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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 85059B

Keysight Agilent 85059B Precision 1.0 mm Calibration Kit DC to 120 GHz The Keysight 85059B is a 1.0 mm precision calibration/verification kit for vector network analyzers from DC to 120 GHz. OEM data sheet 5992-2443EN lists offset shorts 1 through 4 (male and female), offset opens, lowband loads, and 1.0 mm adapters, with data-based load return loss 30/26/24 dB by band and adapter return loss 14 dB to 120 GHz. 1.0 mm coaxial calibration of 110/120 GHz PNA and broadband mm-wave systems. Data-based 1.0 mm opens shorts and loads to 120 GHz The Keysight 85059B is a 1.0 mm precision calibration/verification kit for vector network analyzers from DC to 120 GHz. OEM data sheet 5992-2443EN lists offset shorts 1 through 4 (male and female), offset opens, lowband loads, and 1.0 mm adapters, with data-based load return loss 30/26/24 dB by band and adapter return loss 14 dB to 120 GHz. 1.0 mm coaxial calibration of 110/120 GHz PNA and broadband mm-wave systems. Data-based 1.0 mm opens shorts and loads to 120 GHz Instrument Type: Precision 1.0 mm calibration kit



MODEL

**Agilent / Keysight
85059B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85059B

LISTING

<https://aumictechlabs.com/products/85059b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 85059B is a precision mechanical calibration kit designed to establish high-accuracy reference standards for vector network analyzer systems. It delivers calibrated Open, Short, and Load (OSL) standards across DC to 120 GHz, enabling traceable measurements on 50-ohm

systems equipped with 1.0 mm connectors. The kit employs a data-based calibration model - derived from theoretical calculations or high-accuracy S-parameter measurements - to achieve superior accuracy compared to polynomial approaches.

Technical Specifications

Frequency Range: DC to 120 GHz
Impedance: 50 Ohms
Connector Type: 1.0 mm (male and female) with air dielectric interface
Calibration Standards: Open, Short, and Load (OSL)
Offset Opens: male and female pairs
Offset Shorts: four lengths (Short 1, 2, 3, 4) covering DC to 120 GHz in both male and female configurations
Lowband Loads: male and female pairs
Calibration Model: Data-based (theoretical or measured S-parameters)
Connector Torque: 45 N-cm (4 in-lb) ± 5.4 N-cm (± 0.5 in-lb)
Operating Temperature: +20 °C to +26 °C
Storage Temperature: -40 °C to +75 °C

Key Features

Adapter set includes male-male, female-female, and male-female configurations for flexible interconnectivity
Slotted female contacts engineered to accommodate 1.0 mm connector constraints while maintaining distinct electrical models
Outer conductor engagement design ensures repeatable mating before center conductor contact
Included accessories: calibration certificate, form-tracking recalibration label, dual torque wrenches (4 in-lb and 14 mm handle variants), 6 mm open-end wrench, 10x magnifying glass, and plastic storage case

Typical Applications

VNA calibration across microwave and mmWave frequency bands
Laboratory metrology and RF component characterization
Enterprise measurement systems requiring traceable standards

Compatibility & Integration

Keysight PNA series network analyzers
Systems with 1.0 mm connectors and 50-ohm impedance

85059B Characteristics / Specifications

PARAMETER	VALUE
Model	85059B
Instrument Type	Precision 1.0 mm calibration kit
Connector Type	1.0 mm
Frequency Range	DC to 120 GHz
System Impedance	50 ohm
Short Phase Dc To 20 Ghz	1.50 deg class (data sheet short table)
Short Phase 20 To 50 Ghz	2.30 deg class
Short Phase 50 To 80 Ghz	3.25 deg class
Short Phase 80 To 100 Ghz	3.50 deg class
Short Phase 100 To 120 Ghz	4.00 deg class
Open Phase Dc To 20 Ghz	2 deg class
Open Phase 20 To 50 Ghz	3 deg class
Open Phase 50 To 80 Ghz	7 deg class
Open Phase 80 To 100 Ghz	8 deg class
Open Phase 100 To 120 Ghz	8 deg class
Load Return Loss Dc To 18 Ghz	30 dB data-based model
Load Return Loss 18 To 40 Ghz	26 dB data-based model
Load Return Loss 40 To 50 Ghz	24 dB data-based model
Adapter Return Loss Dc To 110 Ghz	14 dB
Adapter Return Loss 110 To 120 Ghz	14 dB
Adapter Insertion Loss Dc To 110 Ghz	minus 0.5 dB
Adapter Insertion Loss 110 To 120 Ghz	minus 0.7 dB
Offset Short 1 Length	1.3 mm (85059-60027 male / 85059-60028 female)
Offset Short 2 Length	2.45 mm
Offset Short 3 Length	3.326 mm

PARAMETER	VALUE
Offset Short 4 Length	4.039 mm
Torque 1p0 Mm	45 N-cm (4 in-lb) 6 mm wrench
Related Verification	85059V
Literature	5992-2443EN
Return loss	Dc To 18 Ghz: 30 dB data-based model

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	85059B
Instrument Type	Precision 1.0 mm calibration kit
Connector Type	1.0 mm
Frequency Range	DC to 120 GHz
System Impedance	50 ohm
Short Phase Dc To 20 Ghz	1.50 deg class (data sheet short table)
Short Phase 20 To 50 Ghz	2.30 deg class
Short Phase 50 To 80 Ghz	3.25 deg class
Short Phase 80 To 100 Ghz	3.50 deg class
Short Phase 100 To 120 Ghz	4.00 deg class
Open Phase Dc To 20 Ghz	2 deg class
Open Phase 20 To 50 Ghz	3 deg class
Open Phase 50 To 80 Ghz	7 deg class
Open Phase 80 To 100 Ghz	8 deg class
Open Phase 100 To 120 Ghz	8 deg class
Load Return Loss Dc To 18 Ghz	30 dB data-based model
Load Return Loss 18 To 40 Ghz	26 dB data-based model
Load Return Loss 40 To 50 Ghz	24 dB data-based model
Adapter Return Loss Dc To 110 Ghz	14 dB
Adapter Return Loss 110 To 120 Ghz	14 dB
Adapter Insertion Loss Dc To 110 Ghz	minus 0.5 dB
Adapter Insertion Loss 110 To 120 Ghz	minus 0.7 dB
Offset Short 1 Length	1.3 mm (85059-60027 male / 85059-60028 female)
Offset Short 2 Length	2.45 mm
Offset Short 3 Length	3.326 mm
Offset Short 4 Length	4.039 mm

PARAMETER	VALUE
Torque 1p0 Mm	45 N-cm (4 in-lb) 6 mm wrench
Related Verification	85059V
Literature	5992-2443EN

Notes
Device list and electrical rows from Keysight 85059B Precision Calibration Kit 1.0 mm data sheet 5992-2443EN.
Short/open phase columns are the published data-sheet deviation table.

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.