

HP 8757D Option 002 Power Calibrator

The HP 8757D's internal power calibrator provides a 50 MHz reference standard for characterizing the absolute power accuracy and dynamic power accuracy of the HP 85037 series precision detectors.

Frequency: 50 MHz ± 0.2 MHz

Accuracy at 0 dBm: ± 0.05 dB

Linearity: (over any 10 dB range)

± 0.08 dB (+20 to +10 dBm)

± 0.04 (+10 to -30 dBm)

± 0.06 (-30 to -50 dBm)

Waveguide Detectors and Detector Adapters Summary

For use with the HP 8757 only in either ac or dc detection modes

Model	Frequency range	Connector type	Dynamic range	Return loss	Frequency response	Dynamic accuracy
HP R85026A ¹	26.5 to 40 GHz	WR-28	+10 to -50 dBm (ac mode) +10 to -45 dBm (dc mode)	12 dB	± 1.5 dB	$\pm (0.3 \text{ dB} + 0.03 \text{ dB/dB})$
HP Q85026A ¹	33 to 50 GHz	WR-22	+10 to -50 dBm (ac mode) +10 to -45 dBm (dc mode)	12 dB	± 2.0 dB	$\pm (0.3 \text{ dB} + 0.03 \text{ dB/dB})$
HP U85026A	40 to 60 GHz	WR-19	+10 to -50 dBm (ac mode) +10 to -45 dBm (dc mode)	12 dB	± 2.0 dB	$\pm (0.3 \text{ dB} + 0.03 \text{ dB/dB})$
HP 85025C Opt K57 ²	50 to 75 GHz	WR-15	+10 to -45 dBm (typical)	9.5 dB (typical)		
HP 85025C Opt K71 ³	75 to 110 GHz	WR-10	+10 to -45 dBm (typical)	9.5 dB (typical)		
HP 85025C ¹	²	SMA (m)	²	²	²	²

¹The HP 85037A/B specifications are applicable when used with the HP 8757D scalar network analyzer. The absolute power accuracy and dynamic power accuracy specifications apply after a calibration via the HP 8757D Opt 002's internal power calibrator.

²Opt 001 changes to a 7 mm connector.

³The HP 85025 and 85026 series detectors and the HP 85025C detector adapter require HP 8757A firmware revision 2.0 or higher. To upgrade previous revisions, order the HP 11614A firmware enhancement.

⁴Dynamic accuracy refers to measurement accuracy as power varies (in dB) from a 0 dBm reference. 25° $\pm 5^\circ$ C, 50 MHz.

⁵DC mode, 25° $\pm 5^\circ$ C

HP 85027 Series Directional Bridges (ac/dc)

The HP 85027 series directional bridges are designed to operate with either the HP 8757 in ac or dc detection modes or with the HP 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.

Directional Bridge Summary

For use with the HP 8757 in ac or dc detection mode or with the 8756 or 8755 in ac detection mode only

Model	Frequency range	Nominal impedance	Connector		Frequency	Directivity (dB)	Frequency	Test port match (SWR)
			Input	Test port				
HP 85027A	10 MHz to 18 GHz	50 Ω	Type-N (f)	7 mm	0.01 to 18 GHz	40 dB	0.01 to 8.4 GHz 8.4 to 12.4 GHz 12.4 to 18 GHz	< 1.15 < 1.25 < 1.43
HP 85027B	10 MHz to 26.5 GHz	50 Ω	3.5 mm (f)	3.5 mm (f)	0.01 to 20 GHz 20 to 26.5 GHz	40 dB 36 dB	0.01 to 8.4 GHz 8.4 to 20 GHz 20 to 26.5 GHz	< 1.15 < 1.43 < 1.78
HP 85027C	10 MHz to 18 GHz	50 Ω	Type-N (f)	Type-N (f)	0.01 to 12.4 GHz 12.4 to 18 GHz	36 dB 34 dB	0.01 to 8.4 GHz 8.4 to 12.4 GHz 12.4 to 18 GHz	< 1.15 < 1.25 < 1.43
HP 85027D	10 MHz to 50 GHz	50 Ω	2.4 mm (f)	2.4 mm (m)	0.01 to 20 GHz 20 to 26.5 GHz 26.5 to 40 GHz 40 to 50 GHz	36 dB 32 dB 30 dB 25 dB	0.01 to 16 GHz 16 to 30 GHz 30 to 40 GHz 40 to 50 GHz	< 1.18 < 1.27 < 1.57 typically < 2.00
HP 85027E	10 MHz to 26.5 GHz	50 Ω	3.5 mm (f)	3.5 mm (m)	0.01 to 20 GHz 20 to 26.5 GHz	40 dB 36 dB	0.01 to 8.4 GHz 8.4 to 20 GHz 20 to 26.5 GHz	< 1.15 < 1.43 < 1.78

¹The HP 85025 and 85026 series detectors and the HP 85025C detector adapter require HP 8757A firmware revision 2.0 or higher. To upgrade previous revisions, order the HP 11614A firmware enhancement.

²Depends upon the particular detector being used

³Must be used with the HP 85025C detector adapter

Ordering Information

The HP 8757 scalar network analyzer is ordered with multiple line items to give you maximum flexibility in specifying a system that meets your needs. Consult your local Hewlett-Packard sales office if you would like assistance.

	Price
Complete Measurement System	
HP 8757XC 20 GHz Coaxial Synthesized Scalar System	\$36,450
Includes:	
HP 8757D Scalar Network Analyzer	
HP 83752A Synthesized Sweeper	
HP 85022A Cable Kit	
Opt 001 Adds Fourth Detector Input to Analyzer	+\$1,600
Opt 002 Adds 50 MHz Calibrator to Analyzer	+\$2,500
Opt 1E1 Adds 70 dB Step Attenuator to Source	+\$2,035
Opt 1E5 Adds High Stability Timebase to Source	+\$1,525
Opt 1ED Adds Type-N Connector to Source	+\$0
Opt 57E Substitutes HP 8757E Analyzer	-\$1,700
Opt 51A Substitutes HP 83751A Source (2 to 20 GHz)	-\$3,000
Opt 51B Substitutes HP 83751B Source (2 to 20 GHz, high power)	+\$1,500
Opt 52B Substitutes HP 83752B Source (0.01 to 20 GHz high power)	+\$4,500
Opt 802 Adds HP 9122C dual 3½-in disk drive and HP 10833A HP-IB cable	+\$2,295

Analyzer	
HP 8757D Scalar Network Analyzer	\$9,490
Opt 001 Fourth Detector Input	+\$1,630
Opt 002 Internal Power Calibrator	+\$2,550
Opt 802 HP 9122C Disk Drive and an HP 10833A HP-IB cable	+\$2,340
Opt W03* 90-Day On-Site Warranty Conversion	\$0
Opt W30 Two-Year Extended Service	+\$230
Opt 1BN Mil-Standard 45662A Calibration Certificate	+\$102
Opt 1BP Mil-Standard 45662A Calibration with Test Data	+\$305
HP 8757E Scalar Network Analyzer	\$7,750
Opt 1BP Mil-Standard 45662A Calibration with Test Data	+\$102

Sweepers

Choose the HP 83752A/B synthesized sweepers for applications from 10 MHz to 20 GHz; the HP 8360 series or 8340B synthesized sweepers or HP 8350 general-purpose source for measurements up to 50 GHz in coax or 110 GHz in waveguide.

Precision Detectors

HP 85037A 0.01 to 18 GHz, Type-N(m)	\$1,785
Opt 001 7 mm Connector	+\$255
HP 85037B 0.01 to 26.5 GHz, 3.5 mm(m)	\$1,885

Directional Bridges

HP 85027A 0.01 to 18 GHz, 7 mm, 50 Ω	\$2,725
HP 85027B 0.01 to 26.5 GHz, 3.5 mm (f), 50 Ω	\$3,235
HP 85027C 0.01 to 18 GHz, Type-N (f), 50 Ω	\$2,725
HP 85027D 0.01 to 50 GHz, 2.4 mm (m), 50 Ω	\$4,685
HP 85027E 0.01 to 26.5 GHz, 3.5 mm (m), 50 Ω	\$3,595

Detectors

HP 85025A 0.01 to 18 GHz, Type-N (m)	\$960
Opt 001 7 mm Connector	+\$77

HP 85025B 0.01 to 26.5 GHz, 3.5 mm (m)	\$1,030
HP 85025D 0.01 to 50 GHz, 2.4 mm (m)	\$1,630
HP 85025E 0.01 to 26.5 GHz, 3.5 mm (m)	\$1,325
HP R85026A 26.5 to 40 GHz, WR-28 Waveguide	\$1,735
HP Q85026A 33 to 50 GHz, WR-22 Waveguide	\$1,940
HP U85026A 40 to 60 GHz, WR-19 Waveguide	\$1,940
HP 85025C Detector Adapter	\$765

*Only where available

System Verification Kits

HP 85028A 7 mm Directivity Verification Standards	\$5,610
HP 85023A 7 mm, 50 Ω	\$775
HP 85023B 3.5 mm, 50 Ω	\$1,020
HP 85023C Type-N, 50 Ω	\$715
HP 85023D Type-N, 75 Ω	\$1,070
HP 85023F 2.4 mm, 50 Ω	\$2,345

Filter Kits

HP 11668A High Pass Filter Kit	\$765
HP 11678A Low Pass Filter Kit	\$2,550

System Cable Kit

HP 85022A System Cable Kit	\$400
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Computer

HP A2240B Series 300, Model 362	\$6,525
Includes:	
SPU with 2 MB RAM	
3½-in Floppy Disk Drive	
14-in VGA Color Monitor	
52 MB Internal Disk Drive w/HP BASIC Installed	
Note: Must order Keyboard Kit A1099A separately.	

Recommended Accessories

Printer	
HP 660C DeskJet (HP C2164A)	\$599
HP XL300 PaintJet (HP C1645A)	\$2,795

Optional Accessories

(For ratio and/or modulation measurements)	
HP 11636A Power Divider dc to 18 GHz	\$610
HP 11636B Power Divider dc to 26.5 GHz	\$1,070
HP 11665B Modulator	\$1,070
HP 11667A Power Splitter dc to 18 GHz	\$1,010
Opt 001 N-male on Input Port; N-female on Output Ports	\$0
Opt 002 N-female on Input Port; 7 mm on Output Ports	+\$179
HP 11667B Power Splitter dc to 26.5 GHz	\$1,090
HP 11667C Power Splitter dc to 50 GHz	\$1,600
HP 11679A Detector Extension Cable, 7.6 m (25 ft)	\$128
HP 11679B Detector Extension Cable, 61 m (200 ft)	\$385
HP 11852B 50 to 75 Ω Minimum Loss Pad	\$510

Service and Support Products

HP 11613B Calibrator	\$1,095
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Upgrade Kits

HP 86383A Upgrade Kit, HP 8757E to 8757D	\$2,040
HP 86383B Upgrade Kit, HP 8757C to 8757D	\$920
HP 86383C Upgrade Kit for HP 8757D	
Opt 001 Adds Fourth Detector Input	\$1,835
Opt 002 Adds Internal Power Calibrator	\$2,755

☎ For off-the-shelf shipment, call 800-452-4844.