



Signal Hound designs and builds powerful, affordable spectrum analyzers and signal generators for engineers, operators and RF professionals around the globe.

VECTOR NETWORK ANALYSIS WITH PERFORMANCE AND ACCURACY THAT STANDS OUT - RAPID AND ROBUST AT AN UNRIVALED VALUE.

Signal Hound's VNA400 is a high-performance, USB-powered, 40 GHz, two port, vector network analyzer. Advancements in mmWave technology make the VNA400 a must have for RF industry professionals. With a wide frequency range of 40 MHz to 40 GHz, sub-Hz resolution, +/- 1 ppm internal TCXO accuracy and a sweep speed of 2000 points per second at 30 kHz RBW, the VNA400 is a perfect analysis tool whether you are in the lab or out in the field.

APPLICATIONS

- Cable Testing
- Antenna Testing
- Return Loss/VSWR Measurements
- Filter Tuning
- Insertion Loss Measurements
- Field Use Through Ka Band
- Electrical Length Measurements
- SMT Component Evaluation
- Impedance Measurements
- Group Delay Measurements
- Amplifier Testing

FEATURES

- Frequency Range from 40 MHz to 40 GHz
- USB-Powered
- Full Automation Through SCPI
- Sub-Hz Resolution
- Frequency and Time Domain Measurements
- Dynamic Range Up to 135 dB



VNA400 Vector Network Analyzer

June 2024

Preliminary Specifications	
Frequency Range	40 MHz to 40 GHz
Dynamic range at BW (Typ) 100 Hz BW Isolation Off	• -135 from 40 MHz to 1 GHz • -125 from 1 GHz to 20 GHz • -115 from 20 GHz to 40 GHz
Frequency Accuracy	+/- 1 ppm
Frequency Resolution	sub-Hz
Impedance	50 Ohm
Measurement Bandwidth	10 Hz - 1 MHz
Number of Measurement Points	21-64001
Output Power Range (Typ)	-30 to +0 dBm
Output Power Resolution	1 dB
Measurement Speed (201 pts)	70 ms
Trace noise magnitude (IFBW 3kHz)	0.004 dB RMS
Uncorrected Measurements (Typ)	• Directivity > 10 dB • Source Match > 10 dB • Load Match > 10 dB
Max Input Level	+10 dBm
Max Input DC Voltage	16V
Test Port Connector	NMD 2.92 mm, male
Number of Test Ports	2
Operating Temperature	• Standard -4°F to 122°F (-20°C to +50°C)
Size and Weight	• 10.8" x 6.2" x 1.5" (274mm x 157mm x 38mm) • 4.0 lbs. (1.81 kg)
Power Consumption	• 5 VDC 15 Watts (max)
Interface	USB Type C • Thunderbolt 3/4 Recommended
System Requirements	Windows or Linux Operating System, x64_86 architecture

Signal Hound’s PC-Based VNA Software

