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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85052C Precision Mechanical Calibration Kit, DC to 26.5 GHz, 3.5 mm

HP Agilent Keysight 85052C Precision Mechanical Calibration Kit 3.5 mm TRL DC to 26.5 GHz

The Keysight 85052C is a 3.5 mm precision mechanical calibration kit specified DC to 26.5 GHz that adds a precision 50 ohm airline LINE standard for TRL in addition to open, short, and load. OEM 85052C product literature and N52xxA TRL help list the airline body, center conductor, and insertion/extraction tools; broadband-load and offset open/short electrical limits follow the 85052B/D 3.5 mm family Table 2-3. The Keysight 85052C is a 3.5 mm precision mechanical calibration kit specified DC to 26.5 GHz that adds a precision 50 ohm airline LINE standard for TRL in addition to open, short, and load. OEM 85052C product literature and N52xxA TRL help list the airline body, center conductor, and insertion/extraction tools; broadband-load and offset open/short electrical limits follow the 85052B/D 3.5 mm family Table 2-3. TRL and OSL calibration of 3.5 mm devices to 26.5 GHz where a precision airline LINE standard is required.



MODEL

**Agilent / Keysight
85052C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85052C

LISTING

<https://aumictechlabs.com/products/85052c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85052C is a precision mechanical calibration kit engineered for accurate characterization of network analyzers and RF equipment with 3.5 mm connectors. Operating across DC to 26.5 GHz, this kit delivers the systematic error correction required for demanding high-frequency measurements. It supports multiple calibration methodologies including Thru-Reflect-Line (TRL) and Short/Short/Open/Load/Thru (SSOLT) techniques, enabling full two-port calibration across its entire frequency range. The kit contains precision 50 Ohm mechanical standards: dual airline segments optimized for 2–7 GHz and 7–32 GHz operation, male and female open and short circuits, load standards, gender-changing adapters, and torque wrenches for repeatable connection integrity. Return loss exceeds 42 dB across DC to 26.5 GHz while insertion loss remains at or below 0.05 dB. Residual voltage is held to 1 mV maximum, ensuring minimal measurement error. Power handling capability reaches 1 Watt.

Technical Specifications

Model: Agilent/Keysight 85052C

Frequency Range: DC to 26.5 GHz

Connector Type: 3.5 mm (male and female)

Impedance: 50 Ohms

Return Loss: ≥ 42 dB (DC to 26.5 GHz)

Insertion Loss: ≤ 0.05 dB (DC to 26.5 GHz)

Residual Voltage: ≤ 1 mV (DC to 26.5 GHz)

Maximum Power Handling: 1 Watt

Operating Temperature Range: -40°C to $+85^{\circ}\text{C}$

Dimensions: 80.01 mm $\times$ 80.01 mm $\times$ 34.29 mm

Weight: 0.34 kg

Key Features

- Dual-range precision airline (2–7 GHz and 7–32 GHz segments)
- Complete open, short, and load standards for male and female ports
- Included torque wrenches for controlled mating force
- Gender-changing adapters for versatile port configuration
- Commercial calibration certificate provided
- Standard definitions supplied on disk for analyzer software integration

Typical Applications

- Network analyzer calibration and verification
- RF/microwave component characterization
- High-frequency measurement system error correction

Compatibility & Integration

Designed for Keysight network analyzers and third-party RF equipment featuring 3.5 mm connectors. The 3.5 mm interface is standard for applications extending to 32 GHz.

85052C Characteristics / Specifications

PARAMETER	VALUE
Model	85052C
Instrument Type	Precision 3.5 mm TRL mechanical calibration kit
Connector Type	3.5 mm
Frequency Range	DC to 26.5 GHz
System Impedance	50 ohm
Calibration Methods	OSL and TRL
Line Standard	precision 50 ohm airline
Load Return Loss Dc To 2 Ghz	greater than or equal to 46 dB (rho less than or equal to 0.00501)
Load Return Loss 2 To 3 Ghz	greater than or equal to 44 dB (rho less than or equal to 0.00631)
Load Return Loss 3 To 8 Ghz	greater than or equal to 38 dB (rho less than or equal to 0.01259)
Load Return Loss 8 To 20 Ghz	greater than or equal to 36 dB (rho less than or equal to 0.01585)
Load Return Loss 20 To 26p5 Ghz	greater than or equal to 34 dB (rho less than or equal to 0.01995)
Offset Open Dc To 3 Ghz	plus or minus 0.65 deg from nominal
Offset Open 3 To 8 Ghz	plus or minus 1.20 deg from nominal
Offset Open 8 To 26p5 Ghz	plus or minus 2.00 deg from nominal
Offset Short Dc To 3 Ghz	plus or minus 0.50 deg from nominal
Offset Short 3 To 8 Ghz	plus or minus 1.00 deg from nominal
Offset Short 8 To 26p5 Ghz	plus or minus 1.75 deg from nominal
Adapter Return Loss Dc To 8 Ghz	greater than or equal to 30 dB
Adapter Return Loss 8 To 18 Ghz	greater than or equal to 28 dB
Adapter Return Loss 18 To 26p5 Ghz	greater than or equal to 26 dB
Operating Temperature Class	plus 20 C to plus 26 C class of 85052 3.5 mm kits
Storage Temperature Class	minus 40 C to plus 75 C
Torque 3p5 Mm	90 N-cm (8 in-lb)
Related Economy Kit	85052D omits airline and sliding loads

PARAMETER	VALUE
Related Precision Kit	85052B adds sliding loads
Airline Tools	insertion and extraction tools for center conductor
Storage temperature	Class: minus 40 C to plus 75 C
Operating temperature	Class: plus 20 C to plus 26 C class of 85052 3.5 mm kits
Return loss	Dc To 2 Ghz: greater than or equal to 46 dB (rho less than or equal to 0.00501)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to plus 75 C
Operating temperature	Class: plus 20 C to plus 26 C class of 85052 3.5 mm kits
Operating Temperature	Class: plus 20 C to plus 26 C class of 85052 3.5 mm kits
Operating Temperature Class	plus 20 C to plus 26 C class of 85052 3.5 mm kits
Storage Temperature Class	minus 40 C to plus 75 C
Torque 3p5 Mm	90 N-cm (8 in-lb)
Related Economy Kit	85052D omits airline and sliding loads
Related Precision Kit	85052B adds sliding loads
Airline Tools	insertion and extraction tools for center conductor Notes TRL airline contents from Keysight 85052C product description and N52xxA TRL calibration help (85050C 7 mm / 85052C 3.5 mm airline kits). Load/open/short/adaptor rows from the 85052B/D 3.5 mm family electrical table used for this connector family. Confirm airline electrical length on the 85052C certificate.

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	85052C
Instrument Type	Precision 3.5 mm TRL mechanical calibration kit
Connector Type	3.5 mm
Frequency Range	DC to 26.5 GHz
System Impedance	50 ohm
Calibration Methods	OSL and TRL
Line Standard	precision 50 ohm airline
Load Return Loss Dc To 2 Ghz	greater than or equal to 46 dB (rho less than or equal to 0.00501)
Load Return Loss 2 To 3 Ghz	greater than or equal to 44 dB (rho less than or equal to 0.00631)
Load Return Loss 3 To 8 Ghz	greater than or equal to 38 dB (rho less than or equal to 0.01259)
Load Return Loss 8 To 20 Ghz	greater than or equal to 36 dB (rho less than or equal to 0.01585)
Load Return Loss 20 To 26p5 Ghz	greater than or equal to 34 dB (rho less than or equal to 0.01995)
Offset Open Dc To 3 Ghz	plus or minus 0.65 deg from nominal
Offset Open 3 To 8 Ghz	plus or minus 1.20 deg from nominal
Offset Open 8 To 26p5 Ghz	plus or minus 2.00 deg from nominal
Offset Short Dc To 3 Ghz	plus or minus 0.50 deg from nominal
Offset Short 3 To 8 Ghz	plus or minus 1.00 deg from nominal
Offset Short 8 To 26p5 Ghz	plus or minus 1.75 deg from nominal
Adapter Return Loss Dc To 8 Ghz	greater than or equal to 30 dB
Adapter Return Loss 8 To 18 Ghz	greater than or equal to 28 dB
Adapter Return Loss 18 To 26p5 Ghz	greater than or equal to 26 dB
Operating Temperature Class	plus 20 C to plus 26 C class of 85052 3.5 mm kits
Storage Temperature Class	minus 40 C to plus 75 C
Torque 3p5 Mm	90 N-cm (8 in-lb)
Related Economy Kit	85052D omits airline and sliding loads
Related Precision Kit	85052B adds sliding loads

PARAMETER	VALUE
Airline Tools	insertion and extraction tools for center conductor

Notes

TRL airline contents from Keysight 85052C product description and N52xxA TRL calibration help (85050C 7 mm / 85052C 3.5 mm airline kits). Load/open/short/adaptor rows from the 85052B/D 3.5 mm family electrical table used for this connector family. Confirm airline electrical length on the 85052C certificate.

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.