

ROHDE & SCHWARZ

NRP/NRP2

The Rohde & Schwarz NRP2 is a high-performance RF and microwave power meter base unit, part of the versatile NRP series. Designed for use in research and development, production, and mobile service, it accurately measures a wide range of RF signals, including complex broadband modulated signals, when paired with R&S NRP-Zx Smart Sensors.

SPECIFICATIONS

General

Interfaces	USB, LAN, GPIB (optional)
Display	Intuitive graphic display

Physical

Power Supply	AC 100 V to 240 V, 50 Hz to 60 Hz, max 30 VA; DC 12 V to 30 V, max 10 W (external power supply)
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	258 mm × 103 mm × 300 mm (W×H×D, with handle) mm
Weight	2.5 kg (without battery option) kg
Housing Type	Benchtop
Rack Mount Option	Available (e.g., R&S ZZA-3 rack adapter)
Cooling	Fan-assisted
Tripod Mount	1/4-20 UNC thread

General Specifications

Product Type	RF and Microwave Power Meter Base Unit
Model Series	R&S NRP

Ordering Information

Base Unit Model Number	R&S NRP2
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Measurement Performance

Number of Measurement Channels	Up to 4 (simultaneously)
System Frequency Range (with sensors)	DC to 110 GHz
System Dynamic Range (with sensors)	90 dB
Measurement Speed	High
Measurement Modes	Average Power, Peak Power, Peak-to-Average Power
Accuracy	High (regardless of bandwidth and modulation for average power)
Modulation Handling	Complex signals with digital modulation (e.g., WCDMA, WiMAX, GSM/EDGE, 3G, WLAN, LTE), CW, analog modulation (AM, FM), pulsed RF
Compatible Sensor Types	R&S NRP-Zx Smart Sensors
Power Display Resolution	0.01 dB or 0.001 dB (> -70 dBm); 0.01 pW (ranges < 10 nW)
Time Resolution	1 ms
Averaging Range	1 to 1000 measurements

Sensor Interface

Sensor Calibration	Calibration data stored directly in sensor at factory (no calibration required prior to measurement)
Sensor Connection	Digital interface to base unit or direct PC connection via USB
PC Connection for Sensors	Via R&S NRP-Z4 passive USB adapter (for direct sensor operation from PC)

Connectivity and System Integration

Remote Control Capabilities	Full remote control via digital interfaces
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Internal Processing and Features

S-parameter Correction	Yes (for external components)
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Display and User Interface

User Interface	Intuitive
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Connectivity

USB Host Port	1× USB 2.0 Type A (front panel, for memory sticks)
LAN Interface	RJ-45, 10/100Base-T Ethernet
GPIO Interface	IEEE 488.2

Software & Control

Remote Control Language	SCPI (Standard Commands for Programmable Instruments)
Drivers	IVI-COM, IVI.NET, LabView
PC Software	R&S NRPV Power Viewer

Environmental

Storage Temperature	-40 °C to +70 °C
Humidity	5% to 95% relative humidity, non-condensing
Altitude	Up to 3000 m
Vibration (Operating)	MIL-PRF-28800F Class 3, Curve A
Shock (Operating)	MIL-PRF-28800F Class 3, Curve B

Compliance

CE Mark	Yes
EMC Compliance	EN 61326-1
Safety Compliance	EN 61010-1
FCC Compliance	Part 15 Subpart B
ICES Compliance	ICES-003

Power

Optional Internal Battery	Li-Ion (NRP-B2) or NiMH (NRP-B1)
Battery Operating Time	>4.5 hours (with NRP-B2)
Battery Charging Time	Approx. 5 hours (unit off), approx. 8 hours (unit on) with NRP-B2
AC Input Voltage	100 V to 240 V AC
AC Input Frequency	50 Hz to 60 Hz
Power Consumption	Max. approx. 25 W (including battery charging)

Measurement Control

Trigger Sources	Internal, External, Manual
Trigger Modes	Free Run, Single, Continuous, External

Interfaces

USB Device Port Type	USB 2.0 Type B
USB Host Port Type	USB 2.0 Type A
LAN Connector	RJ-45
LAN Speed	10/100Base-T
External Trigger I/O	BNC (front panel)
External Reference Frequency Input	10 MHz (BNC, front panel)
External Reference Frequency Output	10 MHz (BNC, front panel)

Storage

Internal Storage	1 GB internal flash memory (for settings, results, screenshots, firmware)
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TECHNOLOGY

RF and Microwave Power Measurement, Smart Sensor Technology, Multipath Sensor Technology

APPLICATIONS

Research and Development, Production Test, Mobile Service, Broadband Modulation Signal Analysis (WCDMA, WiMAX, GSM/EDGE, 3G, WLAN, LTE), CW Measurement, Analog Modulation (AM, FM), Pulsed RF 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.