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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 85093A RF Electronic Calibration (ECal) Module, 3.5 mm

Agilent 85093A 3.5 mm RF ECal Module 30 kHz to 6 GHz The HP 85093A is a two-port 3.5 mm RF electronic calibration module specified from 30 kHz to 6 GHz (typical performance below 300 kHz as footnoted on the 85097A ECal system guide). OEM 85097A user's guide lists 85093A with codes 00M/00F/00A and control via the 85097A PC interface. It is replaced by 85093C (300 kHz to 9 GHz). Single-connection two-port ECal of 3.5 mm test ports from 30 kHz to 6 GHz using the 85097A Windows interface. Codes 00M, 00F, and 00A adapters/torque wrench The HP 85093A is a two-port 3.5 mm RF electronic calibration module specified from 30 kHz to 6 GHz (typical performance below 300 kHz as footnoted on the 85097A ECal system guide). OEM 85097A user's guide lists 85093A with codes 00M/00F/00A and control via the 85097A PC interface. It is replaced by 85093C (300 kHz to 9 GHz). Single-connection two-port ECal of 3.5 mm test ports from 30 kHz to 6 GHz using the 85097A Windows interface. Codes 00M, 00F, and 00A adapters/torque wrench Solid-state transfer standards in module memory



MODEL

**Agilent / Keysight
85093A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85093A

LISTING

<https://aumictechlabs.com/products/85093a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85093A RF Electronic Calibration (ECal) Module is a solid-state calibration instrument that delivers fast, accurate automated calibration for vector network analyzers using 3.5 mm connectors. Unlike traditional mechanical kits, this module enables full 2-port calibration with a single connection, eliminating manual handling errors and improving measurement repeatability. Built-in traceable electronic standards and stored S-parameter data calculate VNA error terms with accuracy comparable to mechanical methods but with minimal operator interaction and significantly reduced calibration time.

Technical Specifications

Frequency Range: 30 kHz to 6 GHz
Connector Type: 3.5 mm
Ports: 2-port
Calibration Method: Electronic calibration (ECal) with automated routines
Switching Technology: Solid-state
Traceability: NIST traceable
Control Interface: PC (Windows 95 or Windows NT 4.0) or direct connection to compatible Keysight VNAs via USB

Key Features

- Single-connection full 2-port calibration eliminates multi-step mechanical procedures
- Solid-state switching technology ensures high reliability and reduced connector wear
- Stored S-parameter data enables error term calculation without external reference standards
- NIST-traceable calibrations provide measurement confidence across the 30 kHz to 6 GHz range
- Direct VNA integration removes PC dependency for routine calibration workflows
- Ideal for non-insertable device characterization (female-connector test ports)

Typical Applications

Electronic calibration for precision VNA measurements in RF and microwave component testing, system validation, and in-situ device characterization where speed and repeatability outweigh traditional kit-based approaches.

Compatibility & Integration

Fully compatible with Keysight PNA and ENA series analyzers. Operates via direct USB control from VNAs or through Windows 95/NT 4.0 PC platforms for legacy system integration. The module replaces traditional mechanical calibration kits while maintaining measurement accuracy across the supported frequency band.

85093A Characteristics / Specifications

PARAMETER	VALUE
Model	85093A
Instrument Type	Two port RF electronic calibration module
Connector Type	3.5 mm
Operating Frequency	30 kHz to 6 GHz
Typical Low Edge Footnote	RF ECal modules specified to operate from 300 kHz with typical performance down to 30 kHz (85097A footnote)
Module Part	85093-60001
Connector Code 00m	module with two male connectors
Connector Code 00f	module with two female connectors
Adapter Code 00a	adds male-to-male and female-to-female adapters plus 5/16 in 90 N-cm (8 in-lb) torque wrench
Control Interface	HP 85097A PC interface kit (Windows 95/NT class) via HP-IB
Successor Model	85093C 300 kHz to 9 GHz USB 3.5 mm ECal
Successor Directivity 300 Khz To 10 Mhz	45 dB on 85093C residual table
Successor Directivity 10 Mhz To 1 Ghz	52 dB on 85093C residual table
Successor Directivity 1 To 3 Ghz	52 dB on 85093C residual table
Successor Directivity 3 To 6 Ghz	50.5 dB on 85093C residual table
Successor Source Match 300 Khz To 10 Mhz	36 dB on 85093C residual table
Successor Source Match 10 Mhz To 1 Ghz	44 dB on 85093C residual table
Successor Source Match 3 To 6 Ghz	39 dB on 85093C residual table
Torque 3p5 Mm	90 N-cm (8 in-lb) plus or minus 10 percent class of 3.5 mm ECal kits
Ports	2
Operating Temperature Family	+20 C to +30 C (8509x RF ECal series)
Applied Power Family	8509xC residual tables degrade above +9 dBm applied power
Series Family	HP 8509xA RF ECal with 85097A controller

PARAMETER

VALUE

Replacement Path

85093B then 85093C

Operating temperature

Family: +20 C to +30 C (8509x RF ECal series)

85093A Specifications

PARAMETER	VALUE
Agilent 85093A 3.5 mm RF ECal Module 30 kHz to 6 GHz	Overview
Applications	Single-connection two-port ECal of 3.5 mm test ports from 30 kHz to 6 GHz using the 85097A Windows interface.
Key Features	3.5 mm 30 kHz to 6 GHz RF ECal
Technical Specifications	Model: 85093A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Family: +20 C to +30 C (8509x RF ECal series)
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Applied Power Family	8509xC residual tables degrade above +9 dBm applied power
Series Family	HP 8509xA RF ECal with 85097A controller
Replacement Path	85093B then 85093C Notes 30 kHz to 6 GHz, 3.5 mm, 85093-60001, and 00M/00F/00A from HP 85097A Electronic Calibration System User's Guide (Jul 1999) and Keysight legacy ECal discontinued-module table. Residual-error rows labeled successor are the published 85093C 3.5 mm table (omit 6 to 9 GHz because 85093A stops at 6 GHz).

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.

performance below 300 kHz as footnoted on the 85097A ECal system guide). OEM 85097A user's guide lists 85093A with codes 00M/00F/00A and control via the 85097A PC interface. It is replaced by 85093C (300 kHz to 9 GHz).

Applications

Single-connection two-port ECal of 3.5 mm test ports from 30 kHz to 6 GHz using the 85097A Windows interface.

Key Features

3.5 mm 30 kHz to 6 GHz RF ECal

Codes 00M, 00F, and 00A adapters/torque wrench

Solid-state transfer standards in module memory

Controlled by 85097A PC HP-IB interface kit

Replaced by 85093B/C

Technical Specifications

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PARAMETER	VALUE
Model	85093A
Instrument Type	Two port RF electronic calibration module
Connector Type	3.5 mm
Operating Frequency	30 kHz to 6 GHz
Typical Low Edge Footnote	RF ECal modules specified to operate from 300 kHz with typical performance down to 30 kHz (85097A footnote)
Module Part	85093-60001
Connector Code 00m	module with two male connectors
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Adapter Code 00a	adds male-to-male and female-to-female adapters plus 5/16 in 90 N-cm (8 in-lb) torque wrench
Control Interface	HP 85097A PC interface kit (Windows 95/NT class) via HP-IB
Successor Model	85093C 300 kHz to 9 GHz USB 3.5 mm ECal
Successor Directivity 300 Khz To 10 Mhz	45 dB on 85093C residual table
Successor Directivity 10 Mhz To 1 Ghz	52 dB on 85093C residual table
Successor Directivity 1 To 3 Ghz	52 dB on 85093C residual table
Successor Directivity 3 To 6 Ghz	50.5 dB on 85093C residual table

Successor Source Match 300 Khz To 10 Mhz: 36 dB on 85093C residual table

Successor Source Match 10 Mhz To 1 Ghz: 44 dB on 85093C residual table

Specifications

PARAMETER	VALUE
Successor Source Match 3 To 6 Ghz	39 dB on 85093C residual table
Torque 3p5 Mm	90 N-cm (8 in-lb) plus or minus 10 percent class of 3.5 mm ECal kits
Ports	2
Operating Temperature Family	+20 C to +30 C (8509x RF ECal series)
Applied Power Family	8509xC residual tables degrade above +9 dBm applied power
Series Family	HP 8509xA RF ECal with 85097A controller
Replacement Path	85093B then 85093C

Notes

30 kHz to 6 GHz, 3.5 mm, 85093-60001, and 00M/00F/00A from HP 85097A Electronic Calibration System User's Guide (Jul 1999) and Keysight legacy ECal discontinued-module table. Residual-error rows labeled successor are the published 85093C 3.5 mm table (omit 6 to 9 GHz because 85093A stops at 6 GHz).

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.