

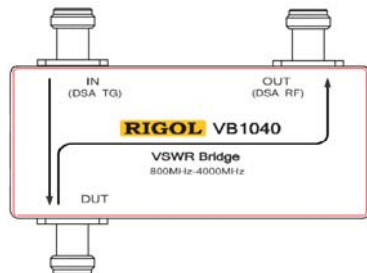


## VB1040 VSWR 电桥

### 产品简介

VB1040 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 相关指标进行测量。VB1040 提供 3 个 N（阴）型连接器，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

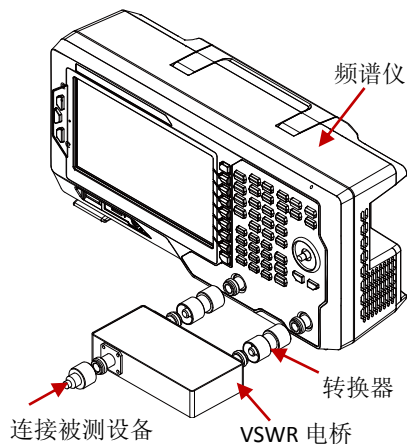
VB1040 与频谱分析仪的连接方式如右图所示。

#### 与频谱分析仪连接

使用 2 个双 N（阳）型转换器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	800 MHz 至 4 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	<1 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	112 mm×103 mm×16.5 mm
	256 mm×190 mm×43 mm（带外包装）
重量	0.5 kg
	1.2 kg（带外包装）
工作温度	-20 °C 至 80 °C
存储温度	-40 °C 至 100 °C

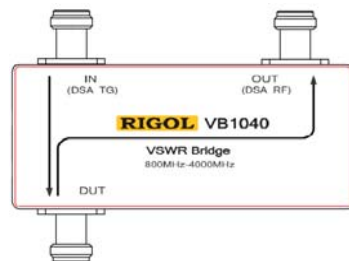


## VB1040 VSWR Bridge

### Product Overview

VB1040 is used in combination with the **RIGOL** DSA series spectrum analyzer to measure S11-related parameters (such as return loss, reflection coefficient and VSWR). VB1040 provides three N (Female) connectors as shown in the figure below.

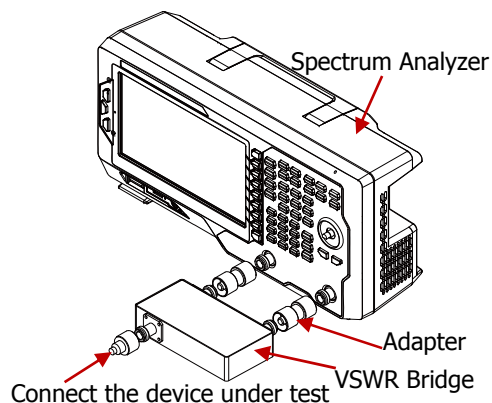
- **IN**: Signal input terminal. Here the signal generator or the output terminal of the tracking generator of the spectrum analyzer is connected.
- **OUT**: Signal output terminal. Here the power meter or the RF input terminal of the spectrum analyzer is connected.
- **DUT**: Here the device under test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



### Measurement Connection

Connect VB1040 to the spectrum analyzer as shown in the figure on the right.

- **Connect the spectrum analyzer**  
Use 2 Dual N (Male) adaptors 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	800 MHz to 4 GHz

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

Insertion Loss	
IN to DUT	<1 dB (typical)

Directivity	
Typ.	$\geq 20$ dB
Min.	15 dB

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

General Specifications	
Dimensions	112 mm×103 mm×16.5 mm
	256 mm×190 mm×43 mm (With Package)
Weight	0.5 kg
	1.2 kg (With Package)
Operation Temperature	-20 $^{\circ}$ C to 80 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C to 100 $^{\circ}$ C