

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 ² | 75 to 110 GHz | WR-10 | +10 to -45 dBm (typical) | 9.5 dB (typical) | | |
| HP 85025C ³ | 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 |

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| 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

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|---------------------------------------|---------|
| 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

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| 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

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

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| 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

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|---|---------|
| 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

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

System Cable Kit

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| HP 85022A System Cable Kit | \$400 |
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Computer

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| 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

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

Optional Accessories

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| (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

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| HP 11613B Calibrator | \$1,095 |
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Upgrade Kits

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| 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.