

ROHDE & SCHWARZ

NRV-Z1

The Rohde & Schwarz NRV-Z1 is a classic, highly reliable RF diode power sensor designed for precise power measurements across a wide frequency range of 10 MHz to 18 GHz. It features an integrated EEPROM that stores factory calibration factors, allowing compatible power meters to automatically apply corrections for frequency and temperature. Built with a rugged N-type connector, it is ideal for general-purpose RF and microwave power measurements.

SPECIFICATIONS

General

Interfaces	Proprietary R&S sensor interface cable
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Physical

Power Supply	Powered via connected R&S power meter
Operating Temperature	0 to +50 °C °C
Weight	0.16 kg

Measurement Ranges & Power Specifications

Frequency Range Minimum	10 MHz
Frequency Range Maximum	18 GHz
Power Measurement Range Minimum	-50 dBm (10 nW)
Power Measurement Range Maximum	+13 dBm (20 mW)
Maximum Continuous Input Power	200 mW (+23 dBm)
Maximum Peak Input Power	1 W
Maximum Peak Input Power Duration	10 µs
Maximum DC Input Voltage	20 V

Sensor Technology & Architecture

Sensor Detection Type	Diode
Measurement Modes Supported	Continuous Average

RF Port Characteristics

Input Impedance	50 Ω
RF Connector Type	N
Connector Sex	Male
Maximum SWR (10 MHz to 4 GHz)	1.10
Maximum SWR (4 GHz to 12.4 GHz)	1.15
Maximum SWR (12.4 GHz to 18 GHz)	1.25

Meter Compatibility & System Integration

Compatible Power Meter Models	R&S NRVS, NRVD, URV55
Calibration Factor Storage Type	Built-in EEPROM

Environmental Parameters

Operating Temperature Range	0 °C to +50 °C
Storage Temperature Range	-40 °C to +70 °C

Physical Dimensions & Weight

Cable Length	1.5 m
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Accuracy

Calibration Factor Uncertainty (10 MHz to 4 GHz)	1.5 %
Calibration Factor Uncertainty (4 GHz to 12.4 GHz)	2.0 %
Calibration Factor Uncertainty (12.4 GHz to 18 GHz)	2.5 %

TECHNOLOGY

Diode

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.