

Quick Fact Sheet

Spectrum Master™ MS2760A

Ultraportable mmWave Spectrum Analyzer



MS2760A 9 kHz up to 170 GHz

The Future of Performance and Affordability

Utilizing Anritsu's patented nonlinear transmission line (NLTL) technology, the Spectrum Master MS2760A ultraportable spectrum analyzer product delivers the best-in-class price/performance ratio unmatched by traditional benchtop instruments. This enables you to more efficiently advance your technology development and reduce your time to market. The Spectrum Master MS2760A is pocket-sized, yet big on performance with leading dynamic range, sweep speed, and amplitude accuracy. The ultraportable size of this instrument enables a direct connection to almost any DUT, eliminating the need for lossy, expensive cables.

The 145 GHz and 170 GHz models are the world's first handheld millimeter-wave (mmWave) spectrum analyzers to provide broadband, continuous coverage from 9 kHz to 170 GHz. They are perfect for advanced mmWave applications like radio astronomy, automotive radar, antenna beam pattern testing, and more, while enabling research and development in the entire D-band spectrum. The Spectrum Master MS2760A is USB-powered and controlled from a Windows-based PC, laptop, or tablet, making it uniquely flexible for use in the lab, on the manufacturing floor or even in the field.

The Spectrum Master MS2760A models provide full broadband coverage from 9 kHz to 170 GHz with excellent dynamic range and DANL performance.

Spectrum Master Ultraportable mmWave Highlights:

- mmWave capabilities for radio astronomy, automotive radar, wireless backhaul, 802.11ad, satcom, and more
- Ultraportable form factor enables measurements right at the device under test
- Measure: channel power, adjacent channel power, occupied bandwidth
- Spectrum and spectrogram display
- -127 dBm DANL to 110 GHz
- Up to 6 traces, 3 trace detectors, and 12 markers
- Dynamic Range: >103 dB, typical at 70 GHz
- Resolution Bandwidth (RBW): 1 Hz to 3 MHz
- Phase Noise: -110 dBc/Hz @ 1 GHz, typical
- External 10 MHz Frequency Reference
- External TTL Trigger Input



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Key Specifications

Analyzer Performance	
Frequency Range	MS2760A-0032 9 kHz to 32 GHz MS2760A-0044 9 kHz to 44 GHz MS2760A-0050 9 kHz to 50 GHz MS2760A-0070 9 kHz to 70 GHz MS2760A-0090 9 kHz to 90 GHz MS2760A-0110 9 kHz to 110 GHz MS2760A-0145 9 kHz to 145 GHz MS2760A-0170 9 kHz to 170 GHz
Dynamic Range	> 103 dB at 70 GHz typical
DANL	-127 dBm at 110 GHz
RF Connector	K (m) connector MS2760A-0032, MS2760A-0044 V (m) connector MS2760A-0050, MS2760A-0070 W (m) connector MS2760A-0090, MS2760A-0110 0.8 mm (m) connector MS2760A-0145, MS2760A-0170
Amplitude Accuracy	±1 dB, typical to 110 GHz, ±1.5 dB >110 GHz
Frequency Accuracy	Accuracy: ± 0.2 ppm (25° C ± 25° C) + aging Aging: ± 1.0 ppm/years
General	
Save/Recall	Save As, Save (Measurement, Set-up, PNG, Limit Line), Recall, Save on Event (Crossing Limit, Sweep Complete, Save at Interval)
Display Graphs	Log Magnitude, Phase, Group Delay, Linear Magnitude, Real, Imaginary, SWR, Impedance, Smith Chart kQ product and η_{\max}
USB Interface	USB 3.0, Type C Connector
External Reference In	MCX(f), 50 Ω , 10 MHz
Display Resolution	16:9/16:10 Aspect Ratio (>1280 x 720/1280 x 800)
Operating System	Windows® 7, 8.1, 10
Minimum Configuration	Quad Core i7 fourth generation or higher CPU, 16 GB RAM, 128 GB Data Storage, USB 3.0
Operating Temperature	0° C to 50° C
Maximum Humidity	95% non-condensing
Storage	-40° C to 71° C
Warranty	Standard three-year warranty
Size	155mm x 84mm x 27mm (6.1 in x 3.3 in x 1.1 in)
Weight	255g (9.0 oz)

Product Options

Option Number*	Description
MS2760A-0032	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 32 GHz
MS2760A-0044	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 44 GHz
MS2760A-0050	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 50 GHz
MS2760A-0070	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 70 GHz
MS2760A-0090	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 90 GHz
MS2760A-0110	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 110 GHz
MS2760A-0145	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 145 GHz
MS2760A-0170	Spectrum Master, ultraportable spectrum analyzer, 9 kHz to 170 GHz
MS2760A-xxxx-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1, includes calibration certificate, test report, and uncertainty data
MS2760A-xxxx-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1, includes calibration certificate
MS2760A-xxxx-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1, includes calibration certificate, test report, and uncertainty data

* (xxxx is the frequency option number)

Accessories

Part Number	Description
760-291-R	Transit Case
2000-1888-R	10 m USB 3.0 Active Extension Cable
34VFK50	DC to 40 GHz, V(f) to K(m) Coax Adapter, 50 Ω
34WV50	DC to 70 GHz, W1(f) to V(m) Coax Adapter, 50 Ω
35WR15VF	50.0 GHz to 65.0 GHz, WR15 to V(f) Waveguide Adapter
1091-401-R	60.5 GHz to 92 GHz, WR12 to W(f) Waveguide Adapter
35WR10WF	75 GHz to 110 GHz, WR10 to W(f) Waveguide Adapter
2000-1871-R	49.9 GHz to 75.8 GHz, WR15 Horn Antenna, 25 dBi gain
2000-1872-R	60.0 GHz to 18.0 GHz, WR12 Horn Antenna, 25 dBi gain
2000-1873-R	75.0 GHz to 110.0 GHz, WR10 Horn Antenna, 25 dBi gain
2000-1929-R	Low Noise Amplifier, 18-42 GHz, 28 dB Gain, V(m) to V(f)
2300-1859-R	USB 3.0 Type C to Type A Cable
2300-1605-R	BNC(m) to MCX(m) Cable (qty 2), Certificate of Calibration and Conformance

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