Anritsu envision : ensure

Product Brochure

Site Master™

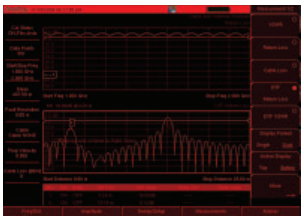
Compact Handheld Cable & Antenna Analyzer with Spectrum Analyzer

S331E	S332E	S361E	S362E	
2 MHz to 4 GHz	2 MHz to 4 GHz 9 kHz to 4 GHz	2 MHz to 6 GHz	2 MHz to 6 GHz 9 kHz to 6 GHz	Cable & Antenna Analyzer Spectrum Analyzer

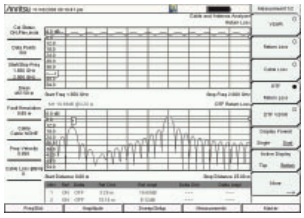
Site Master — the Leading Cable and Antenna Analyzer

Built on a trusted history of quality, expertise, and performance, the Site Master S331E/S332E/S361E/S362E compact cable and antenna analyzer series is the leading 2-port solution that provides coverage from 2 MHz to 4/6 GHz. This portable and rugged solution has a variety of configuration options that make it the preferred solution by contractors, installers, and wireless service providers. Because of the Site Master series multi-functional capabilities and options, it eliminates the need for you to carry and learn multiple instruments.

- **Cable and antenna analyzer** – with a faster than 1 ms/data point sweep speed and dual display, quickly characterize cable and antenna systems with return loss, cable loss, VSWR, and distance-to-fault measurements
- **Spectrum analyzer** – covering a 9 kHz to 4/6 GHz frequency range, this option will help locate and identify various signals as low as -152 dBm with phase noise better than -100 dBc/Hz
- **Interference hunting** – identify interference from both illegal and unintentional signals that can degrade network performance and cause critical communications to be interrupted
- **Passive intermodulation (PIM) testing** – operating with a PIM Hunter™ probe allows a test technician to pinpoint the location of external PIM beyond the antenna
- **Indoor/Outdoor coverage mapping** – coupled with the NEON® MA8100A signal mapper, collect geo-referenced test data for RSSI and ACPR measurements



Nightime Display

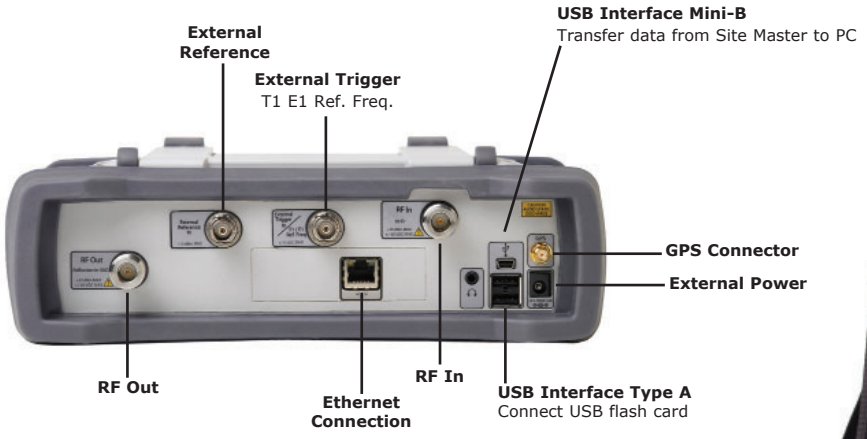


Black and White Display

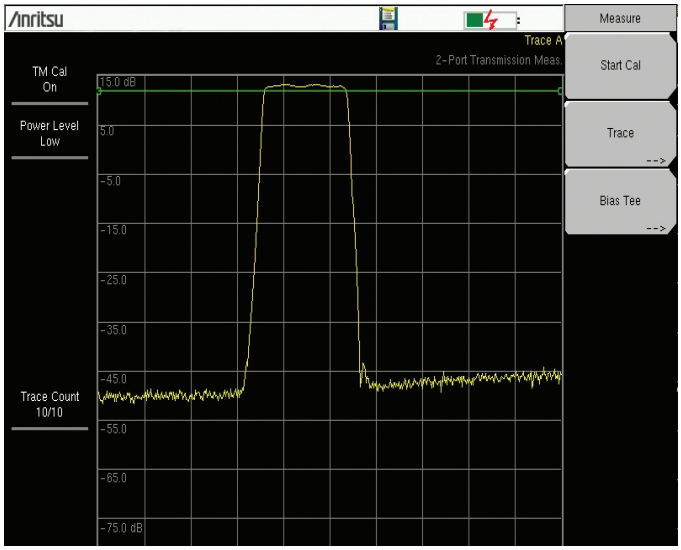
Additional Configuration Options

Function	Description
2-port transmission measurement (Option 21)	With better than 80 dB dynamic range, provides high and low power settings for both TMA gain and antenna-antenna isolation measurements.
Bias tee (Option 10)	Built-in adjustable 12 to 32V bias tee can be turned on as needed eliminating the need to carry an external supply.
High-accuracy power meter (Option 19)	Connects high-accuracy 4, 6, 8, 18, and 26 GHz USB power sensors with up to ± 0.16 dB accuracy.
Power meter (Option 29)	Makes channelized transmitter power measurements.
Interference analyzer (Option 25)	Includes spectrogram display for monitoring intermittent signals over time and pinpoints source with on-screen interference mapping.
Channel scanner (Option 27)	Measures the power of multiple transmitted signals.
CW signal generator (Option 28)	Includes CW source to test low noise amplifiers and repeaters (requires an external CW generator kit).
GPS receiver (Option 31)	Provides location and UTC time information, and also improves the accuracy of the reference oscillator.
Gated sweep (Option 90)	Views pulsed or burst signals such as WiMAX, GSM, and TD-SCDMA only when they are on.
AM/FM/PM analyzer (Option 509)	Analyzes AM/FM/PM signals and measures FM/PM deviation, AM depth, SINAD, total harmonic distortion, and much more.
Ethernet connectivity (Option 413)	Enables automated testing from remote PC, or uploads data from field test to the PC.
EMF measurement system (Option 444)	Provides the capability to measure electromagnetic field radiation when used in conjunction with an Anritsu isotropic antenna. Automated measurements can be taken using user-definable time intervals.

Designed for the Field



All connectors are conveniently located on the top panel, leaving the sides clear for handheld use.



Tilt bails are integrated into the case and soft case for better screen viewing.

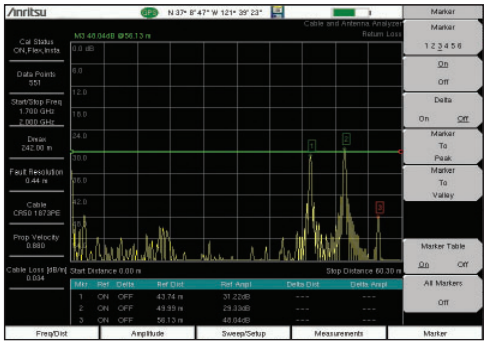
Reliable Cable & Antenna Analysis — Anywhere, Anytime

The majority of the problems you find at a typical cell site are caused by problematic or pinched cables, corroded connectors, antennas, lightning strikes, rain getting into cables, and bullet holes. Degraded cable systems and badly positioned antennas affect overall system coverage and eventually result in dropped calls. The Site Master series FDR-based return loss and DTF measurements can pinpoint an antenna problem from ground level in a few seconds, enabling the identification of small problems before they become big problems.

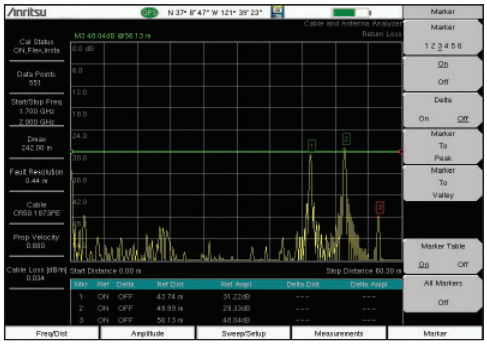
Cable and Antenna Analyzer Highlights

- Return loss, VSWR, cable loss, DTF
- Spectrum analyzer
- Interference analyzer with spectrogram displays
- Channel scanner
- High-accuracy power meter
- 2-port transmission measurements with built-in 32V bias tee
- 1-port phase, Smith chart
- Quick Name Matrix reduces trace labeling time in the field
- PIM 3rd, 5th, and 7th order frequency measurements
- Dual display mode capabilities
- Built-in, editable signal standard and cable standard lists
- Calibration: OSL Cal, FlexCal, InstaCal
- 137, 275, 551, 1102, 2204 data points
- < 1 msec per datapoint sweep speed
- Trace overlay and trace math to monitor changes with reference traces
- Marker table with automatic peak/valley markers
- GPS tagging of data to verify location of test
- Limit lines and alarming for providing reference standards
- Line Sweep Tools™ (LST) and Master Software Tools (MST) for post-analysis and report generation

Return Loss/VSWR



Distance-to-Fault



2-Port Transmission Measurements

Return Loss / VSWR

Make return loss and VSWR measurements, and verify that the cable and antenna system conforms to performance specifications.

Cable Loss

Cable loss metrics measure the level of insertion loss within the cable feedline system. This measurement can be verified prior to deployment when you have access to both ends. The Site Master series automatically calculates the average cable loss.

Distance-To-Fault (DTF)

While the return loss metric is the best measurement to verify the health of a system, DTF is used to troubleshoot systems and locate the problem.

The Site Master series DTF measurement uses the fast Fourier transform to convert frequency data to the time domain and displays signal anomalies with respect to distance. Using the standard trace math feature, you can monitor small relative changes over time.

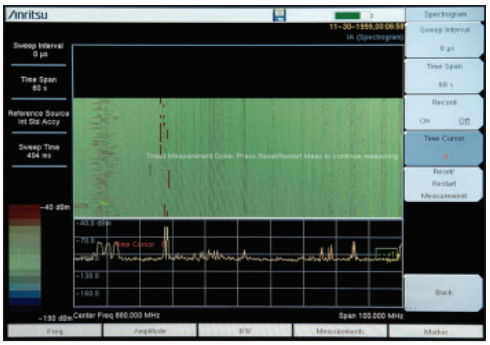
2-port Transmission Measurements (Option 21)

Cellular/PCS and 3G base stations today use diplexers, duplexers, and tower-mounted amplifiers to extend the coverage area. The Site Master series 2-port transmission measurement enables you to make gain, isolation, and insertion loss measurements as well as verify sector-to-sector isolation.

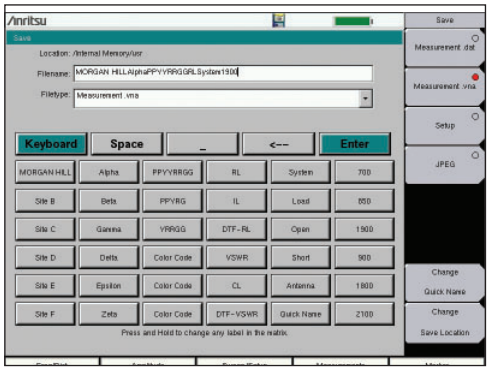
Bias Tee (Option 10) — requires Option 21 for S331E/S361E

The built-in bias tee can be turned on as needed to place 12 to 32V on the center conductor of the RF in port, eliminating the need for you to carry external supplies in the field.

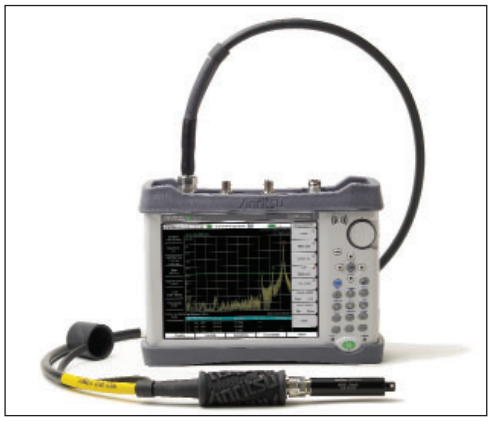
Enhance Productivity with Dual Displays and Instant Calibration



Dual Display



Quick Name Matrix



InstaCal Calibration

Dual Display

The dual display enables users to view two cable and antenna measurements on the same display. Because you can control the top and bottom displays independently, you can set markers and limit lines on each one. This results in significant time savings as there's no need to make two measurements.

Quick Name Matrix

The integrated Quick Name Matrix and keyboard enables you to preset up to 42 commonly used names. This allows you to save long file names with cell site ID, sector information, color coding, measurement type, frequency, and termination in less than five seconds. Now you can label the traces of the entire site in minutes instead of hours.

InstaCal™ Calibration

Although you need to get the job done as quickly as possible, you still need to make reliable and accurate measurements. Anritsu's InstaCal module enables you to make accurate calibrations at the end of the phase stable cable without connecting a short/open/load. This calibration method can cut the calibration time by as much as 50 percent and still deliver accurate results.

Standard OSL Calibration

Open-Short-Load (OSL) calibration comes standard with the Site Master series. All errors from source match, directivity, and frequency response are mathematically removed, allowing you to make accurate vector-corrected measurements. Directivity is usually the main contributor to measurement uncertainty, and corrected directivity of 42 dB or better is common using Anritsu's precision components.

FlexCal™ Calibration

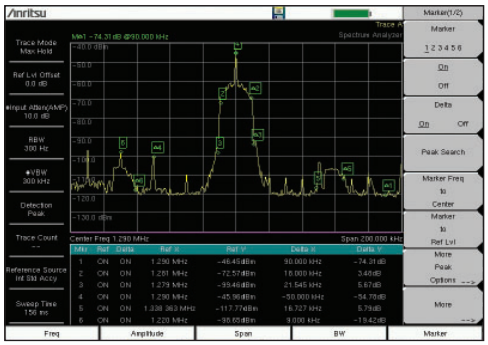
The Site Master series FlexCal broadband calibration feature is a method that allows you to perform a broadband calibration and change the frequency range after calibration without having to recalibrate the instrument.

RF Immunity

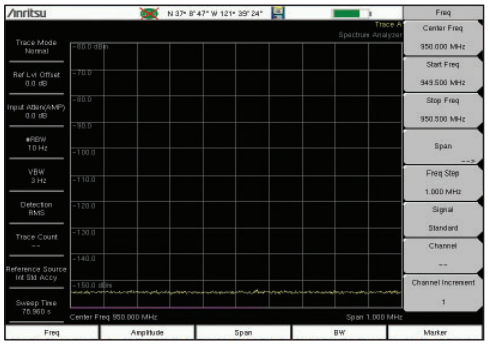
The Site Master series unique RF immunity algorithm solution enables you to make accurate cable and antenna measurements even in the presence of strong RF activity from co-located cell sites.

Performance

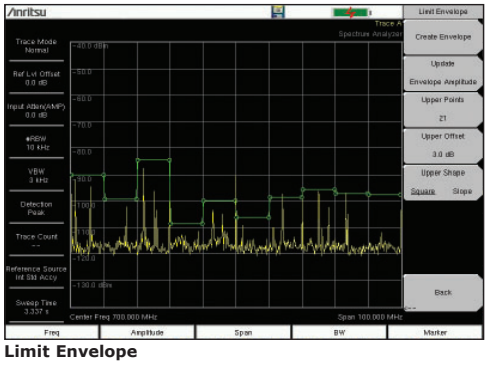
The Site Master S332E and S362E series with integrated spectrum analysis capability provide users with a high-performance, easy-to-use, feature-rich spectrum analyzer for field environments and applications requiring mobility. This makes the series ideal for a broad range of activities, including: spectrum monitoring, AM/FM broadcast proofing, interference analysis, field strength measurements, transmitter spectrum analysis, electromagnetic field strength, signal strength mapping, as well as overall field analysis of cellular 2G/3G/4G, land mobile radio, Wi-Fi, and broadcast signals.



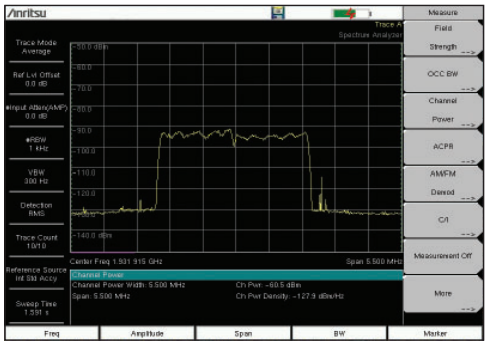
Dynamic Range Performance



Low-level Performance



Limit Envelope



Comprehensive Marker Menu

High Performance

The dynamic range is better than 95 dB in 10 Hz RBW, enabling measurement of very small signals in the presence of much larger signals.

Displayed Average Noise Level (DANL)

The Site Master series delivers impressive and best-in-class DANL performance. With the built-in pre-amp, better than -152 dBm DANL can typically be realized in 10 Hz RBW and -162 dBm when normalized to 1 Hz. This low-level performance capability is essential when looking for low-level interference signals.

GPS-Assisted Frequency Accuracy

With GPS Receiver Option 31, the frequency accuracy is < 50 ppb. This additional accuracy is important when characterizing 3GPP signals using counted frequency markers. Also all measurements can be GPS tagged for exporting to maps.

Simple But Powerful for Field Use

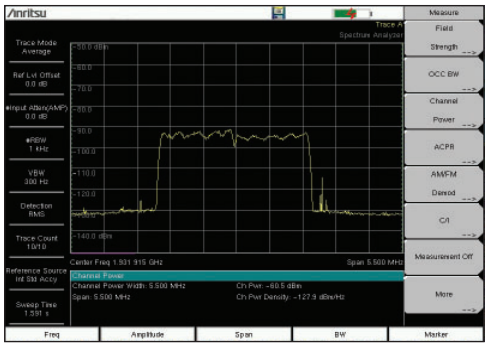
Convenience is a must in the field. This is why the Site Master series is equipped with features that will enhance productivity in the field:

- With limit lines for all user levels, create single limit lines and segmented limit lines in one step using the one-button limit envelope feature.
- The Site Master series automatically sets the fastest sweep possible while still ensuring accurate measurements. This allows users to rely on the instrument to optimize accuracy and consistency.
- Auto attenuation ties the input attenuation to the reference level, eliminating the need for the user to determine how much attenuation is needed.
- Six regular and six delta markers can be displayed with a marker table that can be turned on as needed. The capability to measure noise level in terms of dBm/Hz or dBµV/Hz is a standard feature of the Site Master series.

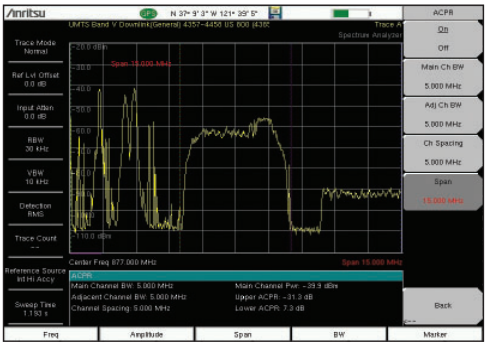
Master Transmitter Testing

Smart Measurements for Transmitter Systems

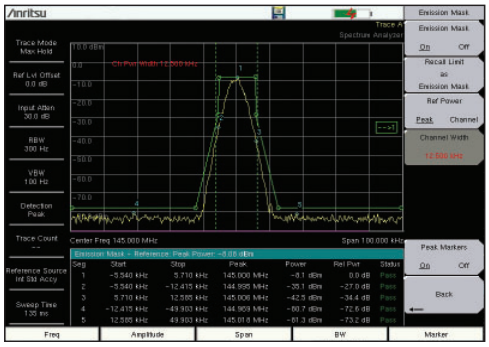
Commonly needed transmitter measurements are built-in and can be accessed easily. These include: field strength, occupied bandwidth, channel power, adjacent channel power ratio (ACPR), AM/FM demod, and emission mask.



Occupied Bandwidth



Adjacent Channel Power Ratio



Emission Mask

Occupied Bandwidth

This measurement determines the amount of spectrum used by a modulated signal. The Site Master series allows you to choose between two different methods of determining bandwidth: the percent-of-power or the "x" dB down method.

Adjacent Channel Power Ratio (ACPR)

ACPR is a common transmitter measurement. High ACPR will create interference for neighboring carriers. This measurement can be used to replace the traditional two-tone intermodulation distortion (IMD) test for system non-linear behavior.

Field Strength Measurements

The Site Master series can determine the effects of electromagnetic fields caused by transmitter systems. Specific antenna factors of the connected antenna are automatically taken into account and field strength can be displayed directly in dBµV/m. The Site Master series also supports a wide range of directional antennas. If you are using a different antenna, Master Software Tools can be used to edit the antenna list and upload the custom antenna list to the instrument to accurately measure the maximum field strength.

Emission Mask

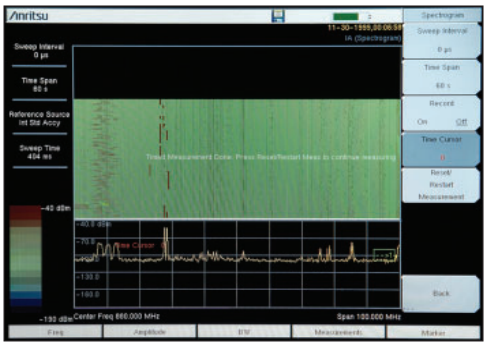
The emission mask is a segmented upper limit line that will display frequency range, peak power and frequency, relative power and pass/fail status for each segment of the mask. The emission mask must have at least two segments. Emission mask adjusts to the peak power value of transmitted signal level per government emission mask requirements.

Spectrum Analyzer Highlights

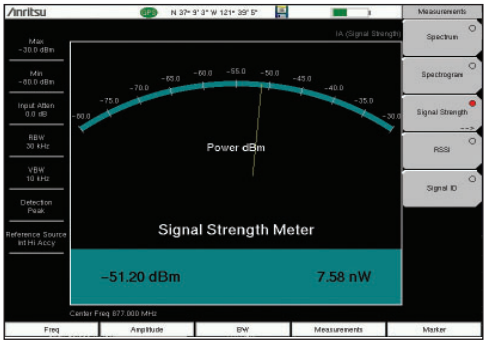
- Measurements: Occupied bandwidth, channel power, ACPR, C/I, AM/FM demod, field strength
- Interference analyzer: spectrogram, signal strength, RSSI, signal ID, interference mapping
- Dynamic range: > 95 dB in 10 Hz RBW
- DANL: -152 dBm in 10 Hz RBW
- Phase noise: -100 dBc/Hz @ 10 kHz offset at 1 GHz
- Frequency accuracy: < ± 50 ppb with GPS on
- Advanced marker functions: noise marker, frequency counter
- Advanced limit line functions: one-button envelope creation
- Detection methods: peak, RMS, negative, sample, quasi-peak
- Save-on-event: automatically saves a sweep when crossing a limit line
- Gated sweep: view pulsed or burst signals only when they are on or off

Master the Location of Interference

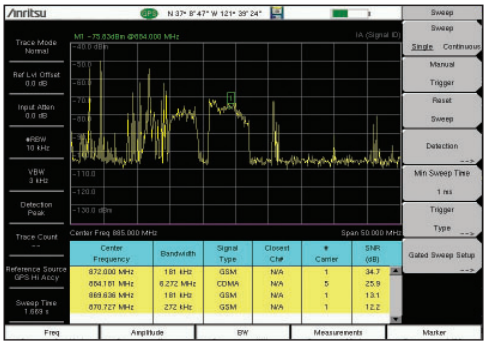
As the wireless industry continues to expand, more diverse uses for the radio spectrum emerge and the number of signals that can potentially cause interference is constantly increasing. Compounding the problem are the many sources that can generate interference, including intentional radiators, unintentional radiators, and self interference. Interference causes carrier-to-Interference degradation and robs the network of capacity. The goal of these measurements is to resolve interference issues as quickly as possible.



Spectrogram Display



Signal Strength Meter



Signal ID

Carrier-to-Interference (C/I)

Interference Analyzer (Option 25)

The interference analyzer option provides you with a spectrogram display, RSSI, signal strength meter, signal ID, and interference mapping capabilities. The Site Master series integrated spectrum analyzer can detect signals as low as -152 dBm.

Spectrogram Display

The spectrogram display provides you with a 3D view of frequency, power, and time of the spectrum activity to identify intermittent interference and track signal levels over time. The dual display screen allows for easy viewing of both the spectrum and 3D views. The Site Master series allows you to save a history of data up to 72 hours.

Signal Strength Meter

The signal strength meter can locate an interfering signal by using a directional antenna and measuring the signal strength. It displays power in watts or dBm in the graphical analog meter display and by an audible beep proportional to its strength.

Signal ID

The signal ID feature in the interference analyzer can help you quickly identify the type of interfering signal. You can configure this measurement to identify all signals in the selected band or to simply monitor one single interfering frequency. The Site Master series then displays results that include: center frequency, signal bandwidth, signal type, SNR (dB), etc.

Carrier-To-Interference (C/I) Measurement

The C/I measurement capability makes it simple for you to determine if the level of interference will affect users in an intended service area.

AM/FM/SSB Demodulation

A built-in demodulator for AM, narrowband FM, wideband FM, and single sideband allows you to easily identify the interfering signal.

Pinpoint Location of Interfering Signal with Interference Mapping

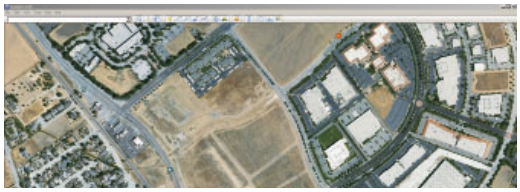
Interference Mapping with Google Earth™

Interference Mapping

The interference mapping measurement eliminates the need to use printed maps and draw lines to triangulate the interfering signal. Using easyMap™ Tools, it is easy to convert maps and make them compatible with the Site Master series. With a valid GPS signal, the instrument identifies the user location on the map. Using one of the recommended Anritsu Yagi antennas, you can identify the direction of the interfering signal and input the angle information with the rotary knob. With two or more lines from different locations, it is possible to obtain an estimated location of the interfering signal. The interference mapping can be done directly in the Site Master solution. Files can also be saved as kml and opened with Google® Earth.

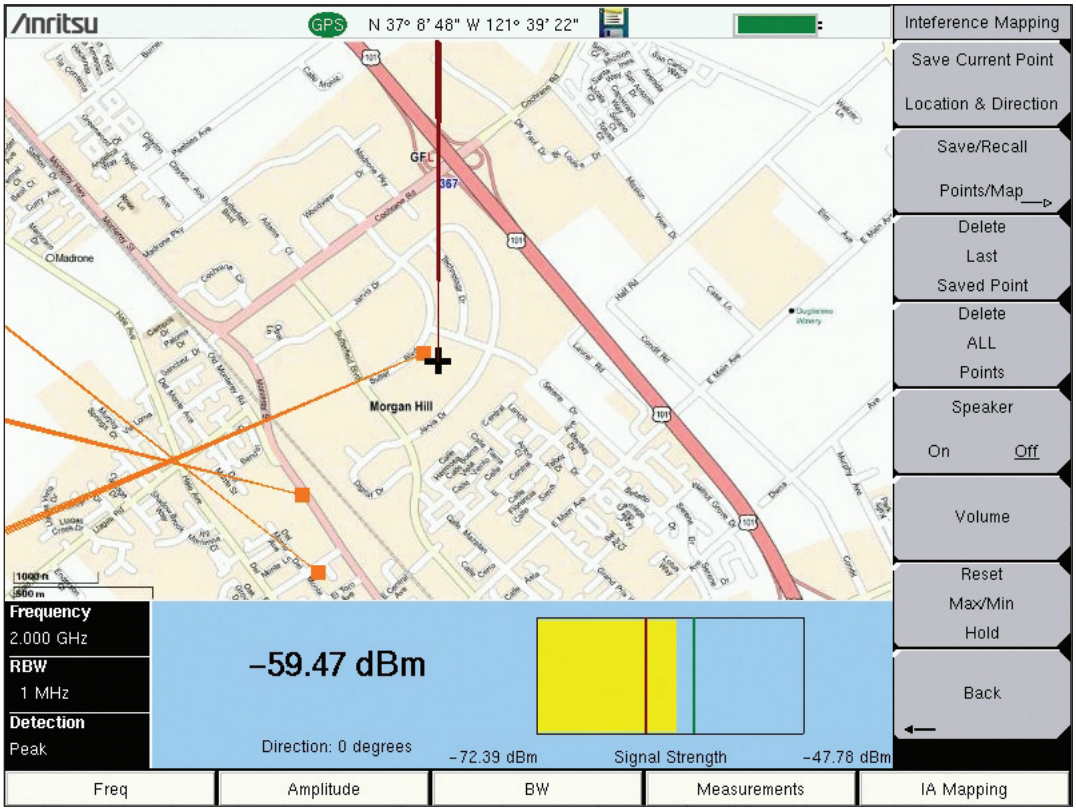
Directional Antennas

Anritsu offers several different directional antennas covering a wide range of common frequency bands. See Ordering Information for a list of compatible directional antennas available.



GPS Antenna

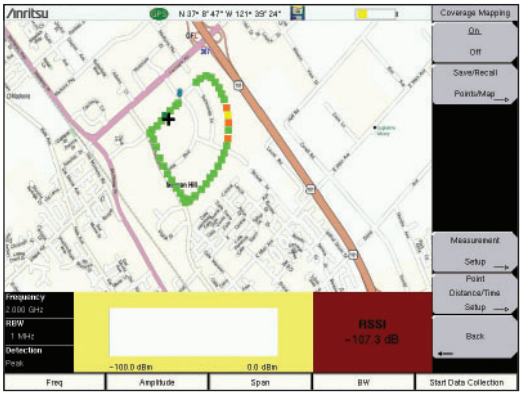
The 2000-1528-R GPS antenna and Option 31 are required for the interference mapping and coverage mapping measurements.



On-Screen Interference Mapping

Indoor and Outdoor Coverage Mapping Solutions (Option 431)

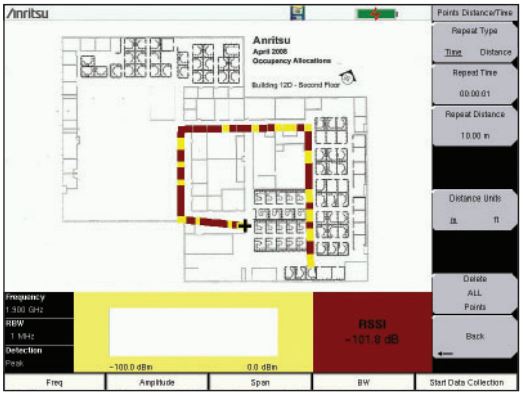
There is a growing demand for coverage mapping solutions. Anritsu's coverage mapping measurements option provides wireless service providers, public safety users, land mobile ratio operators, and government officials with indoor and outdoor mapping capabilities.



Outdoor Mapping

Outdoor Mapping

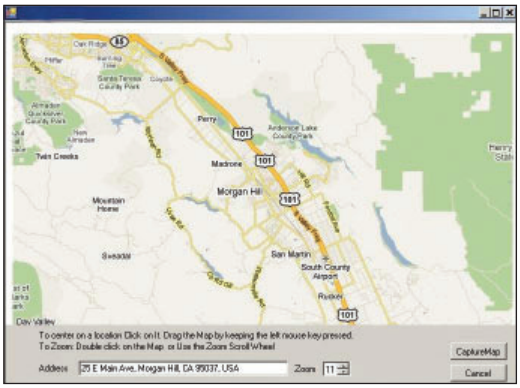
With a GPS antenna connected to the instrument and a valid GPS signal, the instrument monitors RSSI and ACPR levels automatically. Using a map created with easyMap Tools, the instrument displays maps, the location of the measurement, and a special color code for the power level. The refresh rate can be set as time or distance. The overall amplitude accuracy coupled with the GPS update rate ensures accurate and reliable mapping results.



Indoor Mapping

Indoor Mapping

When there is no GPS signal valid, the Site Master solution uses a start-walk-stop approach to record RSSI and ACPR levels. You can set the update rate, start location, and end location and the interpolated points will be displayed on the map.



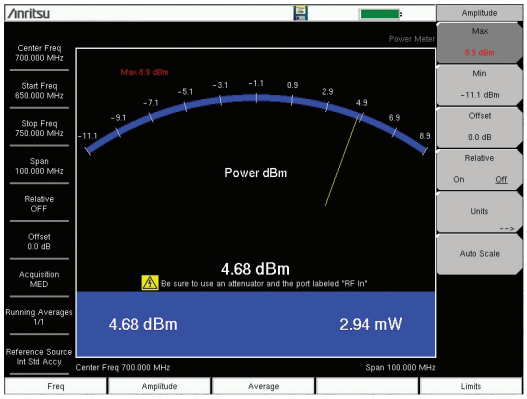
Create maps with easyMap Tools

easyMap™ Tools

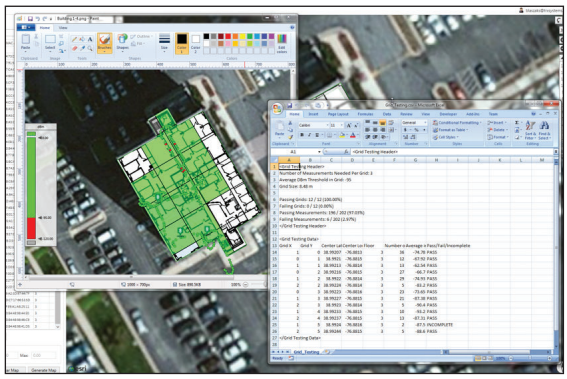
easyMap sources map data from either Google Maps or MapQuest. Maps sourced from Google can be displayed as terrain maps, road maps, hybrid maps (a combination of terrain and road maps), and as satellite view maps. These maps are quite useful when used in interference hunting or coverage mapping. However, Google Maps is not available in every country, due to country-specific restrictions. MapQuest sourced maps are available as road maps and come from the OpenStreet Maps movement. At this time, they are freely downloadable wherever internet access is available.

Site Master Valuable Options and Features

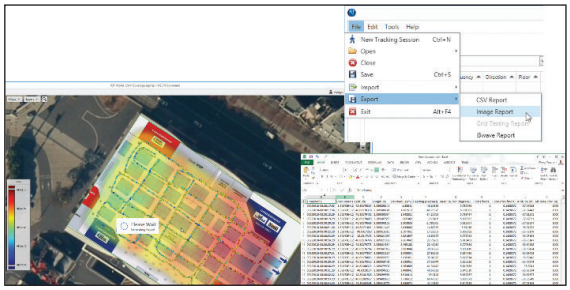
NEON® MA8100A Signal Mapper



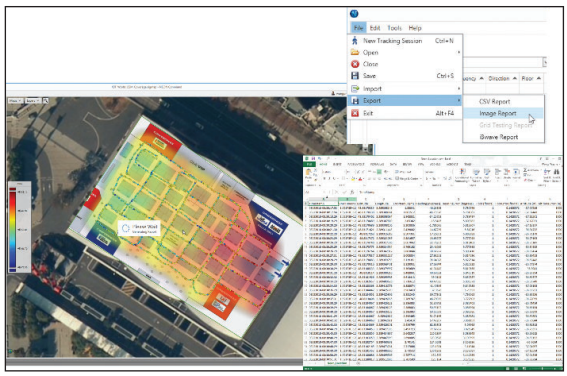
NEON Signal Mapping with Anritsu Handhelds



Support for NFPA Gridding Requirements



Automatically generate 3D Heatmaps



Automatic Report Generation

NEON MA8100A Signal Mapper*

The most powerful 3D in-building coverage mapping tool, the NEON MA8100A solution, is compatible with all Anritsu handheld instruments with spectrum analyzer mode. Instruments supported include: Spectrum Master™, LMR Master™, Site Master, BTS Master™, Cell Master™, and VNA Master™.

This solution from 3rd party partner TRX Systems, consists of both hardware and software that includes: a NEON Tracking Unit, NEON Signal Mapper Software for Android devices, and NEON Command Software for a PC.

The NEON Tracking Unit supports collection and processing of sensor data that delivers 3D location information. It connects to the NEON Signal Mapper application that is run on an Android device via a Bluetooth connection.

The NEON Signal Mapper application provides an intuitive Android user interface enabling lightly trained users to map RF signals within buildings. Users can initialize their location, start/stop mapping, and save mapping data to the cloud. RF data is captured by an Anritsu's handheld spectrum analyzer product's and the data is sent to the Android device via a USB connection.

The NEON Command Software, run on a PC, enables creation and visualization of 3D building maps, and provides centralized access to the NEON Cloud Service to access stored maps and measurement data.

Key Features and Benefits

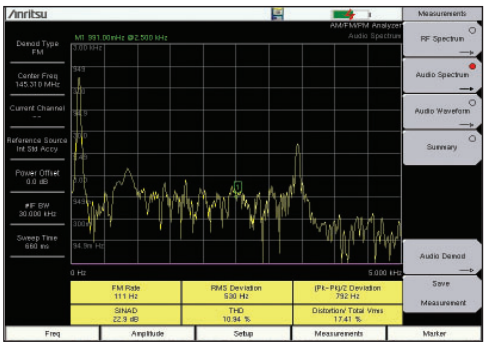
Integrating the NEON solution's capability to automatically collect geo-referenced test data with Anritsu's handheld spectrum analyzer products saves valuable time and money by:

- Eliminating the need to manually perform "check-ins" at each test point by automatically calculating indoor location
- Providing vastly more data than is possible with manual processes by recording data with every step
- Removing typical data recording errors caused by "guesstimating" locations in large buildings through automatic indoor location and path estimation
- Delivering actionable data in areas not easily analyzed, such as stairways and elevators, by recording and referencing measurements in 3D
- Enabling quick analysis of signal coverage and faster problem resolution by delivering the industry's only geo-referenced 3D visualization
- Provides color-graded measurement results in 2D and 3D views. Measurement values can be seen by clicking on each point. A .csv file of all measurements is also provided.

*Android device and PC are NOT included as part of the NEON MA8100A solution. Customers must purchase their own Android device and PC.

Power Measurements for a Wide Range of Applications

The Anritsu Site Master series provides many different power measurements options to support a wide range of applications. The high-accuracy, broadband sensor family provides the best accuracy (±0.16 dB) over a wide frequency range. The power meter is ideal for users looking to make channelized measurements in a few keystrokes with minimal training. The channel power measurement also makes channelized measurements, but requires more knowledge and is recommended for more advanced users. When you are measuring multiple channels, the channel scanner is your perfect choice.



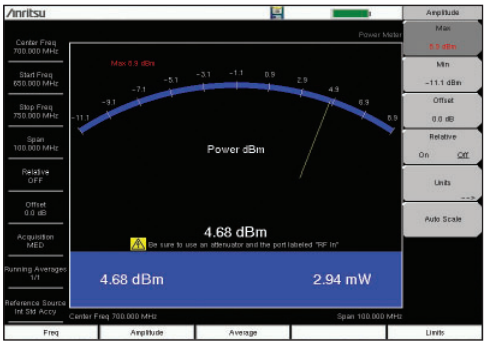
Power Meter

Channel Power

Use the channel power measurement to determine the power and power density of a transmission channel. Using the built-in signal standard list, you can measure the channel power of a wide range of signals.

Power Meter (Option 29)

The internal power meter provides power measurements without any additional tools and is ideal for making channelized power measurements. You can display the results in both dBm and watts. This option is easy-to-use and requires limited setup entries.



High-Accuracy Power Meter

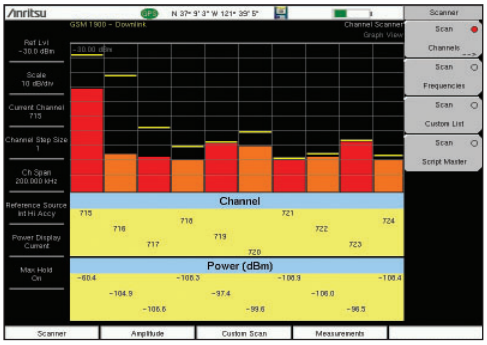
High-Accuracy Power Meter (Option 19)

This option enables you to make high-accuracy RMS measurements. This capability is perfect for measuring both CW and digitally modulated signals, such as CDMA/EV-DO, GSM/EDGE, WCDMA/HSPA+, and P25. You can select from a wide range of USB sensors delivering better than ±0.16 dB accuracy. An additional benefit of using the USB connection is that a separate DC supply (or battery) is not needed since the necessary power is supplied by the USB port.

High-Accuracy Power Sensors

PC Power Meter

These power sensors can be used with a PC running Microsoft Windows® via USB. They come with the PowerXpert™ application, a data analysis and control software. The application has abundant features — data logging, power versus time graph, big numerical display, and many more — that enable quick and accurate measurements.

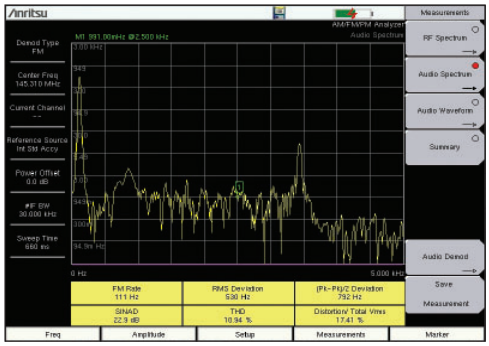


Channel Scanner

Channel Scanner (Option 27)

This option measures the power of multiple transmitted signals, making it very useful for simultaneously measuring channel power of up to 20 channels in GSM, TDMA, CDMA, W-CDMA, HSDPA, and public safety networks. You can select the frequencies or scanned data to be displayed by frequencies or the channel number. In the custom setup menu, each channel can be custom built with different frequency bandwidth or with channels from different signal standards. With Script Master, scans can be automated for up to 1200 channels.

Site Master Valuable Options and Features

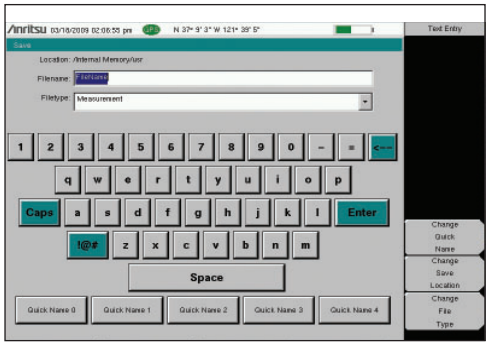


AM/FM/PM Analyzer

AM/FM/PM Analyzer (Option 509)

The AM/FM/PM analyzer provides analysis and display of analog modulation. Four measurement displays are provided: RF spectrum display shows the spectrum with carrier power, frequency, and occupied BW. Audio spectrum display shows the demodulated audio spectrum along with the rate, RMS deviation, Pk-Pk/2 deviation, SINAD, total harmonic distortion (THD), and distortion/total.

- Audio waveform display shows the time-domain demodulated waveform.
- A summary table display includes all the RF and demod parameters.



Touchscreen keyboard

Built-in Keyboard

The built-in, touchscreen keyboard saves valuable time in the field when entering trace names. You can create shortcuts to customer-configurable user "quick names" to program frequently used words.

CW Signal Generator (Option 28)

This option provides a CW signal generator from 2 MHz to 4 or 6 GHz. The signal at the output port can be set high (approximately 0 dBm) or low (-30 dBm). With the use of the CW signal generator kit's attenuator connected to the RF port, the level can be varied in 1 dB steps and provides the ability to generate signals as low as -110 dBm for receiver sensitivity measurements. The included splitter divides the signal and allows for a simultaneous power measurement.

Ethernet connectivity

Ethernet Connectivity (Option 413)

By enabling the Site Master series to communicate with PCs via Ethernet, you gain the ability to operate automated testing from your PC, or conversely, to upload data from field test to the PC. By using the Remote Access Tool (a utility provided with Anritsu's Master Software Tools), remote access control is provided.

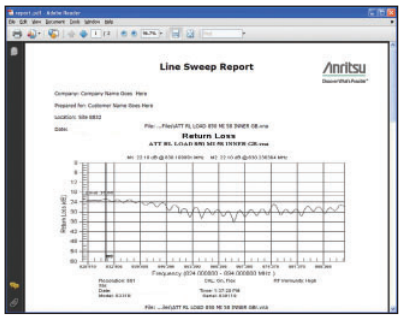
Local Language Support

Site Master features nine languages including: English, Japanese, Chinese, Italian, French, German, Spanish, Russian, and Korean. One custom user-defined language can be uploaded into the instrument using Master Software Tools.

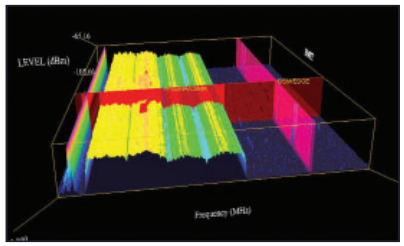
Site Master Valuable Options and Features

Line Sweep Tools, Master Software Tools, and easyTest Tools (for your PC)

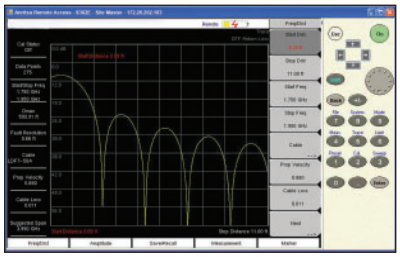
Trace Validation
Marker and Limit Line presets allow quick checks of traces for limit violations.



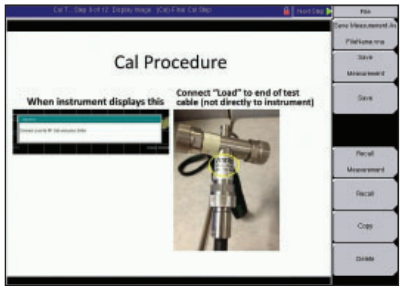
Report Generation
Create reports with company logo, GPS tagging information, calibration status, and serial number of the instrument for complete reporting.



3D Spectrogram
For in-depth analysis with 3-axis rotation viewing, threshold, reference level, and marker control. Turn on Signal ID to see the types of signals.



Remote Access Tool
The Remote Access Tool allows supervisor's to remotely view and control the instrument over the Internet.



easyTest Tools
easyTest Tools is a PC based program that helps create, distribute and display work instructions on Anritsu's Cable and Antenna Analyzers.

Line Sweep Tools (LST)

Line Sweep Tools increases productivity for people who deal with dozens of cable and antenna traces or passive intermodulation (PIM) traces every day.

- User interface will be familiar to users of Anritsu's handheld software tools. This will shorten the learning curve.
- Marker and limit line presets makes application to similar traces, as well as validating traces, a quick task.
- Renaming grid makes changing file names, trace titles, and trace subtitles from field values to those required for a report much quicker than manual typing and is less prone to error.
- Report generator will create a professional-looking PDF of all open traces with additional information such as contractor logos and contact information.

Master Software Tools

Master Software Tools (MST) is a powerful PC software post-processing tool designed to enhance the productivity of technicians in data analysis and testing automation.

Folder Spectrogram – creates a composite file of up to 15,000 multiple traces for quick review, also create:

- Peak power, total power, and peak frequency plotted over time
- Histogram – filter data and plot number of occurrences over time
- Minimum, maximum, and average power plotted over frequency
- Movie playback – playback data in the familiar frequency domain view
- 3D Spectrogram – for in-depth analysis with 3-axis rotation viewing control

easyTest Tools

Anritsu's easyTest Tools is a PC-based program that can help create, distribute, and display work instructions on Anritsu's cable and antenna analyzers.

- **Create** an on-instrument procedure with setups, pictures, prompts, and easy methods to save results.
- **Distribute** an easyTest procedure is completely contained in a single compressed file, making electronic distribution simple.
- **Display** work instructions on the instrument. Prompts, photos, and even PowerPoint slides can be displayed on your Anritsu handheld cable and antenna analyzers. The ability to recall setups and automatically save results make using easyTest even easier.

Line Sweep Features

Presets
7 sets of 6 markers and 1 limit line
Next trace capability

File Types
Input: HHST DAT VNA Measurements: Return Loss (VSWR), cable loss, DTF-RL, DTF-VSWR, PIM
Output: LS DAT, VNA, CSV, PNG, BMP, JPG, PDF

Report Generator
Logo, title, company name, customer name, location, date and time, file name, PDF, HTML, all open traces

Tools
Cable editor
Distance-to-fault
Measurement calculator
Signal standard editor
Renaming grid

Interfaces
Serial, Ethernet, USB

Capture Plots to
Screen, database, DAT files, JPEG, instrument

Master Software Tools Features

Database Management
Full trace retrieval
Trace catalog
Group edit
Trace editor

Data Analysis
Trace math and smoothing
Data converter
Measurement calculator

Mapping (GPS Required)
Spectrum analyzer mode
Mobile WiMAX OTA option
TS-SCDMA OTA option
LTE, both FDD and TDD options

Folder Spectrogram
Folder Spectrogram – 2D View
Video Folder Spectrogram – 2D View
Folder Spectrogram – 3D View

List/Parameter Editors
Traces
Antennas, Cables, Signal Standards
Product Updates
Firmware Upload
Pass/Fail
VSG Pattern Converter
Languages
Mobile WiMAX
Display

Connectivity
USB
Download measurements and live traces
Upload lists/parameters
Firmware updates
Remote access tool over the Internet

easyTest Tools

Create tests
Distribute procedures
Display instructions

Site Master™ Ordering Information

Ordering Information – Options

S331E	S332E	S361E	S362E	Description
2 MHz to 4 GHz	2 MHz to 4 GHz	2 MHz to 6 GHz	2 MHz to 6 GHz	Cable and Antenna Analyzer
	9 kHz to 4 GHz		9 kHz to 6 GHz	Spectrum Analyzer
Options	**Options**	**Options**	**Options**	
S331E-0021	S332E-0021	S361E-0021	S362E-0021	2-Port Transmission Measurement
S331E-0010	S332E-0010	S361E-0010	S362E-0010	Bias-Tee (requires Option 21 for S331E /S361E)
S331E-0031	S332E-0031	S361E-0031	S362E-0031	GPS Receiver (requires Antenna)
S331E-0019	S332E-0019	S361E-0019	S362E-0019	High-Accuracy Power Meter (requires External Power Sensor)
	S332E-0029		S362E-0029	Power Meter
	S332E-0025		S362E-0025	Interference Analyzer (requires Option 31)
	S332E-0027		S362E-0027	Channel Scanner
	S332E-0431		S362E-0431	Coverage Mapping (requires Option 31)
	S332E-0090		S362E-0090	Gated Sweep
	S332E-0028		S362E-0028	C/W Signal Generator (requires CW Signal Generator Kit, P/N 69793)
	S332E-0509		S362E-0509	AM/FM/PM Analyzer
S331E-0413	S332E-0413	S361E-0413	S362E-0413	Ethernet Connectivity
S331E-0098	S332E-0098	S361E-0098	S362E-0098	Standard Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate
	S332E-0444		S362E-0444	EMF Measurements (requires Anritsu Isotropic Antenna)
S331E-0099	S332E-0099	S361E-0099	S362E-0099	Premium Calibration to ISO17025 and ANSI/NCSL Z540-1. Includes calibration certificate, test report, and uncertainty data

Power Sensors (for complete ordering information see the respective data sheets of each sensor)

Model Number	Description
MA24105A	Inline Peak Power Sensor, 350 MHz to 4 GHz, +51.76 dBm
MA24106A	High-Accuracy RF Power Sensor, 50 MHz to 6 GHz, +23 dBm
MA24108A	Microwave USB Power Sensor, 10 MHz to 8 GHz, +20 dBm
MA24118A	Microwave USB Power Sensor, 10 MHz to 18 GHz, +20 dBm
MA24126A	Microwave USB Power Sensor, 10 MHz to 26 GHz, +20 dBm
MA24208A	Microwave Universal USB Power Sensor, 10 MHz to 8 GHz, +20 dBm to –60 dBm
MA24218A	Microwave Universal USB Power Sensor, 10 MHz to 18 GHz, +20 dBm to –60 dBm
MA24330A	Microwave CW USB Power Sensor, 10 MHz to 33 GHz, +20 dBm
MA24340A	Microwave CW USB Power Sensor, 10 MHz to 40 GHz, +20 dBm
MA24350A	Microwave CW USB Power Sensor, 10 MHz to 50 GHz, +20 dBm
MA25100A	RF Power Indicator

Manuals (available at www.anritsu.com)

Part Number	Description
10100-00065	Product Information, Compliance and Safety
10580-00252	Site Master User Guide
10580-00241	Cable and Antenna Analyzer Measurement Guide
10580-00242	2-Port Transmission Measurement Guide
10580-00349	Spectrum Analyzer Measurement Guide
10580-00240	Power Meter Measurement Guide
10580-00415	CPRI LTE RF Analyzer Measurement Guide
10580-00434	OBSAI LTE RF Analyzer Measurement Guide
10580-00455	EMF Measurement Guide
10580-00256	Programming Manual

Troubleshooting Guides (available at www.anritsu.com)

Part Number	Description
11410-00473	Cable, Antenna and Components
11410-00551	Spectrum Analyzers
11410-00472	Interference

Site Master™ Ordering Information

Standard Accessories (included with instrument)

Part Number	Description
2000-1654-R	Soft Carrying Case
2000-1691-R	Stylus with Coiled Tether
2000-1797-R	Screen Protector Film, 8.4 inch (2, one installed)
633-75	Rechargeable Li-Ion Battery
40-187-R	AC-DC Adapter
806-141-R	Automotive Power Adapter, 12 VDC, 60 W
3-2000-1498	USB A/5-pin mini-B Cable, 10 feet/305 cm

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