

Quick Fact Sheet

Site Master™ S820E

Microwave Cable and Antenna Analyzer



S820E

1 MHz to 8, 14, 20, 30, and 40 GHz

The World's First Handheld 40 GHz Cable and Antenna Analyzer

The Microwave Site Master S820E is designed for installation and maintenance of microwave communication systems up to 40 GHz. Measurements and features for maximum productivity include:

Standard Measurements:

- > 1-port measurements: Return Loss, VSWR, Cable Loss, Distance-to-Fault, Phase, and Smith Chart (50/75 Ω)
- > 2-port Transmission Measurement
- > 2-port Swept Cable Loss Measurement (external sensor required)

Standard Features:

- > Three year standard warranty, lowering cost of ownership
- > Advanced Mode and Classic Mode (similar look and feel as the S820D)
- > Line Sweep Tools for easy reporting
- > easyTest Tools™ enables standardized testing for repeatable measurements
- > Certified for use in explosive atmosphere (MIL-PRF-28800F Section 4.5.6.3)



Setting the standard for 15 years

Anritsu set the standard in 1999 with the world's first 18 GHz broadband Site Master. 15 years later Anritsu has set a new standard for performance and accuracy in a portable handheld analyzer with its Microwave Site Master S820E's unsurpassed coverage to 40 GHz.

Product Highlights:

1. **Broadest frequency ranges** from 1 MHz to 8, 14, 20, 30, and 40 GHz
2. **Best frequency resolution** of 1 Hz for maximum frequency flexibility
3. **Unprecedented dynamic range** of 110 dB all the way up to 40 GHz for real benchtop performance in the field
4. **Fastest sweep speed** of 650 μ s/data point for fast field measurements
5. **Highest RF immunity** of +17 dBm for operation in harsh RF environments
6. **Unsurpassed directivity** in a handheld for maximum field accuracy
7. **Longest battery life** with four hours of operation for the most field uptime on one charge
8. **Largest and highest resolution display** (8.4 inch, 800x600) for maximum readability in all lighting conditions with an intuitive graphical user touchscreen interface
9. **Full temperature coax calibration kits** from -10°C to $+55^{\circ}\text{C}$ for field precision measurement
10. **Widest calibration temperature window** of $\pm 10^{\circ}\text{C}$ requiring less recalibrations
11. **Unique 2-port Swept Cable Loss Measurement** across the whole frequency range of interest in a quick one-step measurement
12. **The most pre-loaded waveguide calibration component coefficients** in the instrument with ten bands for SSL and SSLT calibrations making it convenient for the customer to quickly make calibrations.



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Frequency Options (select one frequency option only)

Option	Description	Ordering Number
Option 708	1 MHz to 8 GHz, type N(f) ports	S820E-0708
Option 714	1 MHz to 14 GHz, type N(f) ports	S820E-0714
Option 720	1 MHz to 20 GHz, type Ruggedized K(m) ports (compatible with 3.5mm & SMA)	S820E-0720
Option 730	1 MHz to 30 GHz, type Ruggedized K(m) ports (compatible with 3.5mm & SMA)	S820E-0730
Option 740	1 MHz to 40 GHz, type Ruggedized K(m) ports (compatible with 3.5mm & SMA)	S820E-0740



Phase-Stable Test Port Extension Cables (Armored and Flexible)

Part Number	Description
14RKFKF50-0.6	0.6 m (24"), DC to 40 GHz, Ruggedized K(f) to K(f), 50 Ω
14RKFKF50-1.0	1.0 m (39"), DC to 40 GHz, Ruggedized K(f) to K(f), 50 Ω
14RKFK50-0.6	0.6 m (24"), DC to 40 GHz, Ruggedized K(f) to K(m), 50 Ω
14RKFK50-1.0	1.0 m (39"), DC to 40 GHz, Ruggedized K(f) to K(m), 50 Ω
14KFKF50-0.6	0.6 m (24"), DC to 40 GHz, K(f) to K(f), 50 Ω
14KFKF50-1.0	1.0 m (39"), DC to 40 GHz, K(f) to K(f), 50 Ω
14KFK50-0.6	0.6 m (24"), DC to 40 GHz, K(f) to K(m), 50 Ω
14KFK50-1.0	1.0 m (39"), DC to 40 GHz, K(f) to K(m), 50 Ω
15NN50-1.0B	1.0 m (39"), DC to 18 GHz, N(m) to N(m), 50 Ω
15NNF50-1.0B	1.0 m (39"), DC to 18 GHz, N(m) to N(f), 50 Ω
15LL50-1.0A	1.0 m (39"), DC to 20 GHz, 3.5 mm(m) to 3.5 mm(m), 50 Ω
15LLF50-1.0A	1.0 m (39"), DC to 20 GHz, 3.5 mm(m) to 3.5 mm(f), 50 Ω
15KK50-1.0A	1.0 m (39"), DC to 26.5 GHz, K(m) to K(m), 50 Ω
15KKF50-1.0A	1.0 m (39"), DC to 26.5 GHz, K(m) to K(f), 50 Ω



High performance, full temperature Coaxial Calibration Kits

Model	Frequency Range	Connector	Through	RL Specification (load)	Technical Data Sheet
OSLN50A-8	DC to 8 GHz	N(m)	No	6/8 GHz ≥ 42/37 dB	11410-00733
OSLNF50A-8	DC to 8 GHz	N(f)	No	6/8 GHz ≥ 42/37 dB	11410-00735
TOSLN50A-8	DC to 8 GHz	N(m)	Yes	6/8 GHz ≥ 42/37 dB	11410-00737
TOSLNF50A-8	DC to 8 GHz	N(f)	Yes	6/8 GHz ≥ 42/37 dB	11410-00739
OSLN50A-18	DC to 18 GHz	N(m)	No	6/9/18 GHz ≥ 42/37/33 dB	11410-00734
OSLNF50A-18	DC to 18 GHz	N(f)	No	6/9/18 GHz ≥ 42/37/33 dB	11410-00736
TOSLN50A-18	DC to 18 GHz	N(m)	Yes	6/9/18 GHz ≥ 42/37/33 dB	11410-00738
TOSLNF50A-18	DC to 18 GHz	N(f)	Yes	6/9/18 GHz ≥ 42/37/33 dB	11410-00740
TOSLK50A-20	DC to 20 GHz	K(m)	Yes	10/20 GHz ≥ 42/36 dB	11410-00741
TOSLKF50A-20	DC to 20 GHz	K(f)	Yes	10/20 GHz ≥ 42/36 dB	11410-00743
TOSLK50A-40	DC to 40 GHz	K(m)	Yes	10/20/30/40 GHz ≥ 42/36/32/30 dB	11410-00742
TOSLKF50A-40	DC to 40 GHz	K(f)	Yes	10/20/30/40 GHz ≥ 42/36/32/30 dB	11410-00744

USB Transmission Sensors and USB Extender Kit

(For 2-Port Cable Loss/Transmission (Ext. Sensor) Measurements)



Model Number	Description
MA24108A	Microwave USB Power Sensor, N(m), 10 MHz to 8 GHz, +20 dBm to -40 dBm
MA24118A	Microwave USB Power Sensor, N(m), 10 MHz to 18 GHz, +20 dBm to -40 dBm
MA24126A	Microwave USB Power Sensor, K(m), 10 MHz to 26 GHz, +20 dBm to -40 dBm
SC8268	USB Transmission Sensor, K(m), 1 MHz to 40 GHz, +10 dBm to -50 dBm
2000-1717-R	USB Extender, Requires Cat 5e extension cable (sold separately)
2100-28-R	Cat 5e extension cable for use with USB Extender (22.5 m)

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