Automotive Test Solutions

Mobile Connectivity - Enabled

www.anritsu.com
Test and Measurement Solutions for Automotive Applications

With the critical nature of connectivity in the modern automobile, ensuring that key wireless technologies operate as expected has become increasingly important. Anritsu’s automotive test solutions validate the operation of connected car communications systems, ensuring that quality products reach the market on time. Anritsu provides high performance test solutions for a variety of automotive applications. We invite you to learn more.

Safety and Driver Aids

ADAS encompasses a broad range of products and services aimed at helping drivers drive more safely; while providing technologies that move vehicle development towards autonomous driving. Anritsu provides test and measurement equipment for ADAS services that make use of cellular, radar and DSRC. GNSS, eCall / ERA-GLONASS, TPMS, RKE, RADAR, FMCW

In-Vehicle Networks

The automotive industry is constantly increasing the presence of technology in vehicles. In excess of 100 separate control units will be part of the average modern car, generating more and more applications for informing and entertaining the passengers. Ethernet, CAN, Optical Fibres, RF cables & connectors

Intelligent Transport Systems

ITS provide innovative services relating to different modes of transport and traffic management. Connecting transportation networks to each other and the broader internet will enable participants to make roads safer, travel more efficient, reduce air pollution and improve driver experience. Anritsu provides advanced solutions for V2X, from R&D to field test, to manufacturing. V2V, V2X, C2C, M2M
With the critical nature of connectivity in the modern automobile, ensuring that key wireless technologies operate as expected has become increasingly important. Anritsu’s automotive test solutions validate the operation of connected car communications systems, ensuring that quality products reach the market on time. Anritsu provides high performance test solutions for a variety of automotive applications.

LTE/LTE-A/2G/3G, Bluetooth, Wi-Fi, AM/FM+RDS/DAB

With different technologies simultaneously operating in public frequency bands EMC is an important requirement. Anritsu offers a full set of instruments for ElectroMagnetic Compatibility (EMC).

OTA, EMC, EMI, Interference Hunting
Telematics and Infotainment

Wireless technologies have acquired increasing importance during the last decade in the automotive industry, making the experience of driving easier, safer and more comfortable. All these wireless standards, including mobile, connectivity and navigation, help to keep the driver connected everywhere, while broadcast technologies are now utilized to keep all of the car occupants connected and entertained.

In addition to FM/AM radio, today’s vehicles incorporate digital radio (DAB) as well as video broadcasting, including DVB and ISDB standards. Anritsu’s portfolio allows testing of these technologies at all stages of product development, from R&D to production, providing dedicated solutions and universal wireless testers that will ensure your products comply with the latest industry specifications.

**MD8475A/MD8475B series Signalling Tester**

The MD845A/MD8475B are an all-in-one base station simulator supporting LTE, LTE-Advanced, W-CDMA/HSIA/HSIA Evolution/DC-HSDPA, GSM/EGPRS, CDMA2000 1X/1xEV-DO Rev. A and TD-SCDMA/TD-HSPA. It supports services as eCall, IMS, VoLTE tests and call-processing tests for smartphones which are now present on vehicles. In addition, the time required to configure a test environment is significantly reduced by the easy-to-use GUI-based SmartStudio software, as well as supported test sequences for automatic remote control of the GUI. All this will make telematics/infotainment module testing easy, quick and reliable.

**MD8475A Signalling Tester**

- Supports multimode terminals and all cellular standards, including LTE (2×2 MIMO), LTE-Advanced (Carrier Aggregation).
- SmartStudio GUI supports easy setup of test environments and functional tests.
- All-in-one support for 2-cell test environment, including Inter-RAT Cell, Reselection, Redirection, Cell Change, CS Fallback.
- Automated mobile terminal verification testing with test sequences.
- Built-in PC with control and application server functions reduces benchtop footprint.

**MD8475B Signalling Tester**

- Adding supporting standards comparing with MD8475A, such as LTE-Advanced 3CA/4CA using up to 8Trx ports (6 GHz max.).
- Efficient performance test environment using built-in traffic generator for 1 Gbps IP data transfers.

**ME7800L Simple Conformance Test System**

- Simple configuration fully automated test system.
- Support RF, RRM, and Protocol testing in one platform.
- Quick access to Certification Testing.

**MT8870A Universal Wireless Tester**

- Designed for mass production of wireless modules, it operates in a non-call processing environment for minimum test time per unit.
- Support various wireless standards, including cellular, connectivity, navigation and broadcast.
- Modular design with up to 16 high performance RF ports in one small chassis.
- Built-in signal generator and signal analyzer on each module. Wide frequency range from 10 MHz to 6 GHz and 160 MHz measurement bandwidth for 802.11ac, LTE-Advanced and future standards.

The MT8870A is the best solution for testing at R&D and production stages of all wireless standards: cellular (2G, 3G, LTE and LTE-Advanced), connectivity (802.11x, Bluetooth and ZigBee), navigation (GPS, GLONASS, BeiDou and Galileo) and broadcast technologies (AM/FM radio, DVB and ISDB). It is ideal not only for production, where it can make fast measurements, including calibration, validation and
MG3710A Vector Signal Generator

- Supports frequencies of 100 kHz to 2.7/4/6 GHz.
- Built-in wideband (160 MHz/120 MHz) baseband signal generator.
- Dual RF Opt provides two independent RF outputs.
- Dual Waveform Memory (Optional) enables two independently modulated signals per RF Output.

MT8821C Radio Communications Analyzer

- Supports evaluation of RF TRx characteristics.
- RF tests for LTE-Advanced DL CA, LTE and 2G/3G terminals.
- Supports both call processing and non-call processing modes.
- One-touch Settings and PASS/FAIL Judgment with windows-based GUI and easy-to-use large touch panel.
- Flexible Parameter Setting for RF TRx tests.
- Batch measurements for key measurement items for RF TRx tests- 3GPP RF test standard compliant automatic remote control tool is available.

The MT8821C is an all-in-one solution supporting all cellular standards used at vehicle telematics systems now (2G/3G/LTE technologies) and planned to be used in the near future (LTE-Advanced up to DL 5CA/UL2CA). It is a high-end instrument for LTE CA RF measurements. While MT8821C has up to 8 TX RF, 4CA 2×2 MIMO/2CA 4×4 MIMO can be tested in a single box. Built-in Flexible Internal RF Front End reduces also the connection between terminal and MT8821C.

MT8862A Wireless Connectivity Test Set

- Integrated test set for 802.11a/b/g/n/ac transmitter and receiver measurements.
- Network Mode – Tests devices using standard WLAN protocols to establish a connection to the DUT.
- Supports secure WEP, WPA-Personal, and WPA2-Personal encrypted connections
- Easy setting up – Embedded web server allows remote control

The MT8862A has Network Mode for testing all WLAN devices integrated to a vehicle, and for evaluating the RF test items based on IEEE802.11 standard. The MT8862A supports both OTA and contacted measurements, thus supporting testing of modules, instruments and cars within the automotive industry. MT8862A plays the role of power meters, spectrum analyzers, and Golden Radios in one box.

MT8852B Bluetooth Test Set

- Qualified by Bluetooth SIG for RF measurements
- Supports 9 Basic Rate, 6 EDR and 27 Bluetooth low energy test cases
- Audio testing capability

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

The product is compliant with Bluetooth Core Specification including v5.0.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.
Safety and Driver Aids

Advanced Driver Assistance Systems (ADAS) encompasses a broad range of products and services aimed at helping drivers drive more safely; while providing technologies that move vehicle development towards autonomous driving. Anritsu provides test and measurement equipment for ADAS services that make use of cellular, radar and DSRC.

Aiming to ensure safety and quick response times from emergency medical services in the event of a traffic accident, an emergency call (eCall) made automatically by the vehicle involved could save millions of lives. Anritsu can efficiently help meet the test and measurement requirements for eCall/ERA-GLONASS. Our solution, adopted and in use by Russian certification lab Polinom, offers an eCall tester based on a complete network simulator and a software tool simulating Public Safety Answering Points (PSAP).

Automotive radar technology is rapidly evolving as ADAS and Autonomous vehicle development drives demand for multiple, high resolution radars on each vehicle. Testing both radar capabilities and the interaction of multiple radars has never been more important. Anritsu provides equipment to help radar engineers validate performance of components throughout the R&D process.

MD8475A/MD8475B Signalling Tester

- eCall tester can be reliably integrated with the platform.
- Provides automated test sequence for eCall conformance testing (defined as EN16454) and ERA-GLONASS specification referred testing (defined as GOST R 55530).
- Supports multimode terminals and all cellular standards, including LTE/LTE-Advanced (MIMO, Carrier Aggregation).
- SmartStudio GUI supports easy setup of test environments and functional tests.
- All-in-one support for 2-cell (MD8475A)/multi-cell (MD8475B) test environment, including Inter-RAT Cell, Reselection, Redirection, Cell Change, CS Fallback.
- Built-in PC with control and application server functions reduces benchtop footprint.
- Automated mobile terminal verification testing with test sequences.

The MD8475A/MD8475B helps to the development of in-car safety technologies such as eCall or ERA-GLONASS. The Network Simulator can be easily integrated with an IVS module for simulating end-to-end emergency calls as per the mentioned standards.

MX703330E eCall Tester

The eCall Tester MX703330E software runs with the MD8475A to simulate the eCall service PSAP. The software emulates eCall communications (MSD communication to Voice call) between the IVS and the PSAP at a traffic accident. In addition, adding the MSD ERA GLONASS Option MX703330E-031 supports ERA-GLONASS system tests of MSD data communications using SMS.
The ME7838E broadband system addresses the needs of semiconductor fab and fabless companies targeting automotive radar applications. In addition to continued growth in 77 & 92 GHz automotive radar III-V development, it is expected that a major push for emerging SiGe development will continue. SiGe will offer lower costs and prices for the automotive industry and push car radar into mid to low price models. The ME7838E is used during the design phase where device characterization is used to analyze broadband performance of transistors and MMICs for radar systems and sub-systems.

**ME7838E VectorStar Vector Network Analyzer**

- The VectorStar ME7838 Series broadband VNA offers the widest available single frequency sweep from 70 kHz to 110/125/145 GHz with mmWave bands to 1.1 THz.
- Industry-best calibration and measurement stability: 0.1 dB vs. 0.6 dB over 24 hrs.
- All versions support the 3744x-Rx receiver for noise figure measurements to 125 GHz.
- Compact, lightweight mmWave modules (0.6 lb vs 7+ lbs and 1/50 the volume) offer low cost installation on smaller probe stations.

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**MS2840A Signal Analyzer**

- 9 kHz to 3.6/6/26.5/44.5 GHz spectrum/modulation analysis.
- Excellent close-in Phase Noise performance.
- -138 dBc/Hz at 1 GHz, 10 kHz Offset (meas.) with option-066
- -100 dBc/Hz at 79 GHz, 10 kHz Offset (meas.) with waveguide mixer
- Extendable AM/FM/φM and vector modulation analysis function.

**MA2808A High Performance Waveguide Mixer (60 to 90 GHz)**

- DANL: -150 dBm/Hz (meas.).
- P1dB: >0 dBm.
- One cable connection and easy use.
- Max 7.5 GHz span with no image response.

The MA2808A is an external waveguide mixer for millimeter wave which has the best performance with MS2840A. The MS2840A and the MA2808A have an excellent sensitivity performance and a wide frequency band without appearing image response. No other instruments have a higher specification than MS2840A and MA2808A to measure FW-CW RADAR and millimeter wave V2X instruments.

The MS2840A is a New product released in 2016, and has an unexampled performance at close-in Phase Noise in testing oscillator components for FM-CW RADAR. Moreover, the MS2840A also supports various measurements to test wireless devices and components, such as Power measurement, Frequency measurement, ACLR, spectrogram, and so on.
The MS46522B is a series of 2-port Performance ShockLine Vector Network Analyzers. Testing applications include designing and manufacturing mobile network equipment, mobile devices, automotive cables, high-speed data interconnects and system integration components. Option 82 is the E-Band frequency option for the 2-port MS46522B. It brings banded mm-wave measurement capabilities to an economic cost level unprecedented in the marketplace. For applications requiring only E-band frequency coverage, the new 500B series 55 GHz to 92 GHz mm-wave option is the best value on the market and enables mass market production of E-band components.

The MT8870A is the best option for testing at R&D and production stages of all wireless standards. This all-in-one box can perform sensitivity, BER and functional tests for navigation modules (GPS, GLONASS, BeiDou and Galileo).

Positioning and localization technologies are now key in the connected car, and they must be tested to ensure compliance with international standards. The MT8870A is the best option for testing at R&D and production stages of all wireless standards. This all-in-one box can perform sensitivity, BER and functional tests for navigation modules (GPS, GLONASS, BeiDou and Galileo).

The MG3710A can be used as an Arbitrary Waveform Generator, totally flexible for simulating GNSS signals (i.e. GPS, GLONASS), perfect for driver-aid systems development. Its dual RF option makes it easy to implement complex test scenarios that would normally require multiple synchronized signal generators, such as:

- Wanted + interference signals for receiver blocking testing
- Wanted + two CW tones for receiver intermodulation testing
- Wanted + delayed signals for multipath testing

The MA24507A is an ultraportable, USB-powered mmWave power analyzer which enables simple, numeric frequency-based measurement of RF power from 9 kHz to 70 GHz and as low as –90 dBm. It enables frequency-based RF amplitude measurements in a USB-powered device slightly bigger than a smartphone and at a fraction of the price of a spectrum analyzer.
The MS2760A is the world’s first handheld millimeter-wave spectrum analyzer to provide continuous coverage from 9 kHz up to 110 GHz, positioning it perfectly for growing millimeter-wave applications like 5G, 802.11ad, satellite communications, automotive radar, and more. The MS2760A is USB-powered and controlled from a Windows-based PC, laptop, or tablet, making it uniquely flexible for use in the lab, on the manufacturing floor, or in the field.

**MS2760A Ultraportable Spectrum Analyzer**

- mmWave capabilities for 5G, wireless backhaul, 802.11ad, satcom, and more
- Patented NLTL technology provides > 100 dB dynamic range
- 110 GHz sweep in under 12 seconds
In-Vehicle Networks

The Automotive Industry is constantly increasing the presence of technology in-vehicles. In excess of 100 separate control units will be part of the average modern car, all generating more and more applications for informing and entertaining the passengers. All these devices, connected with each other, are constantly sending data to central computers or displays. Anritsu’s OTDR and GigE analyzers are used for ensuring the high transmission rates in all points of the in-vehicle network. Anritsu’s Site Master and Vector Network Analyzers check the proper continuity of cables and connectors.

**MS46121B 1-Port USB Vector Network Analyzer**
- The Vector Network Analyzer (VNA) is controlled through USB from an external PC.
- Option 2 provides a Time Domain Reflectometry (TDR) like display that enables real impedance measurements over frequency.
- With option 21, scalar transmission measurements between MS46121A instruments can be performed in various configurations.

The MS46121B is part of the ShockLine™ family of Vector Network Analyzers. The product covers a frequency range from 150 kHz to 6 GHz, and is capable of 1-port s-parameter and band pass time domain (distance to fault) measurements. It is a small, low-cost, portable tool ideal for measuring RF cables, connectors and antennas for the automotive industry.

**MS46122B Compact USB Vector Network Analyzer**
- World’s first series of compact VNAs from 1 MHz to 43.5 GHz for cost-effective measurements.
- PC control takes advantage of external computer processing power and functionality.
- Compact 1U high package for efficient use of bench and rack space.

The MS46122B is a series of three PC-controlled Compact ShockLine Vector Network Analyzers with a frequency range from 1 MHz to 8/20/43.5 GHz. The series benefits from patented shockline VNA-on-chip technology, which simplifies the internal VNA architecture at high frequencies, reduces instrument cost, and enhances accuracy and measurement repeatability. All the members of the MS46122B series are low cost full-reversing 2-port VNAs aimed at RF and microwave applications in manufacturing, engineering and education. 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.

**S362E Handheld Spectrum Analyzer**
- Cable and antenna analyzer: 2 MHz to 6 GHz.
- Return Loss, Cable Loss, VSWR, Distance-To-Fault, Smith Chart, 1-Port Phase.
- Field-proven design: Four-hour battery life, rugged, compact, lightweight, daylight viewable display.

The Site Master™ S362E compact handheld cable and antenna analyzer can complete sweeps quickly, perform calibrations instantly and implement fast trace naming while in the field. It is the ideal product for cable and antenna installation and maintenance in the automotive industry. Insertion loss, 2-port measurements of amplifiers, duplexers, diplexers or filters, phase matching cables and antenna tuning are relevant applications fitting into the upcoming in-vehicle networks.
The Anritsu MS2035B VNA Master + Spectrum Analyzer is an affordable and compact handheld solution to address cable, antenna, component and signal analysis needs in a portable, battery operated package. The VNA Master provides precise field portable diagnostics of automotive cables, connectors, antennas and RF amplifiers. It includes a powerful spectrum analyzer making it a single measurement powerhouse for spectrum monitoring, interference analysis, RF measurements, and regulatory compliance.

**MS2035B VNA master + Spectrum Analyzer**

- **VNA Master** – 500 kHz to 6 GHz
  - 2-port, 1-path Vector Network Analyzer (VNA)
    - Intuitive Graphical User Interface (GUI) with convenient Touch Screen.

- **Spectrum Analyzer** – 9 kHz to 6 GHz
  - Dynamic Range: >95 dB in 10 Hz RBW
  - DANL: -162 dBm (1 Hz)
Intelligent Transport System

Intelligent Transportation Systems (ITS) provide innovative services relating to different modes of transport and traffic management. Connecting transportation networks to each other and the broader internet will enable participants to make roads safer, travel more efficient, reduce air pollution and improve driver experience.

In the V2X space, DSRC technology and the 802.11p standard have advanced to solve short-term needs. This represents the first wave of mainstream V2X deployment, with LTE and 5G coming later to enrich connectivity and add extra capability.

Anritsu provides advanced solutions for V2X, from R&D to field test, to manufacturing. These solutions integrate unique features that reduce complex processes and increase efficiency, ultimately reducing test time and test cycles.

**MS2830A Spectrum Analyzer**

- Frequency range: 9 kHz to 26.5 GHz/43 GHz.
- For wideband down-converter; built-in 1 GHz IF output band.
- Best-of-class wide dynamic range over 6 GHz.
- Support V2X technology based on IEEE802.11p.
- Installing Optional internal Signal Generator function, it is possible to measure both TRx characteristics.

The MS2830A Spectrum Analyzer can be used for 2G, 3G, LTE, WLAN and V2X (IEEE802.11p) transceiver measurements. The instrument supports modulation and Tx characteristics testing such as adjacent channel leakage power and spectrum mask measurement as well as spurious measurements requiring a wide dynamic range. The capture and replay function can be used to compare the real world effects with simulated designs and performance, which will ensure the product quality.

**MS269xA series Signal Analyzers**

- Frequency range: 50 Hz to 26.5 GHz
- Offers modulation analysis, such as LTE/LTE-Advanced (FDD/TDD), WLAN IEEE 802.11ac etc. (with optional software).
- One-Box Tester with the addition of the Signal Generator option.
- Batch capture measurements for the fastest analysis time.
- Supports Noise Figure measurement (option).

Signal Analyzers MS269xA are the latest high performance signal analyzers for next-generation communication applications. The MS269xA Series base units include swept spectrum analysis, FFT signal analysis, and a precision digitizer function. Add options to incorporate a Signal Generator, to turn the instrument into a hassle free, plug and play, one box solution.

**MX727000A V2X 802.11p Message Evaluation Software**

- Displays and confirms V2X messages objectively using measuring instrument.
- Reduces burden of configuring objective evaluation environment at R&D evaluation.
- Supports US, EU and Japan message definitions to accelerate V2X development.

This software uses the MS269xA/MS2830A Capture function to demodulate V2X messages at layers higher than the MAC layer and display them on a PC. Since demodulation, display, and analysis are performed using the measuring instrument, V2X messages can be evaluated with assured objectivity. Additionally, Supporting 3 standards such as US, EU, and Japan, and covering the evaluation range from early R&D can reduce the burden of OBU and RSE’s development.
MT8870A Universal Wireless Tester

- Designed for mass production of wireless modules, it operates in a non-call processing environment for minimum test time per unit.
- Supports various wireless standards, including cellular, SRW, navigation and broadcast.
- Modular design with up to 16 high performance RF ports in one small chassis.
- Built-in signal generator and signal analyser on each module. Wide frequency range from 10 MHz to 6 GHz and 160 MHz measurement bandwidth for 802.11ac, LTE-Advanced and future standards.

The MT8870A is the best solution for testing at R&D and production stages of all M2M, V2V, V2X technologies. It is ideal not only for production, where it can make fast measurements, including calibration, validation and tests according to the relevant standards, but it also includes CombiView which is ideal for R&D and troubleshooting. And it is prepared for future standards due without additional hardware improvements, thanks to its wide frequency operating range and 160 MHz measurement bandwidth.

Anritsu has collaborated with Autotalks to support all Autotalks IEEE802.11p DSRC chipsets designed for V2X use cases. The test solution will result in one of the industry’s shortest test times and offer an attractive total cost of ownership proposition to a highly competitive market.

Automated driving are being developed as part of Intelligent Transport Systems. These developments not only depend on “connected car” technologies, but also depend on technology advances at the network side, such as introduction of mobile edge computing (MEC) as well as expansion of data centers supporting AI processing.

Anritsu offers compact transport testers for network speeds up to 100 Gbps as I&M solutions for networks and data centers. With built-in auto-test functions, these Anritsu testers play a key role in construction of efficient and high-quality networks.

MT1000A Network Master Pro

- All-in-one field transport tester – supports testing up to 100G bps (full line rate).
- Network performance test such as latency, throughput, frame loss and BER.
- Easy to Use and intuitive GUI and auto measurement to avoid miss operation.
- IP Channel Statistics to identify error streams, top talkers, network attacks.
- Frame capture for protocol analysis with Wireshark.
- Bench marking test for RFC2544 and RFC6349.

The Network Master Pro MT1000A is perfects for rapid I&M of wide area networks.

As networks get faster, I&M field technicians must not only master the relevant technical knowledge for each network type that includes metro networks, mobile networks, data centers, etc., but must also understand the detailed tester operations for each of these networks.

In addition, sometimes multiple items must be measured at each commissioning, increasing the risk of operator errors.

But with the versatile and easy-to-use MT1000A functions, the risk of operator errors are decreased.
Electromagnetic Interference

Anritsu offers a full set of instruments for electromagnetic compatibility (EMC). Where different technologies are simultaneously operating in public frequency bands thorough EMC and EMI testing are of vital importance. Electromagnetic interference (EMI) testing is a must before launching a product into the real wireless world. Spectrum Analyzers, near field probes and handhelds from Anritsu will ensure your product is compatible with the standards.

**Spectrum Master MS2720T**

- A multifunctional 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. Also perfect for Signal Strength Mapping in order to determine the most suitable location for antennas in the car or AM & FM analog proofing measurements. The two-port front end with tracking generator function allows the measurement of filters, attenuators, amplifiers and cables inside the car.

**MS2720T Series Handheld Spectrum Analyzer**

- Five options offering 9 kHz to 9, 13, 20, 32 & 43 GHz.
- Internal Atomic Clock option for the ultimate in handheld frequency accuracy.
- Tracking Generator up to 20 GHz.

**MS2711E Series Handheld Spectrum Analyzer**

- Spectrum Analyzer: 9 kHz to 3 GHz.
- Interference Analyzer with Interference Mapping.
- High Accuracy Power Meter.
- Channel Scanner, GPS, AM/FM/PM Analyzer.
- Tracking Generator: 500 kHz to 3.0 GHz.
- Field-proven design: Three-hour battery life, rugged, compact, lightweight, daylight viewable display.

**MS2711E can reach almost the same range of applications than its bigger brother MS2720T. Its overall performance is more than enough whether you are performing complex interference analysis or assessing signal quality.** The MS2711E Spectrum Master delivers ease of use, rich functionality, and the best-in-class price/performance you’ve come to expect from Anritsu.

**MA2700A Interference Hunter Direction Finding System**

- Built-in GPS receiver and antenna.
- Built-in electronic compass.
- Easy no-tool attachment of antenna.

The ergonomically designed MA2700A Handheld Interference Hunter is equipped with a GPS receiver and antenna, an electronic compass, and a user-selectable preamplifier.

It is designed to enhance Interference Mapping, which is part of option 25, Interference Analysis on Anritsu handheld instruments. See the Accessories Tab for current instruments. More instruments will be added with upcoming firmware releases.
MT8820C Radio Communications Analyzer

- Supports evaluation of RF TRx characteristics.
- RF tests for LTE-Advanced DL CA, LTE and 2G/3G terminals.
- Supports both call processing and non-call processing modes.
- Batch measurements for key measurement items for RF Tx tests - 3GPP RF test standard compliant automatic remote control tool is available.

The MT8820C is an all-in-one solution supporting all cellular standards used at vehicle telematics systems now (2G/3G/LTE technologies) and planned to be used in the near future (LTE-Advanced up to DL 2CA). It is a high-end instrument for RF measurements, which makes it ideal for all stages of product development, not only for R&D but also at production due to its non-call processing mode, reducing test times to optimize cost per unit.

MT8821C Radio Communications Analyzer

- Supports evaluation of RF TRx characteristics.
- RF tests for LTE-Advanced DL CA, LTE and 2G/3G terminals.
- Supports both call processing and non-call processing modes.
- One-touch Settings and PASS/FAIL Judgment with windows-based GUI and easy-to-use large touch panel
- Flexible Parameter Setting for RF TRx tests.
- Batch measurements for key measurement items for RF TRx tests - 3GPP RF test standard compliant automatic remote control tool is available.

The MT8821C is an all-in-one solution supporting all cellular standards used at vehicle telematics systems now (2G/3G/LTE technologies) and planned to be used in the near future (LTE-Advanced up to DL 5CA/UL2CA). It is a high-end instrument for LTE CA RF measurements. While MT8821C has up to 8 TX RF, 4CA 2×2 MIMO/2CA 4×4 MIMO can be tested in a single box. Built-in Flexible Internal RF Front End reduces also the connection between terminal and MT8821C.

MS2830A Spectrum Analyzer

- 9 kHz to 26.5 GHz/43 GHz frequency range; 43 GHz max. built-in pre-amp option.
- Best-of-class wide dynamic range over 6 GHz.
- Supports Noise Figure and BER measurement (options).
- Excellent eco-friendly product with low power consumption of 190 VA min.

The MS2830A supports measurements of Tx characteristics, including adjacent channel leakage power, spectrum mask, and frequency counter, as well as spurious measurements requiring a wide dynamic range. It offers an EMI measurement detection mode and RBW configurations used for CISPR standards.
Specifications are subject to change without notice.