

ANRITSU

S331A

The Anritsu Site Master S331A is a handheld cable and antenna analyzer designed for measuring standing wave ratio (SWR), return loss, and cable insertion loss, as well as locating faulty RF components in antenna systems. It features a built-in synthesized signal source, distance-to-fault (DTF) capability, and an optional power monitor, making it an essential tool for field technicians working on RF and telecommunication transmission systems.

SPECIFICATIONS

General

Interfaces	RS-232 serial interface
Display	Liquid Crystal Display (LCD) with front panel activated backlight

Physical

Power Supply	12.5 VDC external input or internal rechargeable battery
Operating Temperature	0 to 50 °C °C
Dimensions (W×H×D)	203 × 152 × 51 mm mm
Weight	1.36 kg kg

Frequency Specifications

Frequency Range	25 to 3300 MHz
Frequency Resolution	100 kHz

Measurement Performance

SWR Measurement Range	1.00 to 65.00
SWR Measurement Resolution	0.01
Return Loss Measurement Range	0.0 to 54.00 dB
Return Loss Measurement Resolution	0.01 dB
Cable Insertion Loss Range	0.0 to 20.00 dB
Cable Insertion Loss Resolution	0.01 dB
Power Monitor Range (Option)	-50.0 to +20 dBm (10.0 nW to 100.0 mW)
Power Monitor Offset Range (Option)	0 to +60.0 dB

RF Port & Power Specifications

Test Port Connector	Type N, female
Test Port Impedance	50 Ω
Interfering Signal Immunity	up to -15 dBm
Maximum Input Level (Test Port)	+22 dBm
Maximum Input Level (RF Detector)	+20 dBm

Calibration & Functions

Distance-to-Fault Capability	Built-in (conversion via companion Software Tools)
Limit Line Alert	Audible beep on limit value exceedance

Power & Battery Management

Battery Operating Time	Up to 2 hours of continuous operation from a full charge
External DC Power Input	12.5 VDC

Environmental

Storage Temperature	-20 to 75 °C
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Data Storage

Trace Storage Capacity	20 traces
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Performance

Number of Sweep Points	130 points
Sweep Speed	3.5 s (130 points)
Frequency Accuracy	75 ppm

System Performance

Corrected Directivity	≥ 42 dB
Corrected Source Match	≥ 30 dB

Electrical Specifications

Maximum DC Voltage (Test Port)	±50 VDC
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Calibration

Calibration Support	OSL (Open, Short, Load)
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Environmental & Standards

Maximum Operating Altitude	4,572 m (15,000 ft)
Relative Humidity	95% maximum, non-condensing
Shock and Vibration resistance	Meets MIL-T-28800E, Class 5

TECHNOLOGY

Synthesized Signal Source, Cable & Antenna Analyzer

APPLICATIONS

SWR, Return Loss, Cable Loss, and Distance-To-Fault (DTF) measurements in RF antenna systems

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.