

Directional bridges

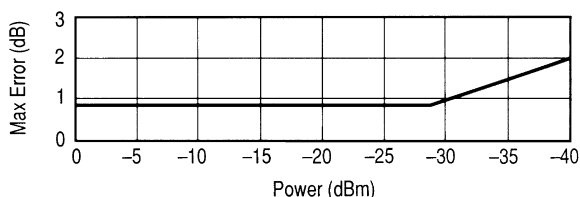
Agilent 85027 series directional bridges (AC/DC)

The 85027 series directional bridges are designed to operate with either the 8757 in AC or DC detection modes or with the 8756 or 8755 in AC detection mode. These bridges offer high directivity, excellent test port match, and a measurement range of up to 50 GHz in coax.

General information—directional bridges

Dynamic power accuracy

(50 MHz, 25 ±5°C, +7 dBm input)



Typical insertion loss

6.5 dB at 10.0 MHz
8.0 dB at 18.0 GHz
10.0 dB at 26.5 GHz
11.0 dB at 40.0 GHz
13.0 dB at 50.0 GHz

Typical minimum input power for a 40 dB return loss measurement at 18 GHz: +2 dBm

Dimensions: 26 H x 124 W x 118 mm D
(1.0 x 4.9 x 4.4 in)

Weight: Net 0.5 kg (1.2 lb), Shipping 2.3 kg (5 lb)

Accessories included with directional bridges:

85027A

7 mm open/short
Type-N (m)–(m) adapter

85027B

3.5 mm (m) open/short
3.5 mm (m)–(m) adapter
3.5 mm (m)–(f) adapter

85027C

Type-N (m) short
Type-N (m) shielded open
Type-N (m)–(m) adapter

85027D

2.4 mm (f) open
2.4 mm (f) short

85027E

3.5 mm (f) open/short
3.5 mm (f)–(f) adapter
3.5 mm (f)–(m) adapter

Directional Bridge Summary

For use with the 8757 in AC or DC detection mode or with the 8756 or 8755 in AC detection mode only

Model	Frequency range	Nominal impedance	Input connector	Test port connector	Frequency	Directivity	Frequency	Test port match
85027A	10 MHz to 18 GHz	50 ohms	Type-N (f)	7 mm	0.01 to 18 GHz	40 dB	0.01 to 8.4 GHz	<1.15 SWR
							8.4 to 12.4 GHz	<1.25 SWR
							12.4 to 18 GHz	<1.43 SWR
85027B	10 MHz to 26.5 GHz	50 ohms	3.5 mm (f)	3.5 mm (f)	0.01 to 20 GHz	40 dB	0.01 to 8.4 GHz	<1.15 SWR
					20 to 26.5 GHz	36 dB	8.4 to 20 GHz	<1.43 SWR
							20 to 26.5 GHz	<1.78 SWR
85027C	10 MHz to 18 GHz	50 ohms	Type-N (f)	Type-N (f)	0.01 to 12.4 GHz	36 dB	0.01 to 8.4 GHz	<1.15 SWR
					12.4 to 18 GHz	34 dB	8.4 to 12.4 GHz	<1.25 SWR
							12.4 to 18 GHz	<1.43 SWR
85027D	10 MHz to 50 GHz	50 ohms	2.4 mm (f)	2.4 mm (m)	0.01 to 26.5 GHz	35 dB	0.01 to 16 GHz	<1.18 SWR
							16 to 30 GHz	<1.27 SWR
					26.5 to 40 GHz	30 dB	30 to 40 GHz	<1.40 SWR
					40 to 50 GHz	25 dB	40 to 50 GHz (typical)	<1.85 SWR
85027E	10 MHz to 26.5 GHz	50 ohms	3.5 mm (f)	3.5 mm (m)	0.01 to 20 GHz	40 dB	0.01 to 8.4 GHz	<1.15 SWR
					20 to 26.5 GHz	36 dB	8.4 to 20 GHz	<1.43 SWR
							20 to 26.5 GHz	<1.78 SWR