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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85033E Calibration Kit, DC to 9 GHz, 3.5 mm

Agilent 85033E 3.5 mm Calibration Kit to 9 GHz The Keysight 85033E is a 3.5 mm mechanical calibration kit used to calibrate network analyzers for 3.5 mm devices up to 9 GHz. OEM 85033E user's and service guide Table 2-4 lists broadband-load return loss and offset open/short phase deviation; Table 2-5 lists typical adapter return loss. OSL calibration of 3.5 mm devices to 9 GHz, with optional Type-N or APC-7 adapters. 3.5 mm male and female loads, opens, and shorts The Keysight 85033E is a 3.5 mm mechanical calibration kit used to calibrate network analyzers for 3.5 mm devices up to 9 GHz. OEM 85033E user's and service guide Table 2-4 lists broadband-load return loss and offset open/short phase deviation; Table 2-5 lists typical adapter return loss. OSL calibration of 3.5 mm devices to 9 GHz, with optional Type-N or APC-7 adapters. 3.5 mm male and female loads, opens, and shorts Optional 3.5 mm, Type-N, and APC-7 adapters



MODEL

**Agilent / Keysight
85033E**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85033E

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85033E is a precision calibration kit for 3.5 mm connectors, enabling accurate network analyzer calibration from DC to 9 GHz. This kit maintains measurement integrity across

RF and microwave frequencies by supplying metrology-grade calibration standards - offset opens, shorts, and 50 ohm loads - each engineered for repeatable connections and minimal drift. The single-piece offset short and sapphire-substrate loads deliver excellent return loss and stability to 9 GHz. Two OSL holders, a torque wrench, hex key, and calibration data disk complete the kit, designed specifically for Keysight and Agilent network analyzers.

Technical Specifications
Frequency Range: DC to 9 GHz
Connector Type: 3.5 mm
Impedance: 50 ohm

Key Features
Precision Offset Standards: Open and short circuit terminations with single-piece inner conductor construction for enhanced repeatability
Metrology-Grade 50 Ohm Loads: Distributed resistive elements on sapphire substrate optimized for stability and return loss performance to 9 GHz
Included Accessories: Two OSL holders, torque wrench for consistent connection torque, 2.5 mm hex key, and calibration data disk for PNA series network analyzers
Mechanical Integrity: Precision-machined construction with controlled center conductor protrusion and pin depth parameters verified to electrical performance standards

Typical Applications
Network analyzer calibration and verification
RF and microwave measurement accuracy validation
S-parameter and transmission measurement certification

Compatibility & Integration
The 85033E calibrates Keysight and Agilent network analyzers with 3.5 mm connectors, including the E5063A ENA Series. Optional 3.5 mm adapters (female-to-female and male-to-male) are available to extend kit versatility across different connector configurations.

85033E Characteristics / Specifications

PARAMETER	VALUE
Model	85033E
Instrument Type	Mechanical calibration kit
Connector Type	3.5 mm
Frequency Range	DC to 9 GHz
Load Return Loss Dc To 2 Ghz	greater than or equal to 46 dB (rho less than or equal to 0.005)
Load Return Loss 2 To 3 Ghz	greater than or equal to 44 dB (rho less than or equal to 0.006)
Load Return Loss 3 To 9 Ghz	greater than or equal to 38 dB (rho less than or equal to 0.013)
Offset Open Dc To 2 Ghz	plus or minus 0.55 deg from nominal
Offset Open 2 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 Open 6 To 9 Ghz	plus or minus 1.00 deg from nominal
Offset Short Dc To 2 Ghz	plus or minus 0.48 deg from nominal
Offset Short 2 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
Offset Short 6 To 9 Ghz	plus or minus 0.65 deg from nominal
Adapter 3p5 Ff Typical	return loss greater than or equal to 32 dB DC to 26.5 GHz (Option 100 typical)
Adapter TypeNTo 3p5 Typical	return loss greater than or equal to 28 dB DC to 18 GHz (except Type-N female to 3.5 mm male greater than or equal to 24 dB)
Adapter 3p5 To Apc7 Male Typical	return loss greater than or equal to 34 dB DC to 18 GHz
Operating Temperature	+15 C to +35 C
Storage Temperature	minus 40 C to +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 3p5 Mm	90 N-cm (8 in-lb) plus or minus 9.0 N-cm
Related 85033D	85033D is the 6 GHz 3.5 mm predecessor on Keysight accessory tables

PARAMETER

VALUE

Humidity

Type Tested: 0 percent to 95 percent at 40 C non-condensing

Return loss

Dc To 2 Ghz: greater than or equal to 46 dB (rho less than or equal to 0.005)

85033E Specifications

PARAMETER	VALUE
Agilent 85033E 3.5 mm Calibration Kit to 9 GHz	Overview
Applications	OSL calibration of 3.5 mm devices to 9 GHz, with optional Type-N or APC-7 adapters.
Key Features	3.5 mm male and female loads, opens, and shorts
Specified to 9 GHz	Optional 3.5 mm, Type-N, and APC-7 adapters
Technical Specifications	Model: 85033E

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to +75 C
Operating temperature	+15 C to +35 C
Operating Temperature	+15 C to +35 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 3p5 Mm	90 N-cm (8 in-lb) plus or minus 9.0 N-cm
Related 85033D	85033D is the 6 GHz 3.5 mm predecessor on Keysight accessory tables Notes From Keysight 85033E 3.5 mm Calibration Kit User's and Service Guide Table 2-4 electrical specifications, Table 2-5 typical adapter characteristics, and Table 2-1 environment.

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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Offset Open 2 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 Open 6 To 9 Ghz	plus or minus 1.00 deg from nominal
Offset Short Dc To 2 Ghz	plus or minus 0.48 deg from nominal
Offset Short 2 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
Offset Short 6 To 9 Ghz	plus or minus 0.65 deg from nominal
Adapter 3p5 Ff Typical	return loss greater than or equal to 32 dB DC to 26.5 GHz (Option 100 typical)
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Related 85033D	85033D is the 6 GHz 3.5 mm predecessor on Keysight accessory tables

Notes

From Keysight 85033E 3.5 mm Calibration Kit User's and Service Guide Table 2-4 electrical specifications, Table 2-5 typical adapter characteristics, and Table 2-1 environment.

Ordering Information

OPTION	DESCRIPTION
Option 100	typical)

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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788 S 500 E, Pleasant Grove, UT 84062
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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.