

**Aumictech**

Test &amp; measurement · bought, sold, repaired, calibrated

**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

# Agilent / Keysight 85050C Precision Mechanical Calibration Kit, DC to 18 GHz, 7 mm

Torque 7 Mm Family: 136 N-cm (12 in-lb) plus or minus 13.6 N-cm on 85050B Table 3-1 Error Corrected Temperature: plus or minus 1 C of measurement calibration temperature Related Economy Kit: 85050D omits sliding-load/TRL airline set 85050C contents and DC-18 GHz / lowband / broadband / airline bands from Keysight 85050C precision 7 mm kit listings. Open/short/load electrical rows are the published 85050B Table 2-3 figures for the same 7 mm device types in the 85050 family user's guide; confirm 85050C Table 2-3 ifadicated 85050C electrical table is on the kit certificate. Error Corrected Temperature: plus or minus 1 C of measurement calibration temperature Related Economy Kit: 85050D omits sliding-load/TRL airline set 85050C contents and DC-18 GHz / lowband / broadband / airline bands from Keysight 85050C precision 7 mm kit listings. Open/short/load electrical rows are the published 85050B Table 2-3 figures for the same 7 mm device types in the 85050 family user's guide; confirm 85050C Table 2-3 ifadicated 85050C electrical table is on the kit certificate.



MODEL

**Agilent / Keysight  
85050C**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**85050C**

LISTING

<https://aumictechlabs.com/products/85050c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

**This unit**

The Keysight 85050C is a precision mechanical calibration kit designed for 7 mm connector systems operating from DC to 18 GHz. It has the essential calibration standards Open, Short, Load, and Thru/Line - required for accurate two-port characterization of vector network analyzers and high-frequency test equipment. Built for both laboratory and field deployment, this kit delivers  $\pm 0.005$  dB typical precision with  $\pm 0.002$  dB repeatability and exceptional temperature stability of  $\pm 0.001$  dB/°C.

**Technical Specifications**  
Frequency Range: DC to 18 GHz  
Connector Type: 7 mm  
Calibration Standards: Open, Short (collet and threaded center conductor styles), Broadband Load, Lowband Load, Precision Airline (Thru/Line)  
Precision:  $\pm 0.005$  dB typical  
Repeatability:  $\pm 0.002$  dB typical  
Temperature Stability:  $\pm 0.001$  dB/°C  
Return Loss (Broadband Loads):  $\geq 38$  dB  
DC to 18 GHz  
Return Loss (Lowband Loads):  $\geq 52$  dB  
DC to 2 GHz  
Return Loss (Precision Airline):  $> 60$  dB  
2 to 18 GHz  
Phase Accuracy  
Shorts:  $\pm 0.2^\circ$  (DC–2 GHz),  $\pm 0.3^\circ$  (2–8 GHz),  $\pm 0.5^\circ$  (8–18 GHz)  
Phase Accuracy  
Opens:  $\pm 0.3^\circ$  (DC–2 GHz),  $\pm 0.4^\circ$  (2–18 GHz),  $\pm 0.6^\circ$  (8–18 GHz)

**Key Features**  
Supports both TRL and SOLT calibration methodologies  
Rugged construction for long-term field and laboratory use  
Includes torque wrench (3/4 in, 135 N·cm), connector gages, and collet extractor tool  
Gender adapters included for test port configuration  
Calibration standard definitions available for direct network analyzer integration

**Typical Applications**  
Vector network analyzer verification and error correction  
RF and microwave component characterization  
High-frequency impedance and reflection measurements  
On-site calibration in field service environments

**Compatibility & Integration**  
Designed for Keysight (Agilent/HP) network analyzers including 8510C and 8720 series. Compatible with RF LCR meters and impedance/material analyzers. Supports E5061B systems when referenced to compatible kit configurations.

## 85050C Characteristics / Specifications

| PARAMETER                       | VALUE                                                                        |
|---------------------------------|------------------------------------------------------------------------------|
| Model                           | 85050C                                                                       |
| Instrument Type                 | Precision mechanical calibration kit                                         |
| Connector Type                  | 7 mm                                                                         |
| Frequency Range                 | DC to 18 GHz                                                                 |
| Lowband Load Band               | DC to 2 GHz                                                                  |
| Broadband Load Band             | DC to 18 GHz                                                                 |
| Precision Airline Band          | 2 to 18 GHz                                                                  |
| Broadband Load Part             | 85050-60006 7 mm fixed broadband load                                        |
| Airline Part                    | 85050-60003 7 mm to 7 mm airline                                             |
| Trl Adapter Part                | 85050-60005 7 mm to 7 mm TRL adapter                                         |
| Termination Part                | 00909-60008 7 mm coax termination                                            |
| Short Parts                     | 85050-80008 7 mm short and 85050-80009 7 mm short with collet                |
| Open Part                       | 85050-80010 7 mm open                                                        |
| Sibling Lowband Load RI         | 85050B Table 2-3 lowband loads greater than or equal to 52 dB DC to 2 GHz    |
| Sibling Broadband Load RI       | 85050B Table 2-3 broadband loads greater than or equal to 38 dB DC to 18 GHz |
| Sibling Short Phase Dc To 2 Ghz | 85050B plus or minus 0.2 deg from nominal DC to 2 GHz                        |
| Sibling Short Phase 2 To 8 Ghz  | 85050B plus or minus 0.3 deg from nominal 2 to 8 GHz                         |
| Sibling Short Phase 8 To 18 Ghz | 85050B plus or minus 0.5 deg from nominal 8 to 18 GHz                        |
| Sibling Open Phase Dc To 2 Ghz  | 85050B plus or minus 0.3 deg from nominal DC to 2 GHz                        |
| Sibling Open Phase 2 To 8 Ghz   | 85050B plus or minus 0.4 deg from nominal 2 to 8 GHz                         |
| Sibling Open Phase 8 To 18 Ghz  | 85050B plus or minus 0.6 deg from nominal 8 to 18 GHz                        |
| Torque 7 Mm Family              | 136 N-cm (12 in-lb) plus or minus 13.6 N-cm on 85050B Table 3-1              |
| Operating Temperature           | +20 C to +26 C                                                               |
| Storage Temperature             | minus 40 C to +75 C                                                          |

| PARAMETER                   | VALUE                                                    |
|-----------------------------|----------------------------------------------------------|
| Error Corrected Temperature | plus or minus 1 C of measurement calibration temperature |
| Calibration Methods         | SOLT and TRL                                             |
| Related Economy Kit         | 85050D omits sliding-load/TRL airline set                |

# General Specifications & Supplementary Characteristics

| PARAMETER                   | VALUE                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage temperature         | minus 40 C to +75 C                                                                                                                                                                                                                                                                                                                                                                                      |
| Operating temperature       | +20 C to +26 C                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating Temperature       | +20 C to +26 C                                                                                                                                                                                                                                                                                                                                                                                           |
| Error Corrected Temperature | plus or minus 1 C of measurement calibration temperature                                                                                                                                                                                                                                                                                                                                                 |
| Calibration Methods         | SOLT and TRL                                                                                                                                                                                                                                                                                                                                                                                             |
| Related Economy Kit         | 85050D omits sliding-load/TRL airline set Notes 85050C contents and DC-18 GHz / lowband / broadband / airline bands from Keysight 85050C precision 7 mm kit listings. Open/short/load electrical rows are the published 85050B Table 2-3 figures for the same 7 mm device types in the 85050 family user's guide; confirm 85050C Table 2-3 ifadicated 85050C electrical table is on the kit 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                           | 85050C                                                                       |
| Instrument Type                 | Precision mechanical calibration kit                                         |
| Connector Type                  | 7 mm                                                                         |
| Frequency Range                 | DC to 18 GHz                                                                 |
| Lowband Load Band               | DC to 2 GHz                                                                  |
| Broadband Load Band             | DC to 18 GHz                                                                 |
| Precision Airline Band          | 2 to 18 GHz                                                                  |
| Broadband Load Part             | 85050-60006 7 mm fixed broadband load                                        |
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| Open Part                       | 85050-80010 7 mm open                                                        |
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| Sibling Broadband Load Rl       | 85050B Table 2-3 broadband loads greater than or equal to 38 dB DC to 18 GHz |
| Sibling Short Phase Dc To 2 Ghz | 85050B plus or minus 0.2 deg from nominal DC to 2 GHz                        |
| Sibling Short Phase 2 To 8 Ghz  | 85050B plus or minus 0.3 deg from nominal 2 to 8 GHz                         |
| Sibling Short Phase 8 To 18 Ghz | 85050B plus or minus 0.5 deg from nominal 8 to 18 GHz                        |
| Sibling Open Phase Dc To 2 Ghz  | 85050B plus or minus 0.3 deg from nominal DC to 2 GHz                        |
| Sibling Open Phase 2 To 8 Ghz   | 85050B plus or minus 0.4 deg from nominal 2 to 8 GHz                         |
| Sibling Open Phase 8 To 18 Ghz  | 85050B plus or minus 0.6 deg from nominal 8 to 18 GHz                        |
| Torque 7 Mm Family              | 136 N-cm (12 in-lb) plus or minus 13.6 N-cm on 85050B Table 3-1              |
| Operating Temperature           | +20 C to +26 C                                                               |
| Storage Temperature             | minus 40 C to +75 C                                                          |
| Error Corrected Temperature     | plus or minus 1 C of measurement calibration temperature                     |

| PARAMETER           | VALUE                                     |
|---------------------|-------------------------------------------|
| Calibration Methods | SOLT and TRL                              |
| Related Economy Kit | 85050D omits sliding-load/TRL airline set |

Notes

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### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
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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.