



Anritsu S412E LMR Master™

The premiere tool to install and maintain commercial two-way radio networks



Simple But Powerful

The S412E is a compact handheld multi-function analyzer specifically developed for technicians and engineers who install and maintain professional mobile 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.



The LMR Master also offers options for those engaged in field testing the RF performance of NBFM, P25, P25 Phase 2 (TDMA), DMR (MotoTRBO™), TETRA, dPMR, NXDN™, and LTE for commercial systems. (Shown with Tx/Rx input protection module for high power portable and BTS test applications.)

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 μ s/data point sweep speed

