Quick Fact Sheet

Field Master Pro™ MS2090A

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

Anritsu
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High-Performance Real-Time Spectrum Analyzer (RTSA)

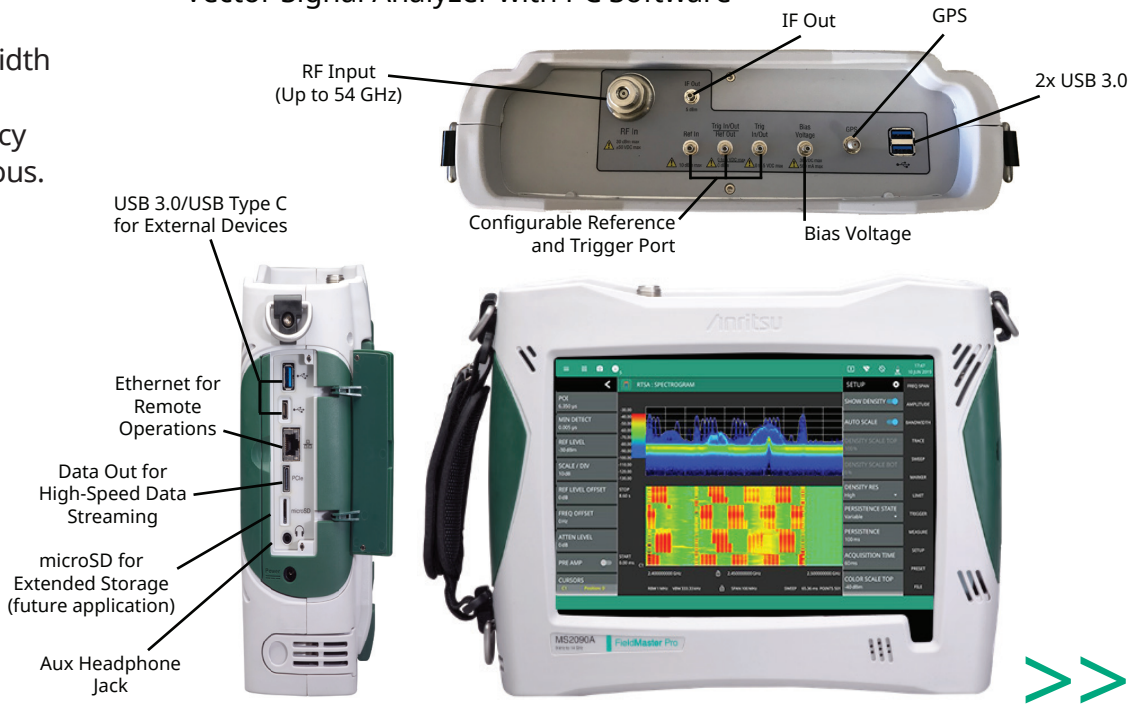
Anritsu's Field Master Pro MS2090A real-time spectrum analyzer delivers performance never previously available in a compact, handheld instrument. With continuous frequency coverage from 9 kHz to 54 GHz, the Field Master Pro MS2090A is specifically designed to meet the challenges of 5G test while maintaining support for a full range of other wireless technologies in use today, including: wireless backhaul, aerospace/defense, satellite systems, and radar.

The Field Master Pro MS2090A delivers the highest levels of RF performance available in a handheld, touchscreen spectrum analyzer, with a displayed average noise level (DANL) of -164 dBm and third-order intercept (TOI) of +20 dBm (typical). This makes measurements such as spectrum clearing, radio alignment, harmonic, and distortion even more accurate than previously possible. For modulation measurements on digital systems, 110 MHz modulation bandwidth coupled with best-in-class phase noise performance maximizes measurement precision, while ±0.5 dB typical amplitude accuracy provides confidence when testing transmitter power and spurious.

Ruggedized for field use, all versions provide a comprehensive range of features to speed and simplify measurement as well as enhance usability. The RTSA options offer spans of 22, 55, and 110 MHz to provide capability for cellular interference monitoring to full Industrial, Scientific, and Medical (ISM) band signal analysis. In addition to being a full span swept-tuned spectrum analyzer, all versions include a spectrogram display that helps monitor the RF spectrum for intermittent or interfering signals. Integrated channel power and occupied bandwidth measurements simplify the measuring and characterizing of common radio transmission.

Field Master Pro MS2090A Highlights

- RTSA Bandwidth: 20 MHz (Standard) up to 110 MHz (Optional)
- RTSA POI: 22 MHz = 7 µs, 55 MHz = 4.45 µs, 110 MHz = 2.06 µs
- 9 kHz to 9/14/20/26.5/32/43.5/54 GHz
- DANL: -164 dBm (with Preamp)
- TOI: +20 dBm (Typical)
- Analysis Bandwidth: Up to 100 MHz
- Demodulation: 5G NR (SSB Modulation Quality), LTE (FDD/TDD)
- Resolution Bandwidth (RBW): 1 Hz to 10 MHz (up to 40 MHz in RTSA)
- Amplitude Accuracy at <14 GHz: ±1.3 dB (±0.5 dB, Typical)
- Zero Span with 60 ns Minimum Sweep Time
- IQ Capture and Streaming up to 110 MHz Bandwidth
- EMF Measurements
- Pulse Analyzer
- Vector Signal Analyzer with PC Software



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Key Specifications

Performance	
Frequency Range	MS2090A-0709 - 9 kHz to 9 GHz MS2090A-0714 - 9 kHz to 14 GHz MS2090A-0720 - 9 kHz to 20 GHz MS2090A-0726 - 9 kHz to 26.5 GHz MS2090A-0732 - 9 kHz to 32 GHz MS2090A-0743 - 9 kHz to 43.5 GHz MS2090A-0754 - 9 kHz to 54 GHz
DANL (w/Preamp)	-164 dBm
TOI	+20 dBm
Analysis Bandwidth	Up to 100 MHz
Demodulation	5G NR SSB Measurements (RSRP, RSRQ, SINR, EVM)
Amp Range	DANL to +30 dBm
Phase Noise at 1 GHz	-110 dBc/Hz @ 100 kHz Offset (Typical)
Resolution Bandwidth (RBW)	1 Hz to 10 MHz with 0.1 Hz Resolution
Input SWR	1.5
Amplitude Accuracy	<14 GHz ±1.3 dB (±0.5 dB, Typical)
RTSA Bandwidth	22 MHz, 55 MHz, or 110 MHz (Option Dependent)

Key Features

Feature	Specification
Display	10.1 in, 1280 x 800 Color Capacitive Touchscreen
Traces	6
Detectors	Avg/RMS, Peak, Negative
Gated Sweep	For Time Gated Spectrum Measurements
Markers	12 Markers Assignable to Any Trace
Limit Lines	Complex Limit Lines With Pass/Fail
5G Waveform IQ Capture	Capture and Export
Connectivity	802.11 and Bluetooth
GNSS	GPS and GLONASS
Interfaces	USB 3.0 Ethernet
Battery Life	>2 Hours (Function Dependent)
Size	314 mm x 235 mm x 95 mm (12.4 in x 9.25 in x 3.74 in)
Weight	MS2090A-0709, -0714, -0720: 5.06 kg (11.15 lb) MS2090A-0726, -0732, -0743, -0754: 5.4 kg (11.9 lb)

Instrument Options

Model Number	Description
MS2090A-0709	Frequency Range 9 kHz to 9 GHz
MS2090A-0714	Frequency Range 9 kHz to 14 GHz
MS2090A-0720	Frequency Range 9 kHz to 20 GHz
MS2090A-0726	Frequency Range 9 kHz to 26.5 GHz
MS3090A-0732	Frequency Range 9 kHz to 32 GHz
MS2090A-0743	Frequency Range 9 kHz to 43.5 GHz
MS2090A-0754	Frequency Range 9 kHz to 54 GHz
MS2090A-0006	Remove Wi-Fi
MS2090A-0024	Interference Finder
MS2090A-0031	GPS Receiver (Requires GPS Antenna, Sold Separately)
MS2090A-0089	Zero Span IF Out
MS2090A-0103	50 MHz Analysis Bandwidth
MS2090A-0104	100 MHz Analysis Bandwidth
MS2090A-0124	IQ Waveform Capture
MS2090A-0125	IQ Waveform Streaming (Requires Option 124)
MS2090A-0126	IQ Waveform Capture (Non-Export Controlled)
MS2090A-0127	IQ Waveform Streaming (Non-Export Controlled, Requires Option 126)
MS2090A-0128	Vector Signal Analysis Enabled
MS2090A-0199	Real-Time Spectrum Analyzer
MS2090A-0400	Vision Monitor Enabled
MS2090A-0421	Pulse Analyzer
MS2090A-0444	EMF Measurement (Frequency Selective, Requires Anritsu Isotropic Antenna)
MS2090A-0445	EMF Meter Enabled (Broadband, Requires 2000-1985-R Isotropic EMF Probe, 20 MHz to 40 GHz)
MS2090A-0883	LTE FDD/TDD Measurements (Requires Option 31)
MS2090A-0888	5G NR Downlink Measurements (Requires Option 31)
MS2090A-xxxx-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the Frequency Option Number)
MS2090A-xxxx-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the Frequency Option Number)
MS2090A-xxxx-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1 Plus Test Data (xxxx is the Frequency Option Number)

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