

ANRITSU

37397D

The Anritsu 37397D is a high-performance, two-port Vector Network Analyzer (VNA) from the Lightning Family series. Operating across a wide frequency range of 40 MHz to 65 GHz, this premium instrument is engineered for active and passive microwave component testing. Standard premium features include built-in step attenuators, internal bias tees, extended power range, a gain compression application, and multiple source control. It is also directly upgradeable to the ME7808B Broadband (40 MHz to 110 GHz) VNA system.

SPECIFICATIONS

General

Interfaces	Dual GPIB (System & IEEE-488.2 Remote), LAN (10BASE-T), RS-232 serial, VGA video output, Centronics parallel printer port
Display	8.4-inch active matrix color TFT LCD
Internal Storage	Hard Disk Drive & 3.5-inch Floppy Drive
Calibration Methods	SOLT, LRL, LRM, TRM, Offset Short
Instrument Warm-up Time	60 minutes

Physical

Power Supply	85–264 V AC, 48–62 Hz, 540 VA max
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	432 mm × 267 mm × 584 mm mm
Weight	27 kg

Frequency and Sweep Characteristics

Minimum Operating Frequency	40 MHz
Maximum Operating Frequency	65 GHz
Number of Test Ports	2
Frequency Resolution	1 Hz
Frequency Reference Stability	High stability frequency reference standard
Sweep Type Modes	Linear, Logarithmic, List, Power (CW)
Number of Measurement Points per Trace	Up to 1601
IF Bandwidth Selection	10 Hz, 100 Hz, 1 kHz, 10 kHz

Hardware Configuration & Ports

Test Port Connector Type	V (female) / 1.85 mm compatible
Test Port Impedance	50 Ω
Bias Tee Maximum Voltage	40 V DC
Bias Tee Maximum Current	500 mA
Rear Panel IF Inputs	Optional (Option 4)

Test Port Output Specifications

Source Step Attenuator	70 dB (10 dB steps)
Test Port Attenuator	70 dB (10 dB steps)

Measurement Capabilities & Applications

Internal Bias Tees	Standard (front panel access inputs)
Gain Compression Analysis	Standard
Multiple Source Control	Standard
Frequency Offset Mode	Standard
E/O and O/E Measurements	Supported
Embed/De-Embed Application	Standard
NxN Calibration Utility	Standard
Time Domain Analysis	Optional (Option 2)
Broadband VNA Upgradeability	Directly upgradeable to ME7808B Broadband system (40 MHz to 110 GHz)

Connectivity & Peripheral Interfaces

External Trigger Input / Output	Yes
10 MHz Reference Input / Output	Yes

Physical Characteristics & Certifications

Chassis Width	432 mm
Chassis Height	267 mm
Chassis Depth	584 mm
Rack Unit (U) Height	6U

Performance

System Dynamic Range	92 dB (0.04 to 20 GHz), 83 dB (20 to 40 GHz), 74 dB (40 to 50 GHz), 55 dB (50 to 65 GHz) @ 10 Hz IF BW
Receiver Dynamic Range	102 dB (0.04 to 20 GHz), 100 dB (20 to 40 GHz), 90 dB (40 to 50 GHz), 83 dB (50 to 65 GHz) @ 10 Hz IF BW
Magnitude Resolution	0.001 dB
Phase Resolution	0.01°
Group Delay Resolution	0.001 ps
Sweep Trigger Modes	Free Run, Single, Hold, External

Source Performance

Maximum Rated Output Power	-3 dBm (0.04 to 20 GHz), -7 dBm (20 to 50 GHz), -15 dBm (50 to 65 GHz)
Power Level Resolution	0.05 dB

Receiver Performance

Receiver Damage Level	+20 dBm, ±50 VDC
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Connectivity

GPIB Ports	2 ports (Dedicated System Controller and External IEEE-488.2 Interface)
LAN Port	RJ-45, 10/100 Base-T
Serial Port	9-pin D-sub male, RS-232
Parallel Port	25-pin female (Centronics printer port)
External Video Port	15-pin D-sub female (VGA)

Environmental

Storage Temperature Range	-40°C to +75°C
Relative Humidity Range	5% to 95% (non-condensing)

Display & Trace

Display Channels	4 independent channels
Display Formats	Log Magnitude, Phase, Split Phase, Group Delay, Linear Magnitude, Real, Imaginary, SWR, Smith Chart, Polar

Interfaces & Control

Remote Programming Languages	SCPI, Native Lightning Command Set
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TECHNOLOGY

Vector Network Analysis

APPLICATIONS

Microwave and millimeter-wave component testing, S-parameter characterization, and device verification

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