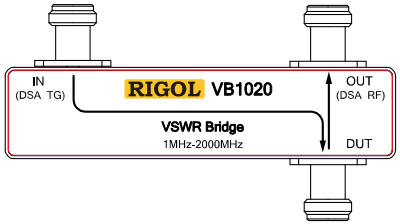
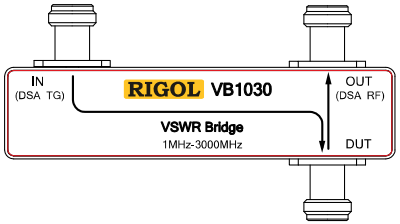
VB1020/VB1030 VSWR Bridge

Product Overview

VB1020/VB1030 with 1 MHz to 2 GHz/3 GHz measuring range, is used in combination with the **RIGOL** DSA series spectrum analyzer to measure S11-related parameters (such as return loss, reflection coefficient and VSWR). VB1020/VB1030 provides three N female connectors as shown in the figure below.

- **IN:** Signal input terminal. Here the signal generator or the output terminal of the tracking generator of the spectrum analyzer is connected.
- **OUT:** Signal output terminal. Here the wattmeter or the RF input terminal of the spectrum analyzer is connected.
- **DUT:** Here the device under test is connected.

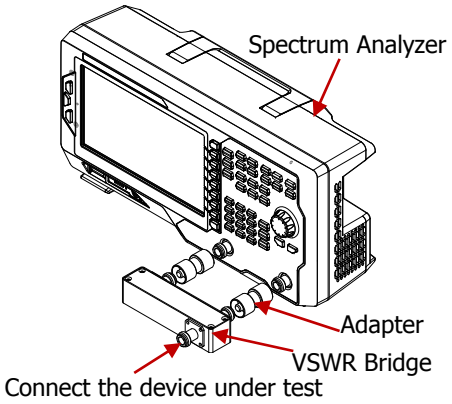




Measurement Connection

Connect VB1020/VB1030 to the spectrum analyzer as shown in the figure on the right.

- **Connect the spectrum analyzer**
  Use 2 adapters (N male-N male) to connect the output terminal of the tracking genrator and the RF input terminal of the spectrum analyzer to the **IN** terminal and **OUT** terminal of the VSWR bridge respectively.
- **Connect the device under test**
  Do not use cables or adaptors as far as possible to avoid additional reflection.



Typical Applications

- Measurement of the S11-related parameters of the filter, amplifier, mixer, etc.
- Resonant frequency and VSWR tests of the antenna.

Specifications

Frequency		
Frequency range	VB1020	1 MHz to 2 GHz
	VB1030	1 MHz to 3 GHz

Connector		
Connector type		N (Female) Type
Adaptor		Dual N (Male) Type
Impedance		50 Ω

Insertion Loss		
IN to DUT		5 dB (typical)

Directivity		
1 MHz to 500 MHz		≥30 dB
500 MHz to 2 GHz	VB1020	≥22 dB
500 MHz to 3 GHz	VB1030	≥22 dB

Input Power		
Maximum Input Power		+27 dBm (0.5 W)

General Specifications		
Dimensions		130 mm×75 mm×30 mm
	With Package	256 mm×190 mm×43 mm
Weight		0.5 kg
	With Package	1.2 kg
Operation Temperature		-20 ℃ to 80 ℃
Storage Temperature		-40 ℃ to 100 ℃