

ANRITSU

MT8222A

The Anritsu MT8222A BTS Master™ is a high-performance, handheld integrated base station analyzer designed for deploying, maintaining, and troubleshooting 2G/2.5G, 3G, and 4G wireless networks. Combining the capabilities of a vector network analyzer (25 MHz to 4 GHz) and a spectrum analyzer (100 kHz to 7.1 GHz), it replaces multiple traditional instruments in a single 4 kg handheld unit.

SPECIFICATIONS

General

Interfaces	USB 2.0 Host (Type A), USB 2.0 Client (Mini-B), 10/100 Base-T Ethernet (RJ-45), Compact Flash (up to 2 GB)
Display	8.4-inch daylight-viewable transfective color TFT LCD, 640 × 480 resolution
Display Resolution	640 × 480 pixels (VGA)

Physical

Power Supply	12 to 15 VDC input (from 100 to 240 VAC external adapter), automotive cigarette lighter adapter, or rechargeable Li-Ion battery pack
Operating Temperature	-10 to 55 °C °C
Dimensions (W×H×D)	315 × 211 × 77 mm mm
Weight	4.0 kg

RF and Signal Analysis

Spectrum Analyzer Frequency Range	100 kHz to 7.1 GHz
Spectrum Analyzer Frequency Resolution	1 Hz
Resolution Bandwidth (RBW) Range	10 Hz to 3 MHz (in 1-3 sequence)
Video Bandwidth (VBW) Range	1 Hz to 3 MHz (in 1-3 sequence)
Spectrum Analyzer Phase Noise	<= -100 dBc/Hz @ 30 kHz offset at 1 GHz
Cable & Antenna Frequency Range	25 MHz to 4 GHz
Cable & Antenna Frequency Resolution	100 kHz
Cable & Antenna Corrected Directivity	>= 42 dB
Cable & Antenna Data Points	137, 275, 549 (selectable)
Vector Measurements Supported	1-port vector corrected, 1-path 2-port magnitude and phase
Supported Modulation Technologies	GSM/GPRS/EDGE, WCDMA/HSDPA, CDMA, EVDO, TD-SCDMA, Fixed WiMAX, Mobile WiMAX
Over-The-Air (OTA) Demodulation Support	WCDMA/HSDPA, CDMA, TD-SCDMA, EVDO
High Accuracy Power Meter (Option 19) Frequency Range	50 MHz to 6 GHz (true RMS measurements)

Telecom and Transmission Testing

Supported Telecom Line Standards	T1 (1.544 Mb/s), E1 (2.048 Mb/s), T3 (44.736 Mb/s)
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Reference and Timebase

Internal Frequency Reference Accuracy	+/- 0.3 ppm
Frequency Reference Aging Rate	+/- 1.0 ppm/year

Physical Interfaces and Connections

RF Input Connector	Type N, female, 50 Ohm
RF Out / Reflect Connector	Type N, female, 50 Ohm
External Reference Input Connector	BNC, female, 50 Ohm (10 MHz)
GPS Antenna Connector	SMA, female, 50 Ohm (with 3.3V bias for active GPS antenna)

Software and Automation

Data Analysis Software	Master Software Tools (MST)
User Interface Languages	English, Chinese, French, German, Japanese, Spanish, Korean, Italian

General Performance

Built-in Variable Bias Tee Range	12 V to 32 V
Custom Channel Scanner Capacity	Up to 20 custom channels scan by frequency or channel number
Interference Analysis Tools	Built-in preamplifier, Spectrogram display

Environmental and Compliance

Storage Temperature Range	-20 to 75 °C
Calibration Interval	12 months

Power

Battery Type	Li-Ion
Battery Operating Time	2.0 hours (typical)
DC Input Voltage	12 VDC to 15 VDC
DC Input Current	5.0 A max

Environmental

Operating Altitude	Up to 4,600 m
Relative Humidity	5% to 95% RH (non-condensing)

Inputs & Outputs

RF Input Impedance	50 Ω
RF Out / Reflect Impedance	50 Ω

Spectrum Analyzer

RF Input Maximum DC Voltage	± 50 VDC
Third-Order Intercept (TOI)	+15 dBm typical (at 2.4 GHz)

Cable & Antenna Analyzer

Cable & Antenna Return Loss Range	0 to 60 dB
Cable & Antenna VSWR Range	1 to 65
Cable & Antenna Output Power	0 dBm (High, typical), -40 dBm (Low, typical)

Spectrum Analyzer Performance

Spectrum Analyzer Amplitude Accuracy	±1.25 dB (>10 MHz to 7.1 GHz), ±1.75 dB (100 kHz to 10 MHz)
Spectrum Analyzer Attenuator Range	0 to 65 dB in 5 dB steps
Spectrum Analyzer Amplitude Range	DANL to +30 dBm

Cable & Antenna Analyzer Performance

Cable & Antenna Analyzer Sweep Speed	4.5 ms/data point (typical)
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Vector Voltmeter (Option 15)

Vector Voltmeter Frequency Range	10 MHz to 4 GHz (Option 15)
Vector Voltmeter Resolution	0.1° phase, 0.01 dB amplitude (Option 15)

2-Port Transmission Measurement (Option 21)

Transmission Measurement Frequency Range	10 MHz to 4 GHz (Option 21)
Transmission Measurement Dynamic Range	80 dB (10 MHz to 3 GHz), 70 dB (3 GHz to 4 GHz) (Option 21)

General Specifications

Internal Memory Capacity	Save up to 1000 traces and setups
External Storage Support	USB Flash Drive, CompactFlash (CF) Type I

Compliance & Safety

EMC Directive Compliance	Conforms to EN 61326-1
Low Voltage Directive Compliance	Conforms to EN 61010-1

Power & Battery

Battery Charging Time	3 hours (typical, with instrument off)
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TECHNOLOGY

Multi-functional Wireless Base Station Testing & Vector Network Analysis

APPLICATIONS

Deployment, maintenance, and troubleshooting of GSM, WCDMA, CDMA, EVDO, TD-SCDMA, and WiMAX base stations

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.