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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85564A 3-in-1 OSL Mechanical Calibration Kit, DC to 50 GHz, 2.4 mm (m)

Keysight Agilent 85564A 3-in-1 OSL Mechanical Calibration Kit 2.4 mm Male DC to 50 GHz The Keysight 85564A is the 2.4 mm male 3-in-1 economy calibration kit specified DC to 50 GHz. OEM 85056-90021 uses the same Table 2-3 electrical limits as 85056D/85563A; 85564A contains male offset open, offset short, and broadband termination only. Male-only 2.4 mm OSL calibration to 50 GHz. Male offset open, offset short, and broadband load The Keysight 85564A is the 2.4 mm male 3-in-1 economy calibration kit specified DC to 50 GHz. OEM 85056-90021 uses the same Table 2-3 electrical limits as 85056D/85563A; 85564A contains male offset open, offset short, and broadband termination only. Male-only 2.4 mm OSL calibration to 50 GHz. Male offset open, offset short, and broadband load Instrument Type: 3-in-1 OSL mechanical calibration kit



MODEL

**Agilent / Keysight
85564A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85564A

LISTING

<https://aumictechlabs.com/products/85564a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 85564A is a 3-in-1 OSL mechanical calibration kit designed for precise calibration of vector network analyzers and RF instruments operating from DC to 50 GHz. Built around 2.4 mm male connectors with 50 Ohm impedance, this kit delivers the offset open, offset

short, and broadband termination standards required for accurate, repeatable measurements across the full frequency range.

Technical Specifications

Electrical Performance

Frequency range: DC to 50 GHz
Impedance: 50 Ohm
Connector type: 2.4 mm male
Load return loss: 26 to 42 dB (frequency dependent)

Calibration Standards

Offset Open: Inner conductor supported by low-dielectric-constant plastic minimizes compensation requirements. Pin depth is tightly controlled to reduce phase errors.

Offset Short: Single-piece inner conductor design shares a common shorting plane for highly repeatable connections. Pin depth control is engineered to minimize phase errors across the band.

Broadband Termination: Metrology-grade 50 Ω load optimized for 50 GHz operation. Distributed resistive element on sapphire substrate ensures excellent stability and consistent return loss performance.

Mechanical Design

The 85564A is compact and lightweight. Pin depth of each standard is a critical mechanical parameter that influences electrical performance; specifications account for pin depth effects.

Key Features

- Three complete calibration standards in single kit
- DC to 50 GHz frequency coverage
- Precision mechanical construction for repeatable connections
- Sapphire-substrate load element for stability
- 2.4 mm male connector interface
- Optional torque wrench included
- Adapters optional (unlike the 85056D)

Typical Applications

- VNA calibration and verification
- RF component measurement and characterization
- High-frequency network analysis up to 50 GHz

Compatibility & Integration

The 85564A calibrates Keysight network analyzers rated to 50 GHz and works with any VNA or RF instrument equipped with 2.4 mm male connectors. Electrical specifications apply when connected to Keysight precision interfaces.

85564A Characteristics / Specifications

PARAMETER	VALUE
Model	85564A
Instrument Type	3-in-1 OSL mechanical calibration kit
Connector Type	2.4 mm male
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 Female Kit	85563A
Related Economy Kit	85056D
Standards Included	male offset open, offset short, broadband termination

PARAMETER	VALUE
Open Typical Pin Depth	0 to minus 0.0127 mm (85056 family Table 2-2)
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)

85564A Specifications

PARAMETER	VALUE
Applications	Male-only 2.4 mm OSL calibration to 50 GHz.
Key Features	Male offset open, offset short, and broadband load
Specified DC to 50 GHz	Shares 85056D electrical table
Technical Specifications	Model: 85564A

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 Female Kit	85563A
Related Economy Kit	85056D
Standards Included	male offset open, offset short, broadband termination
Open Typical Pin Depth	0 to minus 0.0127 mm (85056 family Table 2-2) Notes From Keysight 85056D / 85563A / 85564A user's and service guide 85056-90021. Pin-depth row is the shared 85056 family Table 2-2 open typical window.

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	85564A
Instrument Type	3-in-1 OSL mechanical calibration kit
Connector Type	2.4 mm male
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 Female Kit	85563A
Related Economy Kit	85056D
Standards Included	male offset open, offset short, broadband termination
Open Typical Pin Depth	0 to minus 0.0127 mm (85056 family Table 2-2)

Notes

From Keysight 85056D / 85563A / 85564A user's and service guide 85056-90021. Pin-depth row is the shared 85056 family Table 2-2 open typical window.

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.