

High-Performance Spectrum Monitor with Remote PC GUI

The MS27201A Remote Spectrum Monitor with real-time spectrum analyzer (RTSA) from Anritsu is a new instrument designed to facilitate wide area spectrum monitoring up to 54 GHz. Building on over 40 years experience in developing high-performance field portable spectrum analyzers, the MS27201A Remote Spectrum Monitor series is our highest frequency spectrum monitor covering all standard LMR, cellular, satellite, and defense electronic bands.

Designed specifically for long term monitoring applications the instrument is housed in a compact 2U tall 19-inch case and powered from a 80 Watt, 15-volt supply to minimize temperature gain. To ensure continuous and reliable operation, recovery features include a built in watchdog timer resets the instrument in the event of a software interruption and following a break in the power supply, the instrument will resume normal operation in the same state it was in prior to loss of power.

Applications for MS27201A Remote Spectrum Monitor instruments necessitate excellent noise floor for signal detection and high third-order intercept point (TOI) to minimize internal distortions when the input is exposed to multiple input signals. With a displayed average noise level (DANL) of -164 dBm and a TOI of typically +20 dBm, signal detection and measurement integrity are assured. Measurement bandwidths of up to 150 MHz with IQ capture and streaming options provide class leading functionality in a small form factor package.

Common use cases are: spectrum clearing when new licenses are issued, shared spectrum monitoring for CBRS applications, satellite ground station downlink monitoring and critical infrastructure RF interference monitoring.

MS27201A Remote Spectrum Monitor Highlights

- 9 kHz to 9/14/20/26.5/32/43.5/54 GHz
- 19-inch Rack Mount Case
- PC Application User Interface
- RTSA Bandwidth: 20 MHz (standard) up to 150 MHz (optional)
- RTSA POI: 22 MHz = 2.520 μ s, 150 MHz = 2.06 μ s
- DANL: -164 dBm (with preamp)
- TOI: +20 dBm (typical)
- Analysis Bandwidth: 150 MHz
- Amp Range: DANL to +30 dBm
- Phase Noise at 1 GHz: -110 dBc/Hz @ 100 kHz Offset (typical)
- Demodulation: 5GNR, LTE FDD, RF, and Modulation Quality Plus SSB Signal Analysis
- Resolution Bandwidth (RBW): 1 Hz to 10 MHz
- Amplitude Accuracy: < 14 GHz \pm 1.3 dB (\pm 0.5 dB, typical)
- Zero Span with 60 ns Minimum Span
- IQ Capture and Streaming
- Carrier-to-Interference
- Channel Scanner
- Up to 150 MHz Bandwidth
- Pulse Analyzer
- Built-in PDF/HTML Report Generator for Screen Captures and Pictures
- WCDMA FDD Measurement
- LTE/5G TDD Uplink Interference with Gated Spectrum



New Remote Spectrum Monitor to 54 GHz



Quick Fact Sheet

Remote Spectrum Monitor MS27201A

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



Key Specifications

Parameter	Specification
Frequency Range	9 kHz to 9/14/20/26.5/32/43.5/54 GHz
Analysis Bandwidth	110 MHz
TOI	+20 dBm
DANL (with preamp)	-164 dBm
Amplitude Range	DANL to +30 dBm
Phase Noise @ 1 GHz	-110 dBc/Hz @ 100 kHz offset (typical)
RBW/VBW	1 Hz to 10 MHz
Amplitude Accuracy	< 14 GHz ± 1.3 dB (± 0.5 dB typical)
RTSA Bandwidth	110 MHz with Option 104

Key Features

Feature	Specification
Control Interfaces	Ethernet
PC Control	Remote GUI PC application
Automated Monitoring Software	MX280001A Vision Monitor PC application
IQ	Capture and streaming IQ data through Ethernet, USB, and PCIe interfaces
Cellular Modulation Quality Measurements	WCDMA LTE and 5G NR
Continuous Operation and Recovery	Built-in watchdog timer and auto recover on power failure provide continuity of service
Traces	Six with independent detectors per trace
Markers and Limits	Intelligent markers and comprehensive limits
Event Capture	Save traces and alarms on defined events

Instrument Options

Part Number	Description
MS27201A	Remote Spectrum Monitor (requires Option 709, 714, 720, 726, 732, 743 or 754)
Options	
MS27201A-0709	Frequency Range 9 kHz to 9 GHz
MS27201A-0714	Frequency Range 9 kHz to 14 GHz
MS27201A-0720	Frequency Range 9 kHz to 20 GHz
MS27201A-0726	Frequency Range 9 kHz to 26.5 GHz
MS27201A-0732	Frequency Range 9 kHz to 32 GHz
MS27201A-0743	Frequency Range 9 kHz to 43.5 GHz
MS27201A-0754	Frequency Range 9 kHz to 54 GHz
MS27201A-006	Remove Wi-Fi and Bluetooth
MS27201A-007	Secure Data
MS27201A-0017	Secure Communication
MS27201A-0027	Channel Scanner
MS27201A-0031	GNSS Receiver (requires GPS antenna, sold separately)
MS27201A-0089	Zero Span IF Output
MS27201A-0090	Gated Sweep
MS27201A-0103	55 MHz Analysis Bandwidth
MS27201A-0104	120 MHz Analysis Bandwidth
MS27201A-0105	150 MHz Analysis Bandwidth
MS27201A-0124	IQ Waveform Capture (includes MX280005A IQ Signal Master base feature set)
MS27201A-0125	IQ Waveform Streaming (includes MX280005A IQ Signal Master base feature set) (requires Option 124)
MS27201A-0126	IQ Waveform Capture (includes MX280005A IQ Signal Master base feature set) (non-export controlled)
MS27201A-0127	IQ Waveform Streaming (includes MX280005A IQ Signal Master base feature set) (requires Option 126, non-export controlled)
MS27201A-0128	Enable Vector Signal Analysis (requires Option 124 or 126)
MS27201A-0199	Real-Time Spectrum Analyzer (RTSA)
MS27201A-0400	Enable Vision Monitor
MS27201A-0401	Enable Vision Locate (Option 400 required)
MS27201A-0407	Enable Vision High-Speed Port Scanner
MS27201A-0421	Pulse Analyzer
MS27201A-0509	AM/FM Modulation Measurement
MS27201A-0871	WCDMA FDD Measurement (requires Option 31)
MS27201A-0883	LTE FDD/TDD Measurements (requires Option 31)
MS27201A-0888	5G NR FDD/TDD Measurements (requires Option 31)
MS27201A-xxxx-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS27201A-xxxx-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1 (xxxx is the frequency option number)
MS27201A-xxxx-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1 plus test data (xxxx is the frequency option number)
MS27201A-xxxx-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1 plus test data (xxxx is the frequency option number)

Supporting Software

MX280005A	IQ Signal Master™ Vector Modulation Analysis Software
MX280001A	Remote Spectrum Monitor Vision Software
ARRT	Anritsu Remote and Report Tools

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