

ROHDE & SCHWARZ

NRVD

The Rohde & Schwarz NRVD is a highly accurate, dual-channel RF power meter designed for precise power and voltage measurements. Featuring two independent channels, the NRVD supports simultaneous dual-channel measurements with real-time computations like ratio (A/B, B/A) and difference (A-B, B-A). With a vast compatibility library of smart, plug-and-play sensors, it covers a wide dynamic range and frequency spectrum up to 40 GHz. Its backlit LCD, menu-driven softkey interface, and integrated sensor check source make it an industry-standard bench and system instrument.

SPECIFICATIONS

General

Display	Backlit LCD with variable backlighting, two separate digital readouts, and dual bargraph indicators
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Measurement Performance

Frequency Range	0 Hz (DC) to 40 GHz (sensor dependent)
Measurement Channels	2 independent channels
Display Resolution (Logarithmic)	0.001 dB / 0.01 dB / 0.1 dB (selectable)
Display Resolution (Linear)	4.5 digits max
Calibration Factor Entry	Automatic readout from sensor EEPROM or manual entry

Measurement Modes & Functions

Measurement Modes	A, B, A/B, B/A, A-B, B-A, SWR, Return Loss, Reflection Coefficient
Absolute Measurement Units	W, dBm, V, dBμV
Range Selection	Automatic or manual
Noise Suppression Filters	13 digital filters (averaging factor 1 to 4096, automatic or manual selection)
Averaging Factors	1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096

Sensor Check Source

Reference Frequency	50 MHz
Reference Power Level	1.00 mW (0 dBm)
Calibration Output VSWR	≤ 1.05
Reference Output Connector	N female (front panel)
Output Impedance	50 Ω

Sensor Compatibility

Compatible Sensors	R&S URV5-Z and NRV-Z series (thermal, diode, peak power, voltage probes)
Sensor Input Connectors	2 × 12-pin circular connectors (front panel; rear panel optionally)
Sensor Detection Type	Plug and Play (automatic readout of calibration and sensor data)
Calibration Data Storage Support	Yes, built-in non-volatile memory (EEPROM) in sensors

Interfaces & I/O

GPIO Interface Standard	IEEE 488 / IEC 625-1
GPIO Remote Command Set	SCPI or URV5-compatible mode
Analog Output Resolution (Option NRVD-B1)	12-bit (approx. 1 mV)
Analog Output Load (Option NRVD-B1)	≥ 10 kΩ
External Trigger Input (Option NRVD-B1)	TTL level, minimum pulse width 10 μs, BNC connector
Ready Output (Option NRVD-B1)	TTL level, BNC connector

System & Control

Store/Recall Memory	20 complete setups
Self-Test Function	Automatic self-test upon power-on

Power Requirements

AC Input Voltage Range	100 V / 120 V / 220 V / 240 V (±10%, selectable)
AC Input Frequency Range	47 Hz to 440 Hz

Physical & Environmental

Width	219 mm
Height	103 mm
Depth	350 mm
Storage Temperature Range	-40 °C to +70 °C
Electrical Safety Compliance	EN 61010-1 / IEC 1010-1
Display Type	Liquid Crystal Display (LCD)

Storage & Setup

Stored Instrument Setups Capacity	20 complete setups
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System Options

Rear-Panel Sensor Inputs Option	Option NRVD-B2 (relocates sensor connectors A and B to rear panel)
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Option NRVD-B1 Interface Details

Option NRVD-B1 Analog Output Voltage Range	0 V to 3 V
Option NRVD-B1 Analog Frequency Input Voltage Range	0 V to 10 V
Option NRVD-B1 External Trigger Input Signal Level	TTL level
Option NRVD-B1 Ready Output Signal Level	TTL level

GPIB Interface

GPIB Address Range	0 to 30
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Standards & Compliance

EMC Emission Standards	EN 55011 Class B, VDE 0871 Class B
EMC Immunity Standards	EN 50082-1

Compliance

Safety Class	Class I (IEC 348 / VDE 0411)
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Display

Analog Display Type	Two bargraphs with selectable scaling
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TECHNOLOGY

RF Power Meter

APPLICATIONS

RF and Microwave Power Measurement

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