

## [Small spectrum analyzer uses both samples and sweeps](#)

[Martin Rowe](#) - February 15, 2017

Anritsu, the company that brought you PC-based vector-network analyzers and handheld spectrum analyzers, has introduced a handheld PC-based spectrum analyzer, the Spectrum Master MS2760A. It uses combination of swept-spectrum and sampling technology for applications such as 802.11ad, 5G cellular, and millimeter-wave at both the chip and system level.



**The Anritsu MS2760A with accessories at a press briefing on Feb. 1, 2017.**

The MS2760A in models with bandwidths from 9 kHz to 32 GHz, 44 GHz, 50 GHz, 70 GHz, 90 GHz, and 110 GHz. The 90 GHz version is for countries that require an export license for frequencies above 90 GHz.

What's different about this instrument is that it uses both sampling and swept techniques. For frequencies up to 6.15 GHz, the MS2760A samples the incoming signal and performs an FFT to get frequency content. Above 6.15 GHz, it switches to the swept-scan technique of a traditional spectrum analyzer. With its PC software, the instrument measures channel power, adjacent channel power, and occupied bandwidth in addition to the traditional spectral plots.

"The MS2760A's small size allows engineers to place it close to the device under test," explained product manager Russel Lindsay during our press briefing on February 1. "That minimizes losses from cables." It's available with several connectors that let you attach it directly to PCB connectors or you can use it in the field with an antenna.

### Specifications

- Dynamic range: >103 dB at 110 GHz
- Phase noise: -116 dBc/Hz @ 10 kHz offset at 1 GHz
- Amplitude accuracy:  $\pm 0.5$  dB, typical
- Frequency accuracy: Accuracy:  $\pm 0.2$  ppm ( $25^{\circ}\text{C} \pm 25^{\circ}\text{C}$ ) + aging, where aging is  $\pm 1.0$  ppm/year
- DANL: -132 to frequencies up to 70 GHz
- Sweep time to 110 GHz: 12 s

The MS2760A connects to a PC through its USB Type-C connector. License-free Windows software is available at no cost, as are firmware upgrades.



Prices: \$24,000 (32 GHz), \$42,000 (70 GHz), \$62,500 (110 GHz). Anritsu, [MS2760A product page](#).