

# Agilent 11667L Power Splitter DC-2 GHz, BNC, 50 ohm

**Technical Overview** 

The Agilent 11667L is a 50 ohm two-resistor type power splitter with BNC connectors. The 11667L provides exceptional amplitude and phase tracking for highly accurate power splitting. Offering excellent output power symmetry between the two output ports, the 11667L is recommended for applications that require external source leveling and ratio measurements by using the E5061B network analyzer (at its gain-phase test port), and for other legacy network/ gain-phase analyzers that do not have built-in power splitters or directional bridges.

### **Key Features**

- Excellent amplitude (0.2 dB) and phase tracking (±3°) ensures highly accurate power splitting
- Low SWR minimizes measurement uncertainty

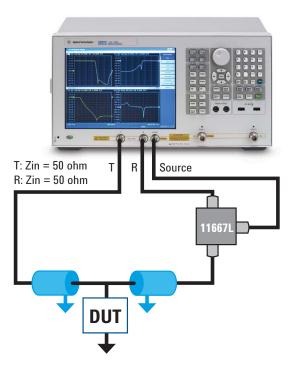




### **Application examples**

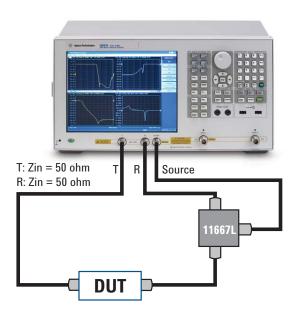
**Network Measurements** 

Milliohm impedance measurements with shunt-thru method (DC-DC converters, large bypass capacitors)

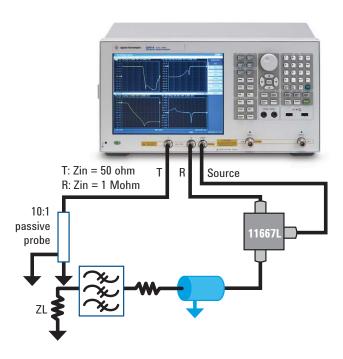


Shunt-thru impedance measurement

# Transmission coefficient measurements for 2-port devices

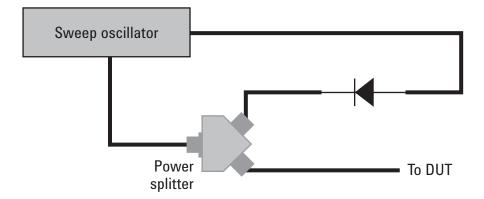


50 ohm device measurement

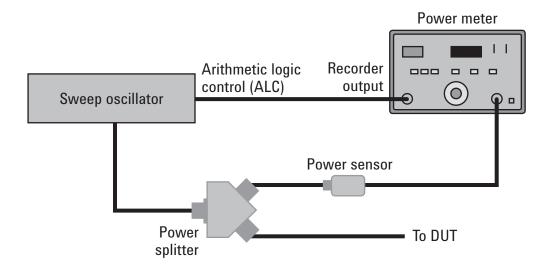


Non-50 ohm LF filter measurement

## Rationing and leveling



Power splitter test setup for leveling with a crystal detector



Power splitter test setup for leveling with a power meter

#### NOTE:

The two-resistor type power splitters are not applicable to power dividing and combining applications. For these purposes, use the three-resistor type power dividers.

# **Specifications**

Specifications describe the product's warranted performance. Supplemental and typical characteristics are intended to provide typical but non-warranted performance parameters. These are denoted as "typical", "nominal" or "approximate".

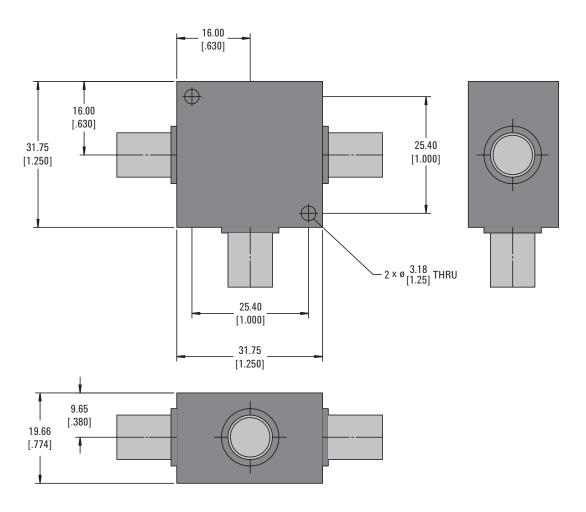
Specifications	Agilent 11667L
Frequency Range	DC to 2 GHz
Connector	BNC (f)
Insertion Loss above 6 dB (max)	DC to 100 MHz: 0.2 dB
	100 MHz to 2 GHz : 0.6 dB
Isolation (Min)	DC to 2 GHz: 11 dB
Return Loss (SWR) Typical	Input : 18 dB (1.3)
	Output : 11 dB (1.78)
Amplitude Tracking (Max)	DC to 100 MHz: 0.1 dB
	100 MHz to 2 GHz: 0.2 dB
Phase Tracking (Max)	DC to 100 MHz: 1 deg
	100 MHz to 2 GHz: 3 deg
Maximum Input Power	500 mW

### **Environmental Test Specifications**

The 11667L is designed to fully comply with Agilent Technologies product operating environment specifications. The following summarizes the environments for these products.

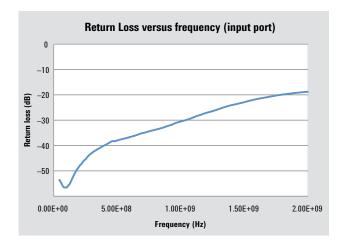
Temperature	
Operating	0 - 55 °C
Non-operating	–40 °C to 70 °C
Humidity	
Non-operating	–10 °C to 25 °C / 50% RH
Operating	40 °C / 95% RH, 5-day cycle
Functional Shock	Half-sine, 30 g, 11 ms
Vibration	
Vibration Operating random vibration	5 to 500 Hz, 0.21g RMS
	5 to 500 Hz, 0.21g RMS
Operating random vibration	5 to 500 Hz, 0.21g RMS ≤ 4600 meters (15,000 feet)
Operating random vibration  Altitude	
Operating random vibration  Altitude  Storage/Operating	

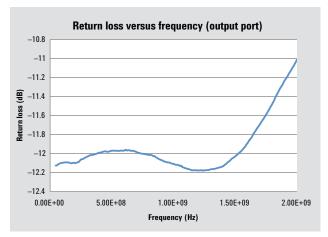
# **Mechanical Dimensions**

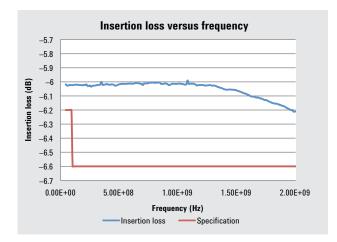


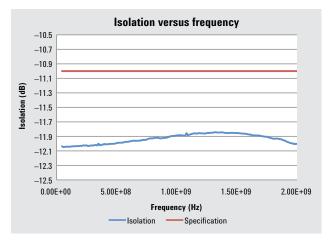
Product dimensions for 11667L

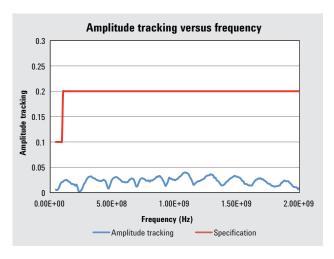
# **Typical Performance**











### **Ordering** Information



Power splitter DC-2 GHz, BNC, 50 ohm

### Related Literature

Differences in Application between Power Dividers and Power Splitter, Application Note,

Literature number 5989-6699EN

Agilent E5061B Network Analyzer, Technical Overview, Literature number 5990-4390EN



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Product specifications and descriptions in this document subject to change without notice.

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