

Quick Fact Sheet

Field Master™ MS2070A

Handheld RF Spectrum Analyzer

9 kHz to 3 GHz



Anritsu's Field Master MS2070A, 3 GHz, RF spectrum analyzer covers the common HF, VHF, and UHF frequency bands. Providing the performance you expect from Anritsu with the practicality required for use in the field. Developed with 30 years' experience of designing RF test instruments for field technicians, the Field Master MS2070A integrates all the essential features of a modern spectrum analyzer with traceable and warranted specifications.

Applications include: base station and transmitter testing in the field, through direct connection or Over-the-Air (OTA), finding sources of interference (including from spurious, harmonics, PIM, and industrial machinery), rooftop PIM hunting, EMI pre-compliance testing, and 75 ohm cable TV testing. The Field Master MS2070A is also ideal for general purpose spectrum analysis in the lab environment where its built-in kick stand and small footprint make it the perfect complement of a fully featured bench top instruments which can be cumbersome to share and move.

Smart measurements provide built-in routines to simplify the most common transmitter measurements including; channel power, C/I, THD, adjacent channel power, and occupied bandwidth.

Results and instruments settings are clearly displayed on a large, 10-inch, high-resolution, multi-touch screen. The soft case provides an IP52 rating to protect from dust and rain while the screen exceeds the IK08 specification protecting against the knocks and drops inevitably experienced in the field. 5 Watts maximum input power prevents accidental power overload damage which is the most common cause of field failures.

The Field Master MS2070A delivers a compelling combination of performance with portability to make it the perfect choice for both field and bench applications.

Field Master MS2070A Highlights

Spectrum Analysis from 9 kHz to 3 GHz	Full frequency coverage of HF, VHF, and UHF frequency bands
Spectrogram	Capture and record intermittent and drifting signals
Spectrum Record and Playback	Record traces and playback at slow speed to track all spectrum activity
Channel Scanner	Bar chart, Strip chart and Mapping modes with support for up to 60 channels
AM/FM Modulation Measurements	Simultaneous display of RF spectrum, Audio spectrum, Audio oscilloscope, Modulation quality, SINAD and THD
Smart Measurements	Includes channel power, occupied bandwidth, adjacent channel power, spectral emissions, C/I, THD, and field strength measurements
Interference Hunting	Directional antenna and eCompass handle
USB Power Sensor Support	Precision power measurements of transmitters
Traces and Markers	Up to six traces and 12 markers
Zero Span	Pulse measurements
Standard Detectors	Peak, RMS/Avg, Negative, Sample, Normal
Quasi-Peak Detector	CISPR compliant interference measurements
Battery Life	3.5 hours with standard battery, typically >6 hours with accessory power pack
10-Inch, Multi-Touch Display	Provides quick and easy configuration and results presentation
GNSS (Option)	GPS, Galileo, GLONASS, BeiDou
Connectivity	Ethernet, USBTMC (Wi-Fi option)
Report Generator	Built in PDF/HTML report generator for screen captures and photographic images



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Multiple Instruments in One

Spectrum Analyzer
Spectrogram
Interference Analyzer
True Power Meter
AM/FM Modulation Measurements
Channel Scanner
Coverage Mapping
Mobile Interference Hunting (with MX280007A Software)

Key Specifications

Performance	
Sweep Speed	32 GHz/s
Phase Noise	-97 dBc/Hz Typical @ 100 kHz Offset
DANL	Pre Amp Off -150 dBm Typical Pre Amp On -167 dBm Typical (with preamp option)
Maximum Input Signal	+30 dBm
Dynamic Range	105 dB Typical
Input Damage Level	+37 dBm (5 Watts)
Amplitude Accuracy	±1 dB
Resolution Bandwidth in Sweep Mode	1 Hz to 3 MHz
Resolution Bandwidth in Zero Span	1 Hz to 5 MHz
Frequency Accuracy	Aging: ±1.0 × 10 ⁻⁶ per year Accuracy: ±2.8 × 10 ⁻⁷ (-10 °C ± 55 °C) plus aging

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Key Features

Feature	Specifications
Display	10.1 in, 1280 x 800, color capacitive touchscreen
Traces	Six (with Trace Record and Play Back)
Detectors	Avg/RMS, Peak, Negative, Sample, Normal
Smart Measurements	Channel Power, OBW, ACP, AJCP, SEM, C/I, THD
Markers	12 markers assignable to any trace
Limit Lines	Complex limit lines with Pass/Fail
Connectivity	Ethernet, USBTMC
Wi-Fi Connectivity	Option 802.11b/a/g/n/ac
GNSS	Option GPS, GLONASS, Galileo, BeiDou
Audio Measurements	AM/FM Modulation Quality, Audio Spectrum, Audio Oscilloscope, THD and SINR
Battery Life	Three hours with internal, five hours with Accessory Power Pack
Size	290 mm x 212 mm x 96 mm, (11.4 in x 8.3 in x 3.7 in)
Weight	3.8 kg (8.39 lb)

Instrument Options

Option Number	Description
MS2070A	Field Master Spectrum Analyzer
Options	
MS2070A-0703	9 kHz to 3 GHz Spectrum Analyzer (required)
MS2070A-0005	Wi-Fi connectivity
MS2070A-0006	Remove Wi-Fi and Bluetooth
MS2070A-0007	Secure Data
MS2070A-0008	Preamplifier
MS2070A-0017	Secure Communication
MS2070A-0019*	High Accuracy Power Meter (requires USB sensor, sold separately)
MS2070A-0024*	Interference Finder (requires Option 8) (Option 31 and directional antenna recommended, sold separately)
MS2070A-0027*	Channel Scanner
MS2070A-0031*	GNSS Receiver (requires GNSS antenna, sold separately)
MS2070A-0400*	Enable Vision Monitor
MS2070A-0407*	Enable Vision High-Speed Port Scanner
MS2070A-0431*	Coverage Mapping (Channel Power and RSSI only) (requires Options 8 and 31)
MS2070A-0509*	AM/FM Modulation Measurements
MS2070A-0703-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS2070A-0703-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS2070A-0703-0099	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 information on ordering time limited options.