Anritsu S412E LMR Master™

The premiere tool to install and maintain public safety communications networks

**Designed With Public Safety In Mind**

The S412E is a compact handheld multifunction analyzer that has been specifically developed for technicians and engineers who install and maintain public safety communications systems.

**Reduce RF Interference**

The S412E has a number of robust interference hunting features that speed the time it takes to locate and abate interference.

**Map Signal Coverage**

Using GPS coordinates, watch the S412E quickly map the route and locate coverage gaps due to physical barriers and other issues.

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**Features**

- LMR Signal Analyzers with Coverage Mapping: P25, P25 Phase 2, TETRA, DMR (MotoTRBO™), dPMR, NXDN, PTC, NBFM
- Broadband Signal Analyzers: LTE, WiMAX
- Spectrum Analyzer: 9 kHz – 1.6 GHz, optional to 6 GHz
- Cable and Antenna Analyzer: 500 kHz – 1.6 GHz, optional to 6 GHz
- Return Loss, VSWR, Insertion Loss, S11 / S21, DTF
- Interference Analyzer with Interference Mapping and support for MA2700A Handheld Interference Hunter
- Internal Power Meter, optional External Power Sensor
- Quick transition from low power portable tester to high power base station and mobile transmitter tester
- Handheld, battery-operated design
- Weighs less than 7.6 lbs. (including battery)
- Rugged, proven design using Anritsu’s 9th generation hardware platform
- Daylight viewable color touchscreen display
- Superior immunity to RF interference
- Remote control via ethernet
- Standard 3 year warranty (battery 1 year warranty)
S412E LMR Master™
Land Mobile Radio Modulation Analyzer
9 kHz to 1.6 GHz (can be extended to 6 GHz with options)

Rugged, Portable, Powerful
The S412E LMR Master is a compact handheld multi-function analyzer that has been specifically developed for technicians and engineers who install and maintain public safety, utility and private mobile communications systems. The S412E combines our industry-standard cable & antenna analysis with the unmatched performance of our spectrum analyzers, then adds in powerful signal analysis and generation capabilities — including coverage mapping tools for both outdoor and indoor performance analysis — to create the ultimate battery powered LMR field service instrument for system commissioning, preventative maintenance, troubleshooting and compliance testing of mission critical systems.

Land Mobile Radio Analyzer Highlights
• Optional analyzers for P25 FDMA (TIA-102.CAAA-C) and P25 Phase 2 TDMA (TIA-102.CCAA), TETRA, DMR (MotoTRBO), dPMR, NXDN, ITC-R PTC, FirstNet LTE, WiMAX 802.16d (fixed) and WiMAX 802.16e (mobile)
• P25/P25p2, DMR, and NXDN modes offer signal generation of standard BER test patterns including 1011 Hz, 1031 Hz, and O.153/V.52
• Analysis of transmitter RF performance for P25/P25P2, TETRA, DMR, NXDN, dPMR, ITC-R PTC, and NBFM radios, repeaters and base stations
• NBFM Mode analyzes Carrier Frequency, Carrier Power, Deviation, CTCSS/DCS/DTMF, Occupied Bandwidth, SINAD and Quieting
• NBFM Auto Scan locates and locks on to transmitter carriers
• TIA-603-D compliant SINAD and 20 dB Quieting analysis modes
• Coverage Mapping (Outdoor and Indoor) for LMR standards
• Signal Generator: 500 kHz to 1.6 GHz, 0 dBm to −130 dBm

Spectrum Analyzer Highlights
• Dynamic Range: > 95 dB in 10 Hz RBW
• DANL: −152 dBm in 10 Hz RBW
• Phase Noise: -100 dBc/Hz max @ 10 kHz offset at 1 GHz
• Frequency Accuracy: 120 ppb, < 50 ppb with GPS locked
• Options: Interference Analyzer, Spectrogram, AM/FM/SSB Audio Demod

Vector Network Analyzer Highlights
• 1-path, 2-port VNA w/ quad trace display
• Vector Voltmeter option for matching section and phasing harness construction
• Distance Domain option for Distance-to-Fault analysis
• Only handheld instrument to offer TETRA base station sensitivity measurements
• Adjustable data points up to 4001
• IF bandwidth selections of 10 Hz to 100 kHz
• 100 dB transmission dynamic range to 4 GHz
• 850 µs/data point sweep speed