

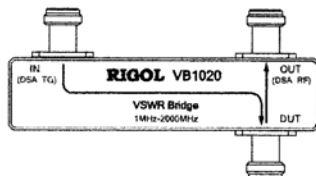
RIGOL
Beyond Measure

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.

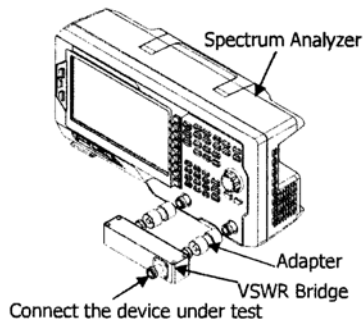
- **IN:** Signal input terminal. Here the signal generator or the output terminal of the tracking generator of the spectrum analyzer is connected.
- **OUT:** Signal output terminal. Here the wattmeter or the RF input terminal of the spectrum analyzer is connected.
- **DUT:** Here the device under test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

| 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 |