

# Quick Fact Sheet

## Site Master™ S820E

### Microwave Cable and Antenna Analyzer

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

**Anritsu**  
Advancing beyond

#### 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 value and productivity include:

##### Standard Measurements:

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

##### Standard Features:

- Single or Dual Measurement Touchscreen
- 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)
- Three year standard warranty, lowering cost of ownership

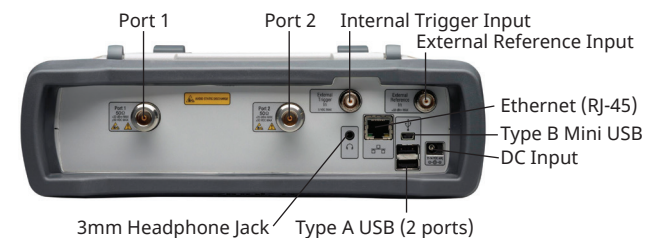


#### Setting the Standard for >15 years

Anritsu set the standard in 1999 with the world's first 18 GHz broadband Site Master. More than 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 550  $\mu$ 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. Largest and highest resolution display (8.4 inch, 800x600) for maximum readability in all lighting conditions with an intuitive graphical user touchscreen interface
8. Full temperature coax calibration kits from -10 °C to +55 °C for field precision measurement
9. Widest calibration temperature window of  $\pm 10$  °C requiring less recalibrations
10. Unique 2-port Swept Cable Loss Measurement across the whole frequency range of interest in a quick one-step measurement
11. Most popular 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



\*Option required on competitive products



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#### Key Specifications

Performance	
Frequency Range	1 MHz to 8, 14, 20, 30, or 40 GHz
Frequency Resolution	1 Hz (1 MHz to 40 GHz)
Frequency Accuracy	±1.0 ppm at 23 °C
Dynamic Range	110 dB (20 MHz to 40 GHz, typical)
Sweep Speed	550 µs/data point
Calibration Temperature Window	±10 °C
Full Temperature Calibration Kits	-10 °C to +55 °C

#### Key Features

Feature
VNA Mode (option) offers all four fully reversing S-parameter measurement capabilities
VVM Mode (option) with true A/B and B/A ratio capability
Coaxial and waveguide measurement supported
1-port measurements: Return Loss, VSWR, Cable Loss, Distance-To-Fault, Smith Chart, 1-port phase
2-port measurements: Transmission Measurement and Swept Cable Loss
High Accuracy Power Meter measurements with external power sensors
USB/Ethernet connectivity, full remote control capability
Intuitive menu-driven 8.4 inch touchscreen with daylight/nighttime viewable modes
Field-proven design: Explosive Atmosphere MIL-PRF-28800F Section 4.5.6.3 compliant



#### Instrument Options

Option Number	Description
S820E	Microwave Site Master Handheld Cable and Antenna Analyzer
<b>Options</b>	
S820E-0708	1 MHz to 8 GHz, type N(f) ports
S820E-0714	1 MHz to 14 GHz, type N(f) ports
S820E-0720	1 MHz to 20 GHz, type Ruggedized K(m) ports (compatible with 3.5 mm and SMA connectors)
S820E-0730	1 MHz to 30 GHz, type Ruggedized K(m) ports (compatible with 3.5 mm and SMA connectors)
S820E-0740	1 MHz to 40 GHz, type Ruggedized K(m) ports (compatible with 3.5 mm and SMA connectors)
S820E-0441	Vector Voltmeter (VVM)
S820E-0097	Accredited Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate
S820E-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate.
S820E-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate, test report, and uncertainty data



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