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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85033D Calibration Kit, 3.5 mm

Agilent 85033D 3.5 mm Calibration Kit to 6 GHz The Agilent 85033D is a 3.5 mm mechanical calibration kit used to calibrate network analyzers for 3.5 mm and SMA devices up to 6 GHz. OEM 85033-90027 user's and service guide Table 2-3 lists broadband-load return loss and offset open/short phase deviation; Table 2-4 lists typical adapter return loss. OSL calibration of precision 3.5 mm devices to 6 GHz, with optional 7 mm or Type-N adapters for non-insertable work. 3.5 mm male and female loads, opens, and shorts to 6 GHz The Agilent 85033D is a 3.5 mm mechanical calibration kit used to calibrate network analyzers for 3.5 mm and SMA devices up to 6 GHz. OEM 85033-90027 user's and service guide Table 2-3 lists broadband-load return loss and offset open/short phase deviation; Table 2-4 lists typical adapter return loss. OSL calibration of precision 3.5 mm devices to 6 GHz, with optional 7 mm or Type-N adapters for non-insertable work. 3.5 mm male and female loads, opens, and shorts to 6 GHz Option 100 phase-matched 7 mm to 3.5 mm adapters



MODEL

**Agilent / Keysight
85033D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85033D

LISTING

<https://aumictechlabs.com/products/85033d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 85033D is a 3.5 mm mechanical calibration kit for precise network analyzer calibration across DC to 6 GHz. It delivers metrology-grade performance through offset opens, offset shorts, broadband load terminations, and dual-beaded adapters - each engineered to

minimize phase error and maximize connection repeatability. Technical Specifications Model: 85033D Manufacturer: Agilent / Keysight Connector Type: 3.5 mm (male and female) Impedance: 50 ohms Frequency Range: DC to 6 GHz Return Loss: Minimum 46 dB (DC to 1.3 GHz) Minimum 44 dB (1.3 GHz to 3 GHz) Minimum 38 dB (3 GHz to 6 GHz) Key Features Broadband Load Terminations: Distributed resistive element on sapphire substrate ensures stability and return loss performance to 6 GHz. Offset Opens: Low-dielectric-constant plastic support with tightly controlled pin depth minimizes phase errors and compensation requirements. Offset Shorts: One-piece inner conductor design with integrated shorting plane delivers extremely repeatable connections and controlled phase response. Dual-Beaded Adapters: Connector architecture optimizes stability and minimizes return loss; nominal electrical lengths matched for non-insertable device calibration. OSL Holders: Two storage and measurement assemblies enable single-load calibration cycles for same-sex connectors. Calibration Definitions Disk: Nominal device definitions load directly into compatible network analyzers. 2.5 mm Hex Key: Included for secure fastening of calibration devices within holders. Typical Applications Precision characterization of RF and microwave components with 3.5 mm connectors. Network analyzer system calibration. High-accuracy S-parameter and transmission measurements across broadband frequency spans. Compatibility & Integration Designed for systems requiring 50 ohm calibration standards. Component pairing (male and female) supports both device port configurations. Calibration definitions are compatible with network analyzers accepting standard definition formats.

85033D Characteristics / Specifications

PARAMETER	VALUE
Model	85033D
Instrument Type	Mechanical calibration kit
Connector Type	3.5 mm
Frequency Range	DC to 6 GHz
Load Return Loss Dc To 1p3 Ghz	greater than or equal to 46 dB (rho less than or equal to 0.005)
Load Return Loss 1p3 To 3 Ghz	greater than or equal to 44 dB (rho less than or equal to 0.006)
Load Return Loss 3 To 6 Ghz	greater than or equal to 38 dB (rho less than or equal to 0.013)
Offset Open Dc To 1p3 Ghz	plus or minus 0.65 deg from nominal
Offset Open 1p3 To 3 Ghz	plus or minus 0.65 deg from nominal
Offset Open 3 To 6 Ghz	plus or minus 0.85 deg from nominal
Offset Short Dc To 1p3 Ghz	plus or minus 0.48 deg from nominal
Offset Short 1p3 To 3 Ghz	plus or minus 0.50 deg from nominal
Offset Short 3 To 6 Ghz	plus or minus 0.55 deg from nominal
Adapter 7 Mm To 3p5 Typical	return loss greater than or equal to 34 dB (rho less than or equal to 0.020) DC to 6 GHz (Option 100 typical)
Adapter TypeN To 3p5 Typical	return loss greater than or equal to 28 dB (rho less than or equal to 0.040) DC to 6 GHz except Type-N female to 3.5 mm male greater than or equal to 24 dB
Operating Temperature	+15 C to +35 C
Error Corrected Temperature	plus or minus 1 C of measurement calibration temperature
Storage Temperature	minus 40 C to +75 C
Operating Altitude	less than 4500 meters (about 15000 feet)
Operating Humidity	0 to 80 percent at 26 C maximum dry bulb, non-condensing
Torque 3p5 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 0.0005 in)
Short Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.0005 in)
Fixed Load Typical Pin Depth	minus 0.0025 to minus 0.0254 mm (minus 0.0001 to minus 0.001 in)

PARAMETER	VALUE
Male Load Part	85033-60009
Female Load Part	85033-60010
Humidity	0 to 80 percent at 26 C maximum dry bulb, non-condensing
Return loss	Dc To 1p3 Ghz: greater than or equal to 46 dB (rho less than or equal to 0.005)

85033D Specifications

PARAMETER	VALUE
Agilent 85033D 3.5 mm Calibration Kit to 6 GHz	Overview
Applications	OSL calibration of precision 3.5 mm devices to 6 GHz, with optional 7 mm or Type-N adapters for non-insertable work.
Key Features	3.5 mm male and female loads, opens, and shorts to 6 GHz
Two OSL holders plus 2.5 mm hex key	Option 100 phase-matched 7 mm to 3.5 mm adapters
Technical Specifications	Model: 85033D

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to +75 C
Operating temperature	+15 C to +35 C
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Humidity	0 to 80 percent at 26 C maximum dry bulb, non-condensing
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Operating Altitude	less than 4500 meters (about 15000 feet)
Operating Humidity	0 to 80 percent at 26 C maximum dry bulb, non-condensing
Torque 3p5 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 0.0005 in)
Short Typical Pin Depth	0 to minus 0.0127 mm (0 to minus 0.0005 in)
Fixed Load Typical Pin Depth	minus 0.0025 to minus 0.0254 mm (minus 0.0001 to minus 0.001 in)
Male Load Part	85033-60009
Female Load Part	85033-60010 Notes From Agilent 85033D 3.5 mm Calibration Kit User's and Service Guide 85033-90027 Table 2-1 environment, Table 2-2 pin-depth limits, Table 2-3 electrical specifications, Table 2-4 typical adapter characteristics, and Table 3-1 torque. Adapter rows are typical, not warranted.

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	85033D
Instrument Type	Mechanical calibration kit
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Frequency Range	DC to 6 GHz
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Offset Open Dc To 1p3 Ghz	plus or minus 0.65 deg from nominal
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Offset Open 3 To 6 Ghz	plus or minus 0.85 deg from nominal
Offset Short Dc To 1p3 Ghz	plus or minus 0.48 deg from nominal
Offset Short 1p3 To 3 Ghz	plus or minus 0.50 deg from nominal
Offset Short 3 To 6 Ghz	plus or minus 0.55 deg from nominal
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PARAMETER	VALUE
Male Load Part	85033-60009
Female Load Part	85033-60010

Notes

From Agilent 85033D 3.5 mm Calibration Kit User's and Service Guide 85033-90027 Table 2-1 environment, Table 2-2 pin-depth limits, Table 2-3 electrical specifications, Table 2-4 typical adapter characteristics, and Table 3-1 torque. Adapter rows are typical, not warranted.

Ordering Information

OPTION	DESCRIPTION
Option 100	phase-matched 7 mm to 3.5 mm adapters
Option 200	Type-N to 3.5 mm adapters

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

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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.