Anritsu Product Lineup: Test Expertise for the Future of Transportation

The complexities of the modern automobile continue to increase with more and more technology being added to support new communications applications and safety features. These technologies result in increased vehicle production costs for the manufacturer as well as increasing the cost of ownership. Anritsu breaks down the challenges and provides an approach to testing and production that provides efficiency and scalability.

**Wireless Connectivity & Infotainment**

- Radio Communication Test Station MT8000A
  - 5G RF/Protocol
- Signal Analyzer MS2830A
  - RF/HW w/o signalling
- ShockLine™ 2-Port Performance VNA MS46522B
  - Automotive Cable

**ADAS**

- Signal Analyzer MS2690A/MS2830A
  - RF/HW w/o signalling
- ShockLine™ 2-Port Performance VNA MS46522B
  - Automotive Cable

**Intelligent Transport System**

- Universal Wireless Test Set MT8870A
  - LTE-V2X RF Test
- V2X 802.11p Message Evaluation Software MX727000A

**EMC/EMI**

- Spectrum Master MS2720T
- Signal Analyzer MS2830A

**In-Vehicle Networks**

- Optical Spectrum Analyzer MS9740B
  - Optical Module Test
- Signal Quality Analyzer R.MP900A
  - PCIe Test
- Site Master S321E
  - Cable & Antenna
- 2-Port ShockLine™ Economy VNA MS46122B

**Datacom**

- Network Master Pro MT1000A
  - Latency Test
## Supported Wireless Communication in Automotive Systems

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### High Performance Testers for Automotive

#### Radio Communication Test Station MT8000A
The MT8000A is an all-in-one solution for RF measurements and protocol tests in Sub-6 GHz and Millimeter Wave Bands. It can also be used for testing existing LTE environments; a 5G-to-LTE NSA (Non-Standalone) test environment can be configured easily and supports a self-driving vehicle development environment.

#### Signalling Tester MD8475B
The MD8475B is the base station simulator supporting all cellular standards’ test environments with easy-to-use SmartStudio GUI. And the eCal Test Textr MXT0333BE software runs with the MD8475B to simulate the eCal service of the NSP. The software emulates eCal communications between the MTS and the NSP at a traffic accident. Supports 5G, eCal, and 3GPP, 3GPP2, 4G, 4G+, and 5G.

#### Radio Communication Analyzer MT8821C
The MT8821C supports all cellular standards used in vehicle telematics systems. It’s a high-end instrument for RF measurements, which makes it ideal for all stages of product development. While MT8821C has up to 8 TX RF, 4CA, 2×2 MIMO/2CA, 4×4 MIMO can be tested in a single box.

#### Universal Wireless Test Set MT8870A
The MT8870A is the best solution for testing at R&D and production stages of all wireless standards: cellular (2G, 3G, LTE/LTE-A, LTE-V2X), connectivity (802.11x, Bluetooth and ZigBee), navigation (GPS, GLONASS, BeiDou and Galileo) and broadcast technologies (AM/FM radio, DVB and DVB-C) and also new, V2X technologies with using internal GNSS generation feature.

#### Bluetooth Test Set MT8852B
The MT8852B is designed for performing RF tests on Bluetooth devices for R&D and manufacturing as defined in the Bluetooth RF Test Specification.

#### Wireless Connectivity Test Set MT8862A
The MT8862A has the Network Mode for testing all WLAN devices integrated to a vehicle, and for evaluating the RF test items based on IEEE802.11 standard.

#### Signal Analyzer MS2690A Series / MS2830A
The MS2690A Series base units include swept spectrum analysis, FFT signal analysis, and a precision digitizer function. The MS2690A Spectrum Analyzer can be used for 2G, 3G, LTE, WLAN and V2X (IEEE802.11p) measurements. Transceiver measurements. The V2X (IEEE802.11p) Message Evaluation Software MXT7200A is designed to be used in conjunction with the Signal Analyzer MS2690A Series. MS2693A to demodulate, analyze, and display V2X messages.

#### Network Master Pro MT1000A
MT1000A is portable, expandable tester supports 10/100G, OTDR, and CPRI tests. It also supports network performance test such as latency, throughput, frame loss and E2E.

#### Optical Spectrum Analyzer MS9740B
The MS9740B supports wavelength measurement shorter than 1000nm, which is key market for LD/LED.

#### Signal Quality Analyzer-R MP1900A
PCI bus interface speeds now exceed 10G. In addition, the equipment and chips using these interfaces support multi-channels and multi-protocols. The MP1900A is a high-performance BERT with excellent expandability for supporting physical layer evaluations of these high-speed interfaces.

#### Site Master 5331E
The 5331E is the ideal product for cable and antenna installation and maintenance in the automotive industry. Insertion loss, 2-port measurements of amplifiers, diplexers, diplexers or filters, phase matching cables and antenna tuning are relevant applications fitting into the upcoming in-vehicle networks.

#### 2-Port ShockLine™ Economy VNA MS46122B
Low cost full-reversing 2-port VNAs aimed at RF and microwave applications in R&D and manufacturing. With 220 microseconds per point sweep speed and better than 100 dB dynamic range they are extremely suitable for a wide variety of device test applications in the Automotive Industry, such as cable, connectors, antenna or radar.

#### ShockLine™ 2-Port Performance VNA MS46522B
VectorStar VNA series offer accuracy and precision as well as a variety of features and options to cover a wide range of measurements — from S-parameter measurements on microwave filters to pulse distortion or noise figure measurements on mmWave components for use in high-performance radar systems.

#### Spectrum Master MS2720T
The MS2720T is a multifunctional test tool ideal for EMC/EMI testing in automotive environments. From transmitter spectrum analysis to received signal analysis, where location and identification of in-band interference and out-of-band spurious signals need to be tested, MS2720T is ideal.