







The Anritsu logo is rendered in a bold, teal-colored sans-serif font. The letter 'A' is stylized with a diagonal slash through its upper left portion.

Anritsu

**Network Installation and
Maintenance Testing Instruments**

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Network Master Pro



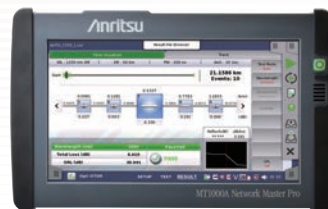
Mainframe MT1000A

OTDR Module MU100020A/MU100021A/MU100022A

1310 nm/1550 nm SMF, 1310/1550/850/1300 nm SMF/MMF, 1310/1550/1625 nm SMF

Mobile Network I&M

- All-in-one OTDR, light source, optical power meter (standard), visible light source (option)
- CPRI/OBSAI measurement with simultaneously installed 10G (MU100010A)/100G (MU100011A) Multirate Module
- Optical connector inspection with IEC 61300-3-35 pass/fail
- Graphical summary and pass/fail evaluation using Fiber Visualizer function
- Intuitive touch-screen operation



The OTDR module lineup includes the MU100021A for OTDR measurements of both SM and MM fibers in high demand by the mobile network I&M, plus the MU100020A/MU100022A for OTDR measurements of SM fiber used by PON networks and long-range measurements in Core/Metro networks.

ACCESS Master™



MT9085 series 850 nm/1300 nm (MM), 1310/1490/1550/1625/1650 nm (SM)

All-in-One Solution for Optical Fiber Construction and Maintenance of Core, Metro and Access Networks

- 8-inch LCD with easy visibility even in direct sunlight
- Better work efficiency with synergy of LCD touchscreen, rotary knob, and dedicated hard keys
- Easy-to-Use Fiber Visualizer function for simple fiber path analysis



The MT9085 series is a compact handheld all-in-one tester for performing optical pulse tests, optical loss/power measurements, and optical fiber end-face inspections. It has a wide variety of applications, ranging from installation and maintenance (I&M) of trunk fibers (Core, Metro, Mobile Fronthaul, Mobile Backhaul) to troubleshooting Access networks, such as breaks in drop cables.



Network Master™

Mainframe MT9090A

μOTDR Module™ MU909014/MU909015

1310/1490/1550 nm plus filtered 1650 nm or 1625 nm

Field Optical Testing Redefined

- High-performance OTDR in a pocket-size package with unique battery operation
- Tri-wavelength OTDR for both installation and maintenance
1310/1490/1550 nm plus filtered 1650 nm or 1625 nm
- Built-in PON power meter, loss test set and light source function
- "Fiber Visualizer" mode simplifies operation, no OTDR knowledge needed
- Bluetooth, WLAN and Ethernet connectivity



The MU909014/15 series for the MT9090A from Anritsu finally addresses this need by providing all of the features and performance required for installation and maintenance of optical fibers in a compact.

The MT9090A represents an unmatched level of value and ease of use, while not compromising performance. Data sampling of five centimeters, dead zones of less than 0.8-meter and dynamic range up to 38 dB ensure accurate and complete fiber evaluation of any network type – premise to access, metro to core...including PON-based FTTx networks featuring up to a 1 × 64 split.

Optical Loss Tester/Light Source/Optical Power Meter

CMA5 series 850 nm/1300 nm (MM), 1310/1490/1550/1625 nm (SM)

For Optical Fiber Installation and Maintenance

- Built-in light source and power meter (Optical Loss Tester)
- Two wavelengths at one port (Light Source)
- Level measurement up to +23 dBm (Optical Power Meter)

The compact and durable design of the CMA5 series make these instruments the ideal combination of light source and optical power meter for measuring optical power when installing and servicing optical fiber cables.



Video Inspection Probe

Autofocus Video Inspection Probe G0382A

Video Inspection Probe G0306B

Optical Connector End Face Inspection

- Fully automated one-button operation (G0382A)
- Supported pass/fail analysis with the IEC61300-3-35 standard
- Wide range of adaptors available

The Video Inspection Probe (VIP) application for Anritsu field testing platforms gives operators a safe, easy way to analyze and document connector conditions.



Network Master Pro



Network Master Pro MT1040A
400G (QSFP-DD) Multirate Module MU104014A
400G (OSFP) Multirate Module MU104015A
100G Multirate Module MU104011A

One unit supporting 400G Ethernet I&M

- Supports network speeds from 10 Mbps to 400 Gbps
- Continuous and quantitative 400G FEC measurements
- Remote control over cloud and automated tests for standalone
- Compact and lightweight for easy portability

The MU104014A support QSFP-DD module and a dual-port interface for speeds from 10M to 100G for evaluating network equipment. The MU104015A supports OSFP modules for evaluating 400G. The MU104011A has a dual-port interface for speeds of 100G or less.



Network Master Pro



Mainframe MT1000A
10G Multirate Module MU100010A
100G Multirate Module MU100011A

All-in-One Transport Tester for Metro and Backhaul Network Installation and Maintenance

- Supports testing from 1.5 Mbps to 100 Gbps
- Remote operation
- Remote control (scripting)
- Compact, lightweight design for maximum field portability

The modular design of the Network Master Pro MT1000A platform makes it easy to support I&M for different network configurations. Combining it with the MU100010A offers the necessary functions for I&M of networks at speeds from 1.5 Mbps to 10 Gbps. Combining with the MU100011A, it supports more interface standards than any other handheld transport tester on the market such as CFP4/QSFP28, QSFP+, SFP28 (25GbE), SFP+/SFP and RJ45.



Network Master Pro

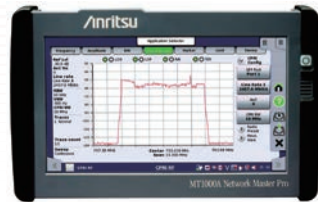


Mainframe MT1000A
CPRI RF Module MU100040B

The MU100040B CPRI RF module for the MT1000A provides added versatility to our new Front Haul testing platform

- Displays LTE spectrum of ALU/Nokia, Ericsson and Huawei CPRI radios
- Fast update rate to capture intermittent interferes
- Spectrum pan and zoom for detailed analysis of interferes/Spectrogram display captures and holds data for intermittent interferes
- 2 SFP slots for simultaneous uplink and downlink testing
- Modular design for use with MT1000A OTDR and 10G/100G transport test modules

The MU100040B for the MT1000A adds CPRI RF measurements to Anritsu's transport and fiber test platform. The modular design of the MT1000A means that it can be configured just for CPRI measurements or combined with the 10G/100G transport module and OTDR module to create the most comprehensive and versatile fiber and transport tester available.



Network Master Flex



MT1100A 1.5 Mbps to 100 Gbps

All-in-One Transport Tester for 100G Core/Metro Network R&D and Manufacturing

- Supports testing from 1.5 Mbps to 100 Gbps
- Up to 4 ports at all rates
- Remote operation
- Remote control (scripting)
- Modular platform ensuring maximum return on investment

The all-in-one MT1100A supports all the latest communications network technologies. Selecting and installing up to two modules from a range of three module options supports all-in-one R&D and manufacturing tests of network and transport equipment operating at bit rates from 1.5 Mbps to 100 Gbps.



Network Master™



Mainframe MT9090A
Gigabit Ethernet Module MU909060A1/A2/A3

Handheld Gigabit Ethernet Tester

- Lightweight and compact unit (approx. 800 g)
- Testing time reduced by the "Test Automator" creating a series of tests with pass/fail
- Automated ITU-T Y.1564 and RFC 2544 testing including bidirectional path analysis service
- Disruption time measurement ideal for testing VoIP and IPTV applications top talkers, network attacks and finding the route course of an issue by "Channel Stats"

The portable and easy-to-use MU909060A offers versatile measurement functions supports deployments and maintenances of Carrier Class Ethernet and LTE mobile backhaul networks.



Cell Master™

MT8213E Cable & Antenna Analyzer: 2 MHz to 6 GHz, Spectrum Analyzer: 9 kHz to 6 GHz

Compact Base Station Analyzer

- 30 analyzers in one
- Return loss, cable loss, VSWR, distance-to-fault
- High-accuracy power meter
- Interference analyzer with interference mapping, GPS
- Signal analyzers: 3GPP (LTE/LTE-A, 3GPP2, WiMAX), ISDB-T, and DVB-T/H
- PIM hunting
- Indoor/outdoor coverage mapping

This optimal combination of base station test capabilities in one handheld device eliminates the need for several independent test instruments, thereby reducing the number of tools the user must carry and learn to operate. Whether it's sweeping cables, making power measurements, finding interference, troubleshooting base station signal quality, or verifying backhaul performance, the MT8213E is the ideal, all-in-one instrument to help keep your network up and running.



BTS Master™

MT8220T Cable & Antenna Analyzer: 400 MHz to 6 GHz, Spectrum Analyzer: 150 kHz to 7.1 GHz, Power Meter: 10 MHz to 7.1 GHz

High-Performance Handheld Base Station Analyzer

- Cable and antenna: VSWR, return loss, cable loss, distance-to-fault return loss & VSWR, 1/2-port phase, 2-port gain, Smith Chart
- Spectrum analyzer: field strength, occupied bandwidth, channel power, ACPR, AM/FM/SSB demodulation, PIM hunting, gated sweep, C/I
- Interference analyzer: spectrogram, signal strength meter, RSSI, interference mapping
- GPS receiver with antenna

The MT8220T is an essential 2-port, multi-function instrument for senior wireless technicians and RF engineers to accurately and quickly verify the installation and commissioning of base stations for optimal wireless network performance. The MT8220T is also key in on-going maintenance and troubleshooting to keep wireless network infrastructures fine-tuned. A standard three-year warranty demonstrates world-class reliability and brings peace-of-mind to owning and using the MT8220T.



PIM Master™

MW82119B Passive Intermodulation (PIM) Analyzer with Site Master™ Cable & Antenna Analyzer Option

Battery-Operated, High-Power, Portable PIM Analyzer with Cable & Antenna Analyzer

- Measurements: PIM vs. time, swept PIM, distance-to-PIM, noise floor, 2-port PIM
- PIM analyzer
- Battery operated: >3 hour
- 20 to 46 dBm (0.1 to 40 Watt)
- Field-proven design: rugged, compact, daylight viewable display

The MW82119B is a 40 Watt, battery-operated PIM analyzer featuring Site Master line sweep capability. With the Site Master option included, the MW82119B is able to fully certify cable and antenna system performance and measure PIM, distance-to-PIM, return loss, VSWR, cable loss, and distance-to-fault with a single test instrument. The PIM Master MW82119B includes a large, outdoor viewable display and intuitive user interface that is optimized for field conditions. The rugged design and enhanced portability enables both PIM and line sweep testing at the top of the tower, helping operators achieve maximum RF performance from their LTE remote radio head (RRH) installations.

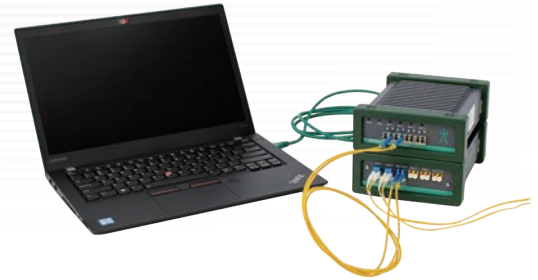


IQ Fiber Master™

MT2780A PIM and RF Interference Analyzer

A Standalone, Multi-Port CPRI-Based RF and PIM Analyzer

- RF over CPRI spectrum for interference measurements
- PIM over CPRI for any frequency
- PIM measurements
- PIM analytics for long-term PIM monitoring
- PIM location (DTP)
- 4 SFP ports
- 4 × 4 MIMO support
- CPRI line rate 1 – 8 support
- Support all Tier 1 LTE base station radio manufacturers
- Up to 12 A × C traces simultaneously for multiple sectors/carriers
- Uses MX280020A control software



The MT2780A PIM and RF analyzer is a CPRI-based solution that provides critical PIM diagnosis across multiple bands and sectors using live traffic. Cell sites remain active during testing as this instrument uses a non-invasive process to report real-time results. Identify PIM levels and locations, as well as conduct RF spectrum analysis to efficiently hunt and debug PIM and interference issues. Monitor up to three downlinks and one uplink during PIM over CPRI testing for analysis of multi-band sites or 4 × 4 MIMO antennas.

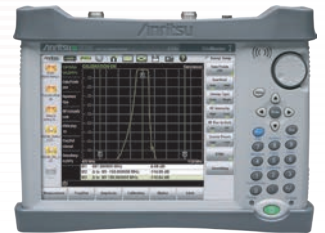
Microwave Site Master™

S820E 1 MHz to 8/14/20/30/40 GHz

Cable & Antenna Analyzer

- VNA mode (option) offers fully reversing 4 S-parameter measurement capabilities
- VVM mode (option) with standard A/B and B/A ratio capability
- 110 dB of dynamic range from 20 MHz to 40 GHz
- 550 μ s/data point for fast field measurements
- Advanced and classic mode GUI (i.e., S810D/S820D)
- Coaxial and waveguide measurement supported

The S820E family, with frequency options covering 1 MHz to 8, 14, 20, 30, and 40 GHz, is the world's most advanced Site Master ever developed. Available vector network analyzer (VNA) and vector voltmeter (VVM) options allow users to easily expand the S820E's versatility at any time. Adding options is hassle free, simply purchase the desired option(s) and install the option activation key(s) provided by Anritsu. No need to send the instrument into a service department because all hardware and calibrations required are already built into the S820E before it leaves the factory.



LMR Master™

S412E Cable & Antenna Analyzer: 500 kHz to 1.6/6 GHz, Spectrum Analyzer: 9 kHz to 1.6/6 GHz

Land Mobile Radio Modulation Analyzer and Signal Generator, Vector Network Analyzer, Spectrum Analyzer

- Return loss, VSWR, insertion loss, S_{11}/S_{21} , DTF
- Cable and antenna analyzer: 500 kHz to 1.6 GHz, optional to 6 GHz
- LMR signal analyzers with coverage mapping: P25, P25 phase 2, NXDN, DMR (MotoTRBO), TETRA, PTC-ITCR, PTC-ACSES, NFBM, FDD & TDD LTE, Interference Analyzer with Interference Mapping and support for Handheld InterferenceHunter MA2700A
- Broadband signal analyzers: LTE, WiMAX
- Interference analyzer with interference mapping and support for Handheld InterferenceHunter MA2700A

The S412E is the ideal instrument for land mobile radio (LMR) and professional mobile radio (PMR) technicians and engineers engaged in field testing the RF performance of NBFM, P25, P25 Phase 2 (TDMA), NXDN, DMR (MotoTRBO), TETRA and FDD & TDD LTE for commercial, public safety, maritime, and critical infrastructure radio systems. In addition, the LMR Master S412E offers support for USA class 1 railway Positive Train Control (PTC) systems.



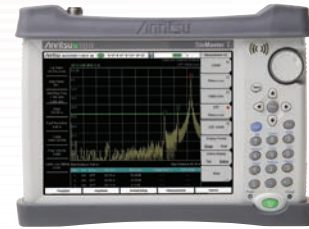
Site Master™

S331E/S332E/S361E/S362E Cable & Antenna Analyzer: 2 MHz to 4/6 GHz, Spectrum Analyzer: 9 kHz to 4/6 GHz

Compact Handheld Cable and Antenna Analyzers with Spectrum Analyzer

- Return loss, VSWR, cable loss, distance-to-fault, Smith Chart, 1-port phase
- Field-proven design: four-hour battery life, rugged, compact, lightweight, daylight viewable display
- USB connectivity, built-in touchscreen keyboard
- Intuitive menu-driven touchscreen user interface
- Standard three-year warranty (battery one-year warranty)

The Site Master is the preferred cable and antenna analyzer of wireless service providers, contractors, and installers. It is the most integrated cable and antenna analyzer in the world. This compact, handheld cable and antenna analyzer with spectrum analyzer is a sleek instrument that's less than 6 lbs.



S331E

Site Master™

S331L Cable & Antenna Analyzer: 2 MHz to 4 GHz, Power Meter: 50 MHz to 4 GHz

Handheld Cable & Antenna Analyzer Featuring Classic and Advanced Modes

- 2 MHz to 4 GHz handheld cable and antenna analyzer, impact, dust, and splash resistant
- More than 8 hours of continuous battery operation
- Standard built-in InstaCal™ module and power meter
- FlexCal™ maintains calibration with frequency changes
- Familiar S331D-like classic mode and S331E-like advanced mode
- Built-in one button help function
- 800 × 480 7-inch TFT touch-screen display and multiple USB ports

The S331L is an all-inclusive 1-port cable and antenna analyzer covering the 2 MHz to 4 GHz range, with a built-in InstaCal module and power meter. Standard measurements include: return loss, VSWR, cable loss, Smith Chart (50 Ω/75 Ω selectable), 1-port phase, distance-to-fault, return loss, distance-to-fault VSWR, RF power (50 MHz to 4 GHz), and VIP mode optical connector inspection with IEC 61300-3-35 based pass/fail standard (requires USB video inspection probe G0306A, sold separately).



Site Master™

S331P 150 kHz to 4/6 GHz

Ultraportable Cable & Antenna Analyzer Featuring Classic and Advanced Modes

- Smallest, lightest, and fastest Site Master
- Direct connection to DUTs eliminating the need for phase-stable cables
- Powered through USB interface (no battery required)
- Rugged and reliable
- Impact, dust, and splash resistant
- Compatible with Anritsu software tools including easyTest™ Tools
- Factory calibration at the test port enables immediate measurement capability

The S331P is an ultraportable version of the industry-leading Site Master series of cable and antenna analyzers. It is the smallest, lightest, fastest, and most cost-effective instrument in the Site Master family. No battery is required since the USB port of Windows 7, 8 & 10 tablet devices, laptops, or desktop PCs power it. Available with two frequency ranges it is the only small, headless Site Master product capable of measurements down to 150 kHz for low frequency radio communications applications and up to 6 GHz for higher frequency applications like LTE-U in the 5 GHz unlicensed spectrum.



Field Master Pro™

MS2090A 9 kHz to 9/14/20/26.5/32/43.5/54 GHz

Compact and Ruggedized for Field Use

- DANL: -164 dBm (with preamp)
- TOI: +20 dBm (typical)
- Analysis bandwidth: 100 MHz
- Amp range: DANL to +30 dBm
- Phase noise at 1 GHz: -110 dBc/Hz @ 100 kHz offset (typical)
- Demodulation: 5G NR, LTE FDD, RF, and modulation quality plus SSB signal analysis
- Resolution bandwidth (RBW): 1 Hz to 10 MHz
- RTSA bandwidth: 22, 55, 110 MHz (option dependent)
- Amplitude accuracy: <math><14\text{ GHz} \pm 1.3\text{ dB} (\pm 0.5\text{ dB, typical})</math>
- Zero span with 60 ns minimum span
- IQ capture and streaming



The MS2090A real-time spectrum analyzer delivers the highest levels of RF performance available in a handheld, touchscreen spectrum analyzer. With continuous frequency coverage from 9 kHz to 54 GHz, the MS2090A is specifically designed to meet the unique needs of technologies used in 5G networks (mmWave frequencies, active antenna systems, beamforming, and dynamic physical layer attributes) while maintaining support for the full range of requirements of today's wireless industries such as wireless service providers, broadcasting, regulatory authorities, aerospace/defense, satellite systems, and radar.

Spectrum Master™

MS2711E/MS2712E/MS2713E 9 kHz to 3/4/6 GHz

Compact, Handheld Spectrum Analyzer

- Spectrum analyzer: 9 kHz to 6 GHz
- Interference analyzer with interference mapping
- High-accuracy power meter, 2-port transmission measurements (MS2712E/MS2713E only)
- Coverage mapping, channel scanner, GPS, AM/FM/PM analyzer (no coverage mapping for MS2711E)
- 3GPP, 3GPP2, WiMAX, ISDB-T, DVB-T/H signal analyzers (MS2712E/MS2713E only)
- Tracking generator: 500 kHz to 4 GHz



MS2711E

Regulatory requirements are growing, there is increasing pressure to cut costs, and improving system uptime is always a top priority. The MS271xE helps you do all of this and more. Whether you are performing complex interference analysis or assessing signal quality, the MS271xE delivers the ease-of-use, rich functionality, and best-in-class price/performance you've come to expect from Anritsu. Designed to handle the most punishing field conditions, the MS271xE allows you to monitor, locate, identify, and analyze a broad range of cellular, 2G/3G/4G, land mobile radio, Wi-Fi, and broadcast signals. With a rich array of configuration options, the multifunctional MS271xE eliminates the need for you to learn and carry multiple instruments when locating and identifying signals over wide frequency ranges.

Spectrum Master™

MS2720T 9 kHz to 9/13/20/32/43 GHz

High-Performance Handheld Spectrum Analyzer

- Frequency Ranges: 9 kHz to 9 GHz, 13 GHz, 20 GHz, 32 GHz and 43 GHz
- Broadband preamplifiers over the whole frequency range for increased sensitivity approx. 17 dB
- Three sweep modes: improved sweep speed, up to 100 times faster
- Resolution and video bandwidths from 1 Hz to 10 MHz
- New triggering choices including hysteresis, hold-off, and delay
- More zero-span capabilities including 10 MHz RBW & VBW
- Enhanced spectrum analyzer touchscreen GUI including large marker display choice
- Choice of display options for readability: normal, black on white, night vision, color on white, or high contrast
- On-screen interference mapping as part of the interference analysis option



The MS2720T represents one of the company's highest performance handheld spectrum analyzer. Exciting new features and options bring more value and speed to the user. The MS2720T features over 30 analyzers in one to meet virtually every measurement need.

Remote Spectrum Monitor

MS27101A/MS27102A/MS27103A 9 kHz to 6 GHz

For Remote RF Signal Monitoring

- Frequency coverage: 9 kHz to 6 GHz
- Sweep speed up to 24 GHz/s
- Integrated web server to view, control, and conduct measurements via web browser
- Watchdog timer to ensure long-term stability for remotely deployed monitors
- Low spurious levels for accurate signal discovery
- 20 MHz instantaneous FFT bandwidth

Our remote spectrum monitoring products are designed to both mitigate interference problems and identify illegal or unlicensed signal activity. The MS27101A is housed in a 1/2 rack enclosure with 1U height, designed exclusively for indoor applications. The MS27102A is an IP67 rated device that operates outdoors and has the ability to be mounted on poles or walls (using the included mounting bracket). The MS27103A is a multi-port solution (12 RF In ports or optionally 24 RF In ports) that is ideal for cellular, DAS, and other applications requiring the use of multiple antennas.



MS27101A



MS27102A



MS27103A



VNA Master™

MS202xC/MS203xC series 5 kHz to 6/15/20 GHz

The Ultimate Handheld Vector Network + Spectrum Analyzer for Cable, Antenna, and Signal Analysis

VNA Master (MS202xC/MS203xC)

- True 2-path, 2-port fully-reversing VNA
- Ultra-fast 350 μ s/data point sweep speed
- 12-term error correction algorithm
- Vector voltmeter and time domain option
- User-defined quad display for viewing all 4 S-parameters

Spectrum Analyzer: 9 kHz to 9 GHz/15 GHz/20 GHz (MS203xC)

- Detectors: peak, negative, sample, quasi-peak, and RMS
- Markers: 6 each with a delta marker, or 1 reference with 6 deltas
- Best-in-class DANL with standard preamplifier

The MS202xC/203xC series is made up of the industry's highest performance, fully reversing handheld VNAs. With a typical measurement speed of 350 μ s/point, it is ideally suited for tuning filters in the field where multiple S-parameters often interact during tuning. Using a 3-receiver architecture, the MS202xC/MS203xC can measure and display all 2-port S-parameters at once with a one-time connection to the DUT. It specifically addresses complex cable and antenna measurement needs in the field with accurate, vector corrected 2-port magnitude, phase, and distance-to-fault measurements.



MS2026C

VNA Master™

MS202xB/MS203xB series Vector Network Analyzer: 500 kHz to 6 GHz, Spectrum Analyzer: 9 kHz to 6 GHz

Portable, Powerful Handheld S-Parameters

- 1 path, 2-port vector network analyzer: 500 kHz to 4 or 6 GHz
- Spectrum analyzer: 9 kHz to 4 GHz or 6 GHz
- Fast 850 μ s/data point sweep speed with ultimate flexibility in the number of points from 2 to 4001
- Interference Analyzer: Spectrogram, Signal Strength, RSSI, Signal ID
- Dynamic Range: > 95 dB in 10 Hz RBW
- -162 DANL in 1 Hz RBW (normalized) on VNA Master MS203xB spectrum analyzer combo models

The MS202xB/MS203xB VNA Master + Spectrum Analyzer, the industry's most affordable and compact handheld solution to address cable, antenna, component, and signal analysis needs in the field. All MS202xB/MS203xB VNA Master models offer benchtop accuracy and high performance S-parameter measurements in portable form. With frequency coverage from 500 kHz up to 4 or 6 GHz in a truly handheld, battery-operated, rugged, multi-function instrument, the VNA Master also provides a field-friendly touchscreen user interface.



MS2035B

Microwave CW USB Power Sensors

MA24300A series (MA24330A/340A/350A) 10 MHz to 50 GHz

Fast, Accurate Average Power Measurements

- Frequency range from 10 MHz to 50 GHz over 90 dB of dynamic range
- Power measurement range: +20 to -70 dBm
- CW average power measurements
- Fast measurement speed: >2,100 readings/s continuous, >5,600 readings/s buffered
- NIST traceable calibrations
- Silicone protective covering for additional field durability



The MA24300A power sensor family is designed to provide fast, accurate average power measurements from 10 MHz to 50 GHz over 90 dB of dynamic range. The sensor employs high-performance digital processing that enables measurement speeds of >2,100 continuous power readings/s and >5,600 buffered readings/s. A unique, low noise design eliminates the need to zero the sensor before taking measurements for most applications. The sensors have internal and external triggering capability that facilitates time-based measurements and the use of list mode to speed up automated processes. The sensor can be controlled with a PC via remote programming commands or with PowerXpert™, a free software application. These sensors are also compatible with most Anritsu RF and microwave handheld instruments.

USB Peak Power Sensors

MA24400A series (MA24406A/18A/40A/41A) 50 MHz to 40 GHz

Meeting the Wireless Communications Challenges of Signal Measurement and Characterization

- 6, 18, and 40 GHz models
- Up to 195 MHz VBW and 3 ns rise time
- 100,000 measurements per second
- Real-time processing of power readings
- 100 MS/s continuous and 10 GS/s effective sampling rates
- 100 ps time resolution for rising/falling edge measurements
- Full pulse profiling
- Crest factor, CCDF, and statistical measurements



With industry-leading rise time and video bandwidth (VBW) of up to 195 MHz (sensor dependent), Anritsu's USB peak power sensors are able to measure the peak power of wideband modulated signals, like 802.11ac, as well as pulses as narrow as 10 ns. The MA24400A family also takes measurement speed and resolution to a new level. Other peak power sensors halt measurements while processing captured data. With real-time processing of power readings, these sensors never miss a signal. Sampling rates of 100 megasamples per second continuous and 10 gigasamples per second effective provides best-in-class time resolution of 100 ps and the ability to measure 3 ns rise time. This means that even the smallest change in the signal will be caught and plotted for a full picture of signal behavior.

Power Master™

only MS24507A



MA24507A/MA24510A

Frequency Selectable mmWave Power Analyzer

- Low power capability to measure signals as low as -90 dBm
- Excellent for over-the-air testing, especially with mmWave signals that have high propagation loss
- User settings to control measurement speeds and noise floor
- Channel Monitor mode in PowerXpert for monitoring up to six frequency channels at once
- Power Hunter mode in PowerXpert for searching up to six signals within a frequency range
- Mounting holes for direct mounting to connect probes for over-the-air or on-wafer testing

Power Master series are ultraportable, USB-powered mmWave power analyzer that enables simple, numeric, frequency-based measurement of RF power from 9 kHz to 110 GHz and as low as -90 dBm. Traditional power meters are broadband and have limited power ranges, so engineers and technicians are using spectrum analyzers that include many unneeded features, cost hundreds of thousands of dollars, and take up half the test bench just to make simple, frequency-based RF amplitude measurements. The Power Master series enables those measurements in a USB-powered device slightly bigger than a smartphone and at a fraction of the price of a spectrum analyzer.



Inline Peak Power Sensor

MA24105A 350 MHz to 4 GHz

A Standalone, Compact, and Highly Accurate Bi-Directional Inline Peak Power Sensor

- Broad frequency range: 350 MHz to 4 GHz
- Covers all major cellular and communication bands, such as GSM/EDGE, CDMA/EV-DO, W-CDMA/HSDPA, WiMAX and TD-SCDMA
- Forward and reverse measurements
- Widest dynamic range inline power sensor in its class
- True-RMS measurements to 150 W
- Standalone, Low cost, Plug and Play device



The MA24105A is designed to take accurate average power measurements over 2 mW to 150 W, from 350 MHz to 4 GHz. The sensor employs a "dual path" architecture that enables True-RMS measurements over the entire frequency and dynamic range allowing users to measure CW, multi-tone, and digitally modulated signals such as GSM/EDGE, CDMA/EV-DO, W-CDMA/HSDPA, WiMAX, and TD-SCDMA. The forward direction path also includes a 4 MHz bandwidth channel that has peak and comparator/integrator circuits that add measurement functions such as PEP power, crest factor, CCDF, and burst average power. Another detection circuit on the reverse direction adds reverse power measurement capabilities including reverse power, reflection coefficient, return loss, and SWR. The presence of a micro-controller along with signal conditioning circuitry, ADC, and power supply in the sensor makes it a complete miniature power meter.

USB Power Sensor

MA24106A True-RMS, 50 MHz to 6 GHz

Handy, Highly Accurate, and Reliable USB Sensor for RF Power Measurement

- True-RMS measurements over 63 dB dynamic range enables accurate CW and modulated power measurements
- Ready for use in a wide variety of applications, including: installation and maintenance of base stations; testing of 3G/4G devices, cell phones, and general purpose RF devices
- High damage power levels and ESD protection circuitry showcases ruggedness and reliability
- Low power consumption (100 mA, typ.) extends laptop battery life
- Worldwide calibration and service centers ensure reduced downtime and local support



The MA24106A is a USB power sensor that eliminates the need of a traditional power meter. It is a highly accurate, standalone instrument that communicates with a PC via USB. The power measurement capability of MA24106A is intended to mimic that of a traditional thermal (thermo-electric) power sensor with a wider dynamic range.

Microwave USB Power Sensor

MA24108A/MA24118A/MA24126A 10 MHz to 8/18/26 GHz

Low-Cost, Compact, and Highly Accurate Power Sensors for RF and Microwave Applications

- Broad frequency range: 10 MHz to 8 GHz (MA24108A)/18 GHz (MA24118A)/26 GHz (MA24126A)
- True-RMS measurements
- NIST traceable calibration
- Built-in internal and external trigger (only used with PC)
- High power handling (+33 dBm)
- 1 mW calibration need eliminated
- Silicone protective covering for additional field durability



The MA24108A/MA24118A/MA24126A are designed to provide accurate average power measurements from 10 MHz to 8/18/26 GHz over 60 dB of dynamic range. These sensors employ a "dual path" architecture that provides True-RMS measurements over the entire frequency and dynamic range, enabling users to make highly accurate average power measurements for CW, multi-tone, and digitally modulated signal up to 26 GHz. The sensors have internal and external triggering capability that facilitates individual slot power measurements of TDMA waveforms as well as burst power measurements of periodic and non-periodic waveforms.

Microwave Universal USB Power Sensor

MA24208A/MA24218A 10 MHz to 8/18 GHz

Low-Cost, Compact, and Highly Accurate Power Sensors for RF and Microwave Applications

- Frequency range: 10 MHz to 8 GHz (MA24208A)/18 GHz (MA24218A)
- Power measurement range: +20 to -60 dBm
- True-RMS measurements (modulation independent)
- Fast measurement speed: >1,600 readings/s continuous, >11,000 readings/s buffered
- Able to accept high power levels before being damaged: +30 dBm (CW), +34 dBm (peak <10 μs)
- No zero required
- NIST traceable calibrations (MA24218A)



The MA24208A and MA24218A are designed to provide fast, accurate average power measurements from 10 MHz to 8/18 GHz over 80 dB of dynamic range. These sensors employ a patented "triple path" architecture that provides True-RMS measurements (similar to thermal sensors) over the entire frequency and dynamic range, enabling users to make highly accurate average power measurements for CW, multi-tone, and digitally modulated signal up to 18 GHz. These sensors employ high-performance digital processing that enables best-in-class measurement speeds, including >1,600 continuous power readings/s continuous and >11,000 buffered readings/s.

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