

### **Anritsu Introduces Second Generation LMR Master™ for Testing Public Safety, Utility and Private Mobile Communications Systems**

*— S412E is First Single-Instrument Solution That Can Measure Emerging Digital Narrow Band  
and 700 MHz Broadband Public Safety Communications Networks—*

**Morgan Hill, CA – January 4<sup>th</sup>, 2011** – Anritsu Company introduces the S412E LMR Master handheld analyzer developed exclusively for the installation, verification, and service of P25/NXDN and LTE public safety, utility and private mobile communications systems. A lightweight, easy-to-use, battery-operated instrument, the LMR Master combines complete P25/NXDN radio test set functionality with a cable and antenna analyzer, 2-port network analyzer, spectrum analyzer, interference analyzer, and power meter, plus LTE transmitter measurement capability. The first solution that can test emerging 700 MHz narrow band and broadband digital public safety systems, the S412E significantly reduces the number of tools field technicians and engineers need, thereby saving time and money while ensuring accuracy.

Covering the 500 kHz to 1.6 GHz frequency range, the S412E can conduct radio transmitter and receiver measurements with antenna, cable, transmission, and interference analysis. It includes a CW/P25/NXDN signal generator with internally adjustable power from 0 dBm to -120 dBm.

The S412E also includes a high-performance, fully functional spectrum analyzer. Excellent DANL of -152 dBm makes the instrument ideal for locating low-level signals that can interfere with LMR systems. Low -100 dBc/Hz phase noise allows measurement of P25/NXDN and NXDN emission masks. An option allows spectrum analyzer coverage to be extended to 6 GHz.

The high-performance 2 MHz to 1.6 GHz cable and antenna analyzer (extendable to 6 GHz) can conduct FDR-based Return Loss and VSWR measurements to accurately characterize antenna systems. Distance-To-Fault (DTF) measurements easily determine poor connections, contamination, damaged cables and water penetration. Excellent dynamic range of >100 dB allows users to view and adjust the RF performance of critical RF devices, while the dynamic range and fast 850 us/point sweep speed allow for accurate filter transmission measurements.

- more -

Anritsu has designed the S412E to coverage map BER, significantly simplifying coverage drive testing. P25/NXDN Tx measurements that can be made are received power, frequency error, modulation fidelity, symbol deviation, NAC and BER for 1011 Hz and 0.153 test patterns. BER estimation from voice traffic and BER/MER measurements from control channel traffic can also be performed. The S412E can accurately measure BER down to -115 dBm signal levels to help ensure successful signal transmission – even with local interference or multipath. Constellation, histogram and P25/NXDN control channel hex decodes can be displayed.

A coverage mapping feature allows up to eight hours of BER and RSSI testing to be associated with a GPS location. Coverage mapping also supports received power and BER for 1011 Hz and 0.153 test patterns, BER estimation from voice traffic, and BER/MER measurement from control channel traffic, along with GPS location and time.

FDD LTE measurement options include transmitter RF measurements to verify correct output power and low out-of-channel emissions. Modulation measurements help verify that communications meet data rate targets, even at the coverage edge. Over-the-Air measurements help verify coverage, inter-cell interference, and signal quality without taking the site off line.

The S412E utilizes the field-proven design of the Anritsu Site Master™. Compact and rugged, the LMR Master is specifically designed for field environments. A field-friendly battery can be changed in just seconds to extend measurement time. A standard transmissive color display is viewable in direct sunlight and at wide viewing angles.

The S412E LMR Master has a delivery of 4 to 6 weeks ARO.

### **About Anritsu**

Anritsu Company ([www.us.anritsu.com](http://www.us.anritsu.com)) is the American subsidiary of Anritsu Corporation, a global provider of innovative communications test and measurement solutions for more than 110 years. Anritsu provides solutions for existing and next-generation wired and wireless communication systems and operators. Anritsu products include wireless, optical, microwave/RF, and digital instruments as well as operations support systems for R&D, manufacturing, installation, and maintenance. Anritsu also provides precision microwave/RF components, optical devices, and high-speed electrical devices for communication products and systems. With offices throughout the world, Anritsu sells in over 90 countries with approximately 4,000 employees. For more information, visit [www.us.anritsu.com](http://www.us.anritsu.com).

###

**For more information contact:**

Katherine Van Diepen,  
Director, Marketing Communications  
Anritsu Company  
408.778.2000 ext. 1550  
[katherine.vandiepen@anritsu.com](mailto:katherine.vandiepen@anritsu.com)

Patrick Brightman  
SGW  
973.263.5475  
[pbrightman@sgw.com](mailto:pbrightman@sgw.com)