Product: SXM Platform
Part #: SXM Dashboard & Node Software
No: PB-20261022-1
Date: October 22, 2026

support@thinkrf.com
+1-613-369-5104

October 2026 Release | SXM – New Features & Enhancements

Revolutionizing RF Spectrum Management

Introduction

SXM (Spectrum eXperience Management) is thinkRF's distributed spectrum monitoring solution. SXM Sentinel and SXM GO nodes cover 9 kHz to 8 GHz and connect to the SXM Dashboard and API, giving regulators, network operators and security teams continuous visibility of spectrum usage, 3GPP network deployments and interference across wide areas.

This release introduces automated Spectrum Masking with recording on crossing, a new 3GPP Drive Test mode, and much faster, more sensitive cellular analysis, alongside Spectrum Viewer usability improvements, a location privacy setting and broad reliability fixes. It includes SXM Dashboard 1.6.2, Spectrum Viewer 1.1.0, 3GPP Signal Analysis 2.12.0 and Local Control Application 1.4.1.1. The SXM Cloud/API (1.2.8) is unchanged, so existing integrations keep working.

New Features

The following new features and capabilities were added. Refer to the SXM User Guides for full details:

- **Spectrum Masking (Spectrum Viewer):** The live spectrum is monitored against a mask, and an alarm is raised (red violation markers, flashing effect and a beep) when a signal crosses it. Three modes: Fixed Threshold, Adaptive Threshold trained from live traffic, and Channelized Threshold with CSV import and export.
- **Mask Recording:** Recording starts automatically when a mask is crossed, capturing IQ or spectrum data as evidence. A new Recording File Manager supports batch download and delete.
- **Drive Test Mode (3GPP):** Measures a user-defined carrier list instead of frequency ranges, for a higher revisit rate on coverage and performance drives.
- **Automatic Receiver Gain Adaptation (SXM Sentinel):** Receiver sensitivity is lowered only where a strong transmitter would overload it, so weak signals next to strong ones are no longer missed.
- **Gain & Antenna Switching Control (SXM GO):** Additional gain adjustment and support for multi-antenna setups.
- **SIM Data & Recording Safeguards:** SIM data consumption is shown on screen, and recording limits protect the node's storage and the user's SIM data plan.
- **Node Location Reporting:** A new device setting turns GNSS data on or off. When off, no GNSS information is sent from the node.

Spectrum Viewer and Local Control are available to subscribed users. Spectrum Masking is available on supported nodes to users with the required permissions.

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Enhancements

The following additional changes were made:

- **Faster 3GPP Scanning:** AI carrier detection scans 600 MHz to 4 GHz in about 15 seconds on SXM Sentinel. SXM GO scan rounds drop from about 90 seconds to 11–16 seconds.
- **Improved 5G NR Cell Search:** NR synchronization is about 7 times faster per capture, and weak NR cells are found far more often (from 77% to 99.8% at 6 dB below the noise in a controlled test). Bands n31, n53, n54, n72, n105 and n109 added (3GPP TS 38.104 v18.10.0).
- **Deeper LTE, GSM & WCDMA Decoding:** LTE extended cyclic prefix carriers, common in large rural cells, are decoded to full depth. 2G GSM decodes about twice as many cells per minute, and WCDMA identification stays reliable with a small frequency offset.
- **Faster Drive Test Scanning:** Higher revisit rate, closing occasional detection gaps along the route.
- **Clearer Spectrum Viewer Controls:** Auto Scale no longer changes the Reference Level, Display Ref Offset rescales the Y-axis without shifting traces, “Data Packing” is renamed Bit Depth, chart drag and pan are separate buttons, and a Playback indicator is added.
- **Local Spectrum Viewer:** Alerts when the service on the node is down, shows the connection type in the node list, and blocks other device settings during a session to avoid interruptions.
- **Reliable Data Delivery:** Data is kept on the node until the Cloud confirms receipt, with no duplicate uploads during outages. Improved recovery of node services, the cellular modem, USB devices and the receiver.
- **Improved Time Synchronization:** More accurate timing on SXM GO devices.
- **Quality Fixes:** 5G NR carriers wider than 33 MHz, NR beam values, LTE band and ARFCN values, demodulated audio, GNSS positions during drive tests, and Channel Occupancy study status.

Summary

This SXM release is a major step forward for interference hunting, network analytics and unattended spectrum monitoring. Spectrum Masking with automatic recording, a dedicated Drive Test mode, and 3GPP scan rounds measured in seconds expand what SXM customers can detect, measure and document.

Please contact us for more information.