

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85056D Economy Mechanical Calibration Kit, DC to 50 GHz, 2.4 mm

Agilent 85056D 2.4 mm Economy Calibration Kit to 50 GHz The Keysight 85056D is a 2.4 mm economy mechanical calibration kit used to calibrate network analyzers for 2.4 mm components up to 50 GHz. OEM 85056-90021 user's and service guide Table 2-3 lists broadband-load, adapter, and offset open/short specifications; Table 2-1 and Table 2-2 cover environment and pin-depth limits. Economy 2.4 mm OSL calibration to 50 GHz whereas sliding-load 85056A precision kit is not required. 2.4 mm male and female broadband loads, opens, and shorts to 50 GHz The Keysight 85056D is a 2.4 mm economy mechanical calibration kit used to calibrate network analyzers for 2.4 mm components up to 50 GHz. OEM 85056-90021 user's and service guide Table 2-3 lists broadband-load, adapter, and offset open/short specifications; Table 2-1 and Table 2-2 cover environment and pin-depth limits. Economy 2.4 mm OSL calibration to 50 GHz whereas sliding-load 85056A precision kit is not required. 2.4 mm male and female broadband loads, opens, and shorts to 50 GHz 5/16 in 90 N-cm (8 in-lb) torque wrench included



MODEL

**Agilent / Keysight
85056D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85056D

LISTING

<https://aumictechlabs.com/products/85056d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85056D Economy Mechanical Calibration Kit has precision calibration standards for network analyzer characterization from DC to 50 GHz using 2.4 mm connectors. This kit delivers the essential reflection and transmission standards required to correct systematic measurement errors across the entire 2.4 mm interface, enabling accurate S-parameter and network parameter extraction in high-frequency test applications.

Technical Specifications

Frequency Range: DC to 50 GHz
Connector Type: 2.4 mm
Characteristic Impedance: 50 Ohm
Return Loss (Terminations): >42 dB at 4 GHz; >26 dB at 50 GHz
Package Dimensions: Approximately 47 × 35 × 24 cm
Gross Weight: Approximately 20 kg

Key Features

- Offset Opens and Shorts. Precision-machined reflection standards with tight tolerances minimize phase error and ensure repeatable connector mating across the frequency band.
- Metrology-Grade Terminations. 50 Ω loads optimized to 50 GHz using distributed resistive elements on sapphire substrate. High internal repeatability and stable return loss performance.
- 2.4 mm Adapters. Precision adapters with matched electrical lengths for gender conversion and non-insertable device calibration. Built to tight tolerances for broadband stability and repeatable connections.
- Torque Control. Included torque wrenches (5/16 in, 90 N-cm / 8 in-lb) and open-end wrench ensure consistent standard connections and proper mechanical engagement.
- NIST Traceability. Calibration measurements traceable to United States National Institute of Standards and Technology standards.

Typical Applications

- Two-port calibration of network analyzers for DC to 50 GHz component characterization.
- Calibration of test ports equipped with 2.4 mm connectors for S-parameter measurements in microwave and millimeter-wave systems.

Compatibility & Integration

Designed for Keysight (formerly Agilent/HP) network analyzers operating up to 50 GHz. Calibration kit definition files (.xkt) are available and typically pre-loaded in Keysight VNA firmware for plug-and-play operation.

85056D Characteristics / Specifications

PARAMETER	VALUE
Model	85056D
Instrument Type	Economy mechanical calibration kit
Connector Type	2.4 mm
Frequency Range	DC to 50 GHz
Load Return Loss Dc To 4 Ghz	greater than or equal to 42 dB (rho less than or equal to 0.00794)
Load Return Loss 4 To 20 Ghz	greater than or equal to 34 dB (rho less than or equal to 0.01995)
Load Return Loss 20 To 26p5 Ghz	greater than or equal to 30 dB (rho less than or equal to 0.03162)
Load Return Loss 26p5 To 50 Ghz	greater than or equal to 26 dB (rho less than or equal to 0.05012)
Adapter Return Loss Dc To 4 Ghz	greater than or equal to 32 dB (rho less than or equal to 0.02512)
Adapter Return Loss 4 To 26p5 Ghz	greater than or equal to 30 dB (rho less than or equal to 0.03162)
Adapter Return Loss 26p5 To 40 Ghz	greater than or equal to 25 dB (rho less than or equal to 0.05623)
Adapter Return Loss 40 To 50 Ghz	greater than or equal to 20 dB (rho less than or equal to 0.10000)
Offset Open Dc To 2 Ghz	plus or minus 0.5 deg from nominal
Offset Open 2 To 20 Ghz	plus or minus 1.25 deg from nominal
Offset Open 20 To 40 Ghz	plus or minus 1.75 deg from nominal
Offset Open 40 To 50 Ghz	plus or minus 2.25 deg from nominal
Offset Short Dc To 2 Ghz	plus or minus 0.50 deg from nominal
Offset Short 2 To 20 Ghz	plus or minus 1.25 deg from nominal
Offset Short 20 To 40 Ghz	plus or minus 1.5 deg from nominal
Offset Short 40 To 50 Ghz	plus or minus 2.0 deg from nominal
Operating Temperature	+20 C to +26 C
Error Corrected Temperature	plus or minus 1 C of measurement calibration temperature
Storage Temperature	minus 40 C to +75 C
Humidity Type Tested	0 percent to 95 percent at 40 C non-condensing
Torque 2p4 Mm	90 N-cm (8 in-lb) plus or minus 9.0 N-cm

PARAMETER	VALUE
Open Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Short Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Fixed Load Typical Pin Depth	minus 0.0025 to minus 0.0203 mm (minus 0.00010 to minus 0.00080 in)
Adapter Typical Pin Depth	0 to minus 0.0381 mm (0 to minus 0.00150 in)
Humidity	Type Tested: 0 percent to 95 percent at 40 C non-condensing
Return loss	Dc To 4 Ghz: greater than or equal to 42 dB (rho less than or equal to 0.00794)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to +75 C
Operating temperature	+20 C to +26 C
Operating Temperature	+20 C to +26 C
Humidity	Type Tested: 0 percent to 95 percent at 40 C non-condensing
Error Corrected Temperature	plus or minus 1 C of measurement calibration temperature
Humidity Type Tested	0 percent to 95 percent at 40 C non-condensing
Torque 2p4 Mm	90 N-cm (8 in-lb) plus or minus 9.0 N-cm
Open Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Short Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Fixed Load Typical Pin Depth	minus 0.0025 to minus 0.0203 mm (minus 0.00010 to minus 0.00080 in)
Adapter Typical Pin Depth	0 to minus 0.0381 mm (0 to minus 0.00150 in) Notes From Keysight 85056D / 85563A / 85564A 2.4 mm Economy Calibration Kits User's and Service Guide 85056-90021 Table 2-1 environment, Table 2-2 pin-depth limits, Table 2-3 electrical specifications, and Table 3-1 torque. 85056D is the economy kit; 85056A is the precision kit with sliding loads.

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; Table 2-1 and Table 2-2 cover environment and pin-depth limits.

Applications

Economy 2.4 mm OSL calibration to 50 GHz whereas sliding-load 85056A precision kit is not required.

Key Features

2.4 mm male and female broadband loads, opens, and shorts to 50 GHz

2.4 mm adapters included

5/16 in 90 N-cm (8 in-lb) torque wrench included

Economy kit versus 85056A precision/sliding-load kit

Also covers 85563A/85564A 3-in-1 2.4 mm kits in the same electrical table

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	85056D
Instrument Type	Economy mechanical calibration kit
Connector Type	2.4 mm
Frequency Range	DC to 50 GHz
Load Return Loss Dc To 4 Ghz	greater than or equal to 42 dB (rho less than or equal to 0.00794)
Load Return Loss 4 To 20 Ghz	greater than or equal to 34 dB (rho less than or equal to 0.01995)
Load Return Loss 20 To 26p5 Ghz	greater than or equal to 30 dB (rho less than or equal to 0.03162)
Load Return Loss 26p5 To 50 Ghz	greater than or equal to 26 dB (rho less than or equal to 0.05012)
Adapter Return Loss Dc To 4 Ghz	greater than or equal to 32 dB (rho less than or equal to 0.02512)
Adapter Return Loss 4 To 26p5 Ghz	greater than or equal to 30 dB (rho less than or equal to 0.03162)
Adapter Return Loss 26p5 To 40 Ghz	greater than or equal to 25 dB (rho less than or equal to 0.05623)
Adapter Return Loss 40 To 50 Ghz	greater than or equal to 20 dB (rho less than or equal to 0.10000)
Offset Open Dc To 2 Ghz	plus or minus 0.5 deg from nominal
Offset Open 2 To 20 Ghz	plus or minus 1.25 deg from nominal
Offset Open 20 To 40 Ghz	plus or minus 1.75 deg from nominal
Offset Open 40 To 50 Ghz	plus or minus 2.25 deg from nominal
Offset Short Dc To 2 Ghz	plus or minus 0.50 deg from nominal
Offset Short 2 To 20 Ghz	plus or minus 1.25 deg from nominal
Offset Short 20 To 40 Ghz	plus or minus 1.5 deg from nominal
Offset Short 40 To 50 Ghz	plus or minus 2.0 deg from nominal
Operating Temperature	+20 C to +26 C

PARAMETER	VALUE
Error Corrected Temperature	plus or minus 1 C of measurement calibration temperature
Storage Temperature	minus 40 C to +75 C
Humidity Type Tested	0 percent to 95 percent at 40 C non-condensing
Torque 2p4 Mm	90 N-cm (8 in-lb) plus or minus 9.0 N-cm
Open Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Short Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.00050 in)
Fixed Load Typical Pin Depth	minus 0.0025 to minus 0.0203 mm (minus 0.00010 to minus 0.00080 in)
Adapter Typical Pin Depth	0 to minus 0.0381 mm (0 to minus 0.00150 in)

Notes

From Keysight 85056D / 85563A / 85564A 2.4 mm Economy Calibration Kits User's and Service Guide 85056-90021 Table 2-1 environment, Table 2-2 pin-depth limits, Table 2-3 electrical specifications, and Table 3-1 torque. 85056D is the economy kit; 85056A is the precision kit with sliding loads.

Available from Aumictech

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

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

Aumictech

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

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

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