

**Aumictech**

Test &amp; measurement • bought, sold, repaired, calibrated

**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

## Agilent/Keysight 85027D

HP Agilent 85027D Directional Bridge 10 MHz to 50 GHz 2.4 mm The HP 85027D is a 50 ohm 2.4 mm AC/DC directional bridge for 8757/8756/8755 scalar analyzers. OEM 85027 table lists 10 MHz to 50 GHz, 2.4 mm female input and 2.4 mm male test port, 36 dB directivity to 20 GHz stepping to 25 dB at 40 to 50 GHz. Swept coaxial reflection measurements to 50 GHz on 2.4 mm devices. Test Port Swr 0.01 To 16 Ghz: less than 1.18 The HP 85027D is a 50 ohm 2.4 mm AC/DC directional bridge for 8757/8756/8755 scalar analyzers. OEM 85027 table lists 10 MHz to 50 GHz, 2.4 mm female input and 2.4 mm male test port, 36 dB directivity to 20 GHz stepping to 25 dB at 40 to 50 GHz. Swept coaxial reflection measurements to 50 GHz on 2.4 mm devices. Test Port Swr 0.01 To 16 Ghz: less than 1.18 Test Port Swr 16 To 30 Ghz: less than 1.27



MODEL

**Agilent / Keysight  
85027D**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**85027D**

LISTING

<https://aumictechlabs.com/products/85027d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

### This unit

The Keysight 85027D is a precision directional bridge for accurate reflection measurements across RF and microwave systems. Engineered to interface with scalar network analyzers including the 8757, 8756, and 8755 series, this component delivers both AC and DC detection capability. It characterizes impedance and component performance from 10 MHz to 50 GHz using a single zero-biased modified barrier diode detector. Technical Specifications Frequency Range: 10 MHz to 50 GHz Nominal Impedance: 50 Ohms Directivity: 36 dB (0.01–20 GHz), 32 dB (20–26.5

GHz), 30 dB (26.5–40 GHz), 25 dB (40–50 GHz) Test Port Match (SWR): <1.18 (0.01–16 GHz), <1.27 (16–30 GHz), <1.57 (30–40 GHz), typically <2.00 SWR (40–50 GHz) Internal Detector: Zero-biased modified barrier diode for reflection measurements; transmission detector available as optional addition RF Input Connector: 2.4 mm female Test Port Connector: 2.4 mm male Dimensions: 26 mm H × 124 mm W × 118 mm D Weight: 0.5 kg net (2.3 kg shipping)Key Features Dual detection modes support both amplitude-modulated (AC) and unmodulated (DC) signal measurement AC detection operates with modulation by 27.778 kHz square wave signal Directivity remains above 25 dB across full 50 GHz measurement range Test port match optimized below 1.27 SWR through 30 GHzTypical Applications Return loss and reflection characterization of RF/microwave components Impedance matching verification Device characterization sensitive to modulation effects Network analysis with scalar detection architectureCompatibility & Integration The 85027D operates with Keysight 8757 series (AC and DC modes) and 8756/8755 series analyzers (AC mode). RF input requires sweep oscillator or synthesized sweeper source. Calibration accessories and 2.4 mm open/short standards supplied.

## 85027D Characteristics / Specifications

| PARAMETER                    | VALUE                                     |
|------------------------------|-------------------------------------------|
| Model                        | 85027D                                    |
| Instrument Type              | Directional bridge                        |
| Frequency Range              | 10 MHz to 50 GHz                          |
| Nominal Impedance            | 50 ohm                                    |
| Input Connector              | 2.4 mm female                             |
| Test Port Connector          | 2.4 mm male                               |
| Directivity 0.01 To 20 Ghz   | 36 dB                                     |
| Directivity 20 To 26.5 Ghz   | 32 dB                                     |
| Directivity 26.5 To 40 Ghz   | 30 dB                                     |
| Directivity 40 To 50 Ghz     | 25 dB                                     |
| Test Port Swr 0.01 To 16 Ghz | less than 1.18                            |
| Test Port Swr 16 To 30 Ghz   | less than 1.27                            |
| Test Port Swr 30 To 40 Ghz   | less than 1.57                            |
| Test Port Swr 40 To 50 Ghz   | typically less than 2.00                  |
| Host Analyzers Ac Dc         | HP 8757                                   |
| Host Analyzers Ac Only       | HP 8756 and 8755                          |
| Detection Modes              | AC or DC with 8757                        |
| Manufacturer                 | HP Agilent Keysight                       |
| Series Family                | 85027A/B/C/D/E                            |
| Minimum Frequency            | 10 MHz                                    |
| Maximum Frequency            | 50 GHz                                    |
| Bridge Type                  | high directivity scalar reflection bridge |
| Mechanical Package           | coaxial directional bridge                |

# 85027D Specifications

| PARAMETER                    | VALUE                                                              |
|------------------------------|--------------------------------------------------------------------|
| Applications                 | Swept coaxial reflection measurements to 50 GHz on 2.4 mm devices. |
| Key Features                 | Coaxial coverage to 50 GHz                                         |
| AC or DC detection with 8757 | 36 dB directivity to 20 GHz                                        |
| Technical Specifications     | Model: 85027D                                                      |

# Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

| Specifications                                                                                                                                                                                             |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Specifications                                                                                                                                                                                             |                                           |
| PARAMETER                                                                                                                                                                                                  | VALUE                                     |
| Model                                                                                                                                                                                                      | 85027D                                    |
| Instrument Type                                                                                                                                                                                            | Directional bridge                        |
| Frequency Range                                                                                                                                                                                            | 10 MHz to 50 GHz                          |
| Nominal Impedance                                                                                                                                                                                          | 50 ohm                                    |
| Input Connector                                                                                                                                                                                            | 2.4 mm female                             |
| Test Port Connector                                                                                                                                                                                        | 2.4 mm male                               |
| Directivity 0.01 To 20 Ghz                                                                                                                                                                                 | 36 dB                                     |
| Directivity 20 To 26.5 Ghz                                                                                                                                                                                 | 32 dB                                     |
| Directivity 26.5 To 40 Ghz                                                                                                                                                                                 | 30 dB                                     |
| Directivity 40 To 50 Ghz                                                                                                                                                                                   | 25 dB                                     |
| Test Port Swr 0.01 To 16 Ghz                                                                                                                                                                               | less than 1.18                            |
| Test Port Swr 16 To 30 Ghz                                                                                                                                                                                 | less than 1.27                            |
| Test Port Swr 30 To 40 Ghz                                                                                                                                                                                 | less than 1.57                            |
| Test Port Swr 40 To 50 Ghz                                                                                                                                                                                 | typically less than 2.00                  |
| Host Analyzers Ac Dc                                                                                                                                                                                       | HP 8757                                   |
| Host Analyzers Ac Only                                                                                                                                                                                     | HP 8756 and 8755                          |
| Detection Modes                                                                                                                                                                                            | AC or DC with 8757                        |
| Manufacturer                                                                                                                                                                                               | HP Agilent Keysight                       |
| Series Family                                                                                                                                                                                              | 85027A/B/C/D/E                            |
| Minimum Frequency                                                                                                                                                                                          | 10 MHz                                    |
| Maximum Frequency                                                                                                                                                                                          | 50 GHz                                    |
| Bridge Type                                                                                                                                                                                                | high directivity scalar reflection bridge |
| Mechanical Package                                                                                                                                                                                         | coaxial directional bridge                |
| Notes                                                                                                                                                                                                      |                                           |
| From HP 85027 series directional bridge summary table row 85027D (8757 catalog). Some 8757D manual reprints list 35 dB to 26.5 GHz; use the family data-sheet column matching the calibration certificate. |                                           |

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

788 S 500 E, Pleasant Grove, UT 84062  
[sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341  
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.