Brochure

Public Safety Radio Coverage Testing and Verification

Certify and Document Critical Communication Coverage and Performance

The new VIAVI HERMES xG Scanner is built for performance and reliability. It's battery operated for maximum mobility, offers faster processing, and works seamlessly with Android and Windows. With its mission-ready rugged case, it's designed to deliver power, speed, and durability in any environment.

COMPLETE PUBLIC SAFETY COVERAGE MAPPING AND GRID TESTING SOLUTION

- Perform indoor and outdoor testing in one solution
- Generate real time compliance pass/fail test results
- Standardized grid testing per NFPA 1225, IFC 510 and local fire codes compliance
- Small and light-weight handheld solution
- Covers P25 Phase 1 and 2, DMR, WiFi, First Net and cellular technologies

COMPLETE PUBLIC SAFETY COVERAGE MAPPING AND GRID TESTING SOLUTION

The **VIAVI HERMES xG Scanner** is able to capture data between 1 MHz to 6 GHz. Captured data is then analyzed based on the selected technology.

Available technologies include: P25 Phase 1 and 2, DMR, WiFi, First Net and MCX over LTE/5G.

iMeasure is a data collection solution that enables users to collect and analyze information related to modulated or CW signals received over the air interface.

iMeasure can verify public safety broadband and MCPPT subscriber device service performance across LTE, 5G, and WiFi networks.

iMeasure receives the desired signal, decodes and displays key network information and signal parameters.

CUSTOMIZE iMEASURE

Depending on the use case, iMeasure can be customized to provide various radio technologies and additional functionality. iMeasure along with the state-of-the-art HERMES xG Scanner, collects and presents measurement data and key network parameters. Here are some examples:

Collect Public Safety Communications Data (P25, DMR)	Master License + WiFi Enabled Tablet + HERMES xG Scanner
Collect Unmodulated CW Measurements	Master License + WiFi Enabled Tablet + HERMES xG Scanner
Real Time Spectrum Analyzer	Master License + Spectrum Analyzer/ Sweep Tester License + WiFi Enabled Tablet + HERMES xG Scanner
Collect Cellular Public Safety Communications Data (P25, DMR)	Master License + Cellular Scanner License + WiFi Enabled Tablet + HERMES xG Scanner

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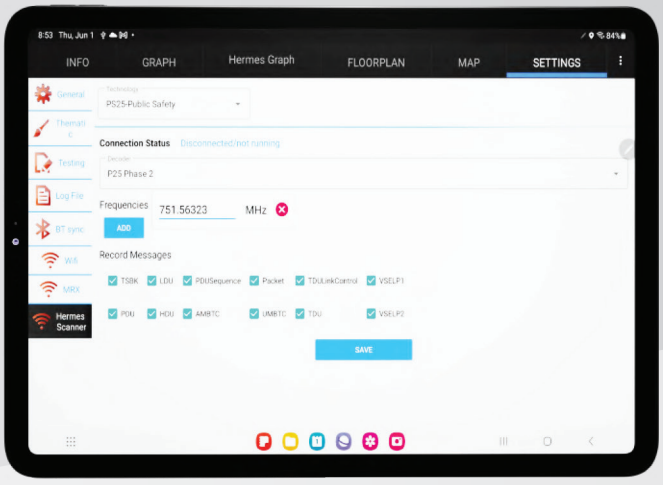
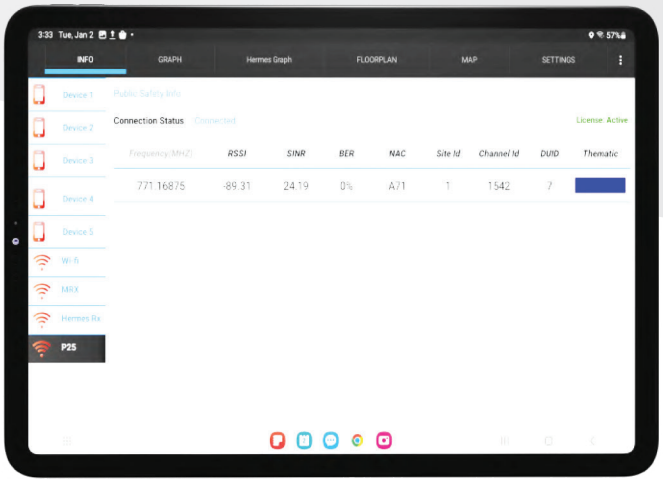
PUBLIC SAFETY/ REAL-TIME METRICS

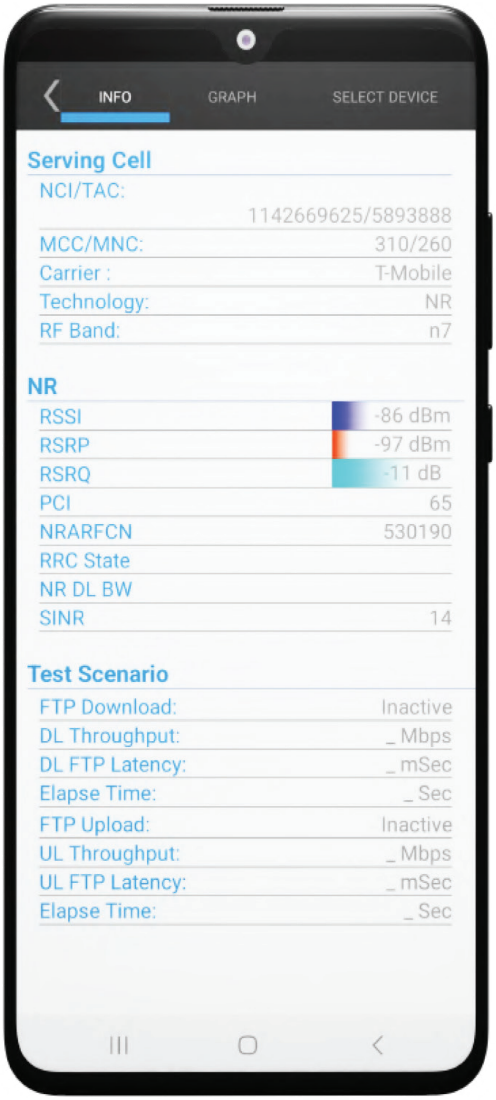
- Public safety grid testing is a process that ensures that all areas of a building have been tested so that first responders have dependable emergency communications. The National Fire Protection Association (NFPA) requires 99% signal coverage in critical areas of a facility and 90% coverage in general areas. The signal strength must also be at least -95 dBm throughout the coverage area. Once the floor plan under testing is imported into iMeasure, users can define the number of Grids and pass/fail criteria to visually see test results.
- iMeasure with the HERMES Receiver and Public Safety license allows users demodulate public safety channels to collect relevant data
- Phase 1, Phase 2, and DMR
- RSSI, BER, NAC, Site ID, Channel ID, DUID and other KPIs
- Message type selection option
- High stability frequency reference
- Live data display

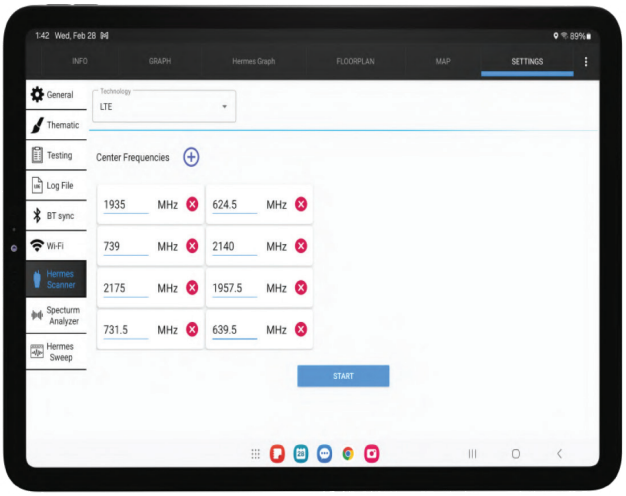




MISSION-CRITICAL SERVICES (MCX) OVER LTE/5G

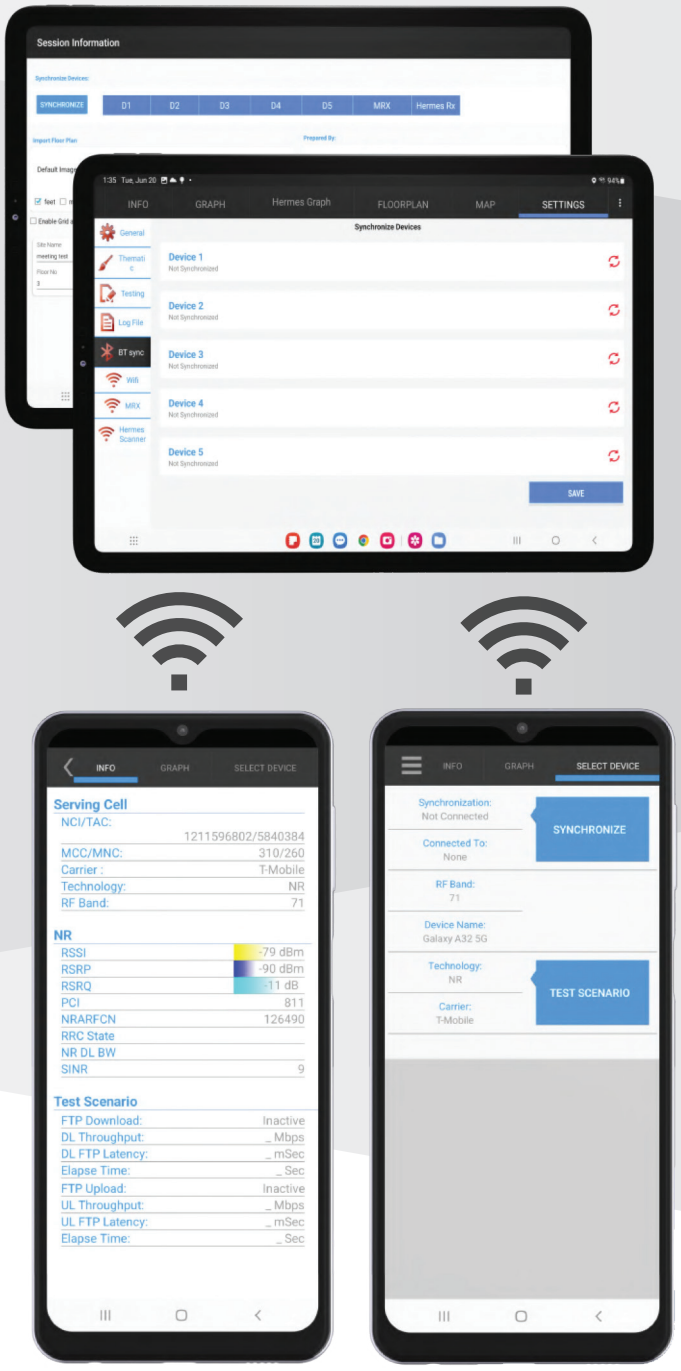
- iMeasure retrieves cellular data from devices connected to the tablet
- The collected data is recorded and displayed along with indoor or outdoor coordinates
- Users can connect up to five Subscriber Devices and one VIAVI HERMES xG Scanner to a tablet and collect data simultaneously from all six sources
- Each Subscriber Device can be locked to a specific MNO, technology and/or band
- In addition to the data displayed and recorded on the iMeasure tablet, each Subscriber Device displays real-time KPIs and test scenario data
- The VIAVI Hermes xG Scanner will scan configured channels and record retrieved data synchronized with any BT connected Subscriber Devices





MISSION-CRITICAL COMMUNICATIONS PERFORMANCE TESTING

- Up to five Subscriber Devices can stream data to the tablet simultaneously via Bluetooth
- On each Subscriber Device, a script can be enabled to run short or long voice calls, FTP upload and FTP/HTTP download tests
- Test results are recorded along with call events such as call set up failure, call drop, etc.
- A latency module integrated by a third party for latency-critical testing
- Each Subscriber Device running iMeasure BT can view the cellular metrics in real time using the info tab
- Each Subscriber Device can be locked to a specific MNO, technology and/or band
- No rooting is necessary of the utilized Subscriber Devices
- iMeasure BT module runs on most commercially available Subscriber Devices

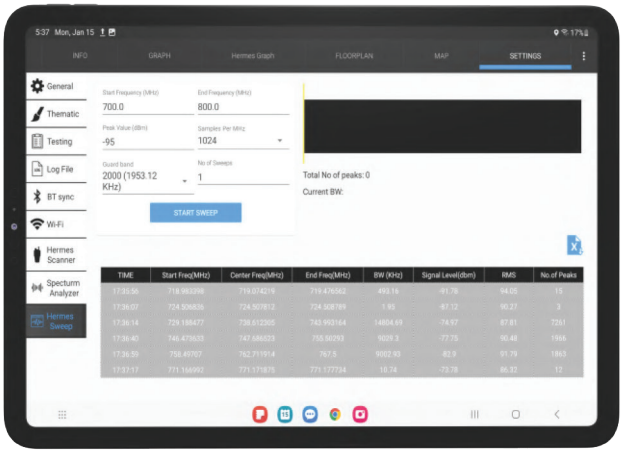


NOTE: iMeasure intentionally does not collect L2/L3 messages. If L2/L3 messages are required, please contact us.

SPECTRUM ANALYZER AND SWEEP TESTER

- Software option to add spectrum analyzer to the iMeasure/HERMES combination
- Spectrum Analyzer functions include:
  - Max Hold
  - Set Frequency
  - Set Bandwidth

- Slide X or Y positions
- Zoom X or Y scales
- Waterfall Display
- Frequency Range 50 MHz - 6 Ghz



- Software option to add sweep tester to the iMeasure/HERMES combination
- Sweep tester functions include:
  - Set Frequency
  - Set Bandwidth
  - Set guard bandwidth
  - Peak and RMS power calculation

HERMES iMEASURE SPECIFICATIONS

iMeasure	
CW Mode	300 Samples/sec, 20 Frequencies
Public Safety Mode	P25, DMR
WiFI Mode	2.4 GHz, 5 Ghz
Indoor/Outdoor Mode	Both
Live View Data	Yes
Almanac View	Graph and Level Lines
Load Finished Sessions	Yes
Thematic Settings	Change Colors, RSSI Levels, Add Labels
Generates Final Reports'	Heat Maps, Colored Pass/Fail Grid
Cellular	GSM, LTE, 5G
Bluetooth Connectivity	Up to 5 Phones
Collected KPIs	RSSI, BER, SINR, SITE ID, NAC, DUID

Hermes xG Scanner	
Frequency Bands	1 MHz to 6 GHz
Scanned Channels	20
Frequency Step	1 KHz
Bandwidth	Up to 20 MHz
RF Interface	50 ohm SMA Female
Data Interface	Bluetooth
Accuracy	± 1 dB
Sampling Rate	20 Msps
External Dimensions	L 8.5 in. x W 4.5 in. x H 2.5 in.
Weight	2.6 lbs. (1,200 gm)
Operating Temp	-10 to to +40 C
Enclosure Material	Extruded Aluminum
Power Supply	USB Bus Power (3.3v 50 mA)
Battery - Operating Time	10,000 mAH - 5 Hours
Interface	Android, Windows, Linux, API
Supported Technologies	CW, P25, DMR, LTE, 5G
Standard Features	Spectrum Analyzer
Optional Features	Frequency Sweep
Frequency Accuracy	± 0.5 PPM
Certifications	CE
Standard Accessories	USB cable, Calibration Certificate, User Manual
Receiver Sensitivity	-115 to -45 dBm (50 to 4,500 MHz)
	-110 to -40 dBm (4,500 to 6,000 MHz)

HERMES iMEASURE SPECIFICATIONS

Hermes Receiver	
Frequency Range	50 MHz to 6 GHz
CW Mode	Up to 20 Frequencies
Public Safety Mode	1 Frequency
Weight	7 oz/ 200 grams
Frequency Step	10 kHz
Frequency Bandwidth	4 MHz to 20 MHz
Accuracy	± 2 dB
Sensitivity	Up to -115 dBm
RF Interface	50 ohm SMA female
Power Supply	USB-C
Battery	No

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