

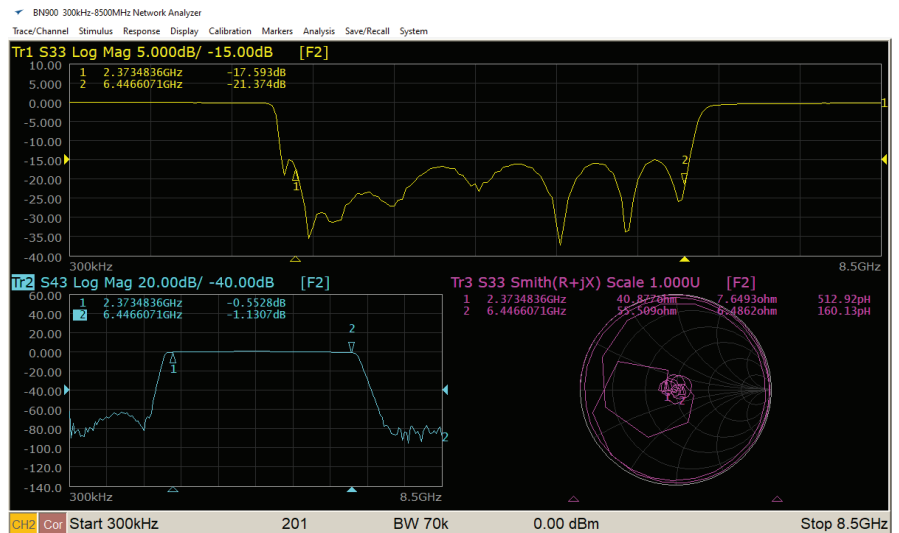
# Modular Vector Network Analyzer

## BN900-485



### Overview

Similar to our benchtop model, the BN900-485 modular vector network analyzer features a large dynamic range, low trace noise, high resolution and many more that can meet the testing requirements of various fields



Frequency range  
300kHz~8.5GHz

Large dynamic range  
>125dB @ (IFBW=10Hz), typ. 130dB

Low trace noise  
2mdB rms @ (IFBW=3 kHz )

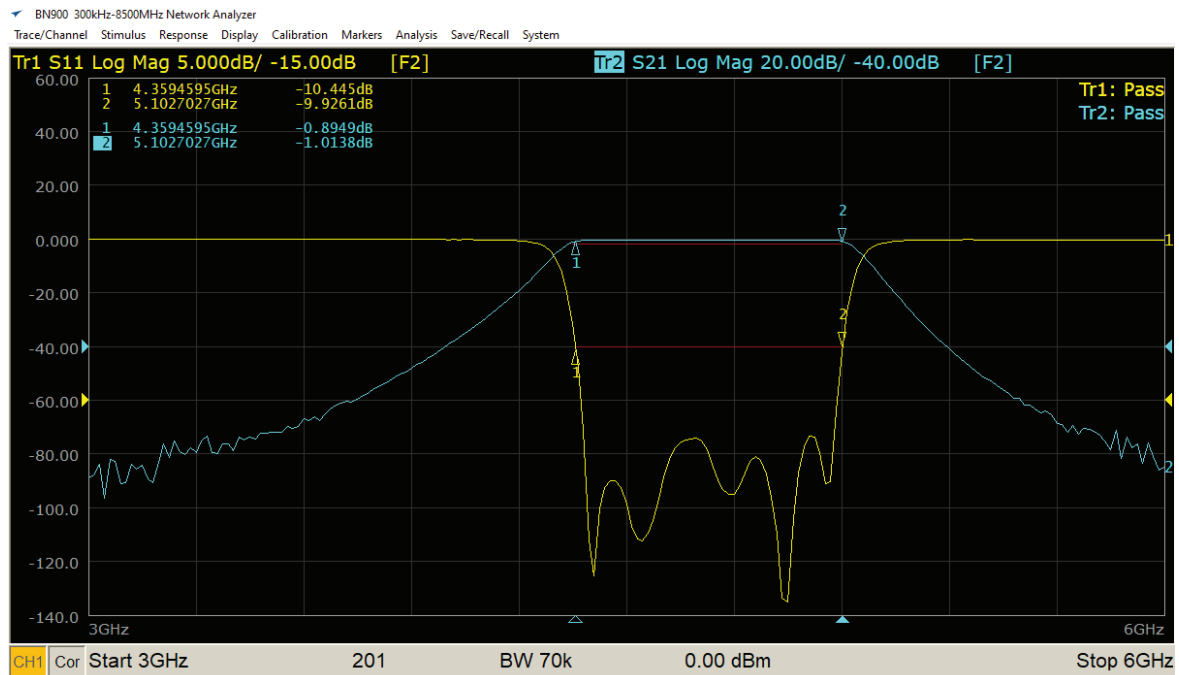
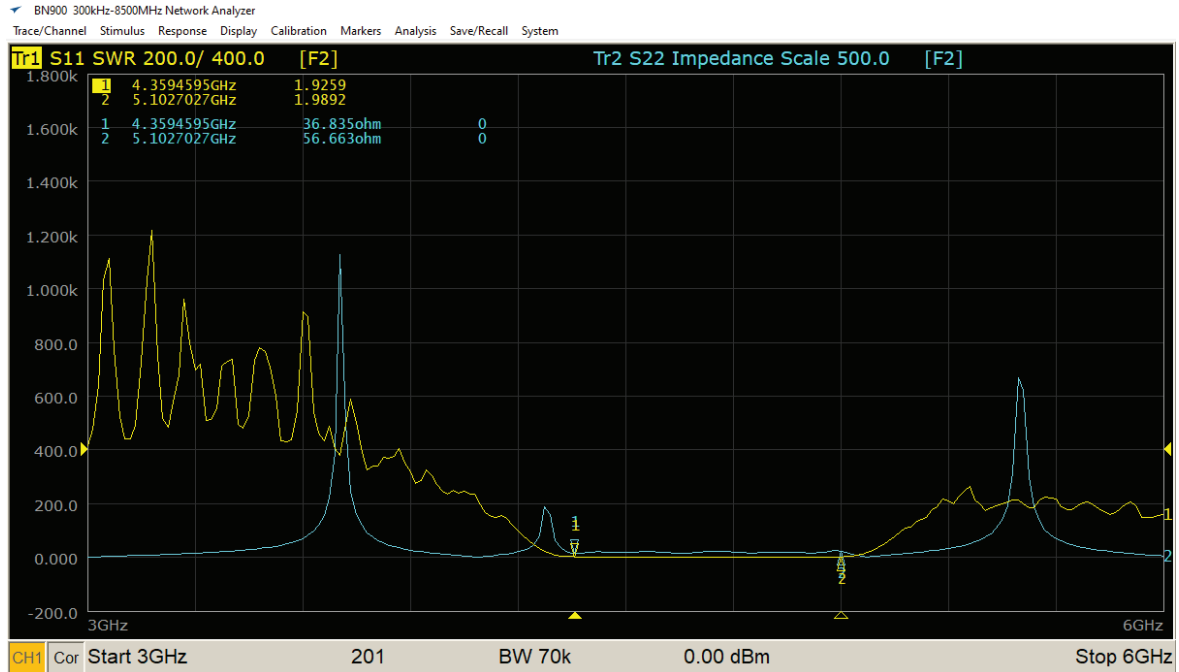
Measurement speed  
42µs/point @ (IFBW=500kHz)

High effective directivity  
>42dB

Support  
Standard VISA Protocol

## Innovative Features & Benefits

- Delicate size and easy to carry
- Possesses the performance of a benchtop vector network analyzer
- Open interface, making it possible for second development.



## Specifications

Testing Range	Description	
Product model	BN900-485	
Impedance	50Ω	
Test port connector	N-type, female	
Number of test port	4	
Frequency range	300kHz to 8.5GHz	
Frequency accuracy	±5ppm	
Frequency resolution	1Hz	
Measurement points	2 to 20001	
Measurement bandwidths	1Hz to 2MHz	
Dynamic range (IFBW=10Hz)	112dB, typ.115dB (300kHz to 10MHz) 125dB, typ.130dB (10MHz to 6GHz)	124dB, typ.129dB (6GHz to 7GHz) 123dB, typ.128dB (7GHz to 8.5GHz)

Measurement Accuracy	Description
<b>Accuracy of Transmission Measurements (magnitude / phase)</b>	
+5dB to +15dB	0.2dB/2°
-50dB to +5dB	0.1dB/1°
-70dB to -50dB	0.5dB/3°
-90dB to -70dB	2.5dB/8°
<b>Accuracy of Reflection Measurements (magnitude / phase)</b>	
-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)	2mdB rms
Temperature Stability	0.01dB/°C

Effective directivity <sup>1</sup>	Description
Effective directivity	38 to 49dB
Effective source match	35 to 41dB
Effective load match	37 to 49dB

<sup>1</sup> Applies over the temperature range of 23°C ± 5° C after 40 minutes of warming-up, with the full two-port calibration, at output power of 0dBm and IF bandwidth 10Hz.

## Specifications

Measurement Speed	Description
Measurement time per point	42 $\mu$ s

Test Port Output	Description
Match(W/O system error correction)	18dB
Power range (Option-70 to +10dBm)	-50dBm to +10dBm (300kHz to 7GHz)   -50dBm to +8dBm (7GHz to 8.5GHz)
Power accuracy	$\pm$ 1.5dB
Power resolution	0.05dB

Test Port Input	Description
Match(W/O System Calibration)	18dB
Max input level	+23dBm
Max input voltage	+35V
Noise level	-107dBm/Hz (300kHz to 10MHz)   -123dBm/Hz (10MHz to 5GHz)   -124dBm/Hz (5GHz to 6GHz)   -120dBm/Hz (6GHz to 8.5GHz)

Other Parameter	Description
External trigger input port	BNC female, input level range: 0 to +5 V
External reference input port	BNC female, 10 MHz; 2dBm $\pm$ 2dB
External reference output port	BNC female, 10 MHz; 2dBm $\pm$ 2dB
Working temperature	+5°C to +40°C
Storage temperature	-20°C to +60°C
Working humidity	90% (25°C)
Working pressure	84 to 106.7kPa
System calibration interval	3 years
Power supply	220 $\pm$ 22V (AC, 50Hz)
Power consumption	65W
Dimension	425 $\times$ 400 $\times$ 122mm
Weight	8.1kg
Warranty	3 years

## Ordering List

Model	Description
BN900-485	4-port 300kHz - 8.5GHz VNA

Calibration module	Description
E409A	Auto calibration kit, 4 ports, 100k~8.5G, 3.5mm Type, OPT:MM/FF/MF
E409C	Auto calibration kit, 4 ports, 100k~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-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

RF Cable	Description
T5_RFCAB-NmNm_90101	9G high precision 50Ω N-N cable
T5_RFCAB-NmSMAM_90102	9G high precision 50Ω N-SMA cable

Other options	Description
BN900-010	Time domain option
BN900-1F5	Fixture circuit simulation function



# Bird<sup>®</sup>

In partnership with SANKO

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