Site Master™

Handheld Cable & Antenna Analyzer Featuring Classic and Advanced Modes

S331L

2.0 MHz to 4.0 GHz Cable & Antenna Analyzer
50 MHz to 4.0 GHz Power Meter

Introduction

Anritsu introduces its ninth generation, compact handheld Cable & Antenna Analyzer for installation and maintenance of antenna systems.

Optimized for field use

- > 8 Hour Battery Life
- Instant On from Standby Mode
- Highest RF Immunity
- Built-in InstaCal™ Module
  - Fast, One-connection Calibration
- FlexCal™ Calibration
  - One Calibration for All Frequencies
- Built-in Power Meter
- High Accuracy USB Power Meter (Requires USB Sensor(s), sold separately)
- Rugged and Reliable
- Impact, Dust, and Splash Resistant
- Smallest, Lightest Site Master™

Easy to use

- Integrated Help Function
- S331D-like Classic Mode
- S331E-like Advanced Mode
  - Additional Markers
  - Customizable Shortcuts
  - Full-screen View
- Multiple USB Ports
- 800 x 480 7” TFT Touch Screen
  - Alphanumeric Keyboard
  - EZ Name Quick Matrix
- Backlit Keypad

Efficient sweep management

- Internally Store >1000 Files
  - Sweeps, Setups, Screen Shots
- Fast Preview of Stored Sweeps
- Line Sweep Tools (LST) Software
  - Edit Sweeps, Rename, Archive
  - Generate PDF or HTML Reports
- Standard *.dat Sweep File Format
- Compatible with HHST
  - Widely Accepted by Operators
- Location Data with Compatible USB GPS Module
- SweepMasters DIRECT
  - Online Trace Delivery Service

Site Master™ S331L Cable & Antenna Analyzer Featuring 7.0 in Daylight Viewable Touch Screen
Compact Size: 250 mm x 177 mm x 61 mm (10.0 in x 7.1 in x 2.4 in), Lightweight: < 2.0 kg (4.4 lb)

Cable and Antenna Analyzer

All specifications and characteristics apply to Revision 1 instruments under the following conditions, unless otherwise stated: 1) Instrument within its recommended calibration cycle, 2) After 5 minutes of warm-up time, where the instrument has completely stabilized to the ambient temperature, 3) Internal frequency reference used, 4) Cable analyzer and VNA measurements applicable after standard OSL calibration is performed using Anritsu calibration components, 5) Typical data does not include guard band for measurement uncertainty and temperature variation and is not warranted, 6) All specifications subject to change without notice, 7) Recommended calibration cycle is 12 months.

Measurements

Measurements	VSWR Return Loss Cable Loss (One Port) Distance-to-Fault (DTF) Return Loss Distance-to-Fault (DTF) VSWR

Setup Parameters–Classic Mode

Measurement Display	Single Display with independent markers
Frequency	F1/F2
DTF	D1/D2, DTF Aid, Cable Loss, Propagation Velocity, Cable type
Windowing	Rectangular, Normal Side Lobe, Low Side Lobe, Minimum Side Lobe
Amplitude	Top, Bottom Auto Scale, Full Scale
Sweep	Data Points, Run/Hold, Single/Continuous, RF Immunity (High/Low), RF Power in Hold (On/Off), Trace
Data Points	130, 259, 517, 1033, 2065
Markers	Markers 1 to 6 (On/Off), Delta Markers 2 to 4 (Ref M1), Marker to Peak/Valley, Marker Table, Marker 5 (Peak/Valley between M1 & M2), Marker 6 (Peak/Valley between M3 & M4), Independent Markers for Frequency and Distance Measurements
Traces	Copy Trace To Memory, Trace Display, Trace Math [Trace - Memory, Trace + Memory, (Trace + Memory)/2]
Limit Line	On/Off, Edit Value, Limit Alarm, Pass/Fail On/Off, Limit Preset
Calibration	Cal Type OSL/Standard/FlexCal™/InstaCal™
Save/Recall	Setups, Measurements, Screen Shots

Setup Parameters–Advanced Mode

Measurement Display	Single Display with independent markers
Frequency	Start Frequency (F1), Stop Frequency (F2)
DTF	Start Distance (D1), Stop Distance (D2), Units m/ft, DTF Aid, Cable List, Cable Loss, Propagation Velocity
Windowing	Rectangular, Normal Side Lobe, Low Side Lobe, Minimum Side Lobe
Amplitude	Top, Bottom, Auto Scale, Full Scale
Sweep	Data Points, Run/Hold, Single/Continuous, RF Immunity (High/Low), RF Power in Hold (On/Off)
Data Points	130, 259, 517, 1033, 2065
Markers	Markers 1 to 8 (On/Off), Delta Markers 2 to 8 (Ref M1), Marker to Peak/Valley, Marker Table, Marker 5 & 7 (Peak/Valley between M1 & M2), Marker 6 & 8 (Peak/Valley between M3 & M4), Independent Markers for Frequency and Distance Measurements
Traces	Copy Trace to Memory, Trace Display, Trace Math [Trace - Memory, Trace + Memory, (Trace + Memory)/2]
Limit Line	On/Off, Edit Value, Limit Alarm, Pass/Fail On/Off, Limit Preset
Calibration	Cal Type OSL/Standard/FlexCal™/InstaCal™
Save/Recall	Setups, Measurements, Screen Shots

Frequency

Frequency Range	2 MHz to 4 GHz
Frequency Accuracy	± 5 ppm @ 23 °C ± 3 °C
Frequency Resolution	1 kHz

Power

Output Power	+3 dBm, typical

Interference Immunity

On-Channel	+17 dBm outside calibrated sweep range
On-Frequency	+13 dBm within calibrated sweep range

Measurement Speed

Return Loss	≤ 1.50 ms/data point, RF immunity low, typical
Distance-to-Fault	≤ 1.75 ms/data point, RF immunity low, typical

Cable and Antenna Analyzer (continued)

Return Loss

Measurement Range Resolution	0 to 60 dB 0.01 dB

VSWR

Measurement Range	1 to 65
Resolution	0.01

Cable Loss

Measurement Range	0 to 30 dB
Resolution	0.01 dB

Distance-to-Fault

Vertical Range Return Loss	0 to 60 dB
Vertical Range VSWR	1 to 65
Fault Resolution (meters)	$(1.5 \times 10^8 \times vp)/\Delta F$ (vp = propagation velocity, ΔF is F2 – F1 in Hz)
Horizontal Range (meters)	0 to (Data Points – 1) x Fault Resolution, to maximum of 1500 meters (4921 feet)

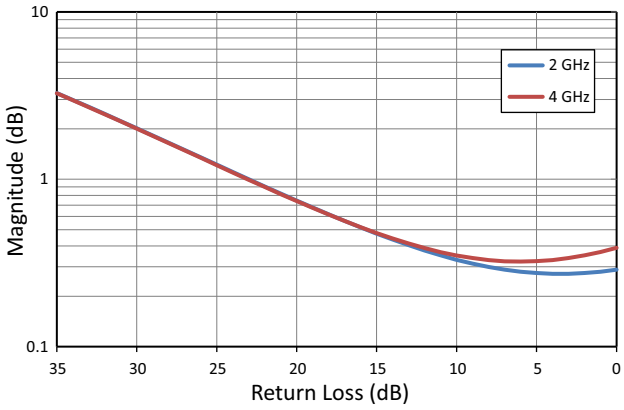
Measurement Accuracy

@ 23 °C ± 3 °C

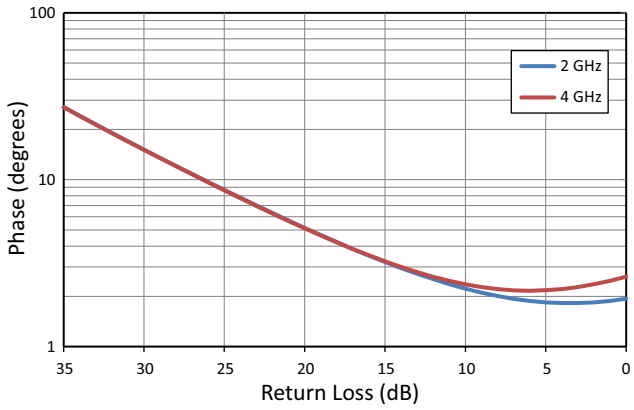
Corrected Directivity	≥ 38 dB, InstaCal™ calibration ≥ 42 dB, OSL calibration (OSLN50-1, OSLNF50-1)

Return Loss Measurement Uncertainty (Standard OSL calibration. OSLN50-1 Precision Open/Short/Load calibration component.)

Magnitude Uncertainty



Phase Uncertainty



Internal Power Meter

Frequency	Measurement Frequency (for Cal Factor)
Amplitude	Max Value, Min Value, Offset Value, Relative On/Off, Units dBm/Watts, Auto Scale, Fullscale
Calibration	Zero On/Off
Average	Running Average, Max Hold (On/Off), Run/Hold, Average Mode (Continuous/Single)
Limits	Limit (On/Off), Upper Value, Lower Value
Frequency Range	50 MHz to 4 GHz
Display Range	–100 dBm to +100 dBm
Offset Range	Max ± 100 dB, user settable value
Measurement Range	–33 dBm to +20 dBm
VSWR	1.5:1 typical
Maximum Power	+27 dBm, ± 45 VDC (damage level)
Connector	Type N(m), 50 Ω
Accuracy	± 0.7 dB (0 dBm, 1 GHz CW, @ 23 °C ± 3 °C)
Frequency Response and Linearity	Additional ± 0.8 dB (± 0.5 dB typical)
Temperature Effect	Additional ± 0.02 dB per 1 °C change (typical)

High Accuracy Power Meter (Requires external USB Power Sensor(s) Sold Separately)

Frequency	Measurement Frequency (for Cal Factor)
Amplitude	Max Value, Min Value, Offset Value, Relative (On/Off), Units (dBm/Watts), Auto Scale, Fullscale
Average	Running Average, Max Hold (On/Off), Run/Hold, Average Mode (Continuous/Single)
Calibration	Zero Sensor
Limits	Limit (On/Off), Upper Value, Lower Value
Display Range	–100 dBm to +100 dBm
Offset Range	Max ± 100 dB, user settable value
Measurement Range	Sensor dependent

Power Sensor Model	**PSN50**	**MA24105A**	**MA24106A**	**MA24108A/18A/26A**
Description	High Accuracy RF Power Sensor	Inline Bi-Directional High Power Sensor	High Accuracy RF Power Sensor	Microwave USB Power Sensor
Frequency Range	50 MHz to 6 GHz	350 MHz to 4 GHz	50 MHz to 6 GHz	10 MHz to 8 GHz (MA24108A) 10 MHz to 18 GHz (MA24118A) 10 MHz to 26 GHz (MA24126A)
Connector	Type N(m), 50 Ω	Type N(f), 50 Ω	Type N(m), 50 Ω	Type N(m), 50 Ω (MA24108A/18A) Type K(m), 50 Ω (MA24126A)
Dynamic Range	–30 dBm to +20 dBm (0.001 mW to 100 mW)	+3 dBm to +51.76 dBm (2 mW to 150 W)	–40 dBm to +23 dBm (0.1 µW to 200 mW)	–40 dBm to +20 dBm (0.1 µW to 100 mW)
VBW	100 Hz	Adjustable	100 Hz	50 kHz
Measurand	True-RMS	True-RMS	True-RMS	True-RMS, Slot Power, Burst Average Power
Measurement Uncertainty	± 0.16 dB[1]	± 0.17 dB[2]	± 0.16 dB[1]	± 0.18 dB[3]
Datasheet (for complete specifications)	11410-00414	11410-00621	11410-00424	11410-00504

Notes:

1. Total RSS measurement uncertainty (0 ºC to 50 ºC) for power measurements of a CW signal greater than –20 dBm with zero mismatch errors.

2. Expanded uncertainty with K = 2 for power measurements of a CW signal greater than +20 dBm with a matched load. Measurement results referenced to the input side of the sensor.

3. Expanded uncertainty with K = 2 for power measurements of a CW signal greater than –20 dBm with zero mismatch errors.

General Specifications

Setup Parameters

System Info	Status, Battery
System Setups	Date/Time, Language, Display/Audio
Date/Time	Time and Date Settings, Time Zone Settings
Language	English, French, German, Italian, Spanish, Russian, Portuguese, Japanese, Korean, Chinese
Display/Audio	Brightness, Color Schemes, Screen Shot Settings, Volume
Connectivity	GPS
Diagnostics	Self Test
Preset	Preset, Reset, Update Firmware
Reset	Factory Reset, Delete All User Files, Delete Custom Files, Master Reset
File	Save, Recall, File Management
Save	Measurement (*.dat), Setup (*.stp), Screen Shot (*.png)
Recall	Recall, Create Folder, Copy, Paste, Delete
File Management	Rename, Create Folder, Copy, Paste, Delete
Navigation	Top, Bottom, Page Up, Page Down
Help Menu	System Info, FAQ, User Guide
Internal Trace/Setup Memory	> 1000 files (files may be traces, setups, screen shots, or any combination)
External Trace/Setup Memory	Limited only by size of USB Flash drive

Connectors

RF Out/Reflect In	Type N, female, 50 Ω, Maximum Input +23 dBm, ± 50 VDC
InstaCal™/Power Meter	Type N, male, 50 Ω, Maximum Input +27 dBm, ± 45 VDC (Damage Level)
External Power	5.5 mm barrel connector, 11 to 14 VDC, < 3.0 A
USB Ports	USB 2.0 Type A (two ports)
USB Interface	Type mini-B, Connect to PC for data transfer

Display

Type	TFT Resistive Touch Screen
Size	7.0 in daylight viewable color LCD
Resolution	800 x 480

GPS Connectivity (external GPS USB module sold separately)

GPS Time/Location Indicator	Time, Latitude, Longitude and Altitude in GPS dialog (current or last known location) Time, Latitude, Longitude and Altitude with trace storage (current or last known location)
Setup	Clear Data, Synchronize system time to GPS

Battery

Type	Li-Ion
Battery Operation	> 8.0 Hours typical (70 % brightness setting, continuous usage)
Standby	7 days typical (With fully charged battery. Actual time will vary depending on battery charge level)

Electromagnetic Compatibility

European Union	CE Mark, EMC Directive 89/336/EEC, 92/31/EEC, 93/68/EEC and Low Voltage Directive 73/23/EEC, 93/68/EEC
Interference	EN 61326-1
Emissions	EN 55011
Immunity	EN 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-11
Australia and New Zealand	C-tick N274

Safety

Safety Class	EN 61010-1 Class 1
Product Safety	IEC 60950-1 when used with Company supplied Power Supply

Environmental

Operating Temperature	–10 °C to +55 °C
Maximum Humidity	95 % non-condensing
Altitude	4600 meters
Shock	MIL-PRF-28800F Class 2
Storage	–40 °C to 71 °C
Explosive Atmosphere	MIL-PRF-28800F Section 4.5.6.3

Size and Weight

Size	250 mm x 177 mm x 61 mm (10.0 in x 7.1 in x 2.4 in)
Weight	< 2.0 kg (4.4 lb), including battery

Anritsu Tool Box and Line Sweep Tools (for your PC)

Line Sweep Tools (LST) is a free PC based program that increases productivity for people who deal with numerous Cable and Antenna traces every day. LST is the next generation of Anritsu's familiar Handheld Software Tools (HHST) and shares its uncomplicated user interface, giving a new face to the term "ease of use."

Cable Editor[1]	Instrument Cable Lists may be retrieved from the instrument, modified as required, and uploaded back into instrument.
Distance to Fault[2] (DTF)	Easily convert Return Loss or VSWR traces to Distance to Fault traces with one button press.
Measurement Calculator	Provides quick conversion between commonly used measurement units such as VSWR, RL, and others.
Signal Standard Editor[1]	Signal Standard Lists may be retrieved from the instrument, modified as required, and uploaded back into instrument.
Naming Grid	A naming grid function makes changing file names, trace titles, and trace subtitles from field values to those required by contract simple and quick. Once the naming grid is populated with user defined file name segments, a few simple button presses will then fill out the file, title, and sub-title names. Quickly applied to multiple traces, the naming grid can save time, increase efficiency and accuracy.
Presets	Presets make applying markers and a limit line to similar traces quick and easy. They only need to be set once, and recorded. After this, applying them to a similar trace requires only one button push. This speeds up trace processing and makes providing consistent marker and limit line settings easy.
Report Generator	The report generator creates a professional PDF or HTML based report. Reports may include GPS[3] location, power level[3], company logo[4], instrument and calibration status along with a display of all open traces. It also may contain additional information such as addresses and phone numbers.
Capture	Plots to Screen, Database, *.dat, *.jpg
Connect	To PC using USB, Ethernet, Serial
Download/Upload[1]	Lists/measurements and live traces to PC for storage and analysis.
Supported File Types	Input: *.dat, *.vna, *.mna, *.pim, *.tm Output: *.dat, *.vna, *.pim, *.tm, *.csv, *.bmp, *.jpg, *.png

easyTest Tools (for your PC)

Instrument Mode	
	Cable & Antenna Analyzer Mode
Commands	
Display Image	Allows putting a custom image on the instrument screen
Recall Setup	Places the instrument into a known state
Prompt	Displays instructional messages on the instrument screen
Save	Allows automatic or manual saving of traces
Connectivity	
Connections	USB cable or USB memory stick

SweepMasters DIRECT

SweepMasters DIRECT is an easy-to-use online trace delivery service for your S331L cable and antenna analyzer traces. When used with the S331L, it allows you to capture, upload, and deliver traces.

Standard Functions	Create Groups, Modify Groups, Create Sites, Modify Sites, View Sites, Create Users, Modify Users, Add Users, Modify Company Profile, Upload Traces, View Trace list, Send Traces
Supported File Types	S331L *.dat file format
Export Data	Send download link from selected Site to recipients via email. Download link contains single zip file. Zip file contains all of the selected Site uploaded *.dat files and a pdf containing plots of the included *.dat files.

1. Instrument type/model must match original
2. Only *.dat and *.vna file types supported
3. Model dependent
4. Optionally set by user

Ordering Information

Model Number	S331L	Description
	Includes all items listed in the description	Cable and Antenna Analyzer - 2 MHz to 4 GHz Internal InstaCal™ - 2 MHz to 4 GHz Internal Power Meter - 50 MHz to 4 GHz High Accuracy Power Meter - Requires External USB Power Sensor (sold separately) GPS Location/System Time Sync - Requires External GPS Module 2000-1723-R (sold separately)

Calibration and Extended Warranty Options

Warranty	Warranty with Z540 Calibration	Description
S331L-ES210	N/A	Warranty Extension to 2 Years, Return to Anritsu
S331L-ES310	S331L-ES313	Warranty Extension to 3 Years, Return to Anritsu
S331L-ES510	S331L-ES513	Warranty Extension to 5 Years, Return to Anritsu

Calibration Only Options

Option	Description
S331L-0098	Standard Calibration to Z540
S331L-0099	Premium Calibration to Z540 plus test data

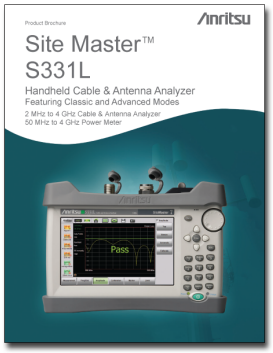
Standard Accessories (included with instrument)

Part Number	Description
10920-00060	Handheld Instruments Documentation Disc
2300-530	Anritsu Tool Box with Line Sweep Tools (LST) DVD Disc
11410-00616	Site Master™ S331L Technical Data Sheet
10580-00321	Site Master™ S331L User Guide (Hard copy)
2000-1676-R	Soft Carrying Case
2000-1691-R	Stylus with Coiled Tether
2000-1687-R	Torque Multiplier N(m)
40-187-R	AC-DC Adapter
806-141-R	Automotive Cigarette Lighter 12 VDC Adapter
3-2000-1498	USB A/5-pin mini-B Cable, 305 cm (120 in)
	One Year Warranty
	Certificate of Calibration and Conformance

Power Sensors (For complete ordering information see the respective datasheets of each sensor)

Model Number	Description
PSN50	High Accuracy RF Power Sensor, 50 MHz to 6 GHz, +20 dBm
MA24105A	Inline High/Peak Power Sensor, 350 MHz to 4 GHz, +3 dBm to +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

Reference Documents (Soft copies available at www.anritsu.com)



Part Number	Description
10580-00321	Site Master™ S331L User Guide
11410-00640	Site Master S331L Product Brochure (Includes information about additional Site Master models)
11410-00662B	Site Master S331L Quick Fact Sheet
11410-00674	Cable and Antenna Analysis Troubleshooting Guide
10580-00253	Site Master™ S331L Maintenance Manual

Optional Accessories

Replacement Accessories

Part Number	Description
2000-1691-R	Replacement Stylus with coiled tether
2000-1687-R	Replacement Torque Multiplier N(m)

GPS Module

Part Number	Description
2000-1723-R	High Performance USB Mag-Mount GPS Module

Calibration Components, 50 Ω

Part Number	Description
OSLN50-1	Precision Open/Short/Load, N(m), 42 dB, DC to 6.0 GHz, 50 Ω
OSLNF50-1	Precision Open/Short/Load, N(f), 42 dB, DC to 6.0 GHz, 50 Ω
2000-1618-R	Precision Open/Short/Load, 7/16 DIN(m), DC to 6.0 GHz 50 Ω
2000-1619-R	Precision Open/Short/Load, 7/16 DIN(f), DC to 6.0 GHz 50 Ω
22N50	Open/Short, N(m), DC to 18 GHz, 50 Ω
22NF50	Open/Short, N(f), DC to 18 GHz, 50 Ω
SM/PL-1	Precision Load, N(m), 42 dB, DC to 6.0 GHz
SM/PLNF-1	Precision Load, N(f), 42 dB, DC to 6.0 GHz

Calibration Components, 75 Ω

Part Number	Description
12N50-75B	Matching Pad, DC to 3 GHz, 50 Ω to 75 Ω
22N75	Open/Short, N(m), DC to 3 GHz, 75 Ω
22NF75	Open/Short, N(f), DC to 3 GHz, 75 Ω
26N75A	Precision Termination, N(m), DC to 3 GHz, 75 Ω
26NF75A	Precision Termination, N(f), DC to 3 GHz, 75 Ω

Adapters

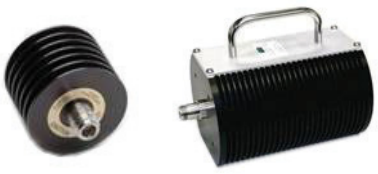
Part Number	Description
510-90-R	7/16 DIN(f) to N(m), DC to 7.5 GHz, 50 Ω
510-91-R	7/16 DIN(f) to N(f), DC to 7.5 GHz, 50 Ω
510-92-R	7/16 DIN(m) to N(m), DC to 7.5 GHz, 50 Ω
510-93-R	7/16 DIN(m) to N(f), DC to 7.5 GHz, 50 Ω
510-96-R	7/16 DIN(m) to 7/16 DIN(m), DC to 7.5 GHz, 50 Ω
510-97-R	7/16 DIN(f) to 7/16 DIN(f), DC to 7.5 GHz, 50 Ω
1091-379-R	Reinforced-Grip TMA Bypass Adapter, 7/16 DIN(f) - 7/16 DIN(f), DC to 6 GHz, 50 Ω
510-102-R	N(m) to N(m), DC to 11 GHz, 50 Ω, 90 degrees right angle
1091-26-R	SMA(m) to N(m), DC to 18 GHz, 50 Ω
1091-27-R	SMA(f) to N(m), DC to 18 GHz, 50 Ω
1091-80-R	SMA(m) to N(f), DC to 18 GHz, 50 Ω
1091-81-R	SMA(f) to N(f), DC to 18 GHz, 50 Ω
1091-172-R	BNC(f) to N(m), DC to 1.3 GHz, 50 Ω

Precision Adapters

Part Number	Description
34NN50A	Precision Adapter, N(m) to N(m), DC to 18 GHz, 50 Ω
34NFNF50	Precision Adapter, N(f) to N(f), DC to 18 GHz, 50 Ω

Optional Accessories (continued)

Attenuators



Part Number	Description
3-1010-122	20 dB, 5 W, DC to 12.4 GHz, N(m) to N(f)
42N50-20	20 dB, 5 W, DC to 18 GHz, N(m) to N(f)
42N50A-30	30 dB, 50 W, DC to 18 GHz, N(m) to N(f)
3-1010-123	30 dB, 50 W, DC to 8.5 GHz, N(m) to N(f)
1010-127-R	30 dB, 150 W, DC to 3 GHz, N(m) to N(f)
3-1010-124	40 dB, 100 W, DC to 8.5 GHz, N(f) to N(m), Unidirectional
1010-121	40 dB, 100 W, DC to 18 GHz, N(f) to N(m), Unidirectional
1010-128-R	40 dB, 150 W, DC to 3 GHz, N(m) to N(f)

Phase-Stable Test Port Cables, Armored w/ Reinforced Grip (recommended for cable & antenna line sweep applications)

Part Number	Description
15RNFN50-1.5-R	1.5 m, DC to 6 GHz, N(m) to N(f), 50 Ω
15RDFN50-1.5-R	1.5 m, DC to 6 GHz, N(m) to 7/16 DIN(f), 50 Ω
15RDN50-1.5-R	1.5 m, DC to 6 GHz, N(m) to 7/16 DIN(m), 50 Ω
15RNFN50-3.0-R	3.0 m, DC to 6 GHz, N(m) to N(f), 50 Ω
15RDFN50-3.0-R	3.0 m, DC to 6 GHz, N(m) to 7/16 DIN(f), 50 Ω
15RDN50-3.0-R	3.0 m, DC to 6 GHz, N(m) to 7/16 DIN(m), 50 Ω

Interchangeable Adapter Phase Stable Test Port Cables, Armored w/Reinforced Grip

(recommended for cable and antenna line sweep applications. It uses the same ruggedized grip as the reinforced grip series cables. Now you can also change the adapter interface on the grip to four different connector types)

Part Number	Description
15RCN50-1.5-R	1.5 m, DC to 6 GHz, N(m), N(f), 7/16 DIN(m), 7/16 DIN(f), 50 Ω
15RCN50-3.0-R	3.0 m, DC to 6 GHz, N(m), N(f), 7/16 DIN(m), 7/16 DIN(f), 50 Ω

Phase-Stable Test Port Cables, Armored (ideal for use with tightly spaced connectors and other general use applications)

Part Number	Description
15NNF50-1.5C	1.5 m, DC to 6 GHz, N(m) to N(f), 50 Ω
15NN50-1.5C	1.5 m, DC to 6 GHz, N(m) to N(m), 50 Ω
15NDF50-1.5C	1.5 m, DC to 6 GHz, N(m) to 7/16 DIN(f), 50 Ω
15ND50-1.5C	1.5 m, DC to 6 GHz, N(m) to 7/16 DIN(m), 50 Ω
15NNF50-3.0C	3.0 m, DC to 6 GHz, N(m) to N(f), 50 Ω
15NN50-3.0C	3.0 m, DC to 6 GHz, N(m) to N(m), 50 Ω

Backpack and Transit Case

Part Number	Description
67135	Anritsu Backpack (For Handheld Instrument and PC)
760-256-R	Large Transit Case with Wheels and Handle

The Master Users Group is an organization dedicated to providing training, technical support, networking opportunities and links to Master product development teams. As a member you will receive the Insite Quarterly Newsletter with user stories, measurement tips, new product news and more.

Visit us to register today: www.anritsu.com/mug

To receive a quote to purchase a product or order accessories visit our online ordering site: www.ShopAnritsu.com

Training at Anritsu

Anritsu has designed courses to help you stay up to date with technologies important to your job. For available training courses visit: www.anritsu.com/training

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