. For use in SSG systems using SSG APPLICATION SOFTWARE LICENSE but without support for RTU SSG LIC FOR 10K SUB CTX
3HE12083AA	Right to Use 7750 SR MG ISM-MG-C-E (no encryption) SSG full upgrade to enable use of all SSG subscriber features. For use in SSG systems in addition to RTU SSG LIC FOR 10K SUB CTX
3HE12106AA	7210 RPS INTERPOSER DCIN 12V_450WOUT
3HE12111AA	1-port 10GBASE-BX20-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 20km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Temperature -40/85C
3HE12111AB	1-port 10GBASE-BX20-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 20km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Temperature -40/85C
3HE12111BA	1-port 10GBASE-BX20-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 20km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Temperature -40/85C
3HE12111BB	1-port 10GBASE-BX20-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 20km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Temperature -40/85C
3HE12112AA	1-port 10GBASE-BX20-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 20km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Temperature -40/85C
3HE12112AB	1-port 10GBASE-BX20-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (XFP) Optics Module, Single Mode Fiber (SMF), 20km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Temperature -40/85C
3HE12195AA	1-port 100GBase-SR10 or 10-port 10GBase SR QSFP28 Optic Module, 100M, MMF, MPO, RoHS 6/6, Digital Diagnostic Monitor (DDM), 0/70C

3HE12196AB	SYS - 210 WBX 32QSFP28, DC System, Back to Front Includes; (1) 3HE11881AB SYS - 210 WBX 32QSFP28, base platform (2) 3HE11883AA PS - 210 WBX -48V DC (BtoF) (5) 3HE11888AA FAN - 210 WBX Fan Tray (BtoF) (1) 3HE14104AA ACC – Rail-kit (fits 19" RM and 21" OR Rack)
3HE12197AB	SYS - 210 WBX 32QSFP28, DC System, Front to Back Includes; (1) 3HE11881AB SYS - 210 WBX 32QSFP28 base platform (2) 3HE10837AA PS - 210 WBX, 7210 Sx 100G -48VDC (FtoB) (5) 3HE11887AA FAN - 210 WBX Fan (FtoB) (1) 3HE14104AA ACC – Rail-kit (fits 19" and 21" OR Rack)
3HE12198AB	SYS - 210 WBX 32QSFP28, AC System, Back to Front Includes; (1) 3HE11881AB SYS - 210 WBX 32QSFP28 base platform (2) 3HE11885AA PS - 210 WBX AC (BtoF) (5) 3HE11888AA FAN - 210 WBX Fan Tray (BtoF) (1) 3HE14104AA ACC – Rail-kit (fits 19" RM and 21" OR Rack)
3HE12199AB	SYS - 210 WBX 32QSFP28, AC System, Front to Back Includes; (1) 3HE11881AB SYS - 210 WBX 32QSFP28 base platform (2) 3HE11886AA PS - 210 WBX -AC (FtoB) (5) 3HE11887AA FAN - 210 WBX Fan (FtoB) (1) 3HE14104AA ACC – Rail-kit (fits 19" RM and 21" OR Rack)
3HE12200AA	SYS - 210 WBX 48SFP28 6QSFP28, DC system, Back to Front Includes; (1) 3HE11882AA SYS - 210 WBX 48SFP28 6QSFP28 base platform (2) 3HE11883AA PS - 210 WBX -48V DC (BtoF) (4) 3HE11888AA FAN - 210 WBX Fan (BtoF)
3HE12201AA	SYS - 210 WBX 48SFP28 6QSFP28, DC System, FtoB (1) 3HE11882AA SYS - 210 WBX 48SFP28 6QSFP28 base platform (2) 3HE10837AA PS - 210 WBX, 7210 Sx 100G -48VDC (FtoB) (4) 3HE11887AA FAN - 210 WBX Fan Tray (FtoB)
3HE12202AA	SYS - 210 WBX 48SFP28 6QSFP28, AC system, Back to Front Includes; (1) 3HE11882AA SYS - 210 WBX 48SFP28 6QSFP28 base platform (2) 3HE11885AA PS - 210 WBX AC (BtoF) (4) 3HE11888AA FAN - 210 WBX Fan (BtoF)
3HE12203AA	SYS - 210 WBX 48SFP28 6QSFP28, AC System, FtoB (1) 3HE11882AA SYS - 210 WBX 48SFP28 6QSFP28 base platform (2) 3HE11886AA PS - 210 WBX AC (FtoB) (4) 3HE11887AA FAN - 210 WBX Fan Tray (FtoB)
3HE12204AA	Nuage perpetual RTU License for 210 WBX (either 3HE11881 or 3HE11882 hardware model)
3HE12229AA	1-port 100GBase LR4 QSFP28 Optics Module, 10km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), -40/85C

3HE12230AA	1-port 100GBase CWDM4 QSFP28 Optics Module, 2km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), -40/85C
3HE12293AA	Ideal for Outdoor GNSS installation. Includes 1 x 25 ft (7.6 m) LMR400 Coax cable, 1 x Coax grounding kit, 1 x surge protector (N-type Male to Female), 1 x surge protector grounding lug and 1 x GNSS Antenna (3HE12347AA) mount kit.
3HE12293BA	Indoor/Outdoor GNSS installation kit, includes: (2) 25 ft (7.6 m) LMR400 Coax cables, (2) Coax grounding kits, (1) surge protector (N-type Female to Female) (1) surge protector grounding lug.
3HE12293CA	Indoor/Outdoor GNSS installation kit includes (1) 100 ft (30.5 m) (1) 25 ft (7.6 m) LMR400 Coax cables, (2) Coax grounding kits, (1) surge protector (N-type Female to Female) (1) surge protector grounding lug.
3HE12293DA	Indoor/Outdoor GNSS installation kit includes: (1) 300 ft (91.4 m) (1) 25 ft (7.6 m) LMR400 Coax cables, (4) Coax grounding kits, (1) surge protector (N-type Female to Female) (1) surge protector grounding lug.
3HE12298AA	7750 SR-1 Integrated DC System, Core Router feature set, the 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately
3HE12298BA	7750 SR-1 Integrated DC System, Edge Router Feature set, the 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately.
3HE12298CA	7750 SR-1 Integrated DC System, High Scale Edge feature set, the 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit, and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately.
3HE12299AA	7750 SR-1 AC System, Core Router feature set, the 3HE12303AA - ACC - 7750 SR-1 AC Accessory kit and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately
3HE12299BA	7750 SR-1 AC System, Edge Router Feature set, the 3HE12303AA - ACC - 7750 SR-1 AC Accessory kit and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately
3HE12299CA	7750 SR-1 AC System, High Scale Edge feature set, the 3HE12303AA - ACC - 7750 SR-1 AC Accessory kit and a 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP are included with this item. Fan tray sold separately.
3HE12300AA	7750 SR-1 Fan Tray
3HE12301AA	7750 SR-1 AC Power Supply
3HE12302AA	7750 SR-1 Accessory kit DC kit (Includes, wriststrap, grounding and power lugs, mounting hardware)
3HE12303AA	7750 SR-1 Accessory kit AC kit (Includes, wriststrap, lugs, mounting hardware)
3HE12304AA	7750 SR-1 Air filter mounting kit Qty 1-- Kit comes with one filter media included.

3HE12305AA	7750 SR-1 Air filter media kit Qty 5
3HE12311AA	7705 SAR-Hm outdoor enclosure. Pole/Wall mountable (bracket sold separately). IP66/IP67 rated. Includes 2 x 4.3-10 (F) bulkhead connectors/cables preinstalled. Supports another 2 x N-Type bulkhead terminations (sold separately). Can house 1 x 7705-SAR-Hm, 1 x HV-PS35.
3HE12311BA	7705 SAR-Hm outdoor enclosure. Pole/Wall mountable (bracket sold separately). IP66/IP67 rated. Includes 2 x N-Type (F) bulkhead connectors/cables preinstalled. Supports another 2 x N-Type bulkhead terminations (sold separately). Can house 1 x 7705-SAR-Hm, 1 x HV-PS35.
3HE12312AA	Pole/Wall Mounting bracket for the 7705 SAR-Hm/SAR-Hmc Enclosure (3HE12311AA, 3HE12311BA, 3HE12555BA). Includes hardware to attach to the enclosure. Pole/Wall mounting hardware are not supplied.
3HE12313AA	7950 XRS-20/20e Switch Fabric Module-2 Stand Alone (SFM2-SA) - (Spare)
3HE12314AA	7750 SR-7s CMA dual (Control Mechanical Adapter). Accepts (2) 7750 SR-s CPMs
3HE12315AA	7750 SR-14s CMA (Control Mechanical Adapter). Accepts (2) 7750 SR-s CPMs
3HE12318AA	CABLE,LMR240, SMA TO N-TYPE (FEMALE),1M
3HE12321AA	7950 XRS-20e XCM2 (XMA Control Module). Provides 4.8T of Slot Switching Capacity. Accepts (2) XMA's and/or C-XMA's.
3HE12326AA	7750 SR-7s CMA single (Control Mechanical Adapter). Accepts (1) 7750 SR-s CPMs
3HE12327AA	7950 XRS-20 XCM2 (XMA Control Module). Provides 3.2T of Slot Switching Capacity. Accepts (2) XMA's and/or C-XMA's.
3HE12328AA	7750 SR-14s/7s Power Shelf Accessory kit, this this accessory is required for all 7750 SR-14s/7s with a single LVDC power shelf, including the following components for the LVDC Power Shelf. (6) SCREW, 8-32 X .375 PHIL FLAT HD, 100DEG (20) SCREW 1/4-20 X 5/8 HEX (12) SCREW 8-32 X 3/8 HEX (1) BUS BAR ADAPTER NEG 1X (1) BUS BAR ADAPTER POS 1X (1) BRACKET RACK MT LVDC-R (1) BRACKET RACK MT LVDC-R L (1) BRACKET TIE POINT POWER SHELF L (1) BRACKET TIE POINT POWER SHELF R (1) BASE ASSY BB SHIELD LVDC (1) COVER ASSY BB SHIELD 1X

3HE12329AA	7750 SR-14s/7s Dual LVDC Power Shelf Accessory kit, this this accessory is required for all 7750 SR-14s/7s with a two LVDC power shelf, including the following components for the LVDC Power Shelves. (1) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 3 FT (12) SCREW, 8-32 X .375 PHIL FLAT HD, 100DEG (32) SCREW 1/4-20 X 5/8 HEX (20) SCREW 8-32 X 3/8 HEX (2) BRACKET RACK MT LVDC-R (1) BUS BAR ADAPTER NEG (1) BUS BAR ADAPTER POS (2) BRACKET RACK MT LVDC-R L (1) BRACKET TIE POINT POWER SHELF L (1) BRACKET TIE POINT POWER SHELF R (2) BRACKET STRAP POWER SHELF (2) BASE ASSY BB SHIELD LVDC (1) COVER ASSY BB SHIELD
3HE12330AA	7750 SR-12e Switch Fabric Module (SFM6-12e)
3HE12331AA	7750 SR-12e mini- Switch Fabric Module (mini-SFM6-12e)
3HE12332AA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 1.5T FD, accepts two (2) MDA-e-XP. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 1.5T throughput. Software scale upgradeable to ER or HE feature set. 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP & 6pt QSFP-DD MDA-e-XP are not supported 7750 SR-12e - licensed to 1.5T throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE12332BA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 1.5T FD, accepts two (2) MDA-e-XP. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 1.5T throughput. Software scale upgradeable to HE feature set. 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP & 6pt QSFP-DD MDA-e-XP are not supported 7750 SR-12e - licensed to 1.5T throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions

3HE12332CA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 1.5T FD, accepts two (2) MDA-e-XP. High-Scale Edge (HE) no restrictions on h/w queues or egress policers Full High-Scale Edge feature set (HE) licenses on this part number does not restrict hardware queues or egress policers. 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP & 6pt QSFP-DD MDA-e-XP are not supported 7750 SR-12e - licensed to 1.5T throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE12333AA	7750 SR 6-ports 10/40/100GBASE MDA-e-XP. Accepts six (6) 10/40/100GBase Optic Module QSFP+/QSFP28.
3HE12334AA	7750 SR 12-ports 10/40/100GBASE MDA-e-XP. Accepts twelve (12) 10/40/100GBase Optic Module QSFP+/QSFP28.
3HE12335AA	7750 SR SFM6-7/12 (Switch Fabric Module) for the 7750 SR-7 and 7750 SR-12 chassis.
3HE12340AA	Chassis Spare - 7750 SR-2s chassis + LVDC Power Shelf. Includes; 7750 SR-2s Chassis + LVDC Power Shelf and accessory kit. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), Accessory kit for LVDC, Lug Kit and optional air filter kit
3HE12340BA	Chassis Spare - 7750 SR-2s chassis + AC/HVDC Power Shelf. Includes; 7750 SR-2s Chassis + AC/HVDC Power Shelf and accessory kit. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), Power Cords and optional air filter kit
3HE12343AA	Omni directional antenna. 30"Height x 1"Diameter (75 cm x 3 cm). 2dBi/3dBi gain for 694-960 MHz/1700-2700 MHz respectively. 2 x N-Female connectors for MIMO support. Suitable for outdoor deployments. U-bolt kit included for pipe mounting.
3HE12344AA	Directional antenna.12"L x 12"W x 4.4"D (30.5 cm x 30.5 cm x 11.2 cm). 6dBi/8dBi gain for 698-960 MHz/1710-2700 MHz. 2 x N-Type female connectors for MIMO support. Suitable for outdoor deployments. Kit for pipe mounting included.
3HE12345AA	Indoor WiFi Omni Directional Antenna. 3dBi gain for 2.4GHz/5.1~5.85GHz. Screw mount Dipole Antenna with RP-SMA male connector. Mounts directly to the 7705 SAR-Hm. (10 antennas per)
3HE12346AA	Outdoor WiFi omni-directional antenna. 2 dBi gain for 2.4-2.5 GHz/4.9-5.9 GHz frequency range. Mounts directly to an N-Type bulk-head of the 7705 SAR-Hm enclosure (3HE12311AA/3HE12311BA). Can also be mounted to pole/wall with bracket (sold separately)
3HE12347AA	Small GNSS antenna designed to mount directly on an N-Type bulk-head of the 7705 SAR-Hm enclosure (3HE12311AA). Can also be mounted to pole/wall with bracket (sold separately)
3HE12349AA	N-Type bulkhead cap for the 7705 SAR-Hm enclosure (3HE12311AA/3HE12311BA). 10 per box.
3HE12350AA	CABLE,LDF4-50A 1/2",N(MALE) TO N(MALE) LOOSE,25FT
3HE12350BA	CABLE,LDF4-50A 1/2",N(MALE) TO N(MALE) LOOSE,50FT
3HE12350CA	CABLE,LDF4-50A 1/2",N(MALE) TO N(MALE) LOOSE,100FT
3HE12351AA	CABLE,LDF4-50A 1/2",4.3-10(MALE) TO 4.3-10(MALE) LOOSE,25FT
3HE12351BA	CABLE,LDF4-50A 1/2",4.3-10(MALE) TO 4.3-10(MALE) LOOSE,50FT

3HE12351CA	CABLE,LDF4-50A 1/2",4.3-10(MALE) TO 4.3-10(MALE) LOOSE,100FT
3HE12353AA	1/2" RF coax grounding kit (includes grounding clamp and cable; butyl rubber tape; PVC tape)
3HE12354AA	LTE Surge Protector (4.3-10/male – 4.3-10/female) (for Outdoor enclosure)
3HE12355AA	LTE Surge Protector (N/female - N/female) (for Indoor/ Outdoor applications)
3HE12356AA	LTE Surge Protector (N/male - N/female) (for Outdoor enclosure)
3HE12358AA	7750 SR-14s/7s Single AC/HVDC Power Shelf Accessory kit, this this accessory is required for all 7750 SR-14s/7s with a single AC/HVDC power shelf, including the following components for the AC/HVDC Power Shelf. (6) SCREW, 8-32 X .375 PHIL FLAT HD (20) SCREW 1/4-20 X 5/8 HEX HD (12) SCREW 8-32 X 3/8 HEX HD (1) BUS BAR ADAPTER NEG (1) BUS BAR ADAPTER POS (1) BRACKET RACK MT HVDC/AC-R R (1) BRACKET RACK MT HVDC/AC-R L (1) BRACKET TIE POINT POWER SHELF L (1) BRACKET TIE POINT POWER SHELF R (1) COVER ASSY BB SHIELD (1) BASE ASSY BB SHIELD HVDC/AC
3HE12359AA	7750 SR-14s/7s Dual AC/HVDC Power Shelf Accessory kit, this this accessory is required for all 7750 SR-14s/7s with a two AC/HVDC power shelf, including the following components for the AC/HVDC Power Shelves. (1) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 3 FT (12) SCREW, 8-32 X .375 PHIL FLAT HD (32) SCREW 1/4-20 X 5/8 HEX HD (20) SCREW 8-32 X 3/8 HEX HD (1) BUS BAR ADAPTER NEG (1) BUS BAR ADAPTER POS (2) BRACKET RACK MT HVDC/AC-R R (2) BRACKET RACK MT HVDC/AC-R L (1) BRACKET TIE POINT POWER SHELF L (1) BRACKET TIE POINT POWER SHELF R (2) BRACKET STRAP POWER SHELF (1) COVER ASSY BB SHIELD HVDC/AC (2) BASE ASSY BB SHIELD HVDC/AC

3HE12360AA	7750 SR-14s/7s LVDC+ AC/HVDC Power Shelf Accessory kit, this this accessory is required for all 7750 SR-14s/7s with both a LVDC and an AC/HVDC power shelf, including the following components for the Power Shelves. (1) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 3 FT (12) SCREW, 8-32 X .375 PHIL FLAT HD (32) SCREW 1/4-20 X 5/8 HEX HD (20) SCREW 8-32 X 3/8 HEX HD (1) BRACKET RACK MT LVDC-R (1) BUS BAR ADAPTER NEG (1) BUS BAR ADAPTER POS (1) BRACKET RACK MT HVDC/AC-R R (1) BRACKET RACK MT LVDC-R L (1) BRACKET RACK MT HVDC/AC-R L (1) BRACKET TIE POINT POWER SHELF L (1) BRACKET TIE POINT POWER SHELF R (2) BRACKET STRAP POWER SHELF (1) BASE ASSY BB SHIELD LVDC (1) COVER ASSY BB SHIELD (1) BASE ASSY BB SHIELD HVDC/AC
3HE12371AA	Screw mount dipole omni directional antenna with SMA (Male) connector. 698MHz to 960MHz, 1710MHz to 2690MHz. Mounts directly to the 7705 SAR-Hm. (10 antennas per)
3HE12375AB	FAN - 7750 SR-2s Fan Module
3HE12376AA	7750 SR-1s Fan Tray spare
3HE12378AA	7750 SR-7s XCM Impedance Panel, must be installed in each and every empty XCM-s slot.
3HE12379AA	7750 SR-2s XCM (XMA Control Module). Provides up to 4.8Tb of slot switching capacity. Accepts (1) 7750 SR-s XMA. Important Rules; - Using the 2, 3, or 4-complex XMA-s requires both XCM-2s cards for 100% line-rate traffic on all ports simultaneously. - If using IOM-s-1.5T or IOM-s-3.0T only a single XCM-2s is required for 100% line-rate traffic.
3HE12382AA	7250 IXR-6 Gen 2 Switch Fabric Module (SFM2-IXR-6) - (Spare)
3HE12384AA	7250 IXR-R6 Accessory Kit Includes: Mounting Hardware, Wrist Strap, 5' Null Cable DB9F - RJ45

3HE12388AA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T” licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T or 3.6T intelligent fan-in/fan-out.
3HE12388BA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T” licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 2.4T or 3.6T intelligent fan-in/fan-out.
3HE12388CA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T” licensed to 2.4T throughput and 24-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T or 3.6T intelligent fan-in/fan-out.
3HE12389AA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE12389BA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE12389CA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE12390AA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “ 3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE12390BA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE12390CA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE12391AA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP56-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “ 3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable to 12T intelligent fan-in/fan-out.

3HE12391BA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP56-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable to 12T intelligent fan-in/fan-out.
3HE12391CA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP56-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE12392xA - XMA - SR-s 4.8T 36pt QSFP-DD to 12T” licensed to 4.8T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable to 12T intelligent fan-in/fan-out.
3HE12392AA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP56-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Full High-Scale Edge feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE12392BA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP56-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Full Edge Router feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE12392CA	7750 SR-s XMA (Expandable Media Adapter), 4x FP4 complex, performance 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP56-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE12395AA	7750 SR-7s Accessory Kit, this kit includes the following; (2) CABLE ASSY RJ45 PLUG STR TO PLUG STR SHLD LSZH CAT6 BLK 5 FT (2) NUT 1/4-20 (1) CONN, LUG,#2 AWG WIRE, 1/4" BOLT HOLES, .625" SPACING, 0.5" TONGUE, DOUBLE-CRIMP, 90 DEG (1) WRIST STRAP (1) 3HE12566AA ACC - SR-s CLEANING TOOL, HONEYCOMB

3HE12407AA	7750 SR 2-ports 10/25/40/100GBASE MDA-e. Accepts two (2) QSFP+/QSFP28 100GBase Optic Module, supports MACsec.
3HE12409AA	DTE cable to connect from the 12 port SDIv3 (3HE03391AC) or SDIv3 conformal coated version (3HE03391BC) to the distribution panels (SCSI-SCSI). One cable per pair of connectors on the SDIv3 as required (connect upto 4 ports).
3HE12410AA	DCE cable to connect from the 12 port SDIv3 (3HE03391AC) or SDIv3 conformal coated version (3HE03391BC) to the distribution panels (SCSI-SCSI). One cable per pair of connectors on the SDIv3 as required (connect upto 4 ports).
3HE12421AA	Replacement air filters kit (qty 10) for 10 x SR-7s chassis or for 5 x 14s chassis (2 per chassis) worth
3HE12432AA	Accessory Kit - 7750 SR-1 ETSI rack mount kit
3HE12433AA	6 port (2 x 10G SFP+, 4 x 1G – SFP) Ethernet 10Gbps card. Optics (SFP, SFP+) are sold separately. This card is supported in both -48 VDC and +24 VDC systems. No Encryption.
3HE12433BA	Conformal Coated Variant of 6 port (2 x 10G SFP+, 4 x 1G – SFP) Ethernet 10Gbps card. Optics (SFP, SFP+) are sold separately. This card is supported in both -48 VDC and +24 VDC systems. No Encryption.
3HE12434AA	This kit includes everything required for GNSS installation kit (3HE12293AA, 3HE12293BA, 3HE12293CA, 3HE12293DA) customization. Cutter, crimper, stripper & midspan stripper included.
3HE12442AA	4-Port RS232 Distribution Panel for the SDIv3
3HE12443AA	4-Port RS530 Distribution Panel for the SDIv3
3HE12444AA	4-Port X.21 Distribution Panel for the SDIv3
3HE12445AA	4-Port V.35 Distribution Panel for the SDIv3
3HE12446AA	7250 IXR-10 Gen2 Switch Fabric Module (SFM2-IXR-10) - (Spare)
3HE12449AA	Jumper cable for WiFi port of the 7705 SAR-Hm enclosure (3HE12311AA/3HE12311BA). 10 per box.
3HE12450AA	Jumper cable for GNSS port of the 7705 SAR-Hm enclosure (3HE12311AA/3HE12311BA). 10 per box.
3HE12451AA	LDF4 1/2" cable strip tool
3HE12458AA	7250 IXR Control Processor Module (CPM2-IXR SSD) with 240 GB SSD - (Spare)
3HE12459AA	7750 SR-14s air filter door kit, this is an optional kit for customers to deploy with an air filter door for the 7750 SR-14s, this kit includes the following; (1) GROUND STRAP, FILTER DOOR, RA-7/14S (1) Left upright assembly-with wrapper, filter door kit (1) Right upright assembly-with wrapper, filter door kit (1) Cross Bar assembly top (1) Cross Bar assembly bottom (1) Air filter door (4) Alignment pins (16) 6-32 x 1/2 screws (8) 6-32 x 1/4 screws (2) Air intake filters (4) 10-32 x 3/8 screws

3HE12460AA	7750 SR-7s air filter door kit, this is an optional kit for customers to deploy with an air filter door for the 7750 SR-7s, this kit includes the following; (1) GROUND STRAP, FILTER DOOR, RA-7/14S (1) Left upright assembly-with wrapper, filter door kit (1) Right upright assembly-with wrapper, filter door kit (1) Cross Bar assembly top (1) Cross Bar assembly bottom (1) Air filter door (4) Alignment pins (12) 6-32 x 1/2 screws (4) 6-32 x 1/4 screws Phil (4) 6-32 x 1/4 screws Flat (4) 10-32 x 3/8 screws (1) Air intake filter
3HE12462AA	Spare SD card (16GB). -40 to 85C, SLC.
3HE12464AA	Power jumper designed for the 7250 IXR-R6, mountable to frame or other suitable location
3HE12464BA	Power jumper designed for the 7250 IXR-R6, with 1RU rack mount bracket
3HE12469AA	7750 SR-14s/7s Qty 1 LVDC Power Shelf lug kit, this kit is required for all 7750 SR-14s/7s systems in which are power by LVDC Power Shelves, includes the following; (40) NUT 1/4-20 (20) CONN, LUG,#2 AWG WIRE, 1/4" BOLT HOLES, .625" SPACING, 0.5" TONGUE, DOUBLE-CRIMP, 90 DEG
3HE12470AA	7750 SR-14s Rear Chassis Rackmount kit, includes the following; (4) SCREW 8-32 X 3/8 HEX HD (2) BRACKET ASSY RACK MT REAR
3HE12471AA	7750 SR-7s Rear Chassis Rackmount kit, includes the following; (4) SCREW 8-32 X 3/8 HEX HD (2) BRACKET ASSY, RACK MOUNT, REAR 7s
3HE12472AA	7705 SAR-Hmc with 9-60V DC power feed and covering NAR LTE frequencies, including the CBRS band. System supports LTE Cat4 connectivity with Main and diversity, and a GNSS input for location. Supports 3 x 10/100 Mbps RJ45 and 2 x RS232 in a single RJ45. Can be DIN/panel/wall/shelf mounted, and includes DIN Rail mounting clip. Antennas, mounting hardware, OS and other RTU licenses are sold separately.
3HE12474AA	7705 SAR-Hmc with 9-60V DC power feed and covering EMEA and CALA LTE frequencies, including bands 31 & 72. System supports LTE Cat4 connectivity with Main and diversity, and a GNSS input for location. Supports 3 x 10/100 Mbps RJ45 and 2 x RS232 in a single RJ45. Can be DIN/panel/wall/shelf mounted, and includes DIN Rail mounting clip. Antennas, mounting hardware, OS and other RTU licenses are sold separately.
3HE12475AA	7705 SAR-Hmc with 9-60V DC power feed and covering EMEA and CALA LTE frequencies, including band 87. System supports LTE Cat4 connectivity with Main and diversity, and a GNSS input for location. Supports 3 x 10/100 Mbps RJ45 and 2 x RS232 in a single RJ45. Can be DIN/panel/wall/shelf mounted, and includes DIN Rail mounting clip. Antennas, mounting hardware, OS and other RTU licenses are sold separately.
3HE12492AA	APEQ-AC-4400 Advanced Power Equalizer Module. Accepts two redundant feeds

3HE12496AA	2RU kit to convert the 7250 IXR-R6 airflow from right-to-left to front-to-back. Note that this may derate the maximum supported ambient temperatures on the 7250 IXR-R6.
3HE12501AA	7250 IXR-R4 Chassis. 4 MDA slots, 2 CPM slots, 1 IOM slot, 1 Fan tray slot and 1 fan filter slot. No fan tray and impedance panels included.
3HE12502AA	7250 IXR-R4 fan tray. One per 7250 IXR-R4 system required
3HE12503AA	7250 IXR-R4 fan filter: 5-pack
3HE12504AA	8-Port C37.94 Teleprotection Card. Supports multi- and single-mode C37.94 optics. Optics sold separately.
3HE12504BA	Conformal coated 8-Port C37.94 Teleprotection Card. Supports multi- and single-mode C37.94 optics. Optics sold separately.
3HE12506AA	7750 SR-2s Rear Mounting Hardware Kit
3HE12507AA	7750 SR-1s Rear Mounting Hardware Kit
3HE12508AA	APEQ-HVDC-4400 High Voltage DC Advanced Power Equalizer Module. Accepts two redundant feeds
3HE12510AA	7750 SR-s IOM-s (Input/Output Module) 1.6T IOM-s Core Routing, accepts two modular MDA-s, 2x FP4 complex, CR (Core Router) feature set. MDA-s impedance panels needs to be added separately. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off "3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T" Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.0T.
3HE12510BA	7750 SR-s IOM-s (Input/Output Module) 1.6T IOM-s Edge Routing, accepts two modular MDA-s, 2x FP4 complex, ER (Edge Router) feature set. MDA-s impedance panels needs to be added separately. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T" Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T or 3.0T.
3HE12510CA	7750 SR-s IOM-s (Input/Output Module) 1.6T IOM-s High-Scale Edge Routing, accepts two modular MDA-s, 2x FP4 complex, HE (High-Scale Edge) feature set. MDA-s impedance panels needs to be added separately. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off "3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T" Full High-Scale Edge feature set Hardware performance upgradeable from 2.4T or 3.0T.
3HE12511AA	7750 SR-s 18-ports 10/40/100GBASE MDA-s. Accepts (18) 10/40/100GBase Optic Module QSFP+/QSFP28.
3HE12512AA	7750 SR-s 6-port CFP2-DCO MDA-s. 100 Gbps transmission using QPSK modulation for metro-core and long-haul applications and 200 Gbps (2x100G) for metro-access applications. Accepts six (6) CFP-DCO Optic Module.
3HE12513AA	7750 SR-s 16-ports SFP-DD (10/25/100G) + 4-ports QSFP28 (10/40/100G) MDA-s. Accepts (16) 10/25/100GBase Optic Module SFP+/SFP28/SFP-DD + (4) 10/40/100GBase Optic Module QSFP+/QSFP28.

3HE12514AA	7750 SR-s 24-ports 10/100GBASE MDA-s. Accepts (24) 10/100GBase Optic Module SFP+/SFP-DD.
3HE12515AA	7750 SR-s 4-ports QSFP56-DD (10/40/100/400G) + 4-ports QSFP28 (10/40/100G) MDA-s. Accepts (4) 10/40/100/400GBase Optic Module QSFP+/QSFP28/QSFP28-DD/QSFP56-DD + 4-ports QSFP+/QSFP28.
3HE12518AA	7250 IXR-R6 4 x 10GE SFP+ + 1 x100GE CFP2 MDA. Pluggables sold separately.
3HE12519AA	ACC – 7750 SR-2s Air Filter Kit Qty 1 The Filter kit is highly recommend for every installation and therefore, should be order with each system
3HE12520AA	Multi-mode LC-to-ST connectors for the 8-port C37.94 Teleprotection Card (3HE12504AA/3HE12504BA). Pack of 5 cables.
3HE12522AA	7250 IXR-6/10 Gen2 IMM supporting 32-port 100 GE QSFP28 + 4-port 400GE QSFP-DD. Pluggables sold separately.
3HE12523AA	7250 IXR-R6 6 x 10GE SFP+ + 4 x 25GE SFP28 MDA. Pluggables sold separately.
3HE12524AA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 600G FD, port restricted to 6-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 600G throughput and 6-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. <u>Hardware performance upgradeable from 0.6T to 1.2T or 1.8T intelligent fan-in/fan-out.</u>
3HE12524BA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 600G FD, port restricted to 6-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 600G throughput and 6-connectors hard license enabled. Software scale upgradeable to HE feature set. <u>Hardware performance upgradeable from 0.6T to 1.2T or 1.8T intelligent fan-in/fan-out.</u>
3HE12524CA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 600G FD, port restricted to 6-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 600G throughput and 6-connectors hard license enabled. Full High-Scale Edge feature set. <u>Hardware performance upgradeable from 0.6T to 1.2T or 1.8T intelligent fan-in/fan-out.</u>

3HE12525AA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 1.2T FD, port restricted to 12-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 1.2T throughput and 12-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.2T or 1.8T intelligent fan-in/fan-out.
3HE12525BA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 1.2T FD, port restricted to 12-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 1.2T throughput and 12-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.2T or 1.8T intelligent fan-in/fan-out.
3HE12525CA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance restricted to 1.2T FD, port restricted to 12-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE12526xA - XMA - SR-s 1.2T 18pt QSFP28” licensed to 1.2T throughput and 12-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.2T or 1.8T intelligent fan-in/fan-out.
3HE12526AA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance to 1.2T FD, Aggregation mode up to 18-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 1.8T intelligent fan-in/fan-out
3HE12526BA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance to 1.2T FD, Aggregation mode up to 18-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 1.8T intelligent fan-in/fan-out.
3HE12526CA	7750 SR-s XMA (Expandable Media Adapter), 1x FP4 complex, performance to 1.2T FD, Aggregation mode up to 18-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 1.8T intelligent fan-in/fan-out.

3HE12528AA	7750 SR-2s XCM-2s IMPEDANCE PANEL Kit which includes the 3HE11309AA XMA-s impedance panel
3HE12529AA	7750 SR-2s CPM-2s IMPEDANCE PANEL
3HE12546AA	1-port C37.94 SR Multimode Fiber (MMF), 2km, 850 nm, LC Connector, RoHS 6/6 compliant, Extended Temperature -40/85C
3HE12547AA	1-port C37.94 SR Single mode Fiber (SMF), 20km, 1310 nm, LC Connector, RoHS 6/6 compliant, Extended Temperature -40/85C
3HE12549AA	7250 IXR-R4 CPM. Two required per system for control redundancy.
3HE12550AA	7250 IXR-R4 IOM. One required per system. Supports 2 x 10GE SFP+/SFP and 10 x 1GE SFP ports. Pluggables sold separately.
3HE12551AA	7250 IXR-R4 Accessory Kit Includes: Mounting Hardware, Wrist Strap, 5' Null Cable DB9F - RJ45
3HE12554AA	7705 SAR-Hmc 1-to-2 RJ45 serial Y-cable. 5 per pack.
3HE12555BA	7705 SAR-Hmc outdoor enclosure. Pole/Wall mountable (bracket sold separately). IP66/IP67 rated. Includes 2 x N-Type (F) bulkhead connectors/cables preinstalled. Supports another 2 x N-Type bulkhead terminations (sold separately). Can house 1 x 7705-SAR-Hmc, 1 x HV-PS35.
3HE12559AA	CPM2-14s/7s (Control Processor Module) for the 7750 SR-14s & 7s platforms. Supported in the CMA2-14s (3HE12561AA) and CMA2-7s (3HE12560AA)
3HE12560AA	7750 SR-s CMA2-7s (Control Mechanical Adapter). Accepts (2) 7750 SR-s CPMs-14s/7s (3HE12559AA)
3HE12561AA	7750 SR-s CMA2-14s (Control Mechanical Adapter). Accepts (2) 7750 SR-s CPMs-14s/7s (3HE12559AA)
3HE12562AA	AC Power cable blunt cut with SAF-D-GRID 300 (Key C) T Latch 4.0mm2 gauge, 3m for rest of world applications
3HE12565AA	7250 IXR-6 SRLinux System License 19.x – one per system
3HE12566AA	Spare Accessory kit for the 7750 SR-s Cleaning tool, honeycomb. With 6 tape-stacks for cleaning up to 288 vents.
3HE12570AA	Spare Accessory kit for the 7750 SR-1 Cleaning tool, honeycomb. With 6 tape-stacks for cleaning up to 288 vents.
3HE13304DA	Nuage System Center Integration - RTU per Microsoft System Center. License to use Nuage VSP with Microsoft System Center. One integration license required per System Center installation. Nuage System Center Integration provides: • VRS integration for activation of Hyper-V VMs into Nuage Networks • VRS Integration as a Hyper-V Virtual Switch extension on each Hyper-V Hypervisor • User Add-In on SCVMM in order to ease the provisioning of the Nuage parameters on the Hyper-V VMs One integration license required per vCenter Instance. Nuage VMware vSphere Integration Provides: • VRS integration for activation of ESXi VMs into Nuage Networks • VRS Integration as an Agent on each ESXi Hypervisor (vSphere Solution) • Deployment Toolbox for easy provisioning and deployment of each VRS Agent • User Plugin on vCenter Client in order to ease the provisioning of the Nuage parameter on the Nuage VMs

3HE13305DA	Nuage System Center Integration - Annual RTU license per Microsoft System Center. License to use Nuage VSP with Microsoft System Center. One integration license required per System Center installation. Nuage System Center Integration provides: • VRS integration for activation of Hyper-V VMs into Nuage Networks • VRS Integration as a Hyper-V Virtual Switch extension on each Hyper-V Hypervisor • User Add-In on SCVMM in order to ease the provisioning of the Nuage parameters on the Hyper-V VMs
3HE13306DA	Accelerated VRS license for a bandwidth of 10Gbps
3HE13307DA	Accelerated VRS-G license for a bandwidth of 10Gbps
3HE13308DA	Accelerated VRS license for a bandwidth of 25Gbps
3HE13309DA	Accelerated VRS-G license for a bandwidth of 25Gbps
3HE13310DA	Accelerated VRS license for a bandwidth of 40Gbps with any combination of 10G, 40G NICs
3HE13311DA	Accelerated VRS-G license for a bandwidth of 40Gbps with any combination of 10G, 40G NICs
3HE13312DA	Accelerated VRS license for a bandwidth of 100Gbps with any combination of with 10G, 25G, 40G, 100G NICs
3HE13313DA	Accelerated VRS-G license for a bandwidth of 100Gbps with any combination of with 10G, 25G, 40G, 100G NICs
3HE13314DA	Accelerated VRS Annual RTU license for a bandwidth of 10Gbps
3HE13315DA	Accelerated VRS-G Annual RTU license for a bandwidth of 10Gbps
3HE13316DA	Accelerated VRS Annual RTU license for a bandwidth of 25Gbps
3HE13317DA	Accelerated VRS-G Annual RTU license for a bandwidth of 25Gbps
3HE13318DA	Accelerated VRS Annual RTU license for a bandwidth of 40Gbps with any combination of 10G, 40G NICs
3HE13319DA	Accelerated VRS-G Annual RTU license for a bandwidth of 40Gbps with any combination of 10G, 40G NICs
3HE13320DA	Accelerated VRS Annual RTU license for a bandwidth of 100Gbps with any combination of with 10G, 25G, 40G, 100G NICs
3HE13321DA	Accelerated VRS-G Annual RTU license for a bandwidth of 100Gbps with any combination of with 10G, 25G, 40G, 100G NICs
3HE13326DA	Nuage Hardware VxLAN VTEP license to enable non-virtualized assets to participate in the network overlay. This license enables up to 128x25GE ports to be connected offering L2, L3, QOS, ACL features when supported by the hardware device. This license is applicable on a single switch basis and applies to 210 WBX as well as 3rd party VTEPs.
3HE13327DA	Nuage Hardware VxLAN VTEP Annual RTU license to enable non-virtualized assets to participate in the network overlay. This license enables up to 128x25GE ports to be connected offering L2, L3, QOS, ACL features when supported by the hardware device. This license is applicable on a single switch basis and applies to 210 WBX as well as 3rd party VTEPs. This allows access to the latest version and automatic updates.
3HE13328DA	Nuage Virtual Routing and Switching Software Gateway License per server (up to 4x25GigE interface). Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).

3HE13329DA	Nuage Virtual Routing and Switching Software License per server (up to 4x25GigE interface) with KVM. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13330DA	Nuage Virtual Routing and Switching Software License per server (up to 4x25GigE interface) with VMware ESXi. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13331DA	Nuage Virtual Routing and Switching License for one (1) Linux Bare Metal server with up to 4x25GigE interface. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13334DA	Nuage Virtual Routing and Switching Software Gateway Annual RTU License per server (up to 4x25GigE interface). Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine). This allows access to the latest version and automatic updates.
3HE13335DA	Nuage Virtual Routing and Switching Annual RTU License per server (up to 4x25GigE interface) with VMware ESXi. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine). This allows access to the latest version and automatic updates.
3HE13336DA	Nuage Virtual Routing and Switching Annual RTU License per server (up to 4x25GigE interface) with KVM. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine). This allows access to the latest version and automatic updates.
3HE13339DA	Nuage Virtual Routing and Switching Annual RTU License for one (1) Linux Bare Metal server with up to 4x25GigE interface. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13343AA	SYS - 7250 IXR-s
3HE13344AA	PS - 7250 IXR AC Power Supply, fits the 7250 IXR-s system.
3HE13345AA	PS - 7250 IXR DC Power Supply, fits the IXR-s system
3HE13346AA	Fan - 7250 IXR Fan, fits the 7250 IXR-s system
3HE13360AA	IOM4-e/-B RTU License Upgrade from L2HQ to L3HQ for IOM4-e/-B IMM. RTU license upgrade is tied to the specific IOM4-e/-B line card for which it is purchased. Customers are required to provide the serial number of the IOM4-e/-B line card for which the RTU license is being purchased.
3HE13361AA	IOM4-e/-B RTU License Upgrade from L3BQ to L3HQ for IOM4-e/-B. RTU license upgrade is tied to the specific IOM4-e/-B line card for which it is purchased. Customers are required to provide the serial number of the IOM4-e/-B line card for which the RTU license is being purchased.
3HE13362AA	RTU - SROS Telemetry Right To Use License. A per system license. Allows the use of Telemetry functionality.

3HE13368AA	ASL VSR-AA DEM Gateway Wifi 10K Subs - Application Software License (ASL) required for Application Assurance Dynamic Experience Management Gateway. One (1) of these ASLs is required for every increment of 10,000 subscribers, in addition to AA licenses. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE13369AA	SROS DEM Gateway Wifi 10K Subs - Right to Use (RTU) required for Application Assurance Dynamic Experience Management Gateway. One (1) of these RTUs is required for every increment of 10,000 subscribers, in addition to AA licenses. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE13370AA	RTU MGW TCP Optimization 10 Gbps - Right to Use (RTU) required for bandwidth based TCP Optimization. One (1) of these RTUs is required for every increment of 1Gbps if using TCP-O without AA per-sub RTUs, does not require use of TCP-O 10k Subscriber RTU. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE13371AA	RTU MG-AA PGW-EDR IPfix 10k Subs. Enables the export of the PGW-EDR IPfix record format for AA flow based reporting. This record format includes mobile subscriber information such as IMSI, APN, RAT type, charging ID, etc. to be combined with information on 5-tuple flows such as the start/end time of each flow, the flow itself (5-tuple/direction) and volume (octets transferred) counts. One (1) of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale.
3HE13376AA	7950 XRS-20e Stand-Alone Complete Chassis APEQ-DC-4275 Bundle and shipped with all common hardware. Includes: (1) 3HE11085AA - CHAS-7950 XRS-20e Universal Spare Chassis (8) 3HE08505AA - SFM - 7950 XRS-20 SFM-X20S-B, (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (2) 3HE11095AA - 7950 XRS-20e Power Connect Module Fan (5) 3HE11099AA - APEQ-DC-4275 Power Equalizer Module (5) 3HE11096AA - 7950 XRS-20e Quad Power Connect Module (5) 3HE11097AA - 7950 XRS-20e Power Input Module (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM (1) 3HE11090AA - ACC - 7950 XRS-20e Air Filter Kit Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE13390AA	Nuage Virtual Routing and Switching License for Containers/PaaS. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13391AA	Nuage Virtual Routing and Switching License for Containers/PaaS (max 4vCPUs). Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).

3HE13392AA	Nuage Virtual Routing and Switching Annual RTU License for Containers/PaaS. Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13393AA	Nuage Virtual Routing and Switching Annual RTU License for Containers/PaaS (max. 4vCPUs). Features include Layer 2, Layer 3 Virtual Routing and Switching connectivity, and features such as dynamic routing protocols, federation of VSCs and policy and analytics (QoS, TCAs, service chaining, stateful ACLs, statistics and features requiring the Analytics Engine).
3HE13394AA	Spare SD card (4GB). -40 to 85C, SLC.
3HE13408AA	SR/ESS 128 GB Compact Flash - Spare (Blank)
3HE13426AA	ACC - 7210 SAS-K 2F4T6C ETR rack mount, fits one 7210 SAS-K (K12) and its power supplies in a 19" rack
3HE13504AA	7750 SR SFM6-7/12 & CPM5, one (1) required per 7750 SR-7/12 slot Shelf, up to two (2) per 7750 SR-7/12 slot Shelf for CPU and fabric redundancy Bundle includes: (1) 3HE08423AA - CPM - 7750 SR CPM5 (1) 3HE12335AA - SFM - 7750 SR SFM6-7/12
3HE13506AA	7750 SR-14s AC/HVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE11301AA - CHAS - 7750 SR-14s CHASSIS, (1) 3HE12315AA - CMA - 7750 SR-14s, (2) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s (8) 3HE11315AA - SFM - 7750 SR-7s/14s, (8) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF, (5) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. <u>Chassis accessory kit included</u>

3HE13507AA	7750 SR-7s AC/HVDC complete chassis bundle, shipped with all common hardware. Control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12314AA - CMA - 7750 SR-7s DUAL, (2) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF (3) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. Chassis accessory kit included
3HE13508AA	7750 SR-7s DC complete chassis bundle, shipped with all common hardware. No control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12326AA - CMA - 7750 SR-7s SINGLE, (1) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (3) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. Chassis accessory kit included

3HE13509AA	7750 SR-7s AC/HVDC complete chassis bundle, shipped with all common hardware. No control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12326AA - CMA - 7750 SR-7s SINGLE, (1) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF, (3) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. Chassis accessory kit included
3HE13513AA	7750 SR-1s + AC/HVDC Power Shelf, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Core Router feature set; Includes the following; (1) 3HE13799AA - SYS - SR-1s 2.4T 24pt QSFP28 CR AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.

3HE13513BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set; Includes the following; (1) 3HE13799BA - SYS - SR-1s 2.4T 24pt QSFP28 ER AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE13513CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set; Includes the following; (1) 3HE13799CA - SYS - SR-1s 2.4T 24pt QSFP28 HE AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 2.4T throughput and 24-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.

3HE13514AA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Core Router feature set; Includes the following; (1) 3HE13804AA - SYS - SR-1s 3.6T 36pt QSFP-DD CR LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. ~~Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.~~
3HE13514BA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Edge Router feature set; Includes the following; (1) 3HE13804BA - SYS - SR-1s 3.6T 36pt QSFP-DD ER LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. ~~Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.~~

3HE13514CA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), High Scale Edge feature set; Includes the following; (1) 3HE13804CA - SYS - SR-1s 3.6T 36pt QSFP-DD HE LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13515AA	7750 SR-1s + AC/HVDC Power Shelf, 3.6T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Core Router feature set; Includes the following; (1) 3HE13805AA - SYS - SR-1s 3.6T 36pt QSFP-DD CR AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13515BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 3.6Tb 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Edge Router feature set; Includes the following; (1) 3HE13805BA - SYS - SR-1s 3.6T 36pt QSFP-DD ER AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13515CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 3.6T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), High Scale Edge feature set; Includes the following; (1) 3HE13805CA - SYS - SR-1s 3.6T 36pt QSFP-DD HE AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13516AA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Core Router feature set; Includes the following; (1) 3HE13806AA - SYS - SR-1s 4.8T 36pt QSFP-DD CR LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13516BA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Edge Router feature set; Includes the following; (1) 3HE13806BA - SYS - SR-1s 4.8T 36pt QSFP-DD ER LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.

3HE13516CA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), High Scale Edge feature set; Includes the following; (1) 3HE13806CA - SYS - SR-1s 4.8T 36pt QSFP-DD HE LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13517AA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Core Router feature set; Includes the following; (1) 3HE13807AA - SYS - SR-1s 4.8T 36pt QSFP-DD CR AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.

3HE13517BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Edge Router feature set: Includes the following; (1) 3HE13807BA - SYS - SR-1s 4.8T 36pt QSFP-DD ER AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13517CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), High Scale Edge feature set; Includes the following; (1) 3HE13807CA - SYS - SR-1s 4.8T 36pt QSFP-DD HE AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 4.8T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.

3HE13518AA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, Core Router feature set; Includes the following; (1) 3HE13808AA - SYS - SR-1s 4.8T 36pt QSFP-DD CR to 12T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out</u>
3HE13518BA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, Edge Router feature set; Includes the following; (1) 3HE13808BA - SYS - SR-1s 4.8T 36pt QSFP-DD ER to 12T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out.</u>
3HE13518CA	7750 SR-1s + LVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, High Scale Edge feature set; Includes the following; (1) 3HE13808CA - SYS - SR-1s 4.8T 36pt QSFP-DD HE to 12T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 4.8T FD, Aggregation mode up 12T, to 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out.</u>

3HE13519AA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, Core Router feature set; Includes the following; (1) 3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out</u>
3HE13519BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, Edge Router feature set; Includes the following; (1) 3HE13809BA - SYS - SR-1s 4.8T 36pt QSFP-DD ER to 12T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out.</u>
3HE13519CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 4.8T 36-port QSFP-DD (supported QSFP+/QSFP28/QSFP-DD), Aggregation mode to 12T, High Scale Edge feature set; Includes the following; (1) 3HE13809CA - SYS - SR-1s 4.8T 36pt QSFP-DD HE to 12T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 4.8T FD, Aggregation mode up 12T, to 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. <u>Hardware performance up to 12T intelligent fan-in/fan-out.</u>
3HE13522AA	IOM-e RTU License Upgrade from L2HQ to L3HQ for IOM-e IMM . RTU license upgrade is tied to the specific IOM-e line card for which it is purchased. Customers are required to provide the serial number of the IOM-e line card for which the RTU license is being purchased.

3HE13523AA	IOM-e RTU License Upgrade from L3BQ to L3HQ for IOM-e. RTU license upgrade is tied to the specific IOM-e line card for which it is purchased. Customers are required to provide the serial number of the IOM-e line card for which the RTU license is being purchased.
3HE13524AA	IOM4-e-HS RTU License Upgrade from L3BQ to L3HQ for IOM4-e-HS. RTU license upgrade is tied to the specific IOM4-e-HS line card for which it is purchased. Customers are required to provide the serial number of the IOM4-e-HS line card for which the RTU license is being purchased.
3HE13528AA	Nuage Virtualized Network Services (VNS) Right-To-Use license for hosting one Virtual Network Functions (VNF) on Network Service Gateway (NSG)
3HE13529AA	Nuage Virtualized Services Directory (VSD) network-wide license for lifecycle management for 500 Virtual Network Functions (VNF)
3HE13533AA	Nuage 7850 Network Services Gateway – Ethernet 202 (NSG-E202). AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X and 10/100/1000BASE-T Gigabit Ethernet, 4 LAN 10/100/1000BASE-T Gigabit Ethernet ports, integrated WiFi access point, USB, and RJ-45 console. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately. Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE13535AA	7250 IXR-10 LVDC Complete chassis bundle with all common hardware including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE11768AA - SFM - 7250 IXR-10 SFM (2) 3HE11761AA - CPM - 7250 IXR CPM (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray <u>Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.</u>
3HE13536AA	7250 IXR-6 LVDC complete chassis bundle with all common hardware including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE11755AA - SFM - 7250 IXR-6 SFM (2) 3HE11761AA - CPM - 7250 IXR CPM (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray <u>Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.</u>
3HE13537AA	7250 IXR-10 AC/HVDC Complete chassis bundle with all common hardware including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE11768AA - SFM - 7250 IXR-10 SFM (2) 3HE11761AA - CPM - 7250 IXR CPM (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray <u>Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.</u>

3HE13538AA	7250 IXR-6 AC/HVDC complete chassis bundle with all common hardware including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE11755AA - SFM - 7250 IXR-6 SFM (2) 3HE11761AA - CPM - 7250 IXR CPM (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.
3HE13539AA	7250 IXR-10 LVDC Complete chassis bundle with all common hardware including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE11768AA - SFM - 7250 IXR-10 SFM (2) 3HE11762AA - CPM - 7250 IXR CPM 128 GB SSD (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.
3HE13540AA	7250 IXR-6 LVDC complete chassis bundle with all common hardware including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE11755AA - SFM - 7250 IXR-6 SFM (2) 3HE11762AA - CPM - 7250 IXR CPM 128 GB SSD (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.
3HE13541AA	7250 IXR-10 AC/HVDC Complete chassis bundle with all common hardware including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE11768AA - SFM - 7250 IXR-10 SFM (2) 3HE11762AA - CPM - 7250 IXR CPM 128 GB SSD (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.
3HE13542AA	7250 IXR-6 AC/HVDC complete chassis bundle with all common hardware including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE11755AA - SFM - 7250 IXR-6 SFM (2) 3HE11762AA - CPM - 7250 IXR CPM 128 GB SSD (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray Note: Impedance panels (IMM, PSU) need to be ordered separately for every empty slot.
3HE13543AA	Rack mount kit for a single Nuage 7850 Network Services Gateway – Ethernet 200/300 (NSG-E200/E300). Designed for 19" racks and is 1U high. Rack screws are not included and M5 is the maximum usable screw size.
3HE13555AA	SYS - 7210 SAS-K 3SFP+ 8C ETR AC, Includes two (2) fixed power supplies. Does not include software

3HE13556AA	SYS - 7210 SAS-K 3SFP+ 8C ETR 20-72V DC, includes two (2) fixed power supplies. Does not include software
3HE13569AA	Vehicle Mount LTE MIMO/WiFi/GNSS antenna. Upto 5 dBi gain for LTE 698-960/1695-2170/2300-2700/2900-3600 MHz. Upto 5 dBi gain for WiFi 2400-2500/4900-5925 MHz. 2 x N-Type male connectors for LTE MIMO, 1 x N-Type male connector for WiFi and 1 x N-Type male connector for GNSS. Direct mount to vehicle.
3HE13569AB	Vehicle Mount LTE MIMO/WiFi/GNSS antenna. Upto 5 dBi gain for LTE 698-960/1695-2170/2300-2700/2900-3600 MHz. Upto 5 dBi gain for WiFi 2400-2500/4900-5925 MHz. 2 x SMA male connectors for LTE MIMO, 1 x RP-SMA male connector for WiFi and 1 x SMA male connector for GNSS. Direct mount to vehicle.
3HE13570AA	System Bundle - 7750 SR-1 DC Core Router feature set, includes; (1) 3HE12298AA - SYS - 7750 SR-1 DC 1.5T CR Included with the SR-1 chassis: (1) 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray CR licenses on this part number restricts the hardware queues to 1024 per complex and the number of egress policers to 1024 per complex
3HE13570BA	System Bundle - 7750 SR-1 DC Edge Router feature set, includes; (1) 3HE12298BA - SYS - 7750 SR-1 DC 1.5T ER Included with the SR-1 chassis: (1) 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray ER licenses on this part number restricts the hardware queues to 16 384 per complex and the number of egress policers to 16 384 per complex
3HE13570CA	System Bundle - 7750 SR-1 DC High Scale Router feature set, Density Level 1 includes; (1) 3HE12298CA - SYS - 7750 SR-1 DC 1.5T HE Included with the SR-1 chassis: (1) 3HE12302AA - ACC - 7750 SR-1 DC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray HE licenses on this part number does not restrict hardware queues or egress policers

3HE13571AA	System Bundle - 7750 SR-1 non-redundant AC power, Core Router feature set, includes; (1) 3HE12299AA - SYS - 7750 SR-1 AC 1.5T CR Included with the SR-1 chassis: (1) 3HE12303AA - ACC - 7750 SR-1 AC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (1) 3HE12301AA - PSU – 7750 SR-1 AC Power Supply (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray CR licenses on this part number restricts the hardware queues to 1024 per complex and the number of egress policers to 1024 per complex
3HE13571BA	System Bundle - 7750 SR-1 non-redundant AC power, Edge Router feature set, includes; (1) 3HE12299BA - SYS - 7750 SR-1 AC 1.5T ER Included with the SR-1 chassis: (1) 3HE12303AA - ACC - 7750 SR-1 AC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (1) 3HE12301AA - PSU – 7750 SR-1 AC Power Supply (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray ER licenses on this part number restricts the hardware queues to 16 384 per complex and the number of egress policers to 16 384 per complex
3HE13571CA	System Bundle - 7750 SR-1 non-redundant AC power, High Scale Router feature set, includes; (1) 3HE12299CA - SYS - 7750 SR-1 AC 1.5T HE Included with the SR-1 chassis: (1) 3HE12303AA - ACC - 7750 SR-1 AC Accessory Kit (1) 3HE10312AA - ACC - Impedance PNL MDA-e MDA-e-XP (1) 3HE12301AA - PSU – 7750 SR-1 AC Power Supply (4) 3HE12300AA - FAN - 7750 SR-1 Fan Tray HE licenses on this part number does not restrict hardware queues or egress policers
3HE13584AA	7250 IXR-R6 chassis bundle, includes: (1) 3HE11278AA - 7250 IXR-R6 Chassis (1) 3HE11279AA - 7250 IXR-R6 Fan Tray (1) 3HE11286AA - 7250 IXR-R6 Fan Filters (5-pack) (1) 3HE11283AA - 7250 IXR-R6 CPIOM (1) 3HE11287AA - 7250 IXR-R6 CPIOM Impedance Panel (5) 3HE11288AA - 7250 IXR-R6 MDA Impedance Panel
3HE13589AA	24F SMF MPO-MPO Patch Cable, 3M
3HE13590AA	24F MMF MPO-24 to MPO-24 jumper, 3M
3HE13591AA	12F SMF MPO-12 to MPO-12 jumper, 3M
3HE13592AA	12F MMF MPO-12 to MPO-12 jumper, 3M
3HE13713AA	7210 SAS-S Non-PoE RPS interconnect
3HE13714AA	7210 SAS-S PoE RPS interconnect
3HE13725AA	Upgrade license from SR-1 Core Router - to SR-1 Edge Router - system
3HE13726AA	Upgrade license from SR-1 Edge Router - to SR-1 High Scale Router - system

3HE13727AA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 400G FD, accepts two (2) MDA-e-XP. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 400G throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 400G to 800G or 1.5T 7750 SR-7/12-B - licensed to 400G throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP and 3pt CFP2-DCO MDA-e-XP not supported 7750 SR-12e - licensed to 400G throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE13727BA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 400G FD, accepts two (2) MDA-e-XP. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 400G throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 400G to 800G or 1.5T 7750 SR-7/12-B - licensed to 400G throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP and 3pt CFP2-DCO MDA-e-XP not supported 7750 SR-12e - licensed to 400G throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE13727CA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 400G FD, accepts two (2) MDA-e-XP. High-Scale Edge (ER) no restrictions on h/w queues or egress policers This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 400G throughput. Full High-Scale Edge feature set Hardware performance upgradeable from 400G to 800G or 1.5T 7750 SR-7/12-B - licensed to 400G throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP and 3pt CFP2-DCO MDA-e-XP not supported 7750 SR-12e - licensed to 400G throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE13728AA	7750 SR12e LVDC Chassis + Non-Redundant SFM6-12e, bundle includes the following; (1) 3HE07165AA - CH-BN - 7750 SR12e Integrated Chassis (1) 3HE12330AA - SFM - 7750 SR SFM6-12e (1) 3HE08423AA - CPM - 7750 SR CPM5 (2) 3HE12331AA - SFM - 7750 SR mini-SFM6-12e (3) 3HE09422AA - APEQ-DC-2200-2800 Power Equalizer Module (1) 3HE10475AA - ACC 7750 SR-12e 80A Breakers x16

3HE13729AA	7750 SR12e AC Chassis + Non-Redundant SFM6-12e, bundle includes the following: (1) 3HE07165AA - CH-BN - 7750 SR12e Integrated Chassis (1) 3HE12330AA - SFM - 7750 SR SFM6-12e (1) 3HE08423AA - CPM - 7750 SR CPM5 (2) 3HE12331AA - SFM - 7750 SR mini-SFM6-12e (3) 3HE09423AA - APEQ-AC-3000 Power Equalizer Module (1) 3HE10114AA - ACC 7750 SR-12e AC bezel
3HE13734AA	Upgrade from IOM5-e 400G CR (Core Router) to IOM5-e 400G ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13735AA	Upgrade from IOM5-e 400G ER (Edge Router) to IOM5-e 400G HE (High-Scale Edge) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13736AA	Upgrade from IOM5-e 1.5T CR (Core Router) to IOM5-e 1.5T ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13737AA	Upgrade from IOM5-e 1.5T ER (Edge Router) to IOM5-e 1.5T HE (High-Scale Edge) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13738AA	7750 SR 12-B Slot Chassis with 7750 SR-12-B 175 Amp DC PEM-3 and 7750 SR-12 Enhanced Fan Tray + 7750 SR SFM6-7/12 + CPM5 Bundle. Bundle Includes: (1) 3HE12335AA - SFM - 7750 SR SFM6-7/12 (1) 3HE08423AA - CPM - 7750 SR CPM5 (1) 3HE10854AA - CH-BN - 7750 SR-12-B w/PEM3 + EFT
3HE13739AA	7750 SR 7-B Slot Chassis with 7750 SR-7-B 100 Amp DC PEM-3 and 7750 SR-7 Enhanced Fan Tray + 7750 SR SFM6-7/12 + CPM5 Bundle. Bundle Includes: (1) 3HE10852AA - CH-BN - 7750 SR-7-B DC w/PEM3 + EFT (1) 3HE12335AA - SFM - 7750 SR SFM6-7/12 (1) 3HE08423AA - CPM - 7750 SR CPM5
3HE13740AA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off "3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.

3HE13740BA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T” licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13740CA	7750 SR-s XMA (Expandable Media Adapter), 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE11307xA - XMA - SR-s 2.4T 36pt QSFP28 to 3.6T” licensed to 1.6T throughput and 16-connectors hard license enabled. Full High-Scale Edge feature set Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13741AA	Upgrade license from 1.6Tbps 16 port QSFP28 XMA-ER to 2.4Tbps 24port QSFP28 XMA-ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13742AA	Upgrade license from 1.6Tbps 16 port QSFP28 XMA-HE to 2.4Tbps 24port QSFP28 XMA-HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13743AA	Upgrade license to enable aggregation mode up to 3.6T / 36 ports on 2.4Tbps 24 port QSFP28 XMA (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13744AA	Upgrade license from 1.6Tbps 16 port QSFP28 XMA-CR to 1.6Tbps 16 port QSFP28 XMA-ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13745AA	Upgrade license from 1.6Tbps 16 port QSFP28 XMA-ER to 1.6Tbps 16 port QSFP28 XMA-HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13746AA	Upgrade license from 2.4Tbps 24 port QSFP28 XMA-CR to 2.4Tbps 24 port QSFP28 XMA-ER (also applies to aggregation mode 2.4T XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE13747AA	Upgrade license from 2.4Tbps 24 port QSFP28 XMA-ER to 2.4Tbps 24 port QSFP28 XMA-HE (also applies to aggregation mode 2.4T XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13748AA	Upgrade license to enable QSFP28-DD (200G) support on 3.6Tbps 36 port QSFP28 XMA (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13749AA	Upgrade license from 3.6Tbps 36 port QSFP-DD XMA-CR to 4.8Tbps 36 port QSFP-DD XMA-CR <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13750AA	Upgrade license from 3.6Tbps 36 port QSFP-DD XMA-ER to 4.8Tbps 36 port QSFP-DD XMA-ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13751AA	Upgrade license from 3.6Tbps 36 port QSFP-DD XMA-HE to 4.8Tbps 36 port QSFP-DD XMA-HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13752AA	Upgrade license to enable aggregation mode up to 12T on 4.8Tbps 36 port QSFP-DD XMA (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13753AA	Upgrade license from 3.6Tbps 36 port QSFP-28 XMA-CR to 3.6Tbps 36 port QSFP-28 XMA-ER (also applies to 3.6T QSFP-DD XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13754AA	Upgrade license from 3.6Tbps 36 port QSFP-28 XMA-ER to 3.6Tbps 36 port QSFP-28 XMA-HE (also applies to 3.6T QSFP-DD XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13755AA	Upgrade license from 4.8Tbps 36 port QSFP-DD XMA-CR to 4.8Tbps 36 port QSFP-DD XMA-ER (also applies to aggregation mode 4.8T XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE13756AA	Upgrade license from 4.8Tbps 36 port QSFP-DD XMA-ER to 4.8Tbps 36 port QSFP-DD XMA-HE (also applies to aggregation mode 4.8T XMA variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13757AA	Upgrade license from SR-1s CR 1.6Tbps 16 port QSFP28 to SR-1s CR 2.4Tbps 24port QSFP28 <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13758AA	Upgrade license from SR-1s ER 1.6Tbps 16 port QSFP28 to SR-1s ER 2.4Tbps 24port QSFP28 <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13759AA	Upgrade license from SR-1s HE 1.6Tbps 16 port QSFP28 to SR-1s HE 2.4Tbps 24port QSFP28 <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13760AA	Upgrade license to enable aggregation mode up to 3.6T / 36 ports on 2.4Tbps 24 port QSFP-28 (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13761AA	Upgrade license from SR-1s CR 1.6Tbps 16 port QSFP28 to SR-1s ER 1.6Tbps 16 port QSFP28 <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13762AA	Upgrade license from SR-1s ER 1.6Tbps 16 port QSFP28 to SR-1s HE 2.4Tbps 24 port QSFP28 <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13763AA	Upgrade license from SR-1s CR 2.4Tbps 24 port QSFP28 to SR-1s ER 2.4Tbps 24 port QSFP28 (also applies to aggregation mode 2.4T SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13764AA	Upgrade license from SR-1s ER 2.4Tbps 24 port QSFP28 to SR-1s HE 2.4Tbps 24 port QSFP28 (also applies to aggregation mode 2.4T SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13765AA	Upgrade license from 3.6Tbps 36 port QSFP-28 SR-1s CR to 3.6Tbps 36 port QSFP-28 SR-1s ER (also applies to 3.6T QSFP-DD SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE13766AA	Upgrade license from 3.6Tbps 36 port QSFP-28 SR-1s ER to 3.6Tbps 36 port QSFP-28 SR-1s HE (also applies to 3.6T QSFP-DD SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13767AA	Upgrade license to enable QSFP-DD support on 3.6Tbps 36 port QSFP-28 SR-1s (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13768AA	Upgrade license from 3.6Tbps 36 port QSFP-DD SR-1s CR to 4.8Tbps 36 port QSFP-DD SR-1s CR <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13769AA	Upgrade license from 3.6Tbps 36 port QSFP-DD SR-1s ER to 4.8Tbps 36 port QSFP-DD SR-1s ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13770AA	Upgrade license from 3.6Tbps 36 port QSFP-DD SR-1s HE to 4.8Tbps 36 port QSFP-DD SR-1s HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13771AA	Upgrade license from SR-1s CR 4.8Tbps 36 port QSFP-DD to SR-1s ER 4.8Tbps 36 port QSFP-DD (also applies to aggregation mode 4.8T SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13772AA	Upgrade license from SR-1s ER 4.8Tbps 36 port QSFP-DD to SR-1s HE 4.8Tbps 36 port QSFP-DD (also applies to aggregation mode 4.8T SR-1s variant) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE13773AA	Upgrade license to enable aggregation mode up to 12T on SR-1s 4.8Tbps 36 port QSFP-DD (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE13774AA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13774BA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13774CA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 1.6T throughput and 16-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13798AA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13798BA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.

3HE13798CA	7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 1.6T throughput and 16-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13799AA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE13799BA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE13799CA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC” licensed to 2.4T throughput and 24-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE13800AA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out

3HE13800BA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13800CA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13801AA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out
3HE13801BA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13801CA	7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13802AA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off “3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13802BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13802CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13803AA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13803BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13803CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13804AA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13804BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13804CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13805AA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13805BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13805CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13806AA	7750 SR-1s, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13806BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13806CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 4.8T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13807AA	7750 SR-1s, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC" licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.

3HE13807BA	7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 4.8T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13807CA	7750 SR-1s system, 4x FP4 complex, performance restricted to 4.8T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC” licensed to 4.8T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 4.8T to 12T intelligent fan-in/fan-out.
3HE13808AA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 12T intelligent fan-in/fan-out
3HE13808BA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE13808CA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE13809AA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 12T intelligent fan-in/fan-out

3HE13809BA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, 36-connectors Universal QSFP-DD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE13809CA	7750 SR-1s system, 4x FP4 complex, performance to 4.8T FD, Aggregation mode up to 12T, to 36-connectors Universal QSFP-DD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 12T intelligent fan-in/fan-out.
3HE13810AA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.2T FD, port restricted to 12 connectors Universal QSFP28. Core Router (CR) scale feature set (2048 = h/w queues, 2048 = egress policers) This card is based off “ 3HE11094xA - XMA - 7950 XRS 2.4T 24pt QSFP28 licensed to 1.2T throughput and 12 connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.2T up to 2.4T
3HE13810BA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.2T FD, port restricted to 12 connectors Universal QSFP28. Edge Router (ER) scale feature set (32768 = h/w queues, 32768 = egress policers) This card is based off “ 3HE11094xA - XMA - 7950 XRS 2.4T 24pt QSFP28 licensed to 1.2T throughput and 12 connectors hard license enabled.. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.2T up to 2.4T
3HE13810CA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.2T FD, port restricted to 12 connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “ 3HE14664xA - XMA - 7950 XRS 2.4T 12pt QSDP-DD to 4T” licensed to 1.2T throughput and 12 connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.2T up to 2.4T

3HE13811AA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.6T FD, port restricted to 16 connectors Universal QSFP28. Core Router (CR) scale feature set (2048 = h/w queues, 2048 = egress policers) This card is based off “ 3HE11094xA - XMA - 7950 XRS 2.4T 24pt QSFP28 licensed to 1.6T throughput and 16 connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T up to 2.4T
3HE13811BA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.6T FD, port restricted to 16 connectors Universal QSFP28. Edge Router (ER) scale feature set (32768 = h/w queues, 32768 = egress policers) This card is based off “ 3HE11094xA - XMA - 7950 XRS 2.4T 24pt QSFP28 licensed to 1.6T throughput and 16 connectors hard license enabled.. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.6T up to 2.4T
3HE13811CA	7950 XRS XMA (Expandable Media Adapter) 2 x FP4 complex, performance restricted to 1.6T FD, port restricted to 16 connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “ 3HE14664xA - XMA - 7950 XRS 2.4T 12pt QSDP-DD to 4T” licensed to 1.6T throughput and 16 connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T up to 2.4T
3HE13813AA	7750 SR-1s + LVDC Power Shelf Bundle, 1.6T 16-port QSFP28 (supported QSFP+/QSFP28) Core Router feature set; Includes the following; (1) 3HE13774AA - SYS - SR-1s 1.6T 16pt QSFP28 - CR + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off “3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC” licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.

3HE13813BA	7750 SR-1s + LVDC Power Shelf Bundle, 1.6T 16-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set: Includes the following; (1) 3HE13774BA - SYS - SR-1s 1.6T 16pt QSFP28 - ER + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13813CA	7750 SR-1s + LVDC Power Shelf Bundle, 1.6T 16-port QSFP28 (supported QSFP+/QSFP28) High Scale Edge feature set; Includes the following; (1) 3HE13774CA - SYS - SR-1s 1.6T 16pt QSFP28 HE + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 1.6T throughput and 16-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.

3HE13814AA	7750 SR-1s + AC/HVDC Power Shelf, 1.6T 16-connector QSFP28 (supported QSFP+/QSFP28) Core Router feature set; Includes the following; (1) 3HE13798AA - SYS - SR-1s 1.6T 16pt QSFP28 CR AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13814BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 1.6T 16-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set; Includes the following; (1) 3HE13798BA - SYS - SR-1s 1.6T 16pt QSFP28 ER AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 1.6T throughput and 16-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.

3HE13814CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 1.6T 16-port QSFP28 (supported QSFP+/QSFP28) High Scale Edge feature set; Includes the following; (1) 3HE13798CA - SYS - SR-1s 1.6T 16pt QSFP28 HE AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13801xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T AC/HVDC" licensed to 1.6T throughput and 16-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE13815AA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, Core Router feature set; Includes the following; (1) 3HE13800AA - SYS - SR-1s 2.4T 36pt QSFP28 CR to 3.6T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out
3HE13815BA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, Edge Router feature set: Includes the following; (1) 3HE13800BA - SYS - SR-1s 2.4T 36pt QSFP28 ER to 3.6T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 3.6T, 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.

3HE13815CA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, High Scale Edge feature set; Includes the following; (1) 3HE13800CA - SYS - SR-1s 2.4T 36pt QSFP28 HE to 3.6T DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 3.6T, 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13816AA	7750 SR-1s + AC/HVDC Power Shelf, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, Core Router feature set; Includes the following; (1) 3HE13801AA - SYS - SR-1s 2.4T 36pt QSFP28 CR to 3.6T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 3.6T, 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out
3HE13816BA	7750 SR-1s + AC/HVDC Power Shelf, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, Core Router feature set; Includes the following; (1) 3HE13801BA - SYS - SR-1s 2.4T 36pt QSFP28 ER to 3.6T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 3.6T, 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.

3HE13816CA	7750 SR-1s + AC/HVDC Power Shelf, 2.4T 36-port QSFP28 (supported QSFP+/QSFP28) Aggregation mode to 3.6T, Core Router feature set; Includes the following; (1) 3HE13801CA - SYS - SR-1s 2.4T 36pt QSFP28 HE to 3.6T AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD, Aggregation mode up to 3.6T, 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.6T intelligent fan-in/fan-out.
3HE13817AA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Core Router feature set; Includes the following; (1) 3HE13802AA - SYS - SR-1s 3.6T 36pt QSFP28 CR LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13817BA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Edge Router feature set: Includes the following; (1) 3HE13802BA - SYS - SR-1s 3.6T 36pt QSFP28 ER LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC” licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13817CA	7750 SR-1s + LVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), High Scale Edge feature set; Includes the following; (1) 3HE13802CA - SYS - SR-1s 3.6T 36pt QSFP28 HE LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13808xA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T DC” licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13818AA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Core Router feature set; Includes the following; (1) 3HE13803AA - SYS - SR-1s 3.6T 36pt QSFP28 CR AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13818BA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Edge Router feature set: Includes the following; (1) 3HE13803BA - SYS - SR-1s 3.6T 36pt QSFP28 ER AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.

3HE13818CA	7750 SR-1s + AC/HVDC Power Shelf Bundle, 3.6T 36-port QSFP28 (supported QSFP+/QSFP28), Edge Router feature set: Includes the following; (1) 3HE13803CA - SYS - SR-1s 3.6T 36pt QSFP28 HE AC/HVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 4x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13809AA - SYS-SR-1s 4.8T 36pt QSFP-DD CR to 12T AC/HVDC" licensed to 3.6T throughput and 36-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 3.6T to 4.8T or 12T intelligent fan-in/fan-out.
3HE13819AA	7950 XRS-20 60A/80A DC Stand-Alone Complete Chassis Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE09422AA - APEQ - APEQ-DC-2200-2800 Power Equalizer Module (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 Stand Alone (SFM2-SA) - (Spare) (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB, (1) 3HE10474AA - ACC - 7950 XRS-20 80A BREAKERS (x24) Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE13820AA	7950 XRS-20e Stand-Alone Complete Chassis 4275W DC Bundle, shipped with all common hardware. Includes: (1) 3HE11085AA - CHAS-7950 XRS-20e Universal Spare Chassis (5) 3HE11099AA - APEQ-DC-4275 Power Equalizer Module (2) 3HE11095AA - 7950 XRS-20e Power Connect Module Fan (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (5) 3HE11096AA - 7950 XRS-20e Quad Power Connect Module (5) 3HE11097AA - 7950 XRS-20e Power Input Module (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM

3HE13821AA	7950 XRS-20e Complete Chassis AC Bundle, shipped with all common hardware. Includes: (1) 3HE11086AA - CHAS-7950 XRS-20e AC/HVDC SPARE CHASSIS (5) 3HE09423AA - APEQ-AC-3000 Power Equalizer Module , (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM (1) 3HE11090AA - ACC - 7950 XRS-20e Air Filter Kit Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE13822AA	7950 XRS-20 Complete Chassis AC Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE09423AA - APEQ-AC-3000 Power Equalizer Module , (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot.
3HE13825AA	SROS VPRN Service Right To Use License. A per system license. Allows the use of up to 64 VPRN Services. Not controlled by this license: Number of queues or policers, number of SAPs or the number of IES service instances.
3HE13826AA	SROS VPRN Service Right To Use License. A per system license. Allows the use of up to 512 VPRN Services. Not controlled by this license: Number of queues or policers, number of SAPs or the number of IES service instances.
3HE13827AA	SROS VPRN Service Right To Use License. A per system license. Allows the use of up to 2,000 VPRN Services. Not controlled by this license: Number of queues or policers, number of SAPs or the number of IES service instances.
3HE13828AA	SROS VPRN Service Right To Use License. A per system license. Allows the use of up to 5,000 VPRN Services. Not controlled by this license: Number of queues or policers, number of SAPs or the number of IES service instances.

3HE13829AA	SROS VPRN Service Right To Use License. A per system license. Allows the use of up to 10,000 VPRN Services. Not controlled by this license: Number of queues or policers, number of SAPs or the number of IES service instances.
3HE13830AA	SROS EVPN Service Right To Use License. A per system license. Allows the use EVPN for VXLAN and/or MPLS tunnels.
3HE13831AA	SROS BGP Route Reflector Low-Scale Right To Use License. A per system license. Allows the use of BGP RR support for up to 100k routes.
3HE13832AA	SROS BGP Route Reflector High-Scale Right To Use License. A per system license. Allows the use of BGP RR support for up to maximum system scale.
3HE13833AA	SROS BGP Optimal Route Reflection Right To Use License. A per system license.
3HE13834AA	SROS BGP Inter-AS Peering Low-Scale Right To Use License. A per system license. Enables support for EBGp peers for up to 100k routes.
3HE13835AA	SROS BGP Inter-AS Peering High-Scale Right To Use License. A per system license. Enables support for EBGp peers for up to maximum system scale.
3HE13836AA	SROS BGP FlowSpec Right To Use License. A per system license. Enables support for BGP FlowSpec.
3HE13837AA	SROS BGP QPPB and Policy Accounting Right To Use License. A per system license. Enables support for BGP QPPB and Policy Accounting.
3HE13838AA	SROS BGP Multicast Right To Use License. A per system license. Enables support for BGP Multicast. License required to configure any of the following address families: mcast-ipv4, mvpn-ipv4, mdt-safi, mcast-vpn-ipv4, mvpn-ipv6, mcast-ipv6, mcast-vpn-ipv6
3HE13839AA	SROS Lawful Intercept (LI) Right To Use License. A per system license. Allows the use of the Lawful Intercept features.
3HE13840AA	SROS vRGW Home LAN Extension License – A per system license required to enable home the LAN Extension feature with vRGW.
3HE13841AA	SROS DHCP Server User Database License - A per system license. License required for IP address assignment using the Service Router DHCP Server User Database (also required when used with ESM).
3HE13842AA	SROS DHCP Server User Database License - A per system license. Up to 10K IP Addresses - License required for IP address assignment using the Service Router DHCP Server User Database. Multiple of these RTUs can be bought to match the total number of IP Addresses required to be allocated by the server. This RTU is not required with ESM host licenses.

3HE13847AA	7750 SR-7s DC complete chassis bundle, shipped with all common hardware. Control Redundant. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12314AA - CMA - 7750 SR-7s DUAL, (2) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY , (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (3) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. Chassis accessory kit included
3HE13848AA	7750 SR-14s DC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE11301AA - CHAS - 7750 SR-14s CHASSIS, (1) 3HE12315AA - CMA - 7750 SR-14s, (2) 3HE11304AA - CPM - 7750 SR-s CPM-7s/14s, (8) 3HE11315AA - SFM - 7750 SR-7s/14s, (8) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (5) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. Chassis accessory kit included
3HE13853AA	2-ports 100GBase CWDM4 QSFP28-DD Optic Module, 2KM, SMF, CS connector, RoHS 6/6, Digital Diagnostic Monitor (DDM), 0/70C
3HE13854AA	2-ports 100GBase SR4 QSFP28-DD Optic Module, 100M, MMF, MPO connector, RoHS 6/6, Digital Diagnostic Monitor (DDM), 0/70C
3HE13856AA	SROS Enhanced Subscriber Management (ESM) subscriber-host license for up to 512K subscriber-hosts. This is a per system license. Multiple of these RTUs could be bought to match the total number of subscribers <u>targeted to be supported on the chassis</u>.
3HE13859AA	SROS Software license to enable Hybrid Access Gateway function to terminate both a fixed (IPoE/PPPoE) connection and a mobile (4G/LTE) connection from an Hybrid CPE (HCPE), with a single IP address per bonded connection, and a configurable adaptive path selection for traffic flows towards the HCPE. This is a per system license.

3HE13860AA	SROS Software license required to terminate 4G/LTE access from fixed CPEs. This is a per system license.
3HE13861AA	SROS Software license required for terminating dual-stack GTP sessions in increment of 10,000 sessions. This is a per system license.
3HE13889AA	7750 SR-1s/2s/7s/14s DC PSU slot filler panel for the Power Shelf
3HE13890AA	7750 SR-1s/2s/7s/14sAC/HVDC PSU slot filler panel for the Power Shelf
3HE13895AA	Optical patch panel 1RU holder to host 4 pluggable modules
3HE13896AA	1x MPO-12 to 6 (4 used) duplex LC breakout, MMF
3HE13897AA	1x MPO-12 to 6 (4 used) duplex LC breakout, SMF
3HE13944AA	1x MPO-24 to 12 (10 used) duplex LC breakout, MMF
3HE13945AA	1xMPO-24 to 12 (10 used) duplex LC breakout, SMF
3HE13950AA	24F SMF MPO-MPO Patch Cable, 10M
3HE13951AA	24F MMF MPO-24 to MPO-24 jumper, 10M
3HE13952AA	12F SFM MPO-12 to MPO-12 jumper, 10M
3HE13953AA	12F MMF MPO-12 to MPO-12 jumper, 10M
3HE13955AA	7750 SR 3-ports CFP2-DCO MDA-e-XP. Accepts three (3) Optic Module CFP2/CFP2-DCO 7750 SR-7/12-B 3-port CFP2-DCO MDA-e-XP on the SR-7/12-B chassis specifically: • Up to 2x MDA-e-XP 3-port CFP2-DCOs per IOM5-e • With two of these MDA-e-XP in place, optics options are: –3x CFP2 (@100G each) in potentially all 6 ports, or–1x CFP2-DCO in the middle position on each of the two MDA-e-XP for a total of 2x 200G ports
3HE13956AA	7750 SR-s XMA (Expandable Media Adapter), 3x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This is a non-upgradeable 3 Complex XMA-s
3HE13956BA	7750 SR-s XMA (Expandable Media Adapter), 3x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This is a non-upgradeable 3 Complex XMA-s
3HE13956CA	7750 SR-s XMA (Expandable Media Adapter), 3x FP4 complex, performance restricted to 3.6T FD, port restricted to 36-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This is a non-upgradeable 3 Complex XMA-s
3HE13957AA	Upgrade license from 1.6Tbps 16 port QSFP28 XMA-CR to 2.4Tbps 24port QSFP28 XMA-CR <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE13959AA	Nuage 7850 Network Services Gateway – E206. AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X or 10/100/1000BASE-T, 4 LAN 10/100/1000BASE-T ports, integrated 802.11ac WiFi access point, integrated ITU Region 1/2 (EMEA/Americas) LTE uplink with dual SIM, USB, and RJ-45 console. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE13960AA	Nuage 7850 Network Services Gateway – E306. AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X or 10/100/1000BASE-T, 4 LAN 10/100/1000BASE-T ports, integrated 802.11ac WiFi access point, integrated ITU Region 1/2 (EMEA/Americas) LTE uplink with dual SIM, USB, and RJ-45 console. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE13961AA	Nuage 7850 Network Services Gateway – E307. AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X or 10/100/1000BASE-T, 4 LAN 10/100/1000BASE-T ports, integrated 802.11ac WiFi access point, integrated ITU Region 3 (APAC) LTE uplink with dual SIM, USB, and RJ-45 console. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE13978AA	L2/L3 Domains + branch management license. • Traffic reports suite with dashboard widget • Application Discovery Reports with Dashboard widget • Network Performance Report • Application Aware control, Application SLA Violation Report with Dashboard widget • Organization/Customers Management • 100 active users support per Cluster Node (No enforcement) Note: This requires minimum Nuage VSD (Standalone) license as a pre-requisite Service Gateway (NSG)
3HE13979AA	Nuage SD-WAN Portal - Standalone (RTU) + HA Cluster license. This is not an add on. Requires Nuage VSD HA cluster as a pre-requisite
3HE13980BA	This is a bundle of Nuage VSD - Standalone (RTU) + Nuage SD-WAN Portal - Standalone (RTU). This is not an add-on
3HE13981BA	This is a bundle of Nuage VSD - HA Cluster (RTU) + Nuage SD-WAN Portal - HA Cluster (RTU). This is not an add-on
3HE13982AA	This is a per branch license to cover Nuage SD-WAN Portal platform functionality across branches (CPEs). Note: This requires minimum Nuage SD-WAN Portal (standalone) license as a pre-requisite.

3HE13983AA	License to allow SP to create special customers which can act as reseller/wholesaler. • Reseller users can manage their end customer organizations independent of other resellers or direct customers • Reseller can manage access control for its end customer as they like to • Reseller end customers will have the exact same user experience as regular end customers • Reseller can setup their color branding and logo for their customers • Reseller or their end customers can setup their language of preference independent of other resellers or end customers This requires minimum Nuage SD-WAN (Standalone) license as a pre-requisite.
3HE13984AA	Authentication through single sign on using SAML 2.0 Users and roles mappings to portal permissions This requires minimum Nuage SD-WAN (Standalone) license as a pre-requisite.
3HE13985AA	Billing events tracking and ability to access the billing data via API using REST interface This requires minimum Nuage SD-WAN (Standalone) license as a pre-requisite.
3HE13986AA	Nuage Virtualized Network Services (VNS) Annual Right-To-Use license for hosting one Virtual Network Functions (VNF) on Network Service Gateway (NSG)
3HE13987AA	Nuage Virtualized Services Directory (VSD) network-wide annual RTU license for lifecycle management for 500 Virtual Network Functions (VNF)
3HE13988AA	SROS license for 64k to 256k ACL entries per router, this is a per system license. Network size 1 is a network of 1 to 5 routers total.
3HE13989AA	SROS license for 64k to 256k ACL entries per router, this is a per system license. Network size 2 is a network of 6 to 25 routers total.
3HE13990AA	SROS license for 64k to 256k ACL entries per router, this is a per system license. Network size 3 is a network of 26 to 50 or more routers total.
3HE13991AA	SROS license for 64k to 512k ACL entries per router, this is a per system license. Network size 1 is a network of 1 to 5 routers total.
3HE13992AA	SROS license for 64k to 512k ACL entries per router, this is a per system license. Network size 2 is a network of 6 to 25 routers total.
3HE13993AA	SROS license for 64k to 512k ACL entries per router, this is a per system license. Network size 3 is a network of 26 to 50 or more routers total.
3HE13994AA	SROS license for using FP4 payload pattern ACL entries, this is a per system license. Network size 1 is a network of 1 to 5 routers total.
3HE13995AA	SROS license for using FP4 payload pattern ACL entries, this is a per system license. Network size 2 is a network of 6 to 25 routers total.
3HE13996AA	SROS license for using FP4 payload pattern ACL entries, this is a per system license. Network size 3 is a network of 26 to 50 or more routers total.
3HE13998AA	1-port 100/200G Coherent CFP2-DCO pluggable, SMF, 100G Coherent tunable DWDM, 0/70C
3HE14002AA	2-ports 100GBase LR4 QSFP28-DD Optic Module, 10KM, SMF, CS connector, RoHS 6/6, Digital Diagnostic Monitor (DDM), 0/70C
3HE14004AA	1-port 10GE Small Form-Factor Pluggable (SFP+) Optics Module, Single Mode Fiber (SMF), 80km, Tunable across C-Band, LC Connector, Digital Diagnostic Monitor(DDM), RoHS 6/6 compliant, Low Power version, -40/85C

3HE14027AA	7750 SR-s IOM-s (Input/Output Module) 3.0T IOM-s Core Routing, accepts two modular MDA-s, 2x FP4 complex, CR (Core Router) feature set. MDA-s impedance panels needs to be added separately. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Hardware performance up to 3.0T.
3HE14027BA	7750 SR-s IOM-s (Input/Output Module) 3.0T IOM-s Edge Routing, accepts two modular MDA-s, 2x FP4 complex, ER (Edge Router) feature set. MDA-s impedance panels needs to be added separately. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Hardware performance up to 3.0T.
3HE14027CA	7750 SR-s IOM-s (Input/Output Module) 3.0T IOM-s High-Scale Edge Routing, accepts two modular MDA-s, 2x FP4 complex, HE (High-Scale Edge) feature set. MDA-s impedance panels needs to be added separately. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Hardware performance up to 3.0T.
3HE14029AA	7750 SR-14s/7s/2/1s MDA-s Impedance Panel, must be installed in each and every empty MDA-s slot.
3HE14032AA	7750 SR-2s LVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE12340AA - CHAS - 7750 SR-2s chassis + LVDC Power Shelf (3) 3HE12375AB - FAN - 7750 SR-2s Fan Module (3) 3HE11185AA - PSU - LVDC 6kw Power Supply (2) 3HE14034AA - CPM - 7750 SR-2s CPM-2s Important Rules; - Using the 2, 3, or 4-complex XMA-s requires both XCM-2s cards for 100% line-rate traffic on all ports simultaneously. - If using IOM-s-1.5T or IOM-s-3.0T only a single XCM-2s is required for 100% line-rate traffic. Additional items in which will need to be purchased separately are; Impedence Panels in all empty slots (XCM-s, XMA-s) and optional air filter kit. Accessory kit is included and contains power and ground lugs. PSU filler panels are included for empty slots.
3HE14033AA	7750 SR-2s AC/HVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE12340BA - CHAS - 7750 SR-2s chassis + AC/HVDC Power Shelf (3) 3HE12375AB - FAN - 7750 SR-2s Fan Module (3) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply (2) 3HE14034AA - CPM - 7750 SR-2s CPM-2s Important Rules; - Using the 2, 3, or 4-complex XMA-s requires both XCM-2s cards for 100% line-rate traffic on all ports simultaneously. - If using IOM-s-1.5T or IOM-s-3.0T only a single XCM-2s is required for 100% line-rate traffic. Additional items in which will need to be purchased separately are; Impedence Panels in all empty slots (XCM-s, XMA-s), Power Cords and optional air filter kit. Accessory kit included.
3HE14034AA	CPM - 7750 SR-s CPM-2s

3HE14035AA	10-port 10/1GE SFP+/SFP MACsec MDA-a XP for the 7750 SR-a family. Optics Module must be purchased separately.
3HE14047AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per VRS-G host
3HE14048AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per VRS-G host
3HE14049AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per VRS host
3HE14050AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per VRS-G host
3HE14051AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per VRS host
3HE14052AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per VRS-G host
3HE14104AA	ACC – Rail-kit (fits 19” Rack Mount and 21” Open Rack for 1 system)
3HE14107AA	Deepfield Software Release Subscription For NAR ONLY (Required for software upgrades/updates - contact local Deepfield representative on how to calculate this per offer)
3HE14108AA	Deepfield Software Release Subscription For NON USA ONLY (Required for software upgrades/updates - contact local Deepfield representative on how to calculate this per offer)
3HE14110AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=7001 But <=100000 - PERPETUAL LICENSE
3HE14111AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=100000 - PERPETUAL LICENSE
3HE14112AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=50 But <=7000 - 3-YEAR TERM LICENSE
3HE14113AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=7001 But <=100000 - 3-YEAR TERM LICENSE
3HE14114AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=100000 - 3-YEAR TERM LICENSE
3HE14115AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=50 But <=7000 - HOSTED 1-YR TERM
3HE14116AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=7001 But <=100000 - HOSTED 1-YR TERM
3HE14117AA	7750 SR-1s/2s/7s/14s Release 16.0 Operating Software License. Notes: One (1) Operating Software License is required for each SR-1s/2s/7s/14s in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software.
3HE14118AA	Deepfield Network Intelligence Bandwidth Bundle License PER Gbps Monitored For Gbps >=100000 - HOSTED 1-YR TERM
3HE14148AA	SAR-Hm Release 16.0 OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-Hm in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code “SWSC-DEL-L4-10” found at http://libra.app.alcatel-lucent.com/ .
3HE14148AB	7705 SAR-Hm/Hmc Release 19.x OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-Hm/Hmc in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code “SWSC-DEL-L4-10” found at http://libra.app.alcatel-lucent.com/ .

3HE14148AC	7705 SAR-Hm/Hmc Release 20.x OS Upgrade for the basic suite of functionality. One (1) OS Upgrade is required for each SAR-Hm/Hmc in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE14160AA	SYS - 7250 IXR-s AC Bundle contains: (1) 3HE13343AA SYS - 7250 IXR-s (1) 3HE13344AA AC Power Supply (s) (6) 3HE13346AA 7250 IXR Fan (s)
3HE14161AA	SYS - 7250 IXR-s DC Bundle contains: (1) 3HE13343AA SYS - 7250 IXR-s (1) 3HE13345AA DC Power Supply (s) (6) 3HE13346AA 7250 IXR Fan(s)
3HE14163DA	OS - 7210 SAS-K 3SFP+ 8C ETR, Release 20.X Base OS License / Native and MPLS Ethernet L2 VPNs License. This is a per chassis license valid for release 20.X. It provides the Base OS and includes support for native and MPLS-based Ethernet services (e.g. Layer-2 VPLS and Epipe services). It also includes support for syncE and PTP. It excludes the use IP services (e.g. VPRNs and IES services). It must also be purchased for upgrade to release 20.X. It will shipped on a SD Card.
3HE14164AA	RTU - 7210 SAS-K 3SFP+ 8C ETR, IP services License. This is a per chassis license. It is a one-time license to enable IP services on the node. It enables support of IP services (e.g. VPRN, IES and L3 VPNs using BGP 3107).
3HE14165AA	RTU - 7210 SAS Y.1564 testhead license. This is a per chassis license. It is a one-time license to use the Y.1564 testhead service test framework capabilities on the node. It is required to use this capability on 7210 SAS-K 2F1C2T (ETR and non-ETR), 7210 SAS-K 2F6C4T (ETR and non-ETR) and 7210 SAS-K 3SFP+8C ETR platforms.
3HE14280AA	7750 SR-1s/2s LVDC chassis accessory kit. (1) CABLE, CONSOLE, DB-9 TO RJ-45 (8) 12-24 COMB.PAN HEAD,PILOT POINT,RACK MNTNG. SCREW (34) NUT 1/4-20 CONICAL KEPS STL ZR (16) CONN,LUG,#4 AWG WIRE, 1/4" BOLT HOLES, .63" SPACING,RIGHT ANGLE (1) LUG, 4 AWG, 45 DEGREE BARREL, 0.25" STUD HOLES ON 0.625 SPACING (1) WRIST STRAP, ELASTIC, 6' COIL CORD (1) 3HE12566AA ACC - SR-s CLEANING TOOL, HONEYCOMB

3HE14281AA	7750 SR-1s/2s AC/HVDC chassis accessory kit (1) CABLE, CONSOLE, DB-9 TO RJ-45 (8) 12-24 COMB.PAN HEAD,PILOT POINT,RACK MNTNG. SCREW (2) NUT 1/4-20 CONICAL KEPS STL ZR (1) LUG, 4 AWG, 45 DEGREE BARREL, 0.25" STUD HOLES ON 0.625 SPACING (1) WRIST STRAP, ELASTIC, 6' COIL CORD (1) 3HE12566AA ACC - SR-s CLEANING TOOL, HONEYCOMB
3HE14282AA	2x MPO-12 to 12 (8 used) duplex LC breakout, MMF
3HE14283AA	2x MPO-12 to 12 (8 used) duplex LC breakout, SMF
3HE14284AA	2 MPO24 to 4 MPO12 breakout, MMF
3HE14287AA	7750 SR-2s Non-Control Redundant LVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE12340AA - CHAS - 7750 SR-2s chassis + LVDC Power Shelf (3) 3HE12375AB - FAN - 7750 SR-2s Fan Module (3) 3HE11185AA - PSU - LVDC 6kw Power Supply (1) 3HE14034AA - CPM - 7750 SR-2s CPM-2s Important Rules; - Using the 2, 3, or 4-complex XMA-s requires both XCM-2s cards for 100% line-rate traffic on all ports simultaneously. - If using IOM-s-1.5T or IOM-s-3.0T only a single XCM-2s is required for 100% line-rate traffic. Additional items in which will need to be purchased separately are; Impendence Panels in all empty slots (XCM-s, XMA-s, CPM-s)and optional air filter kit. Accessory kit is included and contains power and ground lugs. PSU filler panels are included for empty slots.
3HE14288AA	7750 SR-2s Non-Control Redundant AC/HVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE12340BA - CHAS - 7750 SR-2s chassis + AC/HVDC Power Shelf (3) 3HE12375AB - FAN - 7750 SR-2s Fan Module (3) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply (1) 3HE14034AA - CPM - 7750 SR-2s CPM-2s Important Rules; - Using the 2, 3, or 4-complex XMA-s requires both XCM-2s cards for 100% line-rate traffic on all ports simultaneously. - If using IOM-s-1.5T or IOM-s-3.0T only a single XCM-2s is required for 100% line-rate traffic. Additional items in which will need to be purchased separately are; Impendence Panels in all empty slots (XCM-s, XMA-s, CPM-s), Power Cords and optional air filter kit. Accessory kit included.

3HE14296AA	7750 SR-s IOM-s (Input/Output Module) 2.4T IOM-s Core Routing, accepts two modular MDA-s, 2x FP4 complex, CR (Core Router) feature set. MDA-s impedance panels needs to be added separately. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T” Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable to 3.0T.
3HE14296BA	7750 SR-s IOM-s (Input/Output Module) 2.4T IOM-s Edge Routing, accepts two modular MDA-s, 2x FP4 complex, ER (Edge Router) feature set. MDA-s impedance panels needs to be added separately. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T” Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable to 3.0T.
3HE14296CA	7750 SR-s IOM-s (Input/Output Module) 2.4T IOM-s High-Scale Edge Routing, accepts two modular MDA-s, 2x FP4 complex, HE (High-Scale Edge) feature set. MDA-s impedance panels needs to be added separately. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE14027xA - XMA - IOM-s - SR-s IOM-s 3.0T” Full High-Scale Edge feature set Hardware performance upgradeable to 3.0T.
3HE14297AA	UPG - IOM-s 1.6T CR to 2.4T CR
3HE14298AA	UPG - IOM-s 1.6T ER to 2.4T ER
3HE14299AA	UPG - IOM-s 1.6T HE to 2.4T HE
3HE14300AA	UPG - IOM-s 1.6T CR to 1.6T ER
3HE14301AA	UPG - IOM-s 1.6T ER to 1.6T HE
3HE14303AA	UPG - IOM-s 2.4T CR to 2.4T ER
3HE14305AA	UPG - IOM-s 2.4T CR to 3.0T CR
3HE14306AA	UPG - IOM-s 2.4T ER to 2.4T HE
3HE14307AA	UPG - IOM-s 2.4T ER to 3.0T ER
3HE14308AA	UPG - IOM-s 2.4T HE to 3.0T HE
3HE14309AA	UPG - IOM-s 3.0T CR to 3.0T ER
3HE14310AA	UPG - IOM-s 3.0T ER to 3.0T HE
3HE14341AA	ACC-7210SAS-Sx 10/100 19”Rear Rack Mount
3HE14343AA	2-port 10G SFP+ Module for Nuage 7850 Network Services Gateway-X (NSG-X). Optical SFP+ transceivers must be purchased separately. Note: Compatible only with NSG-X appliance and not compatible with NSG-X600 Series appliances.
3HE14344AA	4-port 1G SFP Module for Nuage 7850 Network Services Gateway-X (NSG-X). Optical SFP transceivers must be purchased separately. Note: Compatible only with NSG-X appliance and not compatible with NSG-X600 Series appliances.
3HE14345AA	4-port 1000BASE-T Module for Nuage 7850 Network Services Gateway-X (NSG-X). Note: Compatible only with NSG-X appliance and not compatible with NSG-X600 Series appliances.

3HE14519AA	Rack mounted panel perforated to allow airflow through it, typically used as part of slide mounting the unit in a rack
3HE14583CA	OS - 7210 SAS-Mxp, Release 20.X Base OS License, Satellite Mode. This is a per chassis license for release 20.X. It allows for operating the chassis in satellite mode. It is required to operate 7210 SAS-Mxp ETR and non-ETR chassis, in satellite mode. It excludes the use standalone mode of operation. It must also be purchase for upgrade to release 20.X. Includes one (1) programmed 2GB Compact Flash cards with the Operating Software.
3HE14630AA	7250 IXR Release 19.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-e Big (2p 100G, 8p 25G, 24p 10G) in the network. Includes OS programed on SD card(s)
3HE14630BA	7250 IXR Medium variants Release 19.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE14631AA	7250 IXR Release 19.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-e Small (14p 10G, 4p Tx) in the network. Includes OS programed on SD card(s)
3HE14631BA	7250 IXR Small variants Release 19.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE14648AA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE14648BA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.

3HE14648CA	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC” licensed to 2.4T throughput and 24-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE14649AA	1-port 10GBase Small Form-Factor Pluggable (SFP+) eZR Optic Module, 1550nm, up to 110km, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, 0/70C
3HE14657AA	ACC – 7750 SR-2s spare air filters qty 10
3HE14658AA	7750 SR-1s Air Filter mounting Hardware kit. Ships with one filter media. The Filter kit is highly recommend for every installation and therefore, should be order with each system
3HE14659AA	ACC – 7750 SR-1s spare air filters qty 10
3HE14782AA	7250 IXR-e 24xSFP+/SFP + 8xSFP28/SFP+ + 2xQSFP28 (IXR-e Big). Supports redundant removable power supplies and removable fan filter. Ships with one fan filter installed. PSUs, software licenses and other accessories sold separately.
3HE14783AA	7250 IXR-e 14xSFP+/SFP + 4xRJ45 (IXR-e Small). Supports redundant removable power supplies and removable fan filter. Ships with one fan filter installed. PSUs, software licenses and other accessories sold separately.
3HE14784AA	PS - 7250 IXR-e AC Fits both IXR-e Models
3HE14785AA	PS - 7250 IXR-e 20-60V DC Fits both IXR-e platforms
3HE14796AA	SYS - 7210 SAS-Dxp 2SFP+ 4F 6T AC
3HE14797AA	SYS - 7210 SAS-Dxp 2SFP+ 4F 6T DC -48V
3HE14798AA	SYS - 7210 SAS-Dxp 2SFP+ 4F 6T ETR AC For redundant Power Supply see 3HE10964 & 3HE10965
3HE14799AA	SYS - 7210 SAS-Dxp 2SFP+ 4F 6T ETR DC -48V For redundant Power Supply see 3HE10964 & 3HE10965
3HE14816AA	QSFP28 - SFP28/SFP+ Adapter, 0/70C 7750/7950 - QSFP28 - SFP28/SFP+ Adapter will only support 10GE SFP+ in the FP4 based cards, 25GE SFP28 will not be supported. 7250 - QSFP28 - SFP28/SFP+ Adapter will only support 25G SFP28 in the QSFP28 base cards, 10GE SFP+ will not be supported.
3HE14833AA	SFP – GNSS SFP – support GPS G.8275.1 full timing support with Ethernet encapsulation. GPS receiver and grandmaster.
3HE14834AA	1-port 25GBASE-SR Small Form-Factor Pluggable+ (SFP28) Optics Module, Multi-Mode Fiber (MMF), 100m, 850nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C

3HE14835AA	1-port 25GBASE-LR Small Form-Factor Pluggable+ (SFP28) Optics Module, Single Mode Fiber (SMF), 10km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE14888AA	7750 SR 8-ports 10/25GE MDA-e supports MACsec on all ports. Accepts eight (8) SFP+/SFP28 10Gbase or 25Gbase Optic Modules.
3HE14984AA	RTU - Right to Use - 1GE MACSEC (1 License per MACsec enabled port)
3HE14986AA	RTU - Right to Use - 10GE MACSEC (1 License per MACsec enabled port))
3HE14987AA	RTU - Right to Use - 25GE MACSEC (1 License per MACsec enabled port))
3HE14988AA	RTU - Right to Use - 100GE MACSEC (1 License per MACsec enabled port))
3HE14989AA	Nuage 7850 Network Services Gateway – E207. AC powered with 2 dual-PHY ports supporting 10/100/1000BASE-X or 10/100/1000BASE-T, 4 LAN 10/100/1000BASE-T ports, integrated 802.11ac WiFi access point, integrated ITU Region 3 (APAC) LTE uplink with dual SIM, USB, and RJ-45 console. Included in bundle is qty=1 3HE11925AA AC power supply. One C13 power cord must be purchased separately . Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE15005AA	Nuage SD-WAN Portal - Standalone Annual RTU Subscription which includes • L2/L3 Domains + branch management license • Traffic reports suite with dashboard widget • Application Discovery Reports with Dashboard widget • Network Performance Report • Application Aware control, Application SLA Violation Report with Dashboard widget • Organization/Customers Management • 100 active users support per Cluster Node (No enforcement) Note: This requires minimum Nuage VSD (Standalone) license as a pre-requisite
3HE15006AA	Nuage SD-WAN Portal - Cluster Annual RTU Subscription - This is not an add on license, it includes Standalone yearly subscription as well - This requires Nuage VSD HA cluster as a pre-requisite
3HE15007BA	This is a bundle of Nuage VSD - Standalone (Annual RTU Subscription) + Nuage SD-WAN Portal - Annual RTU Subscription. This is not an add-on
3HE15008BA	This is a bundle of Nuage VSD - HA Cluster (Annual RTU Subscription) + Nuage SD-WAN Portal - HA Cluster (Annual RTU Subscription). This is not an add-on
3HE15009AA	This is a per branch RTU annual subscription to cover Nuage SD-WAN Portal platform functionality across branches (CPEs). Note: This requires minimum Nuage VSD (Standalone) license as a pre-requisite.
3HE15010AA	• Allow SP to create special customers which can act as reseller/wholesaler • Reseller users can manage their end customer organizations independent of other resellers or direct customers • Reseller can manage access control for its end customer as they like to • Reseller end customers will have the exact same user experience as regular end customers • Reseller can setup their color branding and logo for their customers • Reseller or their end customers can setup their language of preference independent of other resellers or end customers This requires minimum Nuage SD-WAN (Standalone) annual subscription as a pre-requisite.

3HE15011AA	Authentication through single sign on using SAML 2.0 Users and roles mappings to portal permissions This requires minimum Nuage SD-WAN (Standalone) yearly subscription as a pre-requisite.
3HE15012AA	Billing events tracking and ability to access the billing data via API using REST interface This requires minimum Nuage SD-WAN (Standalone) yearly subscription as a pre-requisite.
3HE15022AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Right-To-Use 100Mbps
3HE15023AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Right-To-Use 200Mbps
3HE15024AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Right-To-Use 500Mbps
3HE15025AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering RTU License 1Gbps
3HE15026AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering RTU License 2Gbps
3HE15027AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering RTU License 10Gbps
3HE15028AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual Right-To-Use 100Mbps
3HE15029AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual Right-To-Use 200Mbps
3HE15030AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual Right-To-Use 500Mbps
3HE15031AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual RTU License 1Gbps
3HE15032AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual RTU License 2Gbps
3HE15033AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual RTU License 10Gbps
3HE15151AA	7750 SR 16-ports 10/25GGBASE MACsec + 2-ports 10/40/100GBase MDA-e-XP. Accepts sixteen (16) 10/25GBase Optic Module SFP+/SFP28 + two (2) 10/40/100GBase QSFP+/QSFP28 pluggable optics.
3HE15152AA	7750 SR 6-ports 10/40/100/400GBASE QSFP-DD MDA-e-XP. Accepts six (6) 10/40/100/400GBase Optic Mod7750 SR 6-ports 10/40/100/400GBASE QSFP-DD MDA-e-XP, designed to maximize 4x100G breakout, 400G interfaces can be used with iFIFO. If 1x400G line-rate is required use the 3HE15764AA - MDA-e-XP 7750 SR 3pt QSFP-DD for 400G interfaces . Accepts six (6) 100G, 2x100G, 4x10, 1x40G and 10x10GBase Optic Module QSFP+/QSFP28/QSFP28-DD/QSFP56-DD. ule QSFP+/QSFP28/QSFP28-DD/QSFP56-DD.

3HE15182AA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 800G FD non-redundant, accepts two (2) MDA-e-XP. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 800G throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 800G to 1.5T 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP is not supported 7750 SR-12e - licensed to 800G redundant throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE15182BA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 800G FD non-redundant, accepts two (2) MDA-e-XP. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 400G throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 800G to 1.5T 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP is not supported 7750 SR-12e - licensed to 800G redundant throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE15182CA	7750 SR IOM5-e, 1x FP4 complex, performance restricted to 800G FD non-redundant, accepts two (2) MDA-e-XP. High-Scale Edge (ER) no restrictions on h/w queues or egress policers This card is based off “3HE12332xA - IOM - 7750 SR IOM5-e” licensed to 800G throughput. Full High-Scale Edge feature set Hardware performance upgradeable from 800G to 1.5T 7750 SR-7/12-B - licensed to 800G non-redundant throughput up to 1.5T intelligent fan-in/fan-out. 12pt 100G QSFP28 MDA-e-XP is not supported 7750 SR-12e - licensed to 800G redundant throughput up to 2.4T intelligent fan-in/fan-out, no MDA-e-XP restrictions
3HE15197AA	Perpetual RTU license for a proxy/load balancer which can be used for proxy function between NSGs and Nuage VSD and proxy/load balancer function between external/internal users and Nuage VSD, Elastic Search and SD-WAN Portal

3HE15198AA	Perpetual RTU license for the Nuage Notification App function which includes - Email notification functionality for 1 factor or 2 factor NSG authentication - SMS notification for 2 factor authentication for NSG authentication. This module includes integration with 3rd Party Twilio server (Twilio account not included) or using SMPP to integrate SMPP compatible SMS gateway Note: This requires minimum Nuage VSD (Standalone) license as a pre-requisite
3HE15199AA	Perpetual RTU add-on license for Utility Host- Proxy-LB RTU or Utility Host - Notification App for high available support Note: This requires minimum Utility Host- Proxy-LB RTU or Utility Host - Notification App for high available support
3HE15200AA	Annual RTU license for a proxy/load balancer which can be used for proxy function between NSGs and Nuage VSD and proxy/load balancer function between external/internal users and Nuage VSD, Elastic Search and SD-WAN Portal
3HE15201AA	Annual RTU license for the Nuage Notification App function which includes - Email notification functionality for 1 factor or 2 factor NSG authentication - SMS notification for 2 factor authentication for NSG authentication. This module includes integration with 3rd Party Twilio server (Twilio account not included) or using SMPP to integrate SMPP compatible SMS gateway Note: This requires minimum Nuage VSD (Standalone) license as a pre-requisite
3HE15202AA	Annual RTU add-on license for Utility Host- Proxy-LB RTU or Utility Host - Notification App for high available support Note: This requires minimum Utility Host- Proxy-LB RTU or Utility Host - Notification App for high available support
3HE15211AA	1-port 400GBase SR8 100m QSFP56-DD Optics Module, 100m, MPO Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE15212AA	1-port 400GBase LR8 10km QSFP56-DD Optics Module, 10km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE15216AA	Release 19.x Operating Software License with support for base features and scaling. One (1) Operating Software License is required for each node in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software. SR-OS License for the following Platforms; 7750 SR-a4/a8 7750 SR-1e/2e/3e 7750 SR-1/7/12/12e 7750 SR-1s/2s/7s/14s 7950 XRS-16c/20/20e/40 Additional functionality and scale are available via additional licenses.

3HE15217AA	Release 19.x ZTP - Zero Touch Provisioning - Operating Software License with support for base features and scaling. One (1) Operating Software License is required for each node in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software. SR-OS License for the following Platforms; 7750 SR-1e 7750 SR-1 7750 SR-1s/2s/7s/14s Additional functionality and scale are available via additional licenses.
3HE15219AA	AC Power cable with SAF-D-GRID 300 (Key C) T Latch to NEMA L6-30P 10 AWG, 3m length for NA
3HE15222AA	Upgrade from IOM5-e 400G CR (Core Router) to IOM5-e 800G CR (Core Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15223AA	Upgrade from IOM5-e 400G ER (Edge Router) to IOM5-e 800G ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15224AA	Upgrade from IOM5-e 400G HE (High-Scale Edge) to IOM5-e 800G HE (High-Scale Edge) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15225AA	Upgrade from IOM5-e 800G CR (Core Router) to IOM5-e 800G ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15226AA	Upgrade from IOM5-e 800G ER (Edge Router) to IOM5-e 800G HE (High-Scale Edge) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15227AA	Upgrade from IOM5-e 800G CR (Core Router) to IOM5-e 1.5T CR (Core Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15228AA	Upgrade from IOM5-e 800G ER (Edge Router) to IOM5-e 1.5T ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15229AA	Upgrade from IOM5-e 800G HE (High-Scale Edge) to IOM5-e 1.5T HE (High-Scale Edge) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE15260AA	Upgrade license from 600Gbps 6 port QSFP28 XMA-s -CR to 600Gbps 6 port QSFP28 XMA-s - ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15261AA	Upgrade license from 600Gbps 6 port QSFP28 XMA-s - ER (Edge Router) to 600Gbps 6 port QSFP28 XMA-s - HE (High-Scale Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15262AA	Upgrade license from 600Gbps 6 port QSFP28 XMA-s -CR (Core Router) to 1.2Tbps 12 port QSFP28 XMA-s - CR (Core Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15263AA	Upgrade license from 600Gbps 6 port QSFP28 XMA-s -ER (Edge Router) to 1.2Tbps 12 port QSFP28 XMA-s - ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15264AA	Upgrade license from 600Gbps 6 port QSFP28 XMA-s -HE (High-Scale Edge Router) to 1.2Tbps 12 port QSFP28 XMA-s - HE (High-Scale Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15265AA	Upgrade license from 1.2Tbps 12 port QSFP28 XMA-s - CR (Core Router) to 1.2Tbps 12 port QSFP28 XMA-s - ER (Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15266AA	Upgrade license from 1.2Tbps 12 port QSFP28 XMA-s - ER (Edge Router) to 1.2Tbps 12 port QSFP28 XMA-s - HE (High-Scale Edge Router) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15267AA	Upgrade license to enable aggregation mode up to 1.8T / 18 ports QSFP28 XMA-s (applies to CR, ER, HE variants) <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15271AA	1-port 400GBase DR4 or 4-port 100GBase QSFP56-DD Optics Module, 500m, MPO12 Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE15272AA	1-port 400GBase FR4 2km QSFP56-DD Optics Module, 2km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)
3HE15274AA	4-port 100GBase QSFP56-DD Optics Module, 2km, MPO12 Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM)

3HE15276AA	1-port 100GBase DR Single Lambda QSFP28 Optics Module, 500m, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE15277AA	1-port 100GBase FR Single Lambda QSFP28 Optics Module, 2km, LC Connector, RoHS 6/6 compliant, Digital Diagnostic Monitor (DDM), 0/70C
3HE15291AA	7250 IXR-6/10 Release 19.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-6/10 in the network. Includes OS programed on SD card(s)
3HE15291BA	7250 IXR Large variants Release 19.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s in the network. Includes programmed media with the Operating Software.
3HE15292AA	7250 IXR-R6 Release 19.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-R6 in the network. Includes OS programed on SD card(s)
3HE15293AA	7250 IXR-S Release 19.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-s in the network. Includes OS programed on SD card(s)
3HE15294AA	7250 IXR-6/10 Release 19.x Operating Software Upgrade License. Previous OS license is required for the upgrade. Notes: One (1) Operating Software License is required for each IXR-6/10 in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .
3HE15295AA	7250 IXR-R6 Release 19.x Operating Software Upgrade License. Previous OS license is required for the upgrade. Notes: One (1) Operating Software License is required for each IXR-R6 in the network.
3HE15296AA	7250 IXR-s Release 19.x Operating Software Upgrade License. Previous OS license is required for the upgrade. Notes: One (1) Operating Software License is required for each IXR-s in the network.
3HE15298AA	RTU MG-AA Web Content Ctl 10k Subs. Enables integrated web content categorization filtering using related ION Web Categorization filtering Services. Requires ordering of AA RTU as a pre-requisite. One of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single MG to allow the desired scale.
3HE15299AA	RTU MG-AA Flow Attributes 10k Subs. Enables flow attributes. Requires ordering of AA RTU as a pre-requisite. One of these RTUs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single MG to allow the desired scale.
3HE15300AA	SROS URL Filter Res 10k Subs - Right to Use required for Application Assurance integrated web content categorization filtering for residential ESM or transit-AA subscribers, using related ION Web Categorization Services. One of these RTUs is required for URL filtering for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.
3HE15301AA	SROS URL Filter Wifi 10k Subs - Right to Use required for Application Assurance integrated web content categorization filtering for residential wifi ESM or DSM subscribers, using related ION Web Categorization Services. One of these RTUs is required for URL filtering for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale. Per Network license.

3HE15302AA	SROS Flow Attributes 10 Gbps. Right to Use required to enable flow attributes for up to 10Gb/s. Requires ordering of AA ID as pre-requisite. One of these ASLs is required for every increment of 10Gbps. Multiple instances may be applied to a single system to allow the desired scale.
3HE15303AA	ASL VSR-AA Web Content Ctl Wifi 10k Subs for a duration of 5 years (60 months) validity. Application Software License to enables integrated web content filtering, instead of ICAP use. Requires ordering of AA ID and Control ASL as pre-requisite. One of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale.
3HE15304AA	ASL VSR-AA Flow Attributes Res 10k Subs. Application Software License required for flow attributes for residential subscribers. Requires ordering of AA ID and Control ASL as pre-requisite. One of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to a single system to allow the desired scale.
3HE15305AA	ASL VSR-AA Web Content Ctl Wifi 10k Subs. Application Software License to enables integrated web content categorization filtering, using related ION Web Categorization Services. Requires ordering of AA ID and Control ASL as pre-requisite. One of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale.
3HE15306AA	ASL VSR-AA Flow Attributes Wifi 10k Subs. Enables flow attributes for Wifi ESM or DSM subscribers. Requires ordering of AA ID and Control ASL as pre-requisite. One of these ASLs is required for every increment of 10,000 subscribers. Multiple instances may be applied to allow the desired scale.
3HE15343AA	Nuage 7850 Network Services Gateway – C600. AC powered with 4 10/100/1000BASE-T ports, 2x USB, and RJ-45 console. Included in bundle is qty=1 AC power supply. One C13 power cord must be purchased separately. Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE15344AA	Nuage 7850 Network Services Gateway – C601. AC powered with 4 10/100/1000BASE-T ports, integrated 802.11ac WiFi access point, integrated region 0 (global) LTE uplink, 2x USB, and RJ-45 console. Included in bundle is qty=1 AC power supply. One C13 power cord must be purchased separately. Only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.
3HE15377AA	1-port 25GBASE-ER Small Form-Factor Pluggable+ (SFP28) Optics Module, Single Mode Fiber (SMF), 40km, 1295 to 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE15378AA	1-port 25GBASE-BX10-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 10km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE15378AB	1-port 25GBASE-BX10-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 10km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Extended Temperature -40/85C
3HE15379AA	1-port 25GBASE-BX20-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 20km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE15379AB	1-port 25GBASE-BX20-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 20km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Extended Temperature -40/85C

3HE15380AA	1-port 25GBASE-BX40-U (Up-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 40km, TX:1330 nm, RX: 1270 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C
3HE15380AB	1-port 25GBASE-BX40-D (Down-Stream) Bi-Directional (BiDi) Small Form-Factor Pluggable (SFP28) Optics Module, Single Mode Fiber (SMF), 40km, TX: 1270 nm, RX: 1330 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 Compliant, Extended Temperature -40/85C
3HE15386AA	7250 IXR-e 24xSFP+/SFP + 8xSFP28/SFP+ + 2xQSFP28 plus internal GNSS receiver (IXR-e Big GNSS). Supports redundant removable power supplies and removable fan filter. Ships with one fan filter installed. PSUs, software licenses and other accessories sold separately.
3HE15387AA	7250 IXR-e 14xSFP+/SFP + 4xRJ45 plus internal GNSS receiver (IXR-e Small GNSS). Supports redundant removable power supplies and removable fan filter. Ships with one fan filter installed. PSUs, software licenses and other accessories sold separately.
3HE15400AA	RTU - 7705 SAR-Hm/Hmc NAT license. Includes maximum supported NAT session and throughput available on one SAR-Hm/Hmc node. One (1) OS License is required for each SAR-Hm/Hmc in the network.
3HE15401AA	ASL VSR-AA Roaming Firewall 1Gbps. Application Software License required for mobile network Roaming GTP firewall. Requires ordering of AA Stateful Firewall ASL as pre-requisite. One of these ASLs is required for every increment of 1Gbps of traffic. Multiple instances may be applied to a single system to allow the desired scale.
3HE15402AA	SROS Roaming Firewall License per 10Gbps. Right to Use required for mobile network Roaming GTP firewall. Requires ordering of AA Stateful Firewall RTU as pre-requisite. One of these RTUs is required for every increment of 10Gbps of traffic. Multiple instances may be applied to a single system to allow the desired scale.
3HE15413AA	ACC - 7250 IXR-e Fan Filter (18 pack) Fits both IXR-e platforms
3HE15415AA	7750 SR-s IOM-s (Input/Output Module) 800G IOM-s Core Routing, accepts two modular MDA-s, 1x FP4 complex, CR (Core Router) feature set. MDA-s impedance panels needs to be added separately. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This card is based off "3HE15416xA - XMA - IOM-s - SR-s IOM-s 1.5T" Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable to 1.5T
3HE15415BA	7750 SR-s IOM-s (Input/Output Module) 800G IOM-s Edge Router, accepts two modular MDA-s, 1x FP4 complex, ER (Edge Router) feature set. MDA-s impedance panels needs to be added separately. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE15416xA - XMA - IOM-s - SR-s IOM-s 1.5T" Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable to 1.5T.

3HE15415CA	7750 SR-s IOM-s (Input/Output Module) 800G IOM-s High-Scale Edge, accepts two modular MDA-s, 1x FP4 complex, HE (High-Scale Edge) feature set. MDA-s impedance panels needs to be added separately. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This card is based off “3HE15416xA - XMA - IOM-s - SR-s IOM-s 1.5T” Full High-Scale Edge feature set Hardware performance upgradeable to 1.5T
3HE15416AA	7750 SR-s IOM-s (Input/Output Module) 1.5T IOM-s Core Routing, accepts two modular MDA-s, 1x FP4 complex, CR (Core Router) feature set. MDA-s impedance panels needs to be added separately. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Hardware performance up to 1.5T.
3HE15416BA	7750 SR-s IOM-s (Input/Output Module) 1.5T IOM-s Edge Routing, accepts two modular MDA-s, 1x FP4 complex, ER (Edge Router) feature set. MDA-s impedance panels needs to be added separately. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Hardware performance up to 1.5T.
3HE15416CA	7750 SR-s IOM-s (Input/Output Module) 1.5T IOM-s High-Scale Edge Routing, accepts two modular MDA-s, 1x FP4 complex, HE (High-Scale Edge) feature set. MDA-s impedance panels needs to be added separately. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Hardware performance up to 1.5T.
3HE15417AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s Modular is based off “3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC” licensed to 1.6T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15417BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This 7750 SR-1s Modular is based off “3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC” licensed to 1.6T throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T intelligent fan-in/fan-out.

3HE15417CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s Modular is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC" licensed to 1.6T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15418AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s Modular is based off " 3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 1.6T. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15418BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD, port restricted to 16-connectors Universal QSP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This 7750 SR-1s Modular is based off " 3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 1.6T. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.6T intelligent fan-in/fan-out.
3HE15418CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 1.6T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s Modular is based off " 3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 1.6T. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15419AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s Modular is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC" licensed to 2.4T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.

3HE15419BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This 7750 SR-1s Modular is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC" licensed to 2.4T throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15419CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s Modular is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - CR DC" licensed to 2.4T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15420AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s Modular is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 2.4T. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15420BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This 7750 SR-1s Modular is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 2.4T. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.
3HE15420CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 2.4T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s Modular is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - CR AC" licensed to 2.4T. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T or 3.0T intelligent fan-in/fan-out.

3HE15421AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set.
3HE15421BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set.
3HE15421CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set.
3HE15422AA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set.
3HE15422BA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to ER or HE feature set.
3HE15422CA	7750 SR-1s Modular system, 2x FP4 complex, accepting x2 MDA-s, performance restricted to 3.0T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set.
3HE15426AA	Nuage 7850 Network Services Gateway-X680 (NSG-X680). AC powered with 4 ports 10GigE SFP+, 8 ports 1000BASE-T, 2 ports USB, 1 port RJ-45 serial. Included in bundle is Qty=2 AC power supplies for 1+1 AC power redundancy. Two C13 power cords must be purchased separately, one for each of the two power supplies. Includes hardware for mounting in EIA/ECA-310 racks. Note: 7850 NSG only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software. <u>Note: 7850 NSG only to be sold in conjunction with Nuage Virtualized Network Services (VNS) software.</u>
3HE15490AA	ACC - 7210 SAS-Dxp Rack Mount

3HE15508BA	OS - 7210 SAS-Dxp 2SFP+ 4F6T, Release 20.X Base OS license / Native Ethernet L2 VPNs license. This license is required for both 7210 SAS-Dxp ETR and non-ETR variants. This is a per chassis license valid for release 20.X. It provides the Base OS and includes support for native Ethernet services (e.g. Layer-2 VPLS and Epipe services). It must be also purchased for upgrade to release 20.X. It will shipped on a SD Card.
3HE15509AA	RTU - 7210 SAS-K MACsec license. This is a per chassis license. It is a one-time license to use the MACsec capabilities on the node for either 1GE port or 10GE port, as applicable. It is required to use MACsec capability on 7210 SAS-K 2F6C4T ETR and 7210 SAS-K 3SFP+8C ETR platforms.
3HE15514AA	UPG - IOM-s 800G CR to 800G ER
3HE15515AA	UPG - IOM-s 800G ER to 800G HE
3HE15516AA	UPG - IOM-s 800G CR to 1.5T CR
3HE15517AA	UPG - IOM-s 800G ER to 1.5T ER
3HE15518AA	UPG - IOM-s 800G HE to 1.5T HE
3HE15519AA	UPG - IOM-s 1.5T CR to 1.5T ER
3HE15520AA	UPG - IOM-s 1.5T ER to 1.5T HE
3HE15521AA	Upgrade license from SR-1s Modular 1.6T CR to 2.4T CR <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15522AA	Upgrade license from SR-1s Modular 1.6T ER to 2.4T ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15523AA	Upgrade license from SR-1s Modular 1.6T HE to 2.4T HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15524AA	Upgrade license from SR-1s Modular 1.6T CR to 1.6T ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15525AA	Upgrade license from SR-1s Modular 1.6T ER to 1.6T HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15526AA	Upgrade license from SR-1s Modular 2.4T CR to 2.4T ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>

3HE15527AA	Upgrade license from SR-1s Modular 2.4T ER to 2.4T HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15528AA	Upgrade license from SR-1s Modular 2.4T CR to 3.0T CR <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15529AA	Upgrade license from SR-1s Modular 2.4T ER to 3.0T ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15530AA	Upgrade license from SR-1s Modular 2.4T HE to 3.0T HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15531AA	Upgrade license from SR-1s Modular 3.0T CR to 3.0T ER <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15532AA	Upgrade license from SR-1s Modular 3.0T ER to 3.0T HE <i>Installation requires the use of Centralized License Manager (CLM) - 3HE14159AA CLM is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).</i>
3HE15533AA	NSG-C600 series AC spare power supply. NSG-C60x units ship with a power supply and this is an additional spare power supply.
3HE15534AA	PS - Nuage 7850 NSG-X600 series 300W AC spare power module. NSG-X6xx units ship with 1+1 redundant power modules and this is an additional spare power module.
3HE15553AA	SYS-7250 IXR-e 24SFP+ 8SFP28 2QSFP28 AC Bundle Includes: (1) 3HE14782AA SYS - 7250 IXR-e 24SFP+ 8SFP28 2QSFP28 (2) 3HE14784AA PS - 7250 IXR-e AC Software image and AC Power Cables Not included
3HE15554AA	SYS-7250 IXR-e 24SFP+ 8SFP28 2QSFP28 DC Bundle Includes: (1) 3HE14782AA SYS - 7250 IXR-e 24SFP+ 8SFP28 2QSFP28 (2) 3HE14785AA PS - 7250 IXR-e DC Software image Not included
3HE15555AA	SYS-7250 IXR-e 14SFP+ 4T AC Bundle Includes: (1) 3HE14783AA SYS - 7250 IXR-e 14SFP+ 4T (2) 3HE14784AA PS - 7250 IXR-e AC Software image and AC Power Cables Not included
3HE15556AA	SYS-7250 IXR-e 14SFP+ 4T AC Bundle Includes: (1) 3HE14783AA SYS - 7250 IXR-e 14SFP+ 4T (2) 3HE14785AA PS - IXR-e DC Software image Not included

3HE15561AA	7750 SR-s 3-port CFP2-DCO MDA-s. 100 Gbps transmission using QPSK modulation for metro-core and long-haul applications and 200 Gbps (2x100G) for metro-access applications. Accepts three (3) CFP-DCO Optic Module.
3HE15562AA	7750 SR-s 8-ports SFP-DD (10/25/100G) MACsec + 2-ports QSFP28 (10/40/100G) MDA-s. Accepts (8) 10/25/100GBase Optic Module SFP+/SFP28/SFP-DD + (2) 10/40/100GBase QSFP+/QSFP28.
3HE15563AA	7750 SR-s 2-ports QSFP56-DD (10/40/100/400G) + 2-ports QSFP28 (10/40/100G) MDA-s. Accepts (2) 10/40/100/400GBase Optic Module QSFP+/QSFP28/QSFP28-DD/QSFP56-DD + (2) 10/40/100GBase QSFP+/QSFP28.
3HE15566AA	A yearly NSG RTU for the Nuage VNS White Label (VNS-WL) Service. This RTU is charged per-NSG, for each year the NSG is activated and used on the VNS-WL service. This part number is used for all packages (Essentials, Advanced, Premium) and speed tiers of the VNS-WL Service. Includes Software Release Subscription (SRS)
3HE15586AA	GNSS Antenna bracket
3HE15587AA	ASL VSR Telemetry - Application Software License (ASL) required to enable the Telemetry feature. One (1) license is required per VSR.
3HE15597AA	7950 XRS-20 Complete Chassis AC Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE12492AA - APEQ-AC-4400 Power Equalizer Module , (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot. Power cables order separately
3HE15598AA	7950 XRS-20 HVDC Stand-Alone Complete Chassis Bundle, shipped with all common hardware. Includes: (1) 3HE07112AA - CH-BN - 7950 XRS-20 Integrated Chassis (5) 3HE12508AA - APEQ-HVDC-4400 Power Equalizer Module, (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot. Power cables order separately

3HE15599AA	7950 XRS-20e Complete Chassis AC Bundle, shipped with all common hardware. Includes: (1) 3HE11086AA - CHAS-7950 XRS-20e AC/HVDC SPARE CHASSIS (5) 3HE12492AA - APEQ-AC-4400 Power Equalizer Module, (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray (2) 3HE07117AA - CCM - 7950 XRS-20 CCM Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot. Power cables order separately
3HE15600AA	7950 XRS-20e Stand-Alone Complete Chassis HVDC Bundle, shipped with all common hardware. Includes: (1) 3HE11086AA - CHAS-7950 XRS-20e AC/HVDC Spare Chassis (5) 3HE12508AA - APEQ-HVDC-4400 Power Equalizer Module, (8) 3HE12313AA - 7950 XRS-20/20e Switch Fabric Module-2 (2) 3HE07116AB - CPM - 7950 XRS-20 CPM 16GB (3) 3HE11088AA - FAN - 7950 XRS-20e Fan Tray , (2) 3HE07117AA - CCM - 7950 XRS-20 CCM , (1) 3HE11090AA - ACC - 7950 XRS-20e Air Filter Kit , Note: You must order separate impedance panels (XCM, XMA or C-XMA impedance panels) for every empty slot. Power cables ordered separately
3HE15601AA	7250 IXR-10 SRLinux System License 19.x – one per system
3HE15621AA	SYS - 7220 IXR-D1 88G 48baseT 4SFP+, base platform. Does not include fans or power supplies.
3HE15622AA	SYS - 7220 IXR-D2 2.0T 48SFP28 8QSFP28, base platform. Does not include fans or power supplies.
3HE15623AA	SYS - 7220 IXR-D3 3.2T 32QSFP28 2SFP+, base platform. Does not include fans or power supplies.
3HE15625AA	PS - 7220 IXR-D1 48baseT 4SFP+ AC (FtoB)
3HE15626AA	PS - 7220 IXR-D1 48baseT 4SFP+ AC (BtoF)
3HE15629AA	PS - 7220 IXR-D1 48baseT 4SFP+ -48V DC (FtoB)
3HE15630AA	PS - 7220 IXR-D1 48baseT 4SFP+ -48V DC (BtoF)
3HE15631AA	FAN - 7220 IXR-D1 48baseT 4SFP+ Fan Tray (FtoB)
3HE15632AA	FAN - 7220 IXR-D1 48baseT 4SFP+ Fan Tray (BtoF)
3HE15643AA	7250 IXR-e PSU Impedance Panel five pack
3HE15644AA	7250 IXR-e Rack Mount Bracket ten pack
3HE15662AA	7250 IXR Large variants Release 20.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s/Xs/X1 in the network. Includes programmed media with the Operating Software.
3HE15662AB	7250 IXR Large variants Release 21.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s/Xs/X1 in the network. Includes programmed media with the Operating Software.

3HE15662BA	7250 IXR Large variants Release 20.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s/Xs/X1 in the network. Includes programmed media with the Operating Software.
3HE15662BB	7250 IXR Large variants Release 21.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s/Xs/X1 in the network. Includes programmed media with the Operating Software.
3HE15663AA	7250 IXR Medium variants Release 20.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-R4, IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15663AB	7250 IXR Medium variants Release 21.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-R4, IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15663BA	7250 IXR Medium variants Release 20.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-R4, IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15663BB	7250 IXR Medium variants Release 21.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-R4, IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15664AA	7250 IXR Small variants Release 20.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15664AB	7250 IXR Small variants Release 20.x Operating Software License. Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants), IXR-ec in the network. Includes programmed media with the Operating Software.
3HE15664BA	7250 IXR Small variants Release 20.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants) in the network. Includes programmed media with the Operating Software.
3HE15664BB	7250 IXR Small variants Release 21.x Operating Software License with ZTP enabled. Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants), IXR-ec in the network. Includes programmed media with the Operating Software.
3HE15667AA	Spare antenna kit for Nuage 7850 NSG-E306. This kit contains (2) WiFi and (2) LTE antennae. Also applicable for NSG-E202/206/E207/E208/E307/E308 models. Note that a full antennae set ships with each NSG and this kit is offered in case any antenna is damaged or lost.
3HE15668AA	NSG-C601 spare antenna kit. NSG-C601 units ship with 2 LTE and 2 WiFi antennae and this kit contains 4 replacement (2 LTE plus 2 WiFi) antennae.

3HE15669AA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 1.6T (supports two MDA-s) Core Router feature set; Includes the following; (1) 3HE15417AA - SYS - SR-1s MODULAR 1.6T - CR DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance to 1.6T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - DC" licensed to 1.6T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.
3HE15669BA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 1.6T (supports two MDA-s) Edge Router feature set: Includes the following; (1) 3HE15417BA - SYS - SR-1s MODULAR 1.6T - ER DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 1.6T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - DC" licensed to 1.6T throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.
3HE15669CA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 1.6T (supports two MDA-s) High Scale Edge feature set; Includes the following; (1) 3HE15417CA - SYS - SR-1s MODULAR 1.6T - HE DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 1.6T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - DC" licensed to 1.6T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.

3HE15670AA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 1.6T (supports two MDA-s) Core Router feature set; Includes the following; (1) 3HE15418AA - SYS - SR-1s MODULAR 1.6T - CR AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance to 1.6T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC" licensed to 1.6T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.
3HE15670BA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 1.6T (supports two MDA-s) Edge Router feature set; Includes the following; (1) 3HE15418BA - SYS - SR-1s MODULAR 1.6T - ER AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 1.6T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC" licensed to 1.6T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.

3HE15670CA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 1.6T (supports two MDA-s) High Scale Edge feature set; Includes the following; (1) 3HE15418CA - SYS - SR-1s MODULAR 1.6T - HE AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 1.6T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC" licensed to 1.6T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 1.6T to 2.4T or 3.0T.
3HE15671AA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 2.4T (supports two MDA-s) Core Router feature set; Includes the following; (1) 3HE15419AA - SYS - SR-1s MODULAR 2.4T - CR DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance to 2.4T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC" licensed to 2.4T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.0T.
3HE15671BA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 2.4T (supports two MDA-s) Edge Router feature set: Includes the following; (1) 3HE15419BA - SYS - SR-1s MODULAR 2.4T - ER DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - DC" licensed to 2.4T throughput. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 2.4T to 3.0T.

3HE15671CA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 2.4T (supports two MDA-s) Edge Router feature set: Includes the following; (1) 3HE15419CA - SYS - SR-1s MODULAR 2.4T - HE DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE15421xA - SYS - SR-1s MODULAR 3.0T - DC" licensed to 2.4T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.0T.
3HE15672AA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 2.4T (supports two MDA-s) Core Router feature set; Includes the following; (1) 3HE15420AA - SYS - SR-1s MODULAR 2.4T - CR AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance to 2.4T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC" licensed to 2.4T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.0T.

3HE15672BA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 2.4T (supports two MDA-s) Edge Router feature set; Includes the following; (1) 3HE15420BA - SYS - SR-1s MODULAR 2.4T - ER AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off “3HE13801xA - SYS - SR-1s MODULAR 3.0T - CR AC” licensed to 2.4T throughput. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T.
3HE15672CA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 2.4T (supports two MDA-s) High-Scale Edge feature set; Includes the following; (1) 3HE15420CA - SYS - SR-1s MODULAR 2.4T - HE AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 2.4T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off “3HE15422xA - SYS - SR-1s MODULAR 3.0T - AC” licensed to 2.4T throughput. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.0T.
3HE15673AA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 3.0T (supports two MDA-s), Core Router feature set; Includes the following; (1) 3HE15421AA - SYS - SR-1s MODULAR 3.0T - CR DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.0T FD

3HE15673BA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 3.0T (supports two MDA-s), Edge Router feature set: Includes the following; (1) 3HE15421BA - SYS - SR-1s MODULAR 3.0T - ER DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.0T FD.
3HE15673CA	7750 SR-1s Modular + LVDC Power Shelf Bundle, 3.0T (supports two MDA-s), High Scale Edge feature set; Includes the following; (1) 3HE15421CA - SYS - SR-1s MODULAR 3.0T - HE DC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.0T FD.
3HE15674AA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 3.0T (supports two MDA-s), Core Router feature set; Includes the following; (1) 3HE15422AA - SYS - SR-1s MODULAR 3.0T - CR AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) Software scale upgradeable to ER or HE feature set. Hardware performance up to 3.0T FD

3HE15674BA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 3.0T (supports two MDA-s), Edge Router feature set: Includes the following; (1) 3HE15422BA - SYS - SR-1s MODULAR 3.0T - ER AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) Software scale upgradeable to HE feature set. Hardware performance up to 3.0T FD.
3HE15674CA	7750 SR-1s Modular + AC/HVDC Power Shelf Bundle, 3.0T (supports two MDA-s), High Scale Edge feature set; Includes the following; (1) 3HE15422CA - SYS - SR-1s MODULAR 3.0T - HE AC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11183AA - PSU - AC/HVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance to 3.0T FD. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) Full High-Scale Edge feature set. Hardware performance up to 3.0T FD.
3HE15676AA	7250 IXR-6/10 SRI Linux Linecard License – one per deployed linecard
3HE15700AA	7250 IXR-10 LVDC Complete chassis bundle including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE12446AA - SFM - 7250 IXR-10 SFM2 (2) 3HE12458AA - CPM - 7250 IXR CPM2 SSD (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray
3HE15701AA	7250 IXR-6 LVDC complete chassis bundle including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11752AA - PSU - 7250 IXR LVDC (6) 3HE12382AA - SFM - 7250 IXR-6 SFM2 (2) 3HE12458AA - CPM - 7250 IXR CPM2 SSD (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray
3HE15702AA	7250 IXR-10 AC/HVDC complete chassis bundle including: (1) 3HE11770AA - CHAS - 7250 IXR-10 Chassis (4) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE12446AA - SFM - 7250 IXR-10 SFM2 (2) 3HE12458AA - CPM - 7250 IXR CPM2 SSD (3) 3HE11769AA - FAN - 7250 IXR-10 Fan Tray

3HE15703AA	7250 IXR-6 AC/HVDC complete chassis bundle including: (1) 3HE11760AA - CHAS - 7250 IXR-6 Chassis (2) 3HE11751AA - PSU - 7250 IXR AC/HVDC (6) 3HE12382AA - SFM - 7250 IXR-6 SFM2 (2) 3HE12458AA - CPM - 7250 IXR CPM2 SSD (3) 3HE11759AA - FAN - 7250 IXR-6 Fan Tray
3HE15713AA	16F MMF MPO-MPO Patch Cable, 3M
3HE15714AA	16F MMF MPO-MPO Patch Cable, 10M
3HE15745AA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router License 50Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE15746AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router License 50Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE15747AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Right-To-Use 50Mbps
3HE15748AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Right-To-Use 50Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE15749AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Right-To-Use 50Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE15750AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Right-To-Use 50Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes
3HE15751AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Right-To-Use 50Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE15752AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Right-To-Use 50Mbps

3HE15753AA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 50Mbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE15754AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 50Mbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE15755AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 50Mbps
3HE15756AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 50Mbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE15757AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 50Mbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE15758AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 50Mbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes
3HE15759AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 50Mbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE15760AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual Right-To-Use 50Mbps
3HE15764AA	7750 SR 3-ports 10/40/100/400GBASE QSFP-DD MDA-e-XP, 4x100G break-out or 1x400G interfaces and can support a single 1x400G line-rate interface or up to two 1x400G interfaces clear-channel with iFIFO. Accepts three (3) 100G, 2x100G, 4x10, 1x40G and 10x10GBase Optic Module QSFP+/QSFP28/QSFP28-DD/QSFP56-DD.

3HE15775AA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Core Router feature set; Includes the following; (1) 3HE14648AA - SYS - SR-1s 2.4T 24pt QSFP28 - CR + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Core Router (CR) scale feature set (1024 per complex = h/w queues, 1024 per complex = egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to ER or HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
3HE15775BA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set; Includes the following; (1) 3HE14648BA - SYS - SR-1s 2.4T 24pt QSFP28 - ER + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply 7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. Edge Router (ER) scale feature set (16 384 per complex = h/w queues, 16 384 per complex = egress policers) This card is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 2.4T throughput and 24-connectors hard license enabled. Software scale upgradeable to HE feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.

3HE15775CA	7750 SR-1s + LVDC Power Shelf Bundle, 2.4T 24-port QSFP28 (supported QSFP+/QSFP28) Edge Router feature set: Includes the following: (1) 3HE14648CA - SYS - SR-1s 2.4T 24pt QSFP28 - HE + LVDC (5) 3HE12376AA - FAN - 7750 SR-1s Fan Module (2) 3HE11185AA - PSU - LVDC 6kw Power Supply
	7750 SR-1s system, 2x FP4 complex, performance restricted to 2.4T FD, port restricted to 24-connectors Universal QSFP28. High-Scale Edge (HE) scale feature set (no restrict hardware queues or egress policers) This 7750 SR-1s is based off "3HE13800xA - SYS-SR-1s 2.4T 36pt QSFP28 to 3.6T DC" licensed to 2.4T throughput and 24-connectors hard license enabled. Full High-Scale Edge feature set. Hardware performance upgradeable from 2.4T to 3.6T intelligent fan-in/fan-out.
	7750 SR-s CPM2 IMPEDANCE PANEL Impedance Panel, must be installed in every empty CPM slot.
	FAN - 7220 IXR-D3 32QSFP28 2SFP+, FtoB
	FAN - 7220 IXR-D2 48SFP28 8QSFP28, FtoB
3HE15781AA	FAN - 7220 IXR-D2 48SFP28 8QSFP28, BtoF
3HE15785AA	7250 IXR-X1 supporting 32 x 100 GE QSFP28 + 4 x 400 GE QSFP-DD ports. 1RU system. Ships with accessory kit. 2 x PSUs required for 1+1 power and 3 x fan trays required per system. Fans & PSUs sold separately.
3HE15787AA	7250 IXR-X fan tray for 1 RU systems, front-to-back airflow.
3HE15789AA	7250 IXR-Xs supporting 6 x 400 GE QSFP-DD ports + 48 x 50 GE SFP56. 1RU System. Ships with a IXR-X 1RU accessory kit. 2 x PSUs required for 1+1 power and 3 x fan trays required per system. Fans & PSUs sold separately.
3HE15791AA	7250 IXR-X 1300W AC power supply with front-to-back airflow.
3HE15808AA	Release 20.x Operating Software License with support for base features and scaling. One (1) Operating Software License is required for each node in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software. SR-OS License for the following Platforms; 7750 SR-a4/a8 7750 SR-1e/2e/3e 7750 SR-1/7/12/12e 7750 SR-1s/2s/7s/14s 7950 XRS-16c/20/20e/40 Additional functionality and scale are available via additional licenses.

3HE15809AA	Release 20.x ZTP - Zero Touch Provisioning - Operating Software License with support for base features and scaling. One (1) Operating Software License is required for each node in the network. Includes two (2) programmed 4GB Compact Flash cards with the Operating Software. SR-OS License for the following Platforms; 7750 SR-1e 7750 SR-1 7750 SR-1s/2s/7s/14s Additional functionality and scale are available via additional licenses.
3HE15839AA	ESA - 7750 SR Extended Services Appliance 100G which provides extended compute functions. AC power. This bundle does not include power cables or QSFP hardware.
3HE15840AA	ESA - 7750 SR Extended Services Appliance 100G which provides extended compute functions (no Encryption). AC power. This bundle does not include power cables or QSFP hardware.
3HE15841AA	ESA - 7750 SR Extended Services Appliance 100G which provides extended compute functions. DC Power. This bundle does not include QSFP hardware.
3HE15842AA	ESA - 7750 SR Extended Services Appliance 100G which provides extended compute functions (no Encryption). DC Power. This bundle does not include QSFP hardware.
3HE15843AA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router RTU License 20Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE15844AA	Nuage Virtualized Network Services (VNS) Network Services Software (Virtual) Gateway (NSG-V) Basic Router Annual RTU License 20Gbps Includes: - QoS functionality (ingress policing, egress shaping, classification and marking) - NSG Bootstrapping for activating NSGs through VSP - NSG Automation for centralized provisioning and management - Basic IP Routing and Internet Access support
3HE15845AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router RTU License 20Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license

3HE15846AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) VPN Router Annual RTU License 20Gbps Includes: - VPN Router add-on for NSG Basic Router License - Enables L2VPN (Point-to-Point, Multipoint) services - Enables L3VPN services Requires the purchase of basic router license
3HE15847AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) RTU License 20Gbps
3HE15848AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Access Control List (ACL) Annual RTU 20Gbps
3HE15849AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) RTU License 20Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE15850AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Network Address Translation (NAT)/Port Address Translation (PAT) Annual RTU License 20Gbps Enables the use of 1:1 NAT and N:1 PAT on underlay addresses
3HE15851AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec RTU License 20Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE15852AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) IPsec Annual RTU License 20Gbps Enables IPsec wrapping of VXLAN tunnels for L2VPN/L3VPN data path Requires the purchase of NSG VPN License
3HE15853AA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) Right-To-Use 20Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required for IPsec to VxLAN
3HE15854AA	Nuage Virtualized Network Services (VNS) Network Services Gateway Border Router (NSG-BR) annual RTU License 20Gbps Includes: - L3 Domain linking between WAN and DC - IPsec to VxLAN / VxLAN to VxLAN - Enables Policy across WAN and DC Requires the purchase of base route and VPN router licenses An additional IPsec license is required.
3HE15855AA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics RTU License 20Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"

3HE15856AA	"Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Business Intelligence Statistics Annual RTU License 20Gbps enables Application Performance Management, Network Performance Measurement, Usage Reporting and Statistics collection from NSGs for analytics purposes"
3HE15857AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining RTU License 20Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE15858AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Service Chaining Annual RTU License 20Gbps Enables service chaining from NSG-to-NSG or NSG-to-service delivery point such as a datacenter VRS, VRS-G, VSG, or other VNF. Requires the purchase of NSG VPN License
3HE15859AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering RTU License 20Gbps
3HE15860AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Web Filtering Annual RTU License 20Gbps
3HE15861AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with up to 50Mbps license
3HE15862AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with up to 50Mbps throughput
3HE15863AA	Nuage Virtualized Security Service Layer 4 Flow Data Source License per NSG device with up to 20Gbps license
3HE15864AA	Nuage Virtualized Security Service Layer 4 Flow Data Source Annual RTU License per NSG device with up to 20Gbps throughput
3HE15866AA	7220 IXR SR Linux 20.x System license for 7220 IXR-D1/2/3 and 7220 IXR-H2/3 platforms - one per system requiring base level functionality
3HE15867AA	7220 IXR SR Linux 20.x Services license for 7220 IXR-D1/2/3 and 7220 IXR-H2/3 platforms - one per system requiring services level functionality (includes system license functionality).
3HE15868AA	7220 IXR SR Linux 20.x Advanced license for 7220 IXR-D1/2/3 and 7220 IXR-H2/3 platforms - one per system requiring advanced level functionality (includes services license functionality).
3HE15869AA	7220 IXR-D2/3 SR Linux Enhanced scale add-on license - one per system requiring enhanced scale
3HE15870AA	7220 IXR-H2/3 SR Linux Enhanced scale add-on license - one per system requiring enhanced scale
3HE15896AA	AC Power Cable, IEC-60320-C14 to IEC-60320-C13 AUTO-LOCK, 3.05m (10ft) Long, supported on the 7750 SR-1 and 7210 SAS-S/Sx platforms
3HE16000AA	FAN - Nuage 7850 NSG-X600 series spare fan module. NSG-X6xx units ship with 2+1 redundant fan modules and this is an additional spare fan module.
3HE16092AA	FAN - 7220 IXR-D3 32QSP28 2SFP+, BtoF
3HE16193AA	ACC - Rail-Kit (fits 19" RM and 21" OR Rack) for 3HE15621AA 7220 IXR-D1 3HE15622AA 7220 IXR-D2 3HE15623AA 7220 IXR-D3 3HE16425AA 7220 IXR-H3

3HE16196AA	7750 SR-7s DC complete chassis bundle, shipped with all common hardware. Control Redundant. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12560AA - CMA - 7750 SR-7s CMA2-7s, (2) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY , (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (3) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. Chassis accessory kit included
3HE16197AA	7750 SR-7s AC/HVDC complete chassis bundle, shipped with all common hardware. Control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12560AA - CMA - 7750 SR-7s CMA2-7s, (2) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF (3) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. Chassis accessory kit included

3HE16198AA	7750 SR-7s DC complete chassis bundle, shipped with all common hardware. No control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12560AA - CMA - 7750 SR-7s CMA2-7s, (1) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (3) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. Chassis accessory kit included
3HE16199AA	7750 SR-7s AC/HVDC complete chassis bundle, shipped with all common hardware. No control redundancy. Includes: (1) 3HE11905AA - CHAS - 7750 SR-7s CHASSIS, (1) 3HE12560AA - CMA - 7750 SR-7s CMA2-7s, (1) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s, (4) 3HE11315AA - SFM - 7750 SR-7s/14s, (4) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF, (3) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. Chassis accessory kit included

3HE16200AA	7750 SR-14s DC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE11301AA - CHAS - 7750 SR-14s CHASSIS, (1) 3HE12561AA - CMA - 7750 SR-14s CMA2-14s, (2) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s (8) 3HE11315AA - SFM - 7750 SR-7s/14s, (8) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11180AA - CHAS - 7750 SR-7s/14s LVDC POWER SHELF, (5) 3HE11185AA - PSU - LVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: LVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), LVDC power shelf accessory kit and power lug kit, and optional air filter door kit. <u>Chassis accessory kit included</u>
3HE16201AA	7750 SR-14s AC/HVDC complete chassis bundle, shipped with all common hardware. Includes: (1) 3HE11301AA - CHAS - 7750 SR-14s CHASSIS, (1) 3HE12561AA - CMA - 7750 SR-14s CMA2-14s, (2) 3HE12559AA - CPM - 7750 SR-s CPM2-14s/7s (8) 3HE11315AA - SFM - 7750 SR-7s/14s, (8) 3HE11312AA - FAN - 7750 SR-7s/14s FAN TRAY, (1) 3HE11179AA - CHAS - 7750 SR-7s/14s AC/HVDC PWR SHELF, (5) 3HE11183AA - PSU - AC/HVDC 6kw POWER SUPPLY, (1) 3HE11181AA - COM - 7750 SR-7s/14s COMMUNICATION CARD Note: AC/HVDC Power Shelf includes the filler panels for the PSU. Additional items in which will need to be purchased separately are; Impedance Panels in all empty slots (XCM-s, XMA-s, CPM-s), AC/HVDC power shelf accessory kit, Power Cords and optional air filter door kit. <u>Chassis accessory kit included</u>
3HE16210AA	7220 IXR-D1 with 1 PS AC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15621AA - SYS - 7220 IXR-D1 48baseT 4SFP+ (1) 3HE15625AA - PS - 7220 IXR-D1 48baseT 4SFP+ AC, FtoB (3) 3HE15631AA - FAN - 7220 IXR-D1 48baseT 4SFP+, FtoB
3HE16211AA	7220 IXR-D1 with 1 PS AC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15621AA - SYS - 7220 IXR-D1 48baseT 4SFP+ (1) 3HE15626AA - PS - 7220 IXR-D1 48baseT 4SFP+ AC, BtoF (3) 3HE15632AA - FAN - 7220 IXR-D1 48baseT 4SFP+, BtoF
3HE16212AA	7220 IXR-D1 with 1 PS DC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15621AA - SYS - 7220 IXR-D1 48baseT 4SFP+ (1) 3HE15629AA - PS - 7220 IXR-D1 48baseT 4SFP+ DC, FtoB (3) 3HE15631AA - FAN - 7220 IXR-D1 48baseT 4SFP+, FtoB

3HE16213AA	7220 IXR-D1 with 1 PS DC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15621AA - SYS - 7220 IXR-D1 48baseT 4SFP+ (1) 3HE15630AA - PS - 7220 IXR-D1 48baseT 4SFP+ DC, BtoF (3) 3HE15632AA - FAN - 7220 IXR-D1 48baseT 4SFP+, BtoF
3HE16214AA	7220 IXR-D2 with 1 PS AC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15622AA - SYS - 7220 IXR-D2 48SFP28 8QSFP28 (1) 3HE11886AA - PS - 210 WBX AC (FtoB) (4) 3HE15780AA - FAN - 7220 IXR-D2 48SFP28 8QSFP28, FtoB
3HE16215AA	7220 IXR-D2 with 1 PS AC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15622AA - SYS - 7220 IXR-D2 48SFP28 8QSFP28 (1) 3HE11885AA - PS - 210 WBX AC (BtoF) (4) 3HE15781AA - FAN - 7220 IXR-D2 48SFP28 8QSFP28, BtoF
3HE16216AA	7220 IXR-D2 with 1 PS DC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15622AA - SYS - 7220 IXR-D2 48SFP28 8QSFP28 (1) 3HE10837AA - PS - 210 WBX, 7210 Sx 100G -48VDC (FtoB) (4) 3HE15780AA - FAN - 7220 IXR-D2 48SFP28 8QSFP28, FtoB
3HE16217AA	7220 IXR-D2 with 1 PS DC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15622AA - SYS - 7220 IXR-D2 48SFP28 8QSFP28 (1) 3HE11883AA - PS - 210 WBX -48V DC (BtoF) (4) 3HE15781AA - FAN - 7220 IXR-D2 48SFP28 8QSFP28, BtoF
3HE16218AA	7220 IXR-D3 with 1 PS AC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15623AA - SYS - 7220 IXR-D3 32QSFP28 2SFP+ (1) 3HE11886AA - PS - 210 WBX AC (FtoB) (5) 3HE15779AA - FAN - 7220 IXR-D3 32QSFP28 2SFP+, FtoB
3HE16219AA	7220 IXR-D3 with 1 PS AC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15623AA - SYS - 7220 IXR-D3 32QSFP28 2SFP+ (1) 3HE11885AA - PS - 210 WBX AC (BtoF) (5) 3HE16092AA - FAN - 7220 IXR-D3 32QSFP28 2SFP+, BtoF
3HE16220AA	7220 IXR-D3 with 1 PS DC, FtoB complete chassis bundle with all common hardware including: (1) 3HE15623AA - SYS - 7220 IXR-D3 32QSFP28 2SFP+ (1) 3HE10837AA - PS - 210 WBX, 7210 Sx 100G -48VDC (FtoB) (5) 3HE15779AA - FAN - 7220 IXR-D3 32QSFP28 2SFP+, FtoB
3HE16221AA	7220 IXR-D3 with 1 PS DC, BtoF complete chassis bundle with all common hardware including: (1) 3HE15623AA - SYS - 7220 IXR-D3 32QSFP28 2SFP+ (1) 3HE11883AA - PS - 210 WBX -48V DC (BtoF) (5) 3HE16092AA - FAN - 7220 IXR-D3 32QSFP28 2SFP+, BtoF
3HE16222AA	7220 IXR-H2 with 2 PS DC, FtoB complete chassis bundle with all common hardware including: (1) 3HE16421AA - SYS - 7220 IXR-H2 128QSFP28 (2) 3HE16426AA - PS - 7220 IXR-H2 128QSFP28 -48VDC, FtoB (8) 3HE16430AA - FAN - 7220 IXR-H2 128QSFP28, FtoB (1) 3HE16662AA - ACC - Rail-Kit for 7220 IXR-H2

3HE16223AA	7220 IXR-H2 with 2 PS DC, BtoF complete chassis bundle with all common hardware including: (1) 3HE16421AA - SYS - 7220 IXR-H2 128QSFP28 (2) 3HE16427AA - PS - 7220 IXR-H2 128QSFP28 -48VDC, BtoF (8) 3HE16431AA - FAN - 7220 IXR-H2 128QSFP28, BtoF (1) 3HE16662AA - ACC - Rail-Kit for 7220 IXR-H2
3HE16224AA	7220 IXR-H2 with 2 PS AC, FtoB complete chassis bundle with all common hardware including: (1) 3HE16421AA - SYS - 7220 IXR-H2 128QSFP28 (2) 3HE16428AA - PS - 7220 IXR-H2 128QSFP28 AC, FtoB (8) 3HE16430AA - FAN - 7220 IXR-H2 128QSFP28, FtoB (1) 3HE16662AA - ACC - Rail-Kit for 7220 IXR-H2
3HE16225AA	7220 IXR-H2 with 2 PS AC, BtoF complete chassis bundle with all common hardware including: (1) 3HE16421AA - SYS - 7220 IXR-H2 128QSFP28 (2) 3HE16429AA - PS - 7220 IXR-H2 128QSFP28 AC, BtoF (8) 3HE16431AA - FAN - 7220 IXR-H2 128QSFP28, BtoF (1) 3HE16662AA - ACC - Rail-Kit for 7220 IXR-H2
3HE16226AA	7220 IXR-H3 with 1 PS DC, FtoB complete chassis bundle with all common hardware including: (1) 3HE16425AA - SYS - 7220 IXR-H3 32QSFPDD 2SFP+ (1) 3HE16432AA - PS - 7220 IXR-H3 32QSFPDD -48VDC, FtoB (6) 3HE16436AA - FAN - 7220 IXR-H3 32QSFPDD, FtoB
3HE16227AA	7220 IXR-H3 with 1 PS DC, BtoF complete chassis bundle with all common hardware including: (1) 3HE16425AA - SYS - 7220 IXR-H3 32QSFPDD 2SFP+ (1) 3HE16433AA - PS - 7220 IXR-H3 32QSFPDD -48VDC, BtoF (6) 3HE16437AA - FAN - 7220 IXR-H3 32QSFPDD, BtoF
3HE16228AA	7220 IXR-H3 with 1 PS AC, FtoB complete chassis bundle with all common hardware including: (1) 3HE16425AA - SYS - 7220 IXR-H3 32QSFPDD 2SFP+ (1) 3HE16434AA - PS - 7220 IXR-H3 32QSFPDD AC, FtoB (6) 3HE16436AA - FAN - 7220 IXR-H3 32QSFPDD, FtoB
3HE16229AA	7220 IXR-H3 with 1 PS AC, BtoF complete chassis bundle with all common hardware including: (1) 3HE16425AA - SYS - 7220 IXR-H3 32QSFPDD 2SFP+ (1) 3HE16435AA - PS - 7220 IXR-H3 32QSFPDD AC, BtoF (6) 3HE16437AA - FAN - 7220 IXR-H3 32QSFPDD, BtoF
3HE16421AA	SYS - 7220 IXR-H2 128QSFP28, base platform. Does not include fans or power supplies
3HE16425AA	SYS - 7220 IXR-H3 32QSFPDD 2SFP+, base platform. Does not include fans or power supplies
3HE16426AA	PS - 7220-H2 128QSFP28 -48VDC, FtoB
3HE16427AA	PS - 7220-H2 128QSFP28 -48VDC, BtoF
3HE16428AA	PS - 7220-H2 128QSFP28 AC, FtoB
3HE16429AA	PS - 7220-H2 128QSFP28 AC, BtoF
3HE16430AA	FAN - 7220-H2 128QSFP28, FtoB
3HE16431AA	FAN - 7220-H2 128QSFP28, BtoF
3HE16432AA	PS - 7220-H3 32QSFPDD -48VDC, FtoB
3HE16433AA	PS - 7220-H3 32QSFPDD -48VDC, BtoF
3HE16434AA	PS - 7220-H3 32QSFPDD AC, FtoB
3HE16435AA	PS - 7220-H3 32QSFPDD AC, BtoF

3HE16436AA	FAN - 7220-H3 32QSFDD, FtoB
3HE16437AA	FAN - 7220-H3 32QSFDD, BtoF
3HE16455AA	This RTU is required to enable IPsec bandwidth in increments of 100 Mbps for IMIX traffic distribution on ESA; One (1) license is required for every increment of 100 Mbps of IPsec encryption capacity on ESA per SR. Multiple RTUs may be applied to a single SR to allow the required bandwidth scale.
3HE16456AA	This RTU is required to enable IPsec tunnel scale in increments of 1,000 on ESA; One (1) license is required for every increment of 1,000 IPsec tunnels on ESA per SR. Multiple RTUs may be applied to a single SR to allow the required tunnel scale.
3HE16493AA	SROS license to be able to use the MS-ISA for Perfect Stream. This license can repair 50 channels total (50x2 ingress video stream). Additional licenses are required for each video application. A Per system license. The "Video Base license" is required
3HE16507AA	7250 IXR-X fan tray for 1 RU systems, back-to-front airflow.
3HE16510AA	7250 IXR-s DC power cable 5-pack. 6m (19.7').
3HE16511AA	Spare SD card (8GB). -40 to 85C, SLC.
3HE16512AA	1RU kit to convert the 7250 IXR-e airflow from right-to-left to front-to-back. Note that there may be limitation that apply when using this. Refer to install manuals for details.
3HE16598AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Base software Perpetual Right-To-Use license Up to 100Mbps. Use requires a valid subscription to signature updates (3HE16599AA). Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE16599AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Signature Updates Annual Subscription Right-To-Use license Up to 100Mbps. Pre-requisite purchase of base IDP license (3HE16598AA) required. Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE16600AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Base SW and Signature Updates Annual Subscription Right-To-Use license Up to 100Mbps. Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE16603AA	SYS-7250 IXR-e 24SFP+ 8SFP28 2QSFP28 AC Bundle Includes: (1) 3HE15386AA SYS - 7250 IXR-e 24SFP+ 8SFP28 2QSFP28 GNSS (2) 3HE14784AA PS - 7250 IXR-e AC Software image and AC Power Cables Not included
3HE16604AA	SYS-7250 IXR-e 24SFP+ 8SFP28 2QSFP28 DC Bundle Includes: (1) 3HE15386AA SYS - 7250 IXR-e 24SFP+ 8SFP28 2QSFP28 GNSS (2) 3HE14785AA PS - 7250 IXR-e DC Software image Not included
3HE16605AA	SYS-7250 IXR-e 14SFP+ 4T AC Bundle Includes (1) 3HE15387AA SYS - 7250 IXR-e 14 SFP+ + 4TX GNSS (2) 3HE14784AA PS - 7250 IXR-e AC Software image and AC Power Cables Not included

3HE16606AA	SYS-7250 IXR-e 14SFP+ 4T AC Bundle Includes (1) 3HE15387AA SYS - 7250 IXR-e 14 SFP+ + 4TX GNSS (2) 3HE14785AA PS - IXR-e DC Software image Not included
3HE16656AA	Nuage Virtualized Network Services (VNS) software Perpetual Right-To-Use license for sites with the following restrictions: Max access side devices: 5, single-homed deployments (1 uplink support with auxiliary secondary uplink optional), Hub and Spoke Deployment only, NSG hardware appliance purchased, use of IDP feature requires annual subscription to signature updates. MOQ of 500 licenses.
3HE16657AA	Nuage Virtualized Network Services (VNS) software Annual Right-To-Use license for sites with the following restrictions: Max access side devices allowed: 5, single-homed deployments (1 uplink support with auxiliary secondary uplink optional), Hub and Spoke Deployment only, NSG hardware appliance purchased, use of IDP feature requires annual subscription to signature updates. MOQ of 500 licenses.
3HE16662AA	ACC - Rail-Kit for 7220 IXR-H2
3HE16686AA	7250 IXR-X 1800W AC power supply with back-to-front airflow configuration
3HE16839AA	7250 IEEE 1588 PTP Freq & Time/Phase Right To Use license. Applicable to 1588 Slave or Boundary or Grandmaster Clocks. OAM performance can be improved with PTP time accuracy Notes: One (1) Operating Software License is required for each IXR-6/10/R6/s/Xs/X1 in the network.
3HE16840AA	7250 IEEE 1588 PTP Freq & Time/Phase Right To Use license. Applicable to 1588 Slave or Boundary or Grandmaster Clocks. OAM performance can be improved with PTP time accuracy Notes: One (1) Operating Software License is required for each IXR-R4, IXR-e (2p 100G, 8p 25G, 24p 10G including GNSS variants) in the network.
3HE16841AA	7250 IEEE 1588 PTP Freq & Time/Phase Right To Use license. Applicable to 1588 Slave or Boundary or Grandmaster Clocks. OAM performance can be improved with PTP time accuracy Notes: One (1) Operating Software License is required for each IXR-e (14p 10G, 4p Tx including GNSS variants), IXR-ec, in the network.
3HE16911AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 50Mbps on any NSG appliance
3HE16912AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 100Mbps on any NSG appliance
3HE16913AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 200Mbps on any NSG appliance
3HE16914AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 500Mbps on any NSG appliance
3HE16915AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 1Gbps on any NSG appliance
3HE16916AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 2Gbps on any NSG appliance
3HE16917AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 10Gbps on any NSG appliance
3HE16918AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 20Gbps on any NSG appliance
3HE16919AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 10Gbps on any VRS instance
3HE16920AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 25Gbps on any VRS instance

3HE16921AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Perpetual Right-To-Use license up to 40Gbps on any VRS instance
3HE16922AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 50Mbps on any NSG appliance
3HE16923AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 100Mbps on any NSG appliance
3HE16924AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 200Mbps on any NSG appliance
3HE16925AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 500Mbps on any NSG appliance
3HE16926AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 1Gbps on any NSG appliance
3HE16927AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 2Gbps on any NSG appliance
3HE16928AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 10Gbps on any NSG appliance
3HE16929AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 20Gbps on any NSG appliance
3HE16930AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 10Gbps on any VRS instance
3HE16931AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 25Gbps on any VRS instance
3HE16932AA	Nuage Virtualized Security Service (VSS) Threat Intelligence based on IP Reputation software Annual Right-To-Use license up to 40Gbps on any VRS instance
3HE17087AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Base software Perpetual Right-To-Use license Up to 50Mbps. Use requires a valid subscription to signature updates. Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE17088AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Signature Updates Annual Subscription Right-To-Use license Up to 50Mbps. Pre-requisite purchase of base IDP license required. Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE17089AA	Nuage Virtualized Network Services (VNS) Network Services Gateway (NSG) Intrusion Detection and Prevention (IDP) Base SW and Signature Updates Annual Subscription Right-To-Use license Up to 50Mbps. Supported on NSG-E200/300 series, NSG-X, and NSG-X200 appliances (not supported on NSG-C, NSG-C600 series, and NSG-X600 series)
3HE17191AA	7250 IXR-X1 F2B chassis bundle with AC PSUs, includes: (1) 3HE15785AA - 7250 IXR-X1 32P QSFP28+4P QSFP-DD (3) 3HE15787AA - 7250 IXR-X 1RU Fan Tray (F2B) (2) 3HE15791AA - 7250 IXR-X 1300W AC (F2B)
3HE17192AA	7250 IXR-X1 B2F chassis bundle with AC PSUs, includes: (1) 3HE15785AA - 7250 IXR-X1 32P QSFP28+4P QSFP-DD (3) 3HE16507AA - 7250 IXR-X 1RU Fan Tray (B2F) (2) 3HE16686AA - 7250 IXR-X 1800W AC (B2F)

3HE17193AA	7250 IXR-Xs F2B chassis bundle with AC PSUs, includes: (1) 3HE15789AA - 7250 IXR-Xs 6P QSFP-DD+48P SFP56 (3) 3HE15787AA - 7250 IXR-X 1RU Fan Tray (F2B) (2) 3HE15791AA - 7250 IXR-X 1300W AC (F2B)
3HE17194AA	7250 IXR-Xs B2F chassis bundle with AC PSUs, includes: (1) 3HE15789AA - 7250 IXR-Xs 6P QSFP-DD+48P SFP56 (3) 3HE16507AA - 7250 IXR-X 1RU Fan Tray (B2F) (2) 3HE16686AA - 7250 IXR-X 1800W AC (B2F)

Network Services Platform Products	
Part No	Description
3HE16668AA	NSP Automation Package: Activation package for NSP Analytics Off-the-shelf Network and Service reports. Includes activation of data collection for non OAM reports, data import and aggregation. Validated OAM design and nodal implementation is a pre-requisite for OAM reports. Price per report.
3HE16685BA	Automation Package and Adaptor functionality assurance for a period of 2 years from original Purchase Order date
3HE16685AA	Automation Package and Adaptor functionality assurance for a period of 2 years from original Purchase Order date
3HE16680AA	NSP Automation Package: Service provisioning via router port interconnection with diversity constraints: • Link Layer Interconnect of router ports • Diversity constraints • Multiple realizations possible via router port to router port, LAG group and GMPLS UNI • Ready for multi-vendor
3HE16679AA	NSP Automation Package: Router spare ports can be assigned to protection groups for failure restoration (1:N) against any link failures: • Router port • Optical client port • Link between router and optical switch
3HE16669AA	NSP Automation Package: Automated optimize based on real-time dynamics collected from the network Using NSP for collecting LSP B/W utilization (gRPC for RSVP-TE and flow for SR-TE) and link latency values (TWAMP or ICMP Ping)
3HE16664AA	NSP Automation Package: This use case enables OAM capabilities to allow operators to detect and isolate faults to maintain service availability and measure quality of service attributes such as delay, jitter and packet loss. It includes the development of OAM adaptors and the configuration of OAM test policies for all required nodes.
3HE16663AA	NSP Automation Package: This use case delivers telemetry (gRPC) and data collection (snmp/accounting stats) for Nokia SR OS (Classic or MD management) and multi-vendor nodes (optional). It includes the development of adaptors and configuration of telemetry subscription / stats policies for all required nodes.
3HE16360AA	NSP Automation Package: NE upgrade operation for multiple nodes

3HE16359AA	NSP Automation Package: This use case suite provides closed loop use cases which can be used expand the network resources with the utilization growth. The scope of the use cases in this suite is for Nokia only. For any integration with 3rd party equipment requires Nokia evaluation for scoping purposes. Essentially, there are two variant of this use case: a) Dynamic LAG expansion: In this variant, NSP automatically discovers the links that exceeds a pre-defined threshold. For the detected links, NSP can select a free port, configure the port to meet the current LAG specification and then add the port to the LAG. The solution can send a notification via email to request the L0/L1 configuration or integrated with an operator in house tool to do the configuration automatically. b) Card expansion: In this variant, NSP can analyse the usage of the ports in the network on a node by node basis to determine if any node is going to be out of port capacity. The ports are analysed on a per type basis. If ports of certain type are below a pre-defined threshold, NSP can trigger an action for an operator to order/install new cards. As a last action, NSP can automatically configure the card configuration once the card is installed
3HE16358AA	NSP Automation Package: Migrate services from LDP to RSVP-TE &/or SR-TE tunnels
3HE16356AA	NSP Automation Package: NE backup operation for multiple nodes
3HE16355AA	NSP Automation Package: Automatic provisioning of regular operations such as: - New card - Bind of a new port to an existing L3 VPN - Creation of LAG and assignment of network ports - Creation of new SSH users - Password resets - Enable IP/MPLS - Deploy new protocols <u>Bulk operations enablement via file-based input</u>
3HE16354AA	NSP Automation Package: This use case automates the configuration of an NE after initial commissioning of a device. Note that the network element must be discovered in NSP as a pre-requisite to start the Day 1 configuration. This use case can be executed automatically after Day 0 configuration has been applied (for NEs supporting ZTP) or manually for other Nokia NEs (7210, 7705 nodes) or multi-vendor devices.

3HE16353AA	NSP Automation Package: Network Element commissioning automation Discovery through NSP MD and classical mediation NSP would be the "Source of Truth" for the NE configurations.. Delivery mechanism to push configurations to a file server for the NE to pull the initial configuration Automated addition of NEs into the Discovery profiles. Automated DHCP configurations Allows identifying the NEs that have been automatically commissioned Performed during initial activation of the device (once in the lifetime of an NE)
3HE16352AA	NSP Automation Package: This use case includes operations performed on service objects. This use case requires custom workflow development and may require adaptor development (Nokia SR OS MD mode or multi-vendor NE). The use cases included in this suite are as follow • Bandwidth on demand for service endpoint • Bandwidth calendaring for service endpoint • Business Internet service Bandwidth on demand enables an operator to change the BW of a service which is typically achieved by applying a different QoS policy. Bandwidth calendaring for a service is used to enable a different BW for a certain time period. An example application of this UC is in financial sector where more BW may be needed for last days of the month. BW calendaring can also be setup for certain hours of the day (peak hours) Business internet service may be a simple one like an L3 interface or may require to provision a 3rd party device for E2E configuration
3HE16351AA	NSP Automation Package: Service lifecycle automation for Composite services.
3HE16345AA	NSP Automation Package: Discovery of existing E-Line, C-Line, E-LAN, L3 VPN, IES services using NSP Mediation layer Available for SROS. May require development for 3rd party IP (check NSP adaptor availability) May require augmented SF template (Blueprint to be developed)

3HE16252BA	The NSP Platform Base is mandatory (quantity one) for all deployments of NSP (Operations, Programming and Control suites). It includes the core nspOS software components. It does NOT include a user interface, web applications, or any network mediation. For mediation, you must choose at least ONE of the following feature packages: (1) Classic Management, (2) Pluggable Network Adaptation or (3) Control and Visualization Starter feature packages. In a high availability or disaster recovery deployment for the Operations and/or Programming suite, <u>buy the High Availability feature package.</u>
3HE16008AA	The NSP Transport Slice Operations feature package provides web-based views and tools for provisioning of 5G transport slices with visualization and assurance of 5G transport slices across the managed network elements. Provides and extends the NSP North bound REST API and includes integration with nspOS software components. Requires the NSP Platform Base and either the NSP Classic management and/or the NSP Pluggable Network Adaptation feature packages. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points.
3HE11815GA	NSP 20 Classic Management Extended Software Support License Order quantity 1 (ONE) per NE requiring extended NE Software Support. Please refer to the NSP Compatibility Guide for the supported list of NEs.
8DG43280AAAA	NFM-T (only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.
8DG43056AAAA	NFM-T (only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.

3KC95008AAAA	WaveSuite Optimizer (WSO) R20 Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC95007AAAA	WaveSuite Optimizer (WSO) Standard License Point. Order this part number to receive the WSO Standard License Point. Please refer to the WSO Equipping Options to calculate quantity of license points.
3KC95006AAAA	(WSO only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.
3KC95005AAAA	(WSO only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.
3KC76635AAAA	Network Resource Controller-Transport (NRC-T) R20 Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC76625AAAA	Network Resource Controller-Transport (NRC-T) R18 Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3KC76617AAAA	Network Resource Controller - Transport (NRC-T) Standard License Point. Order this part number to receive the NRC-T Standard License Point. Please refer to the NSP License Point Catalogue.
3KC76617AAAA	Network Resource Controller - Transport (NRC-T) Standard License Point. Order this part number to receive the NRC-T Standard License Point. Please refer to the NSP License Point Catalogue.
3KC76617AAAA	Network Resource Controller - Transport (NRC-T) Standard License Point. Order this part number to receive the NRC-T Standard License Point. Please refer to the NSP License Point Catalogue.
3KC76617AAAA	Network Resource Controller - Transport (NRC-T) Standard License Point. Order this part number to receive the NRC-T Standard License Point. Please refer to the NSP License Point Catalogue.
3KC76617AAAA	Network Resource Controller - Transport (NRC-T) Standard License Point. Order this part number to receive the NRC-T Standard License Point. Please refer to the NSP License Point Catalogue.
3KC76611AAAA	NRC-T (only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.

3KC76610AAAA	NRC-T (only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.
3KC73716AAAA	Network Functions Manager-Transport (NFM-T) Standard Base Product License for Application only configs. This is where RHEL is not distributed as embedded and customer provides own RHEL OS. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC73669AAAA	Network Functions Manager-Transport (NFM-T) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC73641AAAA	Network Functions Manager- Transport (NFM-T) High Availability License Point. Order this part number to receive the NFM-T High Availability License Point. NOTE- The order qty. is equal to the NFM-T Standard License Point value.
3KC73641AAAA	Network Functions Manager- Transport (NFM-T) High Availability License Point. Order this part number to receive the NFM-T High Availability License Point. NOTE- The order qty. is equal to the NFM-T Standard License Point value.
3KC73641AAAA	Network Functions Manager- Transport (NFM-T) High Availability License Point. Order this part number to receive the NFM-T High Availability License Point. NOTE- The order qty. is equal to the NFM-T Standard License Point value.

3KC73640AAAA	Network Functions Manager- Transport (NFM-T) Standard License Point. Order this part number to receive the NFM-T Standard License Point. Please refer to the LIBRA Catalogue. NOTE- If you have High Availability, you will also need to purchase the same value of the High Availability License Points, reference P/N# 3KC73609AAAA.
3KC73640AAAA	Network Functions Manager- Transport (NFM-T) Standard License Point. Order this part number to receive the NFM-T Standard License Point. Please refer to the LIBRA Catalogue. NOTE- If you have High Availability, you will also need to purchase the same value of the High Availability License Points, reference P/N# 3KC73609AAAA.
3KC73640AAAA	Network Functions Manager- Transport (NFM-T) Standard License Point. Order this part number to receive the NFM-T Standard License Point. Please refer to the LIBRA Catalogue. NOTE- If you have High Availability, you will also need to purchase the same value of the High Availability License Points, reference P/N# 3KC73609AAAA.
3KC73639AAAA	Network Functions Manager-Transport (NFM-T) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC73612AAAA	Network Service Platform Transport Additional 2 CPU subscription for the embedded OS. Order this part number if NFM-T deployment requires more than 2 CPUs. One instance for each additional 2 CPUs should be ordered. Example configs where additional CPUs may require to be ordered are : 1. Deployment on a 4 CPU server 2. Deployment on distributed config of multiple servers for large systems

3KC73612AAAA	Network Service Platform Transport Additional 2 CPU subscription for the embedded OS. Order this part number if NFM-T deployment requires more than 2 CPUs. One instance for each additional 2 CPUs should be ordered. Example configs where additional CPUs may require to be ordered are : 1. Deployment on a 4 CPU server 2. Deployment on distributed config of multiple servers for large systems
3KC73612AAAA	Network Service Platform Transport Additional 2 CPU subscription for the embedded OS. Order this part number if NFM-T deployment requires more than 2 CPUs. One instance for each additional 2 CPUs should be ordered. Example configs where additional CPUs may require to be ordered are : 1. Deployment on a 4 CPU server 2. Deployment on distributed config of multiple servers for large systems
3KC73611AAAA	Network Service Platform Transport 4VCPU Database Enhancement. Order this part number if PLM have determined that the NFM-T config requires more than 4 VCPUs to be allocated to Oracle processing. This should normally only be required for configs with highly intensive performance monitoring processing.
3KC73611AAAA	Network Service Platform Transport 4VCPU Database Enhancement. Order this part number if PLM have determined that the NFM-T config requires more than 4 VCPUs to be allocated to Oracle processing. This should normally only be required for configs with highly intensive performance monitoring processing.
3KC73611AAAA	Network Service Platform Transport 4VCPU Database Enhancement. Order this part number if PLM have determined that the NFM-T config requires more than 4 VCPUs to be allocated to Oracle processing. This should normally only be required for configs with highly intensive performance monitoring processing.

3HE16982AA	This use case provides the customization of alarm correlation rules for the Fault Management application in the Network Infrastructure Package. NSP ships with a set of correlation rules for SROS and Nokia Optical NE's managed via the classic interfaces. This UC allows the customer to provide customized correlation rules that supersede the standard set. NSP does not ship with any correlation rules for MD SROS and MV NE's. This UC allows for the development of correlation rules for these devices. The use case covers the development of 10 custom correlation rules.
3HE16980BA	On line support for customers who develop their own automation artifacts and adaptors, or do their own OSS/API integration work. Automation Artifacts supported as part of this service: WFM, Intent Manager (future), XML Scripts, MV Adaptors. APIs supported: REST, RESTConf, Kafka. Premium service includes assignment of a dedicated SME.
3HE16980AA	On line support for customers who develop their own automation artifacts and adaptors, or do their own OSS/API integration work. Automation Artifacts supported as part of this service: WFM, Intent Manager (future), XML Scripts, MV Adaptors. APIs supported: REST, RESTConf, Kafka.
3HE16891AA	5 day training: 2 day intro: architecture review and best practices, 3 days focused on customer requested single custom topic related to the development of automation artifacts or APIs Custom topics can be selected at the time of service ordering and captured in the proposal, Delivery is remote Scope of training: development of automation artifacts using WFM, MV Adaptor framework, Intent Manager (future) or REST/ RESTCONF/KAFKA APIs Class size of up to 10 people Remote instance of training software provided per attendee via Nokia cloud
3HE16801AA	Defines the total number of Core Slices to be allowed to be activated by the solution.

3HE16800AA	Virtual Networks Orchestration (VNO) Slice Library - URLLC slice library VNO Right to Use URLLC Library. Up to 2 Slice subnetwork designs included. Specific slice library that contains all the Network Slice Subnet templates (NSSTs) needed to fulfill Use Cases for a particular slice type. E.g "hard" slice with all PaCo components (AMF,SMF,UPF) dedicated per slice or "soft" slice where AMF is shared and SMF/UPF dedicated. Up to 2 slice subnet designs included in base offer. Additional slice designs outside initial scope should be quoted separately.
3HE16799AA	Virtual Networks Orchestration (VNO) Slice Library - mmTC slice library VNO Right to Use mmTC Library. Up to 2 Slice subnetwork designs included. Specific slice library that contains all the Network Slice Subnet templates (NSSTs) needed to fulfill Use Cases for a particular slice type. E.g "hard" slice with all PaCo components (AMF,SMF,UPF) dedicated per slice or "soft" slice where AMF is shared and SMF/UPF dedicated. Up to 2 slice subnet designs included in base offer. Additional slice designs outside initial scope should be quoted separately.
3HE16798AA	Virtual Networks Orchestration (VNO) Slice Library - EMBB slice library VNO Right to Use EMBB Library. Up to 2 Slice subnetwork designs included. Specific slice library that contains all the Network Slice Subnet templates (NSSTs) needed to fulfill Use Cases for a particular slice type. E.g "hard" slice with all PaCo components (AMF,SMF,UPF) dedicated per slice or "soft" slice where AMF is shared and SMF/UPF dedicated. Up to 2 slice subnet designs included in base offer. Additional slice designs outside initial scope should be quoted separately.
3HE16684AA	Custom Automation Service Delivery. Recommended price provided by Services + NA Practice Team.
3HE16683BA	Optical Adaptor to manage Multivendor Optical Controllers
3HE16683AA	IP Adaptor to manage Multivendor Routers/Switches. One adaptor required per node type/release/application type. Application types include: Service Fulfillment (NSP20 Service Activation and Configuration), Network Supervision + Fault Management (NSP 20 Network Infrastructure Management), Telemetry (NSP20 Platform), Analytics, Modelled Device Configurator.
3HE16681AA	NSP Automation Package: This use case allows to simulate the failure of a physical link in the network, which then allows the user to assess the impact of the failure.

3HE16678AA	NSP Automation Package: This use case is similar to the Path Placement and Optimization Link Maintenance Control. In this case, a user can put an Optics link under maintenance and the NSP will automatically compute which IP services and IP links/LSPs are riding on that Optics link, reroute the LSPs to avoid the traffic impact. NSP coordinates the maintenance execution between Path Placement and Optimization and NRC-T.
3HE16677AA	NSP Automation Package: Cross-layer path diversity verification, allowing for the generation of audit reports indicating the diversity of IP services based upon optical SRLGs. Additionally, there is a passive analysis and correlation of optical, IP and services topology.
3HE16676AA	NSP Automation Package: This use case enables IP/Optical cross-layer awareness. It requires the previous use case. Two scenarios are supported: • NSP Path Control and Optimization imports optical SRLGs to provide better resiliency • Latency correlation allows NSP Path Control and Optimization to learn optical latency from NRC-T to make latency sensitive routing decisions
3HE16675AA	NSP Automation Package: This use cases provides the automatic discovery and visualtization of the IP/Optical multi-layer network topology. This use discovers the following topological components: • IP/Optical NEs • Cross domain links • Optical services (OCH/ODU) The cross domain links between routers and optical switches are discovered based on: • LLDP Snooping 802.1ab standard for LLDP implementation, Inter-router/switch discovery protocol • Traffic Correlation NSP multi-layer correlation engine derives topology from LLDP data, Non-LLDP nodes types can be pattern correlated with proprietary Nokia method
3HE16674CA	NSP Automation Package: Custom reports - large - tailored to customers. Complexity category analyses to be requested via form "Request Custom Analytics Report" on https://nokia.sharepoint.com/sites/NetworkAutomationPractice . Price per report. No Multi vendor support.

3HE16674BA	NSP Automation Package: Custom reports - medium - tailored to customers. Complexity category analyses to be requested via form "Request Custom Analytics Report" on https://nokia.sharepoint.com/sites/NetworkAutomationPractice . Price per report. No Multi vendor support.
3HE16674AA	NSP Automation Package: Custom reports - small - tailored to customers. Complexity category analyses to be requested via form "Request Custom Analytics Report" on https://nokia.sharepoint.com/sites/NetworkAutomationPractice . Price per report. No Multi vendor support.
3HE16673AA	NSP Automation Package: Activation package for NSP Analytics Off-the-shelf Application Assurance reports. Includes activation of data import and aggregation rules. AA configuration is not included. Price per report.
3HE16670AA	NSP Automation Package: Custom reports - via NSP Analytics ad-hoc report builder - tailored to customers. Complexity category analyses to be requested via form "Request Custom Analytics Report" on https://nokia.sharepoint.com/sites/NetworkAutomationPractice . Price per report. No Multi vendor support.
3HE16667AA	NSP Automation Package: A planner can compute the LSP paths offline by providing different path constraints such link metric, latency, SRLG changes and technology support options (RSVP/SR enabled). The offline simulation extracts the topology, state and configuration details from NSP.
3HE16666AA	NSP Automation Package: Path selection based on symmetrical, diverse, IGP Cost, Hops, Latency (Static) and reserved B/W utilization using PCEP
3HE16665AA	NSP Automation Package: In this use case, an operator can have a real time view of the LSPs and the path details from either the network topology view or from the LSP lists view. The paths details are available on a per LSP basis. All the configured attribute at an LSP level are available for a quick analysis which includes configured BW, configured latency, routing constraints etc. The full detail of the attributes are available in the NSP documentation
3HE16655AA	NSP Automation Package: Physical Topology view using NSP mediator layer Available for SROS. Requires customization for 3rd party IP (check NSP adaptor availability)
3HE16362AA	NSP Automation Package: Supervision of network infrastructure services: • Service supervision groups with aggregated KPIs • Per service KPIs • Service component views • Service related faults with timeline view • IGP network topology • OAM on-demand test launch

3HE16361AA	NSP Automation Package: • Network Assurance Access control, Summary views, Topology/GeoMap, Utilization, NE lists, Equipment inventory, Matrix view for Nes, Event Time Line • Fault Management Top unhealthy NEs, Alarm lists, Top problems, Inspector views, Alarm filtering, Event Time Line
3HE16350AA	NSP Automation Package: Service lifecycle automation for IES business services.
3HE16349AA	NSP Automation Package: Service lifecycle automation for L3 VPN business services.
3HE16348AA	NSP Automation Package: Service lifecycle automation for C-LINE business services.
3HE16347AA	NSP Automation Package: Service lifecycle automation for E-LAN business services.
3HE16346AA	NSP Automation Package: Service lifecycle automation for E-LINE business services.
3HE16344AA	NSP Automation Package: This use case is to discover all network elements using either IGP (OSPF/ISIS) or BGP-LS protocol and present to the user in a topology format. The topology view provides real time details IGP areas and individual IP links. The detail attributes of IP links are also accessible via topology view or via IP links list view. The details of the links provides the configured properties for a link including consumed vs available bandwidth (as per configuration) Available for SROS and 3rd party – Requires no equipment adaptor.
3HE16261AA	Order this P/N to receive a permanent Lab license for the all the feature packages of the Resource Control suites. This includes the Nodal license that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability as part of Resource Control Suite defaults. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.

3HE16260AA	Order this P/N to receive a permanent Lab license for the all the feature packagess of the Operations and Programming suites. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability feature packages. Upgrades are only supported with a valid SRS and can be combined in with the <u>Commercial Live SRS</u>.
3HE16259AA	Order this P/N to receive a permanent Lab license for the all the feature packagess of the Operations and Programming suites. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This does not include the High Availability feature packages. Upgrades are only supported with a valid SRS and can be combined in with the <u>Commercial Live SRS</u>.
3HE16258AA	NSP Multi-layer Cross Domain Link licenses for use with the NSP Multi-layer Discovery and Visualization and NSP Multi-layer Control & Optimization feature packages. Order quantity 1 (ONE) 10GE (or 10GE equivalent, ex 100GE = 10x10GE) Cross Domain Links (CDLs) in the network.

3HE16256AA	The NSP Multi-layer Control Coordination feature package includes hitless coordinated maintenance optical reversion, optical service provisioning, as well as IP Optical link layer interconnect provisioning. Also included is “What-if analysis” simulation*, as well as 1:N Floating port restoration. Order quantity 1 (ONE) per deployment. High Availability (HA) for this feature package is included. Multivendor support requires a separate line item for NSP Pluggable Network Adaptation, for each 3rd party controller. Order the applicable Multi-layer Cross Domain Link licenses that are within the scope of multi-layer control. Requires the NSP Multi-layer IP Optical Discovery and Visualization feature package. <u>* “What-if analysis” requires the NSP Simulation feature package.</u>
3HE16255AA	The NSP High Availability feature package enables high availability and disaster recovery for all Operations and Programming suites feature packages. On a new license or when adding a feature packages to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points. Note: Not required for Resource Control Suite feature packages as high availability and disaster recovery are embedded into the license model.
3HE16254AA	NSP License Points are mandatory for all deployments of the NSP Platform Base for any Operations and/or Programming suite deployments. Quantity is based on the network elements being managed in the network. Please refer to the NSP License Point Catalogue. ALL Operations and Programming suite feature packages are ordered based on the total number of license points. Note: License points are not applicable for Resource Control Suite feature package.

3HE16253AA	License points required for the management of AirScale or FlexiZone RAN devices in private wireless networks only (i.e. not valid for CSP networks). Quantity is based on the RAN network elements being managed in the network. Please refer to the NSP License Point Catalogue.
3HE16252AA	The NSP Platform Base is mandatory (quantity one) for all deployments of NSP (Operations, Programming and Control suites). It includes the core nspOS software components. It does NOT include a user interface, web applications, or any network mediation. For mediation, you must choose at least ONE of the following feature packages: (1) Classic Management, (2) Pluggable Network Adaptation or (3) Control and Visualization Starter feature packages. In a high availability or disaster recovery deployment for the Operations and/or Programming suite, <u>buy the High Availability feature package.</u>
3HE16186AA	DC Fabric Automation services per managed leaf/spine.
3HE16185AA	Virtual Networks Orchestration (VNO) Base Product -NSD Library 'DC Fabric Automation' VNO Right to Use Network Descriptors and Plug-ins (to Nokia ION and AWS) for NSD Library 'DC Fabric Automation' use case only.
3HE16020AA	The NSP Multi-layer Discovery and Visualization feature package provides Automated topology discovery for IP and Optical nodes, optical service discovery, and discovery of the inter-domain links. It is a mandatory feature package for all Multi-layer IP Optical deployments. This feature package also provides optically disjoint and optical latency aware IP routing*, and diversity analysis of LLIs and IP services** running over optical links. Requires the NSP Platform Base. Order quantity 1 (ONE) per deployment. High Availability (HA) for this feature packages is included. Order the applicable Multi-layer Cross Domain Link licenses that are within the scope of multi-layer control. * Requires the NSP Control and Visualization Starter and NSP Path Control and Optimization feature packages. ** <u>Requires NSP Service Activation & Configuration feature package.</u>

3HE16019AA	The NSP IP/Control Class 4 Nodes are the routing instances that reside on servers in the case of data center applications, for example Nuage VRs or Smart NICs. Order quantity 1 (ONE) per Class 4 node. Requires the NSP Platform Base and the NSP Control and Visualization Starter feature package.
3HE16018AA	The NSP IP/Control Class 3 Nodes are those performing either of the following role/function in the network: Cell site gateways or Top of Rack Switch. Order quantity 1 (ONE) per Class 3 node. Requires the NSP Platform Base and the NSP Control and Visualization Starter feature package.
3HE16017AA	The NSP IP/Control Class 2 Nodes are those performing either of the following role/function in the network: Business P (core) or Mobile Aggregation and backhaul nodes. Order quantity 1 (ONE) per Class 2 node. Requires NSP Platform Base and the NSP Control and Visualization Starter feature package.
3HE16016AA	The NSP IP/Control Class 1 Nodes are those performing either of the following role/function in the network: Business PE, ASBR Nodes and BNG or Data Centre Gateway. Order quantity 1 (ONE) per Class 1 node. Requires the NSP Platform Base and the NSP Control and Visualization Starter feature package.

3HE16015AA	The NSP Simulation feature package provides web-based views and tools to simulate the IGP and MPLS layer and related objects (LSPs). Provides and extends the NSP North bound REST API for Simulation. Includes integration with nspOS software components. High Availability (HA) for this feature packages is included. Order quantity 1 (ONE) per deployment. Order the applicable IP/MPLS control class nodes licence for each network element discovered and under control of the IP/MPLS Optimization (NRC-P) module. Requires the NSP Platform Base and the NSP Control and Visualization Starter and NSP Path Control and Optimization feature packages.
3HE16014AA	The NSP Enhanced Optimization feature package provides web-based tools to control and optimise stateful controlled LSPs based on dynamically collected network metrics. This feature package is required for NFIX deployments, where NSP interworks with Nuage to provide connectivity to VNFs. Provides and extends the NSP North bound REST API and includes integration with nspOS software components. Order the applicable IP/MPLS control class nodes licence for each network element discovered and under control of the IP/MPLS Optimization (NRC-P) module. High Availability (HA) for this feature packages is included. Order quantity 1 (ONE) per deployment. Requires the NSP Platform Base and the NSP Control and Visualization Starter and NSP Path Control and Optimization feature packages. Includes the NSP Pluggable Network Adaptation feature package for telemetry framework functionality – but does not include any 3rd party adaptors which can be obtained from Nokia ION Professional Services.

3HE16013AA	The NSP Path Control and Optimization feature package provides web-based tools to control and optimise stateful controlled label-switched paths (LSPs). Provides and extends the NSP North bound REST API and includes integration with nspOS software components. High Availability (HA) for this feature packages is included. Order quantity 1 (ONE) per deployment. Order the applicable IP/MPLS control class nodes licence for each network element discovered and under control of the IP/MPLS Optimization (NRC-P) module. Requires the NSP Platform Base and the NSP Control and Visualization Starter feature package.
3HE16012AA	The NSP Control and Visualization Starter feature package provides web-based views and tools of the IGP and MPLS layer and related objects. It is a mandatory feature packages for all IP/MPLS Optimization Control Suite deployments. It provides and extends the NSP North bound REST API for network infrastructure management, and it includes integration with nspOS software components. High Availability (HA) for this feature packages is included. Order quantity 1 (ONE) per deployment. Order the applicable IP/MPLS control class nodes licence for each network element discovered and under control of the IP/MPLS Optimization (NRC-P) module. <u>* Requires the NSP Platform Base.</u>

3HE16011AA	The NSP Workflow Automation Engine feature package provides workflow creation and execution with the Workflow Manager (WFM) application. Aimed at developers (Customer/Partner) to develop/customise their own workflows. Provides RESTconf API for northbound integrations and includes integration with nspOS software components. Requires NSP Platform Base. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points.
3HE16010AA	The NSP Intent Based Networking Framework feature package provides intent-based solutions across the managed network elements. Aimed at developers (Customer/Partner) to develop/custom their own intents. Provides and extends the NSP North bound REST API and includes integration with nspOS software components. Requires NSP Platform Base. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points.

3HE16007AA	The NSP Network Operations Analytics feature package provides pre-packaged reports* for Network and Service (N&S) and Application Assurance (AA) use cases.** Provides and extends the NSP North bound REST API and includes integration with nspOS software components. Requires NSP Platform Base and either the NSP Classic Management and/or the NSP Pluggable Network Adaptation feature packages. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points. Does not include any AA subscriber licenses. * Custom reports are available through Nokia ION Services ** At least one AA subscriber bundle of any type must be purchased to enable <u>AA IPDR/Reporting</u>.
3HE16005AA	The NSP Service Assurance feature package provides web-based views and tools for service & subscriber assurance across the managed network elements. Provides and extends the NSP North bound REST API for service assurance and includes integration with nspOS software components. Requires NSP Platform Base and either the NSP Classic Management and/or the NSP Pluggable Network Adaptation feature packages. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points.

3HE16004AA	The NSP Service Activation & Configuration feature package provides web-based views and tools for service fulfilment across the managed network elements. This feature packages provides and extends the NSP North bound REST API for service fulfilment and includes integration with nspOS software components. Requires the NSP Platform Base and either the NSP Classic Management and/or NSP Pluggable Network Adaptation feature packages. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points. This feature package does NOT include any workflows on intent based templating but can be provided through ION Professional Services where the required NSP S/W functions are provided as part of this feature package. Note: Augmentation of the data models is possible, but it is recommended to engage with ION Professional Services.

3HE16003AA	The NSP Network Infrastructure Management feature package provides web-based views and tools for management of the managed network elements. Includes the fault management and network monitoring and troubleshooting web applications for the managed network. Includes single node software management (NE DB backup/restore, NE upgrade). Provides the NGE management if NSP Classic Management feature package is deployed, the NSP North bound REST API for network infrastructure management, and integration with nspOS software components. Requires the NSP Platform Base and either the NSP Classic Management and/or the NSP Pluggable Network Adaptation feature packages. On a new license or when adding a feature packages to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with the new license points.
3HE16002AA	The NSP Pluggable Network Adaptation feature package provides model device mediation and control (MDM/MDC) for SROS devices in model mode (Netconf/YANG) as well as support of 3rd party * devices. Includes the Telemetry framework. Provides RESTconf API for northbound integrations and includes integration with nspOS software components. Requires the NSP Platform Base. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature package in the license need to be ordered along with the new license points. * Requires adaptors from Nokia ION Professional Services for 3rd party devices

3HE16001AA	The NSP Classic Management feature package contains the Network Function Manager for IP (NFM-P), which includes SNMP mediation to SROS based and Nokia Microwave network elements. Includes the Java user interface and the NFM-P (SAM-O) REST and SOAP/XML API providing FCAPS functionality of the managed network. Provides the legacy control plane management solution (CPAM). No NSP web applications are provided within this feature package. Includes integration with nspOS software components which are part of the mandatory NSP Platform Base. Requires the NSP Platform Base. On a new license or when adding a feature package to an existing license, the quantity ordered must match the total number of license points in the network. When license points are added to an existing network, matching quantities of all feature packages in the license need to be ordered along with <u>the new license points</u>.
3HE15542AA	Virtual Networks Orchestration (VNO) Customer Engineering - standard customer engineering package covering contributions of VNO team to HLD, LLD, and running Acceptance Test Plan with customer. Does not include full project ownership (plan, HLD, LLD, ATP, ...) but only the VNO team contributions to these. A standard SoW is available. Does not need to be quoted if an ION PS -led bottom up SoW and related costing and pricing is being offered. P/N is valid for any number and combination of 'Base Product', 'NSD', and 'Plug-in' within a given offer, and needs to be priced in the first year.
3HE14513AA	Buy this part number to get a RHEL QCOW2 used to instantiate a RHEL VM. NSP modules can be installed on the RHEL VM which is instantiated using this RHEL QCOW2. Buy one for each VM in your NSP deployment.
3HE14512AA	Order this part number when you are upgrading from NFM-P to NSD. The order Qty. is equal to the current NFM-P Premium License Point value. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.

3HE14512AA	Order this part number when you are upgrading from NFM-P to NSD. The order Qty. is equal to the current NFM-P Premium License Point value. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE14511AA	Order this part number when you are upgrading from NFM-P to NSD. The order Qty. is equal to the current NFM-P Standard License Point value. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE14511AA	Order this part number when you are upgrading from NFM-P to NSD. The order Qty. is equal to the current NFM-P Standard License Point value. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE14510AC	Network Service Platform (NSP): Network Services Director (NSD) - Network Routing Controller License Point conversion from Standard to Premium . Order this part number to convert the existing NSP: NSD-NRC Standard License Points into the Premium License Points. The order Qty. is the total value of existing NSP: NSD-NRC Standard License Points.

3HE14510AC	Network Service Platform (NSP): Network Services Director (NSD) - Network Routing Controller License Point conversion from Standard to Premium . Order this part number to convert the existing NSP: NSD-NRC Standard License Points into the Premium License Points. The order Qty. is the total value of existing NSP: NSD-NRC Standard License Points.
3HE14510AA	Network Service Platform (NSP): Network Services Director (NSD) - Network Routing Controller Premium License Point. Order this part number to receive the NSP NSD-NRC Premium License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE14510AA	Network Service Platform (NSP): Network Services Director (NSD) - Network Routing Controller Premium License Point. Order this part number to receive the NSP NSD-NRC Premium License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE14509EC	Network Services Platform (NSP): Network Service Director (NSD) Standard to Premium Base Product Conversion License. Order this part number when you need to convert the NSD Standard Base Product into the Premium Base Product.

3HE14509EA	Network Services Platform (NSP): Network Service Director (NSD) Premium Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14509DC	Network Services Platform (NSP): Network Service Director (NSD) Standard to Premium Base Product Conversion License. Order this part number when you need to convert the NSD Standard Base Product into the Premium Base Product.
3HE14509DA	Network Services Platform (NSP): Network Service Director (NSD) Premium Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14376EA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Openflow Feature. Openflow control provides the ability to steer individual flows in Openflow-enabled switches. The feature packagesage provides Openflow switch management and flow steering. License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14376DA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Openflow Feature. Openflow control provides the ability to steer individual flows in Openflow-enabled switches. The feature packagesage provides Openflow switch management and flow steering. License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3HE14374EA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Optimization. NRC-P Optimization - Optimization provides additional on-net functionality that complements Path Control. Optimization features include: STAR algorithm; Global Concurrent Optimization; Loose Hop Traffic Engineering; Maximum Stack Depth (MSD) with Traffic Engineering; Telemetry-based optimization; NRC-P Optimization can only be activated in conjunction with NRC-P Path Control. License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14374DA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Optimization. NRC-P Optimization - Optimization provides additional on-net functionality that complements Path Control. Optimization features include: STAR algorithm; Global Concurrent Optimization; Loose Hop Traffic Engineering; Maximum Stack Depth (MSD) with Traffic Engineering; Telemetry-based optimization; NRC-P Optimization can only be activated in conjunction with NRC-P Path Control. License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3HE14373EA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Path Control Feature. Path control provides on-net control to manage LSPs in the life network. Features include: path computation with TE constraints (CSPF), RSVP-TE & Segment Routing; multi-domain support; disjoint paths; profile override; anycast; maximum stack depth (without Traffic Engineering). License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14373DA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Path Control Feature. Path control provides on-net control to manage LSPs in the life network. Features include: path computation with TE constraints (CSPF), RSVP-TE & Segment Routing; multi-domain support; disjoint paths; profile override; anycast; maximum stack depth (without Traffic Engineering). License Points are required for NRC-P. Please refer to the NSP LP Catalogue. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14372EA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Simulation Feature. Includes, among other things, network topology visualization and simulation of the traffic distribution after link failures, new path creation or changes in path profiles, TE metrics, SRLGs and other link attributes. License Points are required for NRC-P. Please refer to the NSP LP Catalogue UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3HE14372DA	Network Services Platform (NSP): Network Resource Controller - Packet (NRC-P) Simulation Feature. Includes, among other things, network topology visualization and simulation of the traffic distribution after link failures, new path creation or changes in path profiles, TE metrics, SRLGs and other link attributes. License Points are required for NRC-P. Please refer to the NSP LP Catalogue UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE14354AA	VNO SOLUTION TRAINING - 2 DAYS – CONTACT HANS VANDERSTRAETAN OR ALEKS SARENAC TO ORGANISE THIS IS NON DISCOUNTABLE
3HE14159AA	Centralized License Manager is a license management tool for selected ION products. It enables license pool management, license pool capacity reservation & network function entitlement management (for SROS).
3HE13712BA	Order this P/N to receive the NSP : NFM-P permanent Standard Lab license. This will enable any combination of the NSD, NRC-F, NRC-P NRC-X S/W suites. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.

3HE13712BA	Order this P/N to receive the NSP : NFM-P permanent Standard Lab license. This will enable any combination of the NSD, NRC-F, NRC-P NRC-X S/W suites. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.
3HE13712AA	Order this P/N to receive the NSP : NFM-P permanent Standard Lab license. This will enable any combination of the NSD, NRC-F, NRC-P NRC-X S/W suites. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This does not include High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.

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3HE13711BA	Order this P/N to receive the NSP : NFM-P permanent Standard or Premium Lab license. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.
3HE13711BA	Order this P/N to receive the NSP : NFM-P permanent Standard or Premium Lab license. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This includes the High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.

3HE13711AA	Order this P/N to receive the NSP : NFM-P permanent Standard or Premium Lab license. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This does not include High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.
3HE13711AA	Order this P/N to receive the NSP : NFM-P permanent Standard or Premium Lab license. This includes the License Points (LP) that are required to manage the nodes within the customers lab environment. The Nokia regional prime must submit in the license key request into the ASLM license tool and indicate the LP's value that is required to manage this lab. This does not include High Availability / Disaster Recovery License Points. Upgrades are only supported with a valid SRS and can be combined in with the Commercial Live SRS.
3HE13443AA	Centralized Valued Added Service Per VCPU. Can be interpreted as counted per VNF, for simplex VNF IP Appliances (Firewall, WAF, anti-DDoS, ...)
3HE13441AA	Virtual Network Orchestration (VNO) Base Product - NSD Library 'SD-WAN Service Chaining DC hosted VNFs' VNO Right to Use Network Descriptors and Plug-ins (to Nokia ION) for Decentralized Value Added VNF orchestration Use Case only.
3HE13440AA	Decentralized Valued Added Service Per VCPU. Can be interpreted as counted per VNF, for simplex VNF IP Appliances (Firewall, WAF, anti-DDoS, ...)

3HE13438AA	Virtual Network Orchestration (VNO) Base Product - NSD Library 'SD-WAN Service Chaining Thick CPE hosted VNFs' VNO Right to Use Network Descriptors and Plug-ins (to Nokia ION) for Decentralized Value Added VNF orchestration Use Case only.
3HE13437AA	Virtual Networks Orchestration (VNO) Studio to create customer Network Service Descriptors (NSDs), and have them tested through a complete CI/CD framework for NSD development.
3HE13436BA	Virtual Networks Orchestration (VNO) Nuage Plugin onto Cloudband Network Director. Order this P/N to receive a License to allow integration with Nuage in case an VNO 'base product' is NOT ordered (typically for NSW CBND own projects). The item constitutes a plug-in into CBND towards Nuage VSD, and through SRS, guarantees persistent release upgrades for Nuage and CBND throughout the NSW project. This item should only be offered when VNO is not offered and should not be priced if VNO is offered. Pricing is fixed price RTU <u>Pricing is fixed price RTU.</u>
3HE13436AA	Virtual Networks Orchestration (VNO) Plugin to a 3rd Party product. Order this P/N to price new plugin development required to plug into 3rd party products such as VAS VNF and SDN Controllers. <u>Pricing is fixed price RTU.</u>
3HE13435AA	Virtual Networks Orchestration (VNO) Complex NSD Use Case License. Order this P/N to receive an additional Complex NSD Use Case License. <u>Pricing is based on per Use Case.</u>
3HE13434AA	Virtual Networks Orchestration (VNO) Simple NSD Use Case License. Order this P/N to receive an additional Simple NSD Use Case License. <u>Pricing is based on per Use Case.</u>
3HE13433AA	Customer Premises Equipment (CPE) Connection End Point License. Order this P/N to receive the CPE >1G License. <u>Pricing is based on per CPE (NSG).</u>

3HE13432AA	Customer Premises Equipment (CPE) Connection End Point License. Order this P/N to receive the CPE <=1G License. Pricing is based on per CPE (NSG).
3HE13431AA	Customer Premises Equipment (CPE) Connection End Point License. Order this P/N to receive the CPE <200M License. Pricing is based on per CPE (NSG or legacy CE over DC GW)
3HE13430AA	VNO High Availability License. Order this P/N to receive the VNO High Availability License.
3HE13429AA	Virtual Networks Orchestration (VNO) Base Product - NSD Library 'SD-WAN and DC-GW access' VNO Right to Use Network Descriptors and Plug-ins (to Nokia ION) for connectivity related use case only.
3HE13428BA	Virtual Networks Orchestration (VNO) for Non North America Region Software Release Subscription (SRS) This P/N is only to be used for customers outside of North America Region (NAR) . Pricing is based on the original green field deployment and annual SRS renewal. Pricing is based on 20% of the GLP license.
3HE13428AA	Virtual Networks Orchestration (VNO) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. Pricing is based on the original green field deployment and annual SRS renewal. Pricing is based on 20% of the GLP license.

3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.
3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.
3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.
3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.

3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.
3HE12276DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP NSD-NRC High Availability / Disaster Recovery License Point. (NFM-P continues to use 1+1 redundancy as in previous releases). NOTE- The order qty. is equal to the NSP NSD-NRC License Point value.
3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.

3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.
3HE12275DA	Network Service Platform (NSP): Network Services Director (NSD): Network Resource Controller (NRC) Standard License Point. Order this part number to receive the NSP: NSD-NRC Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE12276DA.

3HE12102TA	VSAP High Availability / Disaster Recovery License Point / underlay routers / VSC license. Buy one of this part for each VSC, 7850 VSG, 7850 VSA, GNE Underlay Router. NOTE: Please contact VSAP PLM Vyacheslav Lvin FOR 7750 Underlay routers pricing. NOTE- The order Qty. is equal to the VSAP Network Element Management License.														
3HE12102TA	VSAP High Availability / Disaster Recovery License Point / underlay routers / VSC license. Buy one of this part for each VSC, 7850 VSG, 7850 VSA, GNE Underlay Router. NOTE: Please contact VSAP PLM Vyacheslav Lvin FOR 7750 Underlay routers pricing. NOTE- The order Qty. is equal to the VSAP Network Element Management License.														
3HE12101TA	Buy certain amount (see below) of this part for each NSG. Included features are Alarms/Faults correlation, Overlay/Underlay Inventory, OAM, Overlay/Underlay Topology, Historical Events Correlation, Configuration Audit and related service assurance. <table data-bbox="321 950 1014 1193"> <thead> <tr> <th data-bbox="321 950 514 982">NSG Port Bandwidth</th><th data-bbox="514 950 1014 982">Required License Qty.</th></tr> </thead> <tbody> <tr> <td data-bbox="321 1006 514 1031">100M</td><td data-bbox="514 1006 1014 1031">2</td></tr> <tr> <td data-bbox="321 1031 514 1055">200M</td><td data-bbox="514 1031 1014 1055">3</td></tr> <tr> <td data-bbox="321 1055 514 1079">500M</td><td data-bbox="514 1055 1014 1079">4</td></tr> <tr> <td data-bbox="321 1112 514 1136">1G</td><td data-bbox="514 1112 1014 1136">8</td></tr> <tr> <td data-bbox="321 1136 514 1161">2G</td><td data-bbox="514 1136 1014 1161">22</td></tr> <tr> <td data-bbox="321 1161 514 1193">10G</td><td data-bbox="514 1161 1014 1193">26</td></tr> </tbody> </table>	NSG Port Bandwidth	Required License Qty.	100M	2	200M	3	500M	4	1G	8	2G	22	10G	26
NSG Port Bandwidth	Required License Qty.														
100M	2														
200M	3														
500M	4														
1G	8														
2G	22														
10G	26														

3HE11815DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Extended Software Support Order this part number to receive the extended NE Software Support. Pricing is per NE. Please refer to the NSP Compatibility Guide for the supported list of NE's.
3HE11814DA	Network Services Platform (NSP) Qty. 500 AA Business Subscriber License. Order this part number to receive 500 AA Business Subscribers for IPDR and/or Reporting use cases.
3HE11814DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Qty. 500 AA Business Subscriber License. Order this part number to receive 500 AA Business Subscribers for IPDR and/or Reporting use cases.
3HE11814DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Qty. 500 AA Business Subscriber License. Order this part number to receive 500 AA Business Subscribers for IPDR and/or Reporting use cases.
3HE11813DA	Network Services Platform (NSP) Mobile Subscribers (10K BLOCK). Order this part number to receive 10,000 AA Mobile Subscribers for IPDR and/or Reporting use cases.

3HE11813DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Mobile Subscribers (10K BLOCK). Order this part number to receive 10,000 AA Mobile Subscribers for IPDR and/or Reporting use cases.
3HE11813DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Mobile Subscribers (10K BLOCK). Order this part number to receive 10,000 AA Mobile Subscribers for IPDR and/or Reporting use cases.
3HE11812DA	Network Services Platform (NSP) 10K AA Residential/Wi-Fi Subscribers License. Order this part number to receive 10,000 AA Residential/Wi-Fi Subscriber License for IPDR and/or Reporting use cases.
3HE11812DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) 10K AA Residential/Wi-Fi Subscribers License. Order this part number to receive 10,000 AA Residential/Wi-Fi Subscriber License for IPDR and/or Reporting use cases.
3HE11812DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) 10K AA Residential/Wi-Fi Subscribers License. Order this part number to receive 10,000 AA Residential/Wi-Fi Subscriber License for IPDR and/or Reporting use cases.

3HE11811DA	Network Services Platform (NSP) Auxiliary Database Product, which includes one (1) Terabyte (TB) of storage. Multiple licenses can be purchased and are cumulative, e.g. purchasing 5 licenses permits 5 TBs total of storage.
3HE11811DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Auxiliary Database Product, which includes one (1) Terabyte (TB) of storage. Multiple licenses can be purchased and are cumulative, e.g. purchasing 5 licenses permits 5 TBs total of storage.
3HE11811DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Auxiliary Database Product, which includes one (1) Terabyte (TB) of storage. Multiple licenses can be purchased and are cumulative, e.g. purchasing 5 licenses permits 5 TBs total of storage.

3HE11810EA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Application Assurance Base product. This is mandatory for application assurance (IPDR and/or reporting). Available on Standard and Premium packages. Mandatory base price for AA Analytics (access to IPDR and Reporting based on domain availability). Does not include any AA subscriber licenses. At least one AA subscriber bundle of any type must be purchased with the AA Analytics base license to enable AA IPDR/Reporting. 5 TBs of Aux DB storage recommended (4 TBs included with AA Analytics Base and 1 TB included with the Premium package). AA Analytics Base is replacing the IPDR OSS/ NBI licenses. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3HE11810DA	Network Services Platform (NSP): Network Functions Manager Packet (NFM-P) Application Assurance Base product. This is mandatory for application assurance (IPDR and/or reporting). Available on Standard and Premium packages. Mandatory base price for AA Analytics (access to IPDR and Reporting based on domain availability). Does not include any AA subscriber licenses. At least one AA subscriber bundle of any type must be purchased with the AA Analytics base license to enable AA IPDR/Reporting. 5 TBs of Aux DB storage recommended (4 TBs included with AA Analytics Base and 1 TB included with the Premium package). AA Analytics Base is replacing the IPDR OSSI NBI licenses. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE11805DC	Network Services Platform Wireless Standard to Premium LTE Software License Point conversion. Order this part number to convert the existing NSP Wireless LTE Standard License Points into the NSP Wireless Premium LTE License Points. The order Qty. is the total value of existing Standard LTE License Points.

3HE11805DC	Network Services Platform Wireless Standard to Premium LTE Software License Point conversion. Order this part number to convert the existing NSP Wireless LTE Standard License Points into the NSP Wireless Premium LTE License Points. The order Qty. is the total value of existing Standard LTE License Points.
3HE11805DA	Network Services Platform Wireless Premium LTE Software License Point. Order this part number to receive the NSP Wireless Premium LTE License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11805DA	Network Services Platform Wireless Premium LTE Software License Point. Order this part number to receive the NSP Wireless Premium LTE License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11803DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP: NFM-P High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP: NFM-P License Point value (Standard or Premium).

3HE11803DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP: NFM-P High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP: NFM-P License Point value (Standard or Premium).
3HE11803DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP: NFM-P High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP: NFM-P License Point value (Standard or Premium).
3HE11803DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP: NFM-P High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP: NFM-P License Point value (Standard or Premium).
3HE11803DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) High Availability / Disaster Recovery License Point. Order this part number to receive the NSP: NFM-P High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP: NFM-P License Point value (Standard or Premium).

3HE11802DC	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) License Point conversion from Standard to Premium . Order this part number to convert the existing NSP: NFM-P Standard License Points into the Premium License Points. The order Qty. is the total value of existing NSP: NFM-P Standard License Points.
3HE11802DC	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) License Point conversion from Standard to Premium . Order this part number to convert the existing NSP: NFM-P Standard License Points into the Premium License Points. The order Qty. is the total value of existing NSP: NFM-P Standard License Points.
3HE11802DC	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) License Point conversion from Standard to Premium . Order this part number to convert the existing NSP: NFM-P Standard License Points into the Premium License Points. The order Qty. is the total value of existing NSP: NFM-P Standard License Points.
3HE11802DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Premium License Point. Order this part number to receive the NSP NFM-P Premium License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.

3HE11802DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Premium License Point. Order this part number to receive the NSP NFM-P Premium License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11802DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Premium License Point. Order this part number to receive the NSP NFM-P Premium License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11801DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard License Point. Order this part number to receive the NSP: NFM-P Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11801DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard License Point. Order this part number to receive the NSP: NFM-P Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.

3HE11801DA	Network Service Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard License Point. Order this part number to receive the NSP: NFM-P Standard License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the High Availability / Disaster Recovery License Points, reference P/N# 3HE11803DA.
3HE11800EC	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard to Premium Base Product Conversion License. Order this part number when you need to convert the NFM-P Standard Base Product into the Premium Base Product.
3HE11800EA	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Premium Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE11800DC	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard to Premium Base Product Conversion License. Order this part number when you need to convert the NFM-P Standard Base Product into the Premium Base Product.
3HE11800DA	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Premium Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).

3HE11799EA	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).														
3HE11799DA	Network Services Platform (NSP): Network Functions Manager - Packet (NFM-P) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).														
3HE11725TC	Buy certain amount (see below) of this part for each VRS, VRS-G, VSG, 3rd Party Virtual Services Gateway (HW-VTEP). Included features are Alarms/Faults correlation, Overlay/Underlay Inventory, OAM, Overlay/Underlay Topology, Historical Events Correlation and related service assurance. This license enables up to 48 ports and is applicable on a single switch basis. <table border="1"> <thead> <tr> <th>Vswitch Port Bandwidth</th><th>Required License Qty.</th></tr> </thead> <tbody> <tr> <td>10G</td><td>3</td></tr> <tr> <td>25G</td><td>6</td></tr> <tr> <td>40G</td><td>10</td></tr> <tr> <td>100G</td><td>20</td></tr> </tbody> </table> Required License Qty per VRS-C instance: <table border="1"> <tbody> <tr> <td>VRS-C</td><td>4</td></tr> <tr> <td>VRS-C-4vCPU</td><td>2</td></tr> </tbody> </table>	Vswitch Port Bandwidth	Required License Qty.	10G	3	25G	6	40G	10	100G	20	VRS-C	4	VRS-C-4vCPU	2
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3HE11724TA	VSAP underlay routers/VSC license. Includes SNMP discovery and monitoring of Network Elements (including Underlay Generic Network Elements GNE). Buy one of this part for each VSC, 7850 VSG, 7850 VSA, GNE Underlay Router. NOTE: Please contact VSAP PLM Vyacheslav Lvin for 7750 Underlay routers pricing. NOTE- If you have High Availability, you will also need to purchase the High Availability / Disaster Recovery NE MGN'T License, reference P/N# 3HE12102TA.														

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3HE10161FA	NFM-P Wireless (only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.
3HE10161EA	NFM-P Wireless (only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.
3HE10161DA	NSD-NRC (only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.
3HE10161CA	NSD-NRC (only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.
3HE10161BA	NFM-P (only) Software Release Subscription (SRS) As of NSP 17, the annual SRS is now mandatory.

3HE10161AA	NFM-P (only) North America Region Software Release Subscription (SRS) This P/N is only to be used for customers in the North America Region (NAR) where event billings are required. As of NSP 17, the annual SRS is now mandatory.
3HE09997EA	Network Services Platform (NSP): Network Resource Controller - X (NRC-X) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE09997DA	Network Services Platform (NSP): Network Resource Controller - X (NRC-X) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE09985EA	Network Services Platform (NSP): Network Service Director (NSD) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE09985DA	Network Services Platform (NSP): Network Service Director (NSD) Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
1AK38000AAAN	Official hardware platform supported for NFM-T.
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1AK36000AAAN	Official hardware platform supported for NFM-T.
1AK36000AAAN	Official hardware platform supported for NFM-T.
1AK36000AAAM	Official hardware platform supported for NFM-T.
1AK36000AAAM	Official hardware platform supported for NFM-T.

3KC73725AAAA	Network Timing Synchronization Manager(NTSM) Standard Base Product License. Base system required with associated license points to provide RTU for the NFM-T value added feature NTSM. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3KC76616AAAA	Network Resource Controller-Transport (NRC-T) R18 Standard Base Product License. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).
3HE16357AA	NSP Automation Package: Migrate services from a port/LAG/card to another port/LAG/card on the same NE or different NE
3HE16086AA	Network Service Platform (NSP) Appliance High Availability / Disaster Recovery License Point. Order this part number to receive the NSP Appliance High Availability / Disaster Recovery License Point. NOTE- The order qty. is equal to the NSP Appliance License Point value, reference P/N# 3HE15895AA.
3HE15895AA	Network Service Platform (NSP) Appliance License Point. Order this part number to receive the NSP Appliance License Point. Please refer to the NSP License Point Catalogue. NOTE- If you have High Availability / Disaster Recovery, you will also need to purchase the same value of the NSP APPLIANCE HA / DR LP , reference P/N# 3HE16086AA.

3HE15893FB	Order this P/N to receive the following: Qty, 2 NSP appliances for redundant deployment. Each NAP Appliances on a HP DL380 Gen 10 server with the NSP 20 S/W Application & RHEL OS preloaded, NFM-P Premium Base and NSD Premium Base. Note - Their current NFM-P license values will need to be tranfered over to the new Appliance. Appliance scale is 2,000 Networks Elements, subject to a maximum of 1,500 MDA equivalents. (Platform sizing recommended) Upgrades are only supported by an annual Software Release Subscription (SRS).
3HE15893FA	Order this P/N to receive the following: Qty. 1 NSP Appliance on a HP DL380 Gen 10 server with NSP 20 S/W Application & RHEL OS preloaded, NFM-P Premium Base and NSD Premium Base. Note - Their current NFM-P license values will need to be tranfered over to the new Appliance. Appliance scale is 2,000 Networks Elements, subject to a maximum of 1,500 MDA equivalents. (Platform sizing recommended) Upgrades are only supported by an annual Software Release Subscription (SRS).

3HE15892FB	Order this P/N to receive the following: Qty. 2 NSP Appliance on a HP DL380 Gen 10 server with the NSP 20 S/W Application & RHEL OS preloaded, and Qty. 800 NSP Appliance LPs. NOTE - The NSP Appliance LP is equivalent to the following R20 LP's / FP: 3HE16254AA NSP LICENSE POINT 3HE16001AA NSP CLASSIC MANAGEMENT FP 3HE16003AA NSP NETWORK INFRASTRUCTURE MANAGEMENT FP 3HE16004AA NSP SERVICE ACTIVATION + CONFIG. FP 3HE16005AA NSP SERVICE ASSURANCE FP 3HE16086AA NSP APPLIANCE HA / DR LP Appliance scale is 2,000 Networks Elements, subject to a maximum of 1,500 MDA equivalents. (Platform sizing recommended) Upgrades are only supported by an annual Software Release Subscription (SRS).
3HE15892FA	Order this P/N to receive the following: Qty. 1 NSP Appliance on a HP DL380 Gen 10 server with the NSP 20 S/W Application & RHEL OS preloaded, and Qty. 800 NSP Appliance LPs. NOTE - The NSP Appliance LP is equivalent to the following R20 LP's / FP: 3HE16254AA NSP LICENSE POINT 3HE16001AA NSP CLASSIC MANAGEMENT FP 3HE16003AA NSP NETWORK INFRASTRUCTURE MANAGEMENT FP 3HE16004AA NSP SERVICE ACTIVATION + CONFIG. FP 3HE16005AA NSP SERVICE ASSURANCE FP Appliance scale is 2,000 Networks Elements, subject to a maximum of 1,500 MDA equivalents. (Platform sizing recommended) Upgrades are only supported by an annual Software Release Subscription (SRS).

3HE13941AA	Order this part number to get: Access to a dedicated cloud hosted instance of NSP with a pre-configured network based on one of the following NSP Lab as a Service catalog offerings: • NSP IP Management with SDN: allows for IP/MPLS network management functions while also providing SDN service provisioning and resource control • NSP IP / Optical Management with SDN: allows for multi-domain network management and optimization, cross domain resource control. • NSP Analytics: provides insight into network infrastructure conditions, service utilization, subscriber traffic analysis, and quality of user experience using a variety of reports. Users can view the reports with the pre populated data • Daily Fee - Order Qty. is based on the number of days required.
3KC73705AAAA	Network Functions Manager-Transport (NFM-T) Standard Base Product License. Included embedded RHEL support. Only to be offered to customers with contracted OS support. UPGRADES ARE ONLY SUPPORTED BY AN ANNUAL SOFTWARE RELEASE SUBSCRIPTION (SRS).



IPR Products	
Part No	Description
INSTALLATION AND IMPLEMENTATION	
301091625	Program Management - Remote
301071247	Technical Project Manager
301036679	Site Survey - OnSite
301036679	Engineering - Remote
301036786	Installation - OnSite (T&L not included)
301071387	Site Materials
RESIDENT ENGINEER	
3HE06254AA	NOC Engineer Support (ONSITE - 1 Month)
3HE09107AA	NOC Engineer Support (ONSITE - 1 Year)
3HE06627AA	Architecture Engineer Support (ONSITE - 1 Month)
3HE09108AA	Architecture Engineer Support (ONSITE - 1 Year)
3HE06628AA	NSP Engineer Support (ONSITE - 1 Month)
3HE09109AA	NSP Engineer Support (ONSITE - 1 Year)
FIELD CORRECTIVE MAINTENANCE	
3HE09054AA	Field Corrective Maintenance (FCM) 24x7x4HR
3HE09055AA	Field Corrective Maintenance (FCM) 8x5x4HR
3HE09056AA	Field Corrective Maintenance (FCM) 24x7xNBD
DESIGN & INTEGRATION SERVICES	
3HE06629AA	L2 wireline Design
3HE09367AA	L2 / L3 wireline / MWBH design
301094207	LTE Backhaul & Core Router Design and Integration
3HE06636AA	Network Design Consultation
3HE09043AA	Nuage Professional Services
3HE02934AA	NSP Integration - (Remote)
3HE09347AA	NSP Integration - (Onsite) - T&L not included
3HE06639AA	NSP SW Upgrade (Remote)
3HE04124AA	NSP SW Upgrade (Onsite) - T&L not included
3HE04256AA	NSP Operations Consulting
3HE06631AA	Network Integration 7x50 SR/ESS
3HE06632AA	Network Integration 7705 SAR
3HE07796AA	Network Integration 7210 SAS
3HE02941AA	Design & Integration - General IP Routing - 7750 SR, 7705 SAR, 7210 SAS
3HE07153AA	Network Integration 7750 SR, 7705 SAR, 7210 SAS - (Onsite 1 Week)

*** Notes:**

***Pricing Instructions:**

1. All hourly rates are based on a 40-hour work week and normal business hours.

2. Ordering codes are subject to change and will be determined when an official quote is provided by Nokia
3. Site Survey is limited to the United States, excluding Hawaii and Canada
4. Site Survey Assumptions: Pricing includes performing a basic site survey, which includes verification of equipment bay location, peripheral equipment termination assignments, power type and termination assignments, and cable running routes.
5. Installation and Implementation Services pricing does not apply to states with prevailing wages statutes. Pricing will be quoted based on individual State adherence to prevailing wage requirements
6. Program Management and TPM performed remotely.
7. All services are subject to specific definitions, inclusions, exclusions, terms, etc. as defined in a Statement of Work that will accompany each price quote from Nokia.
8. Rates do not include travel and living expenses unless otherwise noted. T&L will be added at time of final quoting.
9. On-site Installation hourly rate may require T&L depending on site location and distance from an installation base; TBD once site information is provided.
10. All Design & Integration Services listed above are assumed to be performed remotely unless otherwise noted. If onsite support is required, T&L will be added at time of final quoting (i.e. on-site hourly rate may require T&L depending on site location)



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