

### Introduction

Anritsu's eighth generation Site Master compact handheld cable and antenna analyzer with spectrum analyzer and vector network analyzer is ideal for installation and maintenance of wireless networks. With frequency coverage up to 6 GHz, the new Site Master MS2085A/89A redefines the standard for portable handheld analyzers, setting a new industry benchmark for performance, functionality and accuracy.

Key features include; cable and antenna line sweep measurements, 2-Port vector network analysis, full band sweep and real-time spectrum analysis capabilities with cellular network base station measurements plus IQ capture and streaming. All with comprehensive report generation. The new MS2085A/89A is the culmination of over 60 years of microwave test and measurement equipment development, using the very latest technologies to deliver accuracy and precision in measurements previously reserved only for benchtop instruments.

### Spectrum Analyzer Highlights

- 5GNR FDD/TDD FR1 Analyzer
- LTE FDD and TDD Analyzer
- Real-Time Spectrum Analyzer
- Channel Scanner
- Spectrogram
- Gated Sweep
- AM/FM Audio Analysis
- Field Strength
- Tracking Generator
- Occupied Bandwidth
- Channel Power
- High Accuracy Power Measurements (external sensor sold separately)
- Adjacent Channel Power
- Spectral Emissions Mask
- Signal Strength and RSSI
- Carrier Aggregation
- Coverage Mapping in SPA, 5GNR, and LTE
- Interference Finder
- Carrier-to-Interference
- WCDMA Analyzer
- Trace Recording/Playback
- IQ Waveform Capture/Streaming
- Transmission and Total Harmonic Distortion (THD)

### Vector Network Analyzer Highlights

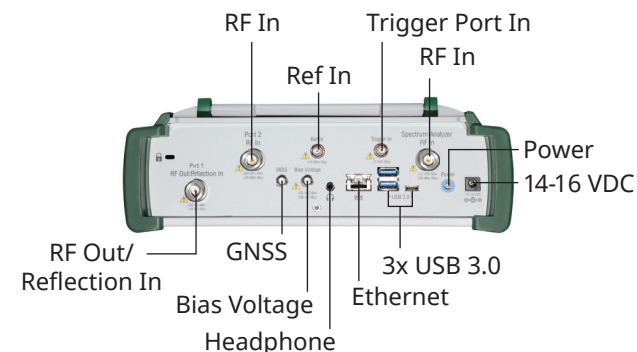
- 2-Port, 1-Path
- > 100 dB Dynamic Range
- 380  $\mu$ s/point Sweep Speed
- + 9 dBm to -45 dBm Port 1 Power
- 16 Graph Types (e.g. Log Mag, VSWR, Smith Chart, Phase, Group Delay...)
- Time Domain with Gating
- 16,001 Trace Data Points
- 10-Inch, High-Resolution Display
- Four Simultaneous Graph Displays

### Vector Volt Meter

- For Phase Matching Cable Electrical Length
- Tabular Display of up to 100 Individual Cables Relative Phase and Loss

### Cable Antenna Analyzer Highlights

- Calibration Type: ReadyCal, InstaCal and MechanicalCal (OSL)
- Supported Measurements: Return Loss (RL), VSWR Distance-to-Fault (RL, VSWR) Transmission Measurements: USB Sensor Transmission (1-Port Reflection)
- Certified Line Sweeping Training
- Anritsu Remote and Report Tools (ARRT)
- Display: Single or Horizontal Split Measurement
- Built-in PDF Report Generator
- Sweep Speed: 350  $\mu$ s/data point, fast sweep rate, typical
- Battery Life: Up to 9 hours\*



### Key Specifications

#### Cable & Antenna Analyzer

Frequency	5 kHz up to 6 GHz
Sweep Time	350 μs/data point, RF immunity low*
Corrected Directivity	> 40 dB, typical, InstaCal Calibration

#### Spectrum Analyzer

Frequency	9 kHz up to 6 GHz
Sweep Speed	45 GHz/s (Option 102)
Dynamic Range	>106 dB minimum at 2.4 GHz, 2/3 (TOI-DANL) in 1 Hz RBW
DANL	-167 dBm Typical with Preamp On
Phase Noise	-123 dBc/Hz, 1 GHz, 1 MHz offset, typical

#### Vector Network Analyzer

Frequency Range	5 kHz to 4/6 GHz
Output Power	-45 to +9 dBm (> 1 MHz)
Transmission Dynamic Range	> 100 dB
Sweep Speed	380 μs/point
Data Points	16,001 max
IF Bandwidth	10 Hz to 1 MHz

#### Vector Volt Meter

Supported Measurements	Reflection, Electrical Length, Transmission
Result Presentation	Single View of Log Mag and Phase Plus Table View, with up to 100 Individual Cable Results

#### General

Connectivity	Ethernet, Wi-Fi, USB
Display	10.1-inch, capacitive touchscreen, 1280 x 800 resolution
Operating Temperature	-10 °C to 55 °C
Battery Life	9 hours operation*
Dimensions	290 mm x 212 mm x 96 mm (11.4 in x 8.3 in x 3.7 in)
Weight	MS2085A-0804, 0806: 3.1 kg (6.83 lb), without Option 21 MS2085A-0804, 0806: 3.8 kg (8.39 lb) with Option 21 MS2089A-0704, 0804, 0706, 0806: 3.8 kg (8.39 lb) with Option 21

### MS208xA Instrument Options

Option Number	Description
MS2085A	Site Master 4 GHz (requires Option 804) Site Master 6 GHz (requires Option 806)
MS2089A	Site Master 4 GHz (requires Option 704 and 804) Site Master 6 GHz (requires Option 706 and 806)
MS208xA-0804	Cable & Antenna Analyzer, 5 kHz to 4 GHz
MS208xA-0806	Cable & Antenna Analyzer, 5 kHz to 6 GHz
MS208xA-0904	Vector Network Analyzer, 4 GHz (requires Option 21)
MS208xA-0906	Vector Network Analyzer, 6 GHz (requires Option 21)
MS208xA-0002*	Time Domain Gating (requires Option 904 or 906)
MS208xA-0003*	Time Domain Reflectometry (TDR) Measurement
MS208xA-0006	Remove Wi-Fi
MS208xA-0007	Secure Data
MS208xA-0015*	Vector Voltmeter (requires Option 21)
MS208xA-0017	Secure Communication
MS208xA-0019*	High Accuracy Power Meter (requires USB sensor, sold separately)
MS208xA-0021	2-port Transmission Measurement
MS208xA-0031*	GNSS Receiver (requires GNSS antenna)
MS2089A-070x-0020*	Tracking Generator (x is the frequency option number)
MS2089A-0024*	Interference Finder (Option 31 and directional antenna recommended, sold separately)
MS2089A-0027*	Channel Scanner
MS2089A-0090*	Gated Sweep
MS2089A-0102*	40 MHz Analysis Bandwidth
MS2089A-0126*	IQ Waveform Capture (includes MX280005A IQ Signal Master base feature set)
MS2089A-0127*	IQ Waveform Streaming (includes MX280005A IQ Signal Master base feature set) (requires Option 126)
MS2089A-0128*	Enable Vector Signal Analysis (requires Option 126)
MS2089A-0199*	Real-Time Spectrum Analysis (RTSA)
MS2089A-0400*	Enable Vision Monitor
MS2089A-0407*	Enable Vision High-Speed Port Scanner
MS2089A-0431*	Coverage Mapping (requires Option 31)
MS2089A-0444*	EMF Measurement (requires Anritsu isotropic antenna, sold separately)
MS2089A-0509*	AM/FM Modulation Measurements
MS2089A-0871*	WCDMA FDD Measurements (requires Option 31)
MS2089A-0883*	LTE FDD/TDD Measurements (requires Option 31)
MS2089A-0888*	5G NR Downlink Measurements (requires Option 31)
MS208xA-xxxx-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS208xA-xxxx-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS208xA-xxxx-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1 plus test data (xxxx is the frequency option number)

\* Refer to the Technical Data Sheet for full specifications and information on ordering time limited options.