



NRVD

NRVD Dual-channel Power Meter

NRVD functions like two independent NRVS power meters in one enclosure performing simultaneous measurements and exchanging data with each other. The two channels can be set separately so that two completely different measurements can be carried out at the same time. The two measured values can also be related to each other for readout of reflection coefficient, SWR or return loss, for instance.

CHARACTERISTICS

Measurement Functions - Average power, pulse power, peak envelope power. AM, reflection, DC voltage (depending on sensor).

Frequency and Level Range - DC to 40 GHz, 100 pW to 30 W, 9 kHz to 3 GHz, 200 μ V to 1000 V (depending on sensor).

Probes and Sensors - All NRV sensors and URV5 probes.

Display - LCD for digits, units, menu-guided operation and analog display, adjustable backlighting.

Display of Results - Single-channel (with optional display of correction frequency) or dual-channel.

Absolute Readout - W, dBm, V, dB μ V, dBV.

Relative Readout - dB, difference, percent and ratio, relative to a stored reference value or to the second measurement channel; VSWR, reflection coefficient, return loss in dB, AM modulation depth.

Analog Display - Automatic or with selectable scale.

Digital Display and Resolution - Max. 4.5 digits, resolution selectable (0.1/0.01/0.001 dB).

Display Filtering - Averaging over 1 to 512 readings to reduce display noise; manual or automatic setting depending on measurement range and resolution.

Display Noise - See sensors.

Measurement Rate - See table.

Accuracy of Power Readout in W (without sensors) -

0.4% (0.3%) + 1 digit (18 to 28°C).

0.9% (0.8%) + 1 digit (10 to 40°C).

1.4% (1.3%) + 1 digit (0 to 50°C).

Zero Adjustment - Manual or via IEC/IEEE-bus, duration approx. 4 s.

Frequency Response Correction - Sensor-specific calibration data taken into account; numerical entry of test frequency (keyboard or via IEC/IEEE-bus) or by frequency-proportional DC voltage.

Attenuation Compensation - External attenuation or gain taken into account; data entry via keyboard or IEC/IEEE-bus, range ± 200 dB.

Entry of Reference Value - Measured value on keystroke or numerical entry via keypad or IEC/IEEE-bus.

Reference Impedance - For conversion between voltage and power, automatic readout of reference impedance from sensor data memory or numerical entry via keyboard or IEC/IEEE-bus (for RF probe).

Remote Control - IEC 625 (IEEE 488), SCPI, control of all instrument functions.

Interface Functions - SH1, AH1, T6, L4, SR1, RL1, DC1, DT1, PP0, PP1.

DC Output -

NVRD: Opt. NVRD-B2.

Connector: BNC, $R_{out} = 1$ kilohm, EMF proportional to analog display.

Left-/right-hand full-scale value: Corresponding to 0/+3 V.

Accuracy: ± 5 mV.
Channels: 1,2.

DC Frequency Input -

NVRD: Opt. NVRD-B2.

Connector: BNC.

Input voltage range: ± 12 V, linear with selectable scale.

Input/Output Option NRVD-B2 - 2 simultaneous DC voltage outputs, DC frequency input, trigger input (TTL, active low).

Sensor Check Source

NRVD - Standard.

Output Power - 1 mW $\pm 0.7\%$.

Frequency - 50 MHz.

VSWR - 1.05, ≤ 1.03 .

RF Connector - N female.