

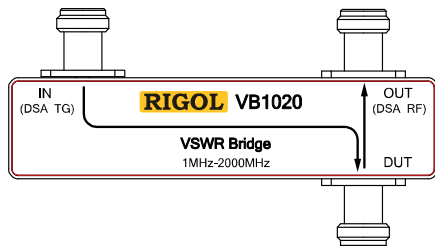


## VB1020 VSWR 电桥

### 产品简介

VB1020 用于配合 **RIGOL** DSA 系列频谱分析仪对被测设备进行回波损耗、反射系数和电压驻波比等 S11 相关指标的测量。VB1020 提供 3 个 N 型母头连接器，如下图所示。

- **IN:** 信号输入端。用于连接信号源或频谱仪的跟踪源输出端。
- **OUT:** 信号输出端。用于连接功率计或频谱仪的射频输入端。
- **DUT:** 用于连接被测设备。



### 测量连接

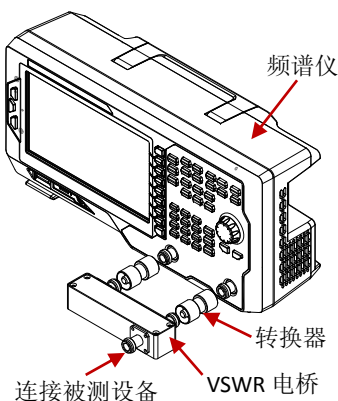
VB1020 与频谱分析仪的连接方式如右图所示。

#### 与频谱分析仪连接

使用 2 个转换器（N 型公头-N 型公头）分别连接频谱仪的跟踪源输出端和 VSWR 电桥的 IN 端、频谱仪的射频输入端和 VSWR 电桥的 OUT 端。

#### 与被测设备连接

连接被测设备时，请尽可能少的使用电缆或转接器，以避免引入额外的反射。



### 典型应用

- 滤波器、放大器、混频器等的 S11 相关参数测量
- 天线谐振频率、电压驻波比测试

### 性能指标

频率		
频率范围		1 MHz 至 2 GHz

端口类型		
端口形式		N (阴) 型
转接器		双 N (阳) 型
端口及转接器阻抗		50 Ω

插入损耗		
IN 至 DUT		5 dB (典型值)

方向性		
典型值		20 dB
最小值		15 dB

输入功率		
最大输入功率		+27 dBm (0.5 W)

一般技术规格		
尺寸		130 mm×75 mm×30 mm
	带外包装	256 mm×190 mm×43 mm
重量		0.5 kg
	带外包装	1.2 kg
工作温度		-20 °C 至 80 °C
存储温度		-40 °C 至 100 °C

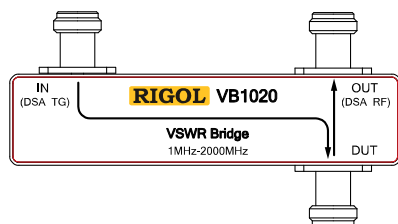


## VB1020 VSWR Bridge

### Product Overview

VB1020 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 provides three N female connectors as shown in the figure below.

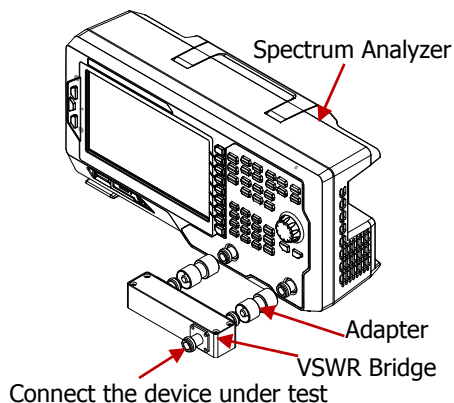
- **IN:** Signal input terminal. Here the signal generator or the output terminal of the tracking generator of the spectrum analyzer is connected.
- **OUT:** Signal output terminal. Here the wattmeter or the RF input terminal of the spectrum analyzer is connected.
- **DUT:** Here the device under test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



### Measurement Connection

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

- **Connect the spectrum analyzer**  
Use 2 adaptors (N male-N male) to connect the output terminal of the tracking generator 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		1 MHz to 2 GHz

Connector		
Connector type		N (Female) Type
Adaptor		Dual N (Male) Type
Impedance		50 $\Omega$

Insertion Loss		
IN to DUT		5 dB (typical)

Directivity		
Typ.		20 dB
Min.		15 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 $^{\circ}$ C to 80 $^{\circ}$ C
Storage Temperature		-40 $^{\circ}$ C to 100 $^{\circ}$ C