

Public Safety Communications Products, Services, and Solutions

*Narrative for
Training and Certifications*

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1. List any factory trainings and certifications your company's staff has attended/acquired to support the proposed infrastructure network, and all related subsystem equipment.

Training

Codan is an ISO 9001:2015 certified OEM manufacturer that operates an extensive training and job qualification system for our personnel. This includes training programs for Codan resellers and integration partners who supply and support Codan LMR products.

It is important to note, that as the OEM manufacturer, we are the developer of all required training related to the core functions of manufacturing, installing, maintaining, repairing, and integrating Codan Land Mobile Radio (LMR) systems offered under this contract.

Additionally, we note that while we have resellers, no resellers are proposed by Codan to fulfill the requirements of this contract. Rather, all support, sales, technical services, and warranty operations under this contract will be delivered directly by Codan and our own personnel.

Codan's training program is designed to ensure that all personnel are trained and effective based on job and role. As the OEM this includes every aspect of operations and maintenance required to fully support our products and customers. Most specifically relevant to this contract is the product and implementation education, training, and standardized practices training programs developed by Codan that are directly related to the areas of:

- Configuration, Integration, Maintenance, and Repair Training
- Customer and Warranty Support
- System Implementation / Project and Contract Management
- Requirements Analysis, Pre-Sales Support, and Engineering Services

These are further described in the sections that follow.

Configuration, Integration, Maintenance, and Repair Training (Training)

Codan trains personnel to effectively configure, integrate, maintain, and repair our products and integrated systems. While this consists of many diverse topics, the technical core elements of this training focus on the implementation and support of the systems hardware and interfaces as implemented in the field. Training covers both Analog and P25 system and product offerings. An example of what training is covered is provided below with Table 1, which identifies the specific training related to P25 systems for these groups of personnel based on job assignments.

Table 1: Codan Training for Personnel Configuring, Integrating, Maintaining and Repairing Codan Land Mobile Radio Systems and Solutions

Training Category	Program Topics and Subject Matter
Radio Theory, System Standards	▪ Introduction to P25 ▪ P25 Phases ▪ Conventional vs. Trunked ▪ How does Phase 1 P25 work? ▪ P25 Radio System Architecture ▪ Benefits of P25

Training Category	Program Topics and Subject Matter
	Other Digital Standards
P25 Interface Standards	- P25 Standards – General System Model - RF Sub-System - Common Air Interface - Inter Sub-System Interface - Telephone Interconnect Interface - Network Management Interface - Data Host or Network Interface - Data Peripheral Interface - Fixed Station Interface - Console Sub-System Interface
P25 Technical Information	- Analog to P25 Transition - P25 Frequency Bands - Hexadecimal and Binary Numbering - P25 Digital Code Definitions - P25 Voice Message Options - P25 Data Applications - Conventional Control Messages - P25 Location Services - P25 Encryption - Analog vs. P25 Digital Coverage - P25 Radio System Performance Testing - P25 vs. Analog Delay Times
Common Air Interface	- Voice - Data - Frame Synchronization and Network Identifier - Status Symbols - Header Data Unit - Voice Code Words - Logical Link Data Unit 1 - Link Control Word - Logical Link Data Unit 2 - Terminator Data Unit - Packet Data Unit - Data Header and Data Block Formats - Other Data Formats
Conventional Fixed Station Interface	- Analog Fixed Station Interface - Digital Fixed Station Interface
P25 Trunking	- Introduction to P25 Trunking - Implicit / Explicit - Registration - Addressing - Control Channel Messages - Inbound Signaling Packet Access via Slotted ALOHA - Trunking System Operation - Traffic Channel Ownership

Training Category	Program Topics and Subject Matter
	- Encryption - Data Packet Structures for Single and Multi-Block Messages
P25 Phase 2	- Introduction to P25 Trunking - Implicit / Explicit - Registration - Addressing - Control Channel Messages - Inbound Signaling Packet Access via Slotted ALOHA - Trunking System Operation - Traffic Channel Ownership - Encryption - Data Packet Structures for Single and Multi-Block Messages
IMBE™ and AMBE+2™ Vocoders	- IMBE™ - AMBE+2™

Customer and Warranty Support (Training)

This training is provided to all Codan personnel directly servicing customer support functions and includes warranty / RMA support, our 24/7 CodanCare Call Center personnel, and those interfacing with our account management practices and standards. Table 2, summarizes this training.

Table 2: Codan Training for Personnel Providing Customer and Warranty Support Service

Training Category	Program Topics and Subject Matter
Customer Support and 24/7 CodanCare Call Center Operations	- Call Quality and Standards - Average Speed to Answer Service Levels (ASA) - Customer Account Lookup - Data Verification / Account Security Procedures - Trouble Ticket Creation and Lookup - Technical Knowledgebase Lookup - Technical Support Escalation Procedures - Customer Issue Resolution and Follow-up
Warranty / RMA Support	- Warranty Support Call Standards - RMA Procedures and Customer Instructions - RMA Status Lookup and Reporting
CodanCare Support	- CodanCare Support Call Standards - CodanCare Account Lookup - CodanCare Service Coordination and Inquiry Support - Live Tier 1 Helpdesk 24 Hours a day - Live Tier 2+ Helpdesk & Phone Support 8AM to 8PM EST Monday through Friday - Prioritized troubleshooting with free expedited roundtrip shipping - Phone-based setup and configuration assistance - Complimentary upgrades to new software features - Version management tracking

Training Category	Program Topics and Subject Matter
	- Software patches and maintenance updates - Troubleshooting 3rd-party technology purchased as part of the customers' Codan solution / system - Advanced replacements coordination

System Implementation / Project and Contract Management (Training)

Codan operates using effective procedures and management controls for the execution of system solutions and their implementation. This training is applicable to Codan professionals involved in project management and the delivery of system specific engineering support. Table 3 summarizes this program.

Table 3: Training / Qualifications Examples for Codan Professionals Supporting Project Management and Implementation Services

Training Category	Program Topics and Subject Matter
Codan Training	- Codan Project Implementation Procedures and Standards - Manufacturing Coordination - Customer Configuration Management - Project Reporting Requirements
External / Industry	- Quality Management Training and Certifications - Project Management Professional Training and Certification (Project Management Institute – PMI.org)

Requirements Analysis, Pre-Sales Support, Engineering Services (Training)

Codan is well known for delivering industry-leading support for the requirements analysis and the engineering design we provide as part of our pre-sales support for all customers. For this contract, and as mentioned previously, Codan will provide all pre-sales support directly. Personnel performing these functions receive training on Codan practices and standards, which is augmented by pre-existing qualifications and training for the personnel who are assigned to these professional teams. This includes our engineering teams, in which, most personnel have engineering degrees / licenses. Table 4, below identifies the nature of the training provided by Codan as well as other qualifications that these personnel possess in general.

Table 4: Training / Qualifications Examples for Codan Professionals Supporting Requirements Analysis, Pre-Sales Support and Engineering Services

Training Category	Program Topics and Subject Matter
Codan Training	- Codan Project Analysis and System Design Procedures and Standards - Performance and Deliverables for Customer Site Surveys - Performance and Deliverables for Coverage Studies - Design for Customer Operational Requirements - FCC Licensing Validation - System Interface Design - Customer Configuration Management - Pre-Sales Design Deliverables and BOM Recommendations

Training Category	Program Topics and Subject Matter
External / Industry	Professionals performing these functions hold a wide array of professional, technical and engineering degrees including, where appropriate, engineering licenses.

Certifications

On the following page, we provide a copy of Codan's ISO certification. Additionally, individual certifications held by various senior members of our management, manufacturing, engineering the technical support teams includes numerous degrees and certifications that include; Professional Engineers, BSEE Certifications, Radiotelephone FCC Licenses and certifications.

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Figure 1: Daniels Electronics ISO 9001 Certificate