

USB VECTOR NETWORK ANALYZER

BN100+



Overview

BN100+ USB Vector Network Analyzer offers wide dynamic range, low noise level, high resolution scanning with laboratory and research grade performance. BN100+ covers frequency range from 300kHz to 6.5GHz with 2-port and 2-path that competitive with most of the bench-top VNAs on the market. BN100+ USB VNA provides measurement convenience by offering end user excellent performance and attractive price. BN100+ VNA is suitable for laboratory, manufacturing and many other safety testing environment.



Frequency Range
300kHz to 6.5GHz

Large dynamic range
120dB

Effective directivity
>42dB

Support
Standard VISA

Affordable Solution

Low Power Consumption
18W

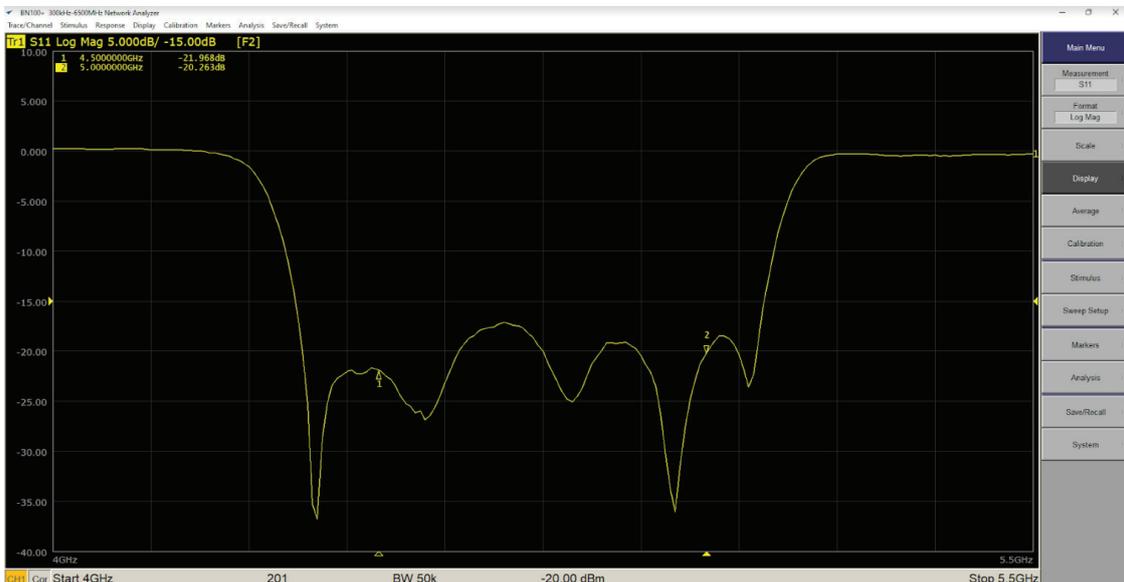
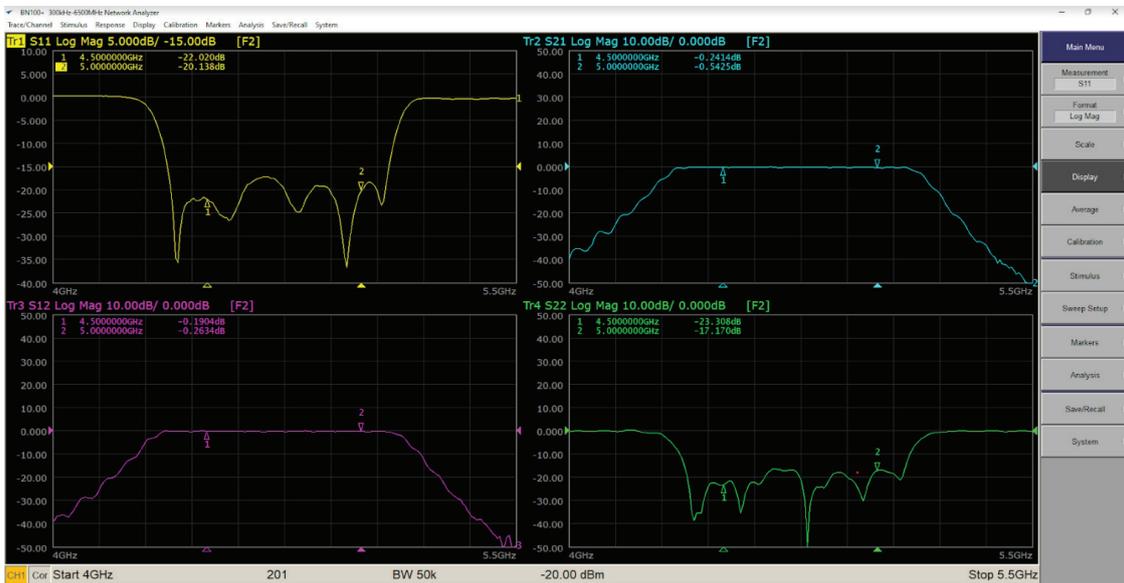
Low Noise Level
<-120dBm (IFBW=10Hz)

Low Trace Noise
5m dB rms (IFBW=3kHz)

High Measurement Speed
68μs/point (IFBW=100kHz)

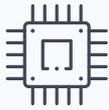
Innovative Features & Benefits

- Capable of replacing bench-top VNA
- Minimum budget requirement
- Suitable for laboratory, manufacturing and research and development purposes
- Multiple analysis options(such as time domain analysis and circuit simulation function)
- Supports standard VISA communication protocol
- Efficient communication interface for multi-types testing instruments



Application

Courtesy of its attractive price and compact design, the BN100+ is the perfect solution of users looking to purchase a quality test equipment at an affordable price. On top of that, it has got an attractive system integration function for users to consider buying a unit. Historically, universities have purchased our VNA for its compact size, making it easy for professors to demonstrate how a VNA is used. They have even gone as far as to integrate this USB VNA into their own applications.



Semiconductor



RF components



Telecommunications



Universities

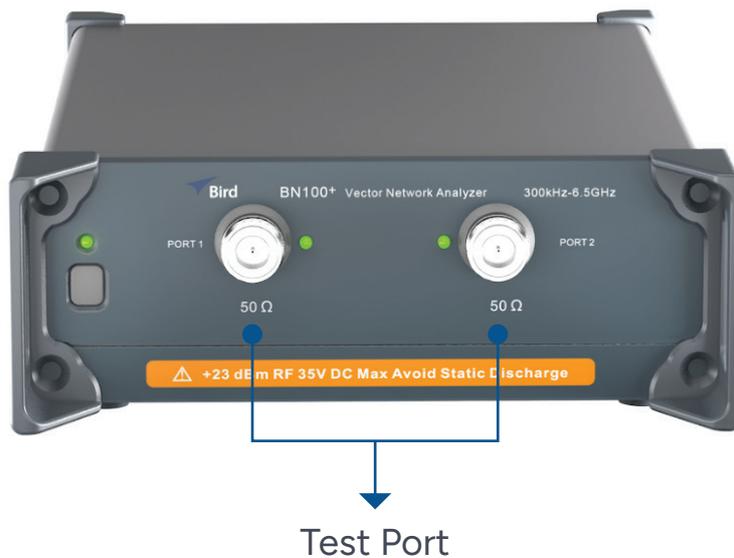


Laboratory



Automatic Test

Control Element



Specifications

Testing Range	Description
Model	BN100+
Impedance	50Ω
Test Port connector	N-type, female
Number of test port	2
Frequency range	300kHz to 6.5GHz
Frequency accuracy	±5ppm
Frequency resolution	1Hz
Number of measurement points	2 to 20001
Measurement bandwidths	1Hz to 100kHz
Dynamic range(IFBW 10Hz)	120dB
Measurement parameters	S11 S21 S12 S22

Testing Accuracy	Description
Transmission measurement accuracy(magnitude/phase)	
+5dB to +10dB	0.2dB/2°
-50dB to +5dB	0.1dB/1°
-70dB to -50dB	0.5dB/3°
-90dB to -70dB	2.5dB/8°
Reflection measurement accuracy(magnitude/phase)	
-15dB to 0dB	0.4dB/3°
-25dB to -15dB	1.0dB/6°
-35dB to -25dB	3.0dB/20°

Trace Stability	Description
Trace Noise (IFBW=3kHz)	5m dB rms
Temperature Stability	0.03dB/°C

Effective System Data ¹	Description
Effective directivity	38dB
Effective source match	35dB
Effective load match	37dB

¹Applied over them temperature range of 23°C± 5°C after 40 minutes of warming-up, with less than 1°deviation from the full two-port calibration temperature, at output power of -5dBm and IF bandwidth 10Hz.

Specifications

Test Port Output	Description
Match(W/O system error correction)	18dB
Power range	-20dBm to +10dBm
Power accuracy	±1.5dB
Power resolution	0.05dB

Test Port Input	Description
Match(W/O system error correction)	18dB
Max input level	+23dBm
Max input voltage	+35V
Noise level	-120dBm

General Data	Description
External reference output	SMA female, 10MHz, 3dBm ± 2 dB
Operating temperature range	+5°C to +40°C
Storage temperature range	-45°C to +55°C
Operating humidity	90% (25°C)
Operating atmospheric pressure	84 to 106.7 kPa
Calibration interval	1 year
Power supply	110/220 ± 22V (AC), 50Hz
Power consumption	18W
Dimensions (W×H×D)	175×65×292mm
Weight	2.3kg
Warranty	3 years

Ordering List

Model	Description
BN100+	300kHz - 6.5GHz, Dual-port USB VNA working with PC or laptop via USB cable

Accessories	Description
Standard accessories	Power adapter USB cable USB disk

Calibration module	Description
E209A	Auto calibration kit, 2 ports, 100k to 8.5G, 3.5mm Type, OPT:MM/FF/MF
E409A	Auto calibration kit, 4 ports, 100k to 8.5G, 3.5mm Type, OPT:MM/FF/MF
E209C	Auto calibration kit, 2 ports, 100k to 8.5G, N Type, OPT:MM/FF/MF
E409C	Auto calibration kit, 4 ports, 100k to 8.5G, N Type, OPT:MM/FF/MF
SK-CAL-NM_90	4 Male Calibration Kits, (m)N-Combination, Open-Short-Load-Through included
SK-CAL-NF_90	4 Female Calibration Kits, (f)N-Combination, Open-Short-Load-Through included
SK-CAL-NM_60	4 Male Calibration Kits, (m)N-Combination, Open-Short-Load-Through included
SK-CAL-NF_60	4 Female Calibration Kits, (f)N-Combination, Open-Short-Load-Through included
SK-CAL-SMAM_90	4 Male Calibration Kits, (m)SMA-Combination, Open-Short-Load-Through included
SK-CAL-SMAF_90	4 Female Calibration Kits, (f)SMA-Combination, Open-Short-Load-Through included
SK-CAL-SMAM_60	4 Male Calibration Kits, (m)SMA-Combination, Open-Short-Load-Through included
SK-CAL-SMAF_60	4 Female Calibration Kits, (f)SMA-Combination, Open-Short-Load-Through included

RF Cable	Description
T5_RFCAB-NmNm_18101	Test Cable-DC to 18GHz, 50Ω, N(m)-N(m), 1m length
T5_RFCAB-NmSMAM_18102	Test Cable-DC to 18GHz, 50Ω, N(m)-SMA(m), 1m length
T5_RFCAB-NmNm_60101	Test Cable-DC to 6.5GHz, 50Ω, N(m)-N(m), VSWR<1.1, IL<1.2dB, 1m length
T5_RFCAB-NmSMAM_60101	Test Cable-DC to 6.5GHz, 50Ω, N(m)-SMA(m), VSWR<1.1, IL<1.2dB, 1m length

Other options	Description
BN1000-010	Time domain option



Bird[®]

In partnership with SANKO

Sanko Technologies Sdn.Bhd.



+6016 - 731 5399



support@sankorf.com



2-2-3 1 square, Tingkat Mahsuri,
Bayan Lepas, 11950 Pulau Pinang, Malaysia.

Licensed by Bird Technologies Group Inc. Assembled by Sanko Technologies Sdn Bhd in Malaysia.