Quick Fact Sheet

Remote Spectrum Monitor MS27100A

For Remote RF Signal Monitoring

9 kHz to 6 GHz

Anritsu
Advancing beyond

MS27100A

Included Instruments

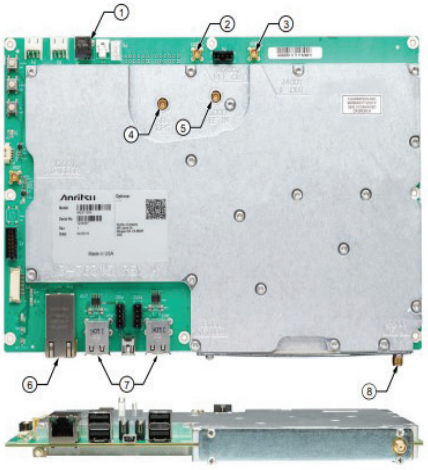
9 kHz to 6 GHz
Sweep Speed Up to 24 GHz/s
Integrated Web Server (Google Chrome and Mozilla Firefox Supported)
Remote Firmware Update Capable
Watchdog Time to Insure Long-term Stability
20 MHz FFT Bandwidth
Low Power Consumption < 11 Watts
Dynamic Range > 106 dB Normalized to 1 Hz RBW
Gigabit Ethernet
IQ Block Mode and Streaming with Time Stamping
4 GB Internal Memory Available for Storing Files
Integrated GPS Receiver

Fast. Reliable. Accurate.

Anritsu's Remote Spectrum Monitor MS27100A is designed for OEM applications. The solution can be integrated and branded into a user's own enclosure or used as a stand-alone monitor in areas where space is at a premium. An optional high-speed switch may be used with the monitor to allow multiple antennas to be multiplexed into the unit (P/N 2000-1894-R).

With monitors potentially being deployed hundreds or thousands of kilometers from the control center, it is essential that each monitor remain operational under all types of conditions. The Remote Spectrum Monitor MS27100A is designed for robust field deployments with capabilities for remote power cycling, automated system recovery protocols, and firmware updates "pushed" to the monitor remotely.

Using three or more probes, Anritsu's optional Vision™ software MX280001A can be used to position an interferer signal or illegal broadcast. Additionally, IQ measurements are time-stamped using the probe's GPS receiver. This enables users to employ their own software using Time Difference of Arrival (TDOA) capabilities to find interferers, given each monitor IQ measurement is precisely time-stamped.



MS27100A

1. External Power, 11.0 to 14.5 Vdc, 11 W, 5.5 Mm Barrel Connector
2. 10 MHz Reference Output, MCX(f)
3. If Output, MCX(f)
4. GPS Antenna Input, MCX(f)
5. 10 MHz Reference Input, +10 dBm Maximum, +5 VDC Maximum, MCX(f)
6. Gbit Ethernet RJ45 Connector
7. USB Type A (4)
8. RF Input, SMA(f), 50 Ω
   RF In Damage Level: +30 dBm Peak, ±50 VDC Maximum Continuous Input (≥ 10 dB Attenuation, > 100 MHz)

Note: Other connectors and controls are not supported in this model.

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Key Specifications

Specification	
Frequency Range	9 kHz to 6 GHz (Tunable to 0 Hz)
Tuning Resolution	1 Hz
Maximum Sweep Speed	24 GHz/s
Resolution Bandwidth (RBW)	10 Hz to 3 MHz in 1–3 Sequence (–3 dB bandwidth)
Video Bandwidth (VBW)	10 Hz to 3 MHz in 1–3 Sequence (–3 dB Bandwidth) (Auto or Manually)
SSB Phase Noise @ 1 GHz	-98 dBc/Hz @ 10 kHz Offset
Dynamic Range	> 106 dB at 2.4 GHz, 2/3 (TOI-DANL) in 1 Hz RBW
Measurement Range	DANL to Maximum Continuous Input
Reference Level Range	-150 dBm to +30 dBm
Attenuator Range	0 dB to 50 dB in 5 dB steps
Amplitude Units	Log Scale Modes: dBm, dBµV
Amplitude Accuracy	±2.5 dB
Operating Temperature Range	-40 °C to 50 °C
Size	165.36 x 244.00 x 27.75 (mm)
Weight	0.93 kg (2.05 lb) without Packaging

Standard Accessories

Part Number	Description
40-187-R	AC-DC Adapter

Optional Accessories

Part Number	Description
2000-1894-R	6-Port Multiplexer Module (Requires software Option 406 under optional accessories)
3-767367	USB-A to HC5 5-pin Header Cable, 30 cm (Included with 2000-1894-R)

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Hardware Options

Part Number	Description
MS27100A-0089	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes Calibration Certificate.
MS27100A-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate, test report, and uncertainty data.
MS27100A-0406	Enables USB Interface to 6-Port RF Multiplexer (Requires 2000-1894-R)

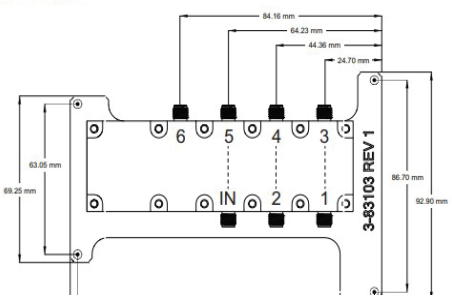
Vision Software Options

Part Number	Description
MS27100A-0400	Vision Monitor Enabled AM Demodulation/FM Deviation Spectrum Occupancy (Requires Option 400)
MS27101A-401	Vision Locate Enabled (Requires Option 400)
MS27101A-407	High-Speed Port Scanner Enabled
MS27101A-0486	Vision Coverage Mapping (Requires Option 407)

MS27100A

An optional six-to-one multiplexer that is controlled via a USB-A to 5-pin connection to the Remote Spectrum Monitor MS27100A Spectrum Monitor Module. Switch insertion loss correction is linked to the Remote Spectrum Monitor MS27100A through this USB interface. All specifications typical.

Frequency	9 kHz to 6 GHz
Insertion Loss	2 dB at 1 GHz 5 dB at 6 GHz
Antenna Port Isolation	> 40 dB < 3 GHz > 30 dB = 3 GHz
DC Power	5 VDC via USB
Weight	0.18 kg (0.40 lb)



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