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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85563A 3-in-1 OSL Mechanical Calibration Kit, DC to 50 GHz, 2.4 mm (f)

Keysight Agilent 85563A 3-in-1 OSL Mechanical Calibration Kit 2.4 mm Female DC to 50 GHz

The Keysight 85563A is a 3-in-1 2.4 mm female economy calibration kit (offset open, offset short, broadband termination) specified DC to 50 GHz. OEM 85056D/85563A/85564A user's and service guide 85056-90021 Table 2-3 lists the same broadband-load and offset open/short limits as 85056D; 85563A is female-only and omits the adapters that ship in 85056D. Female-only 2.4 mm OSL calibration to 50 GHz whereafull 85056D kit is not required. The Keysight 85563A is a 3-in-1 2.4 mm female economy calibration kit (offset open, offset short, broadband termination) specified DC to 50 GHz. OEM 85056D/85563A/85564A user's and service guide 85056-90021 Table 2-3 lists the same broadband-load and offset open/short limits as 85056D; 85563A is female-only and omits the adapters that ship in 85056D. Female-only 2.4 mm OSL calibration to 50 GHz whereafull 85056D kit is not required. Female offset open, offset short, and broadband load Instrument Type: 3-in-1 OSL mechanical calibration kit



MODEL

**Agilent / Keysight
85563A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85563A

LISTING

<https://aumictechlabs.com/products/85563a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85563A is a 3-in-1 OSL mechanical calibration kit designed to calibrate vector network analyzers and measurement systems operating DC to 50 GHz. This compact unit combines offset open, offset short, and broadband termination (load) standards in a single kit, all terminated with 2.4 mm female connectors. The kit delivers the high-precision calibration standards required for accurate component characterization across the microwave and mmWave frequency spectrum.

Technical Specifications

Electrical Performance

Frequency Range: DC to 50 GHz

Calibration Standards: Offset Open (female), Offset Short (female), Broadband Termination/Load (female)

Load Return Loss: 26 to 42 dB across frequency range

Mechanical Design

Connector Type: 2.4 mm female

Open Standard: Inner conductor supported by low-dielectric-constant plastic

Short Standard: One-piece inner conductor construction with repeatable shorting plane geometry

Form Factor: Compact, lightweight, three-in-one integration

Key Features

Mechanical calibration standards eliminate the need for software-based calibration approaches on compatible instruments

Offset architecture minimizes systematic errors at the test port reference plane

One-piece short design delivers repeatable electrical contact across multiple calibration cycles

Low-loss dielectric materials in open standards support measurement accuracy through 50 GHz

Female connector gender accommodates direct connection to male test ports on Keysight network analyzers

Typical Applications

Calibration of Keysight network analyzers rated to 50 GHz

Component characterization (filters, amplifiers, transmission lines) with 2.4 mm connectors

Laboratory and field measurement setups requiring portable calibration standards

High-frequency device validation and quality assurance

Compatibility & Integration

The 85563A is engineered for direct connection to Keysight vector network analyzers with 2.4 mm female test ports. The male-connector variant (85564A) addresses test systems with male test port geometry. Optional adapters enable gender conversion between test port and calibration kit connector types, allowing integration into existing measurement configurations.

85563A Characteristics / Specifications

PARAMETER	VALUE
Model	85563A
Instrument Type	3-in-1 OSL mechanical calibration kit
Connector Type	2.4 mm female
Frequency Range	DC to 50 GHz
System Impedance	50 ohm
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)
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	plus 20 C to plus 26 C
Storage Temperature	minus 40 C to plus 75 C
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
Related Economy Kit	85056D includes adapters and both sexes
Related Male Kit	85564A
Standards Included	female offset open, offset short, broadband termination

PARAMETER	VALUE
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)

85563A Specifications

PARAMETER	VALUE
Applications	Female-only 2.4 mm OSL calibration to 50 GHz where a full 85056D kit is not required.
Key Features	Female offset open, offset short, and broadband load
Specified DC to 50 GHz	Shares 85056D electrical table
Technical Specifications	Model: 85563A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to plus 75 C
Operating temperature	plus 20 C to plus 26 C
Operating Temperature	plus 20 C to plus 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
Related Economy Kit	85056D includes adapters and both sexes
Related Male Kit	85564A
Standards Included	female offset open, offset short, broadband termination Notes Electrical, environment, and torque rows from Keysight 85056D / 85563A / 85564A 2.4 mm Economy Calibration Kits User's and Service Guide 85056-90021 Tables 2-1, 2-3, and 3-1. Adapters are optional on 85563A, not standard as on 85056D.

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	
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PARAMETER	VALUE
Model	85563A
Instrument Type	3-in-1 OSL mechanical calibration kit
Connector Type	2.4 mm female
Frequency Range	DC to 50 GHz
System Impedance	50 ohm
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)
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	plus 20 C to plus 26 C
Storage Temperature	minus 40 C to plus 75 C
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
Related Economy Kit	85056D includes adapters and both sexes
Related Male Kit	85564A
Standards Included	female offset open, offset short, broadband termination

Notes

Electrical, environment, and torque rows from Keysight 85056D / 85563A / 85564A 2.4 mm Economy Calibration Kits User's and Service Guide 85056-90021 Tables 2-1, 2-3, and 3-1. Adapters are optional on 85563A, not standard as on 85056D.

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

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