

KEYSIGHT TECHNOLOGIES (AGILENT HP)

85036B

The Keysight (formerly Agilent HP) 85036B is a high-precision 75 Ohm Type-N Calibration Kit designed for calibrating network analyzers up to 3 GHz. It contains open, short, and fixed termination standards in both genders, alongside phase-matched adapters for accurate measurements of non-insertable devices. The kit is optimized to deliver highly stable, repeatable connections using state-of-the-art machined parts and sapphire-based resistive load elements.

SPECIFICATIONS

Physical

Operating Temperature	+15 °C to +35 °C °C
Dimensions (W×H×D)	241 mm × 76 mm × 203 mm mm
Weight	1.4 kg kg
Shipping Weight	1.8 kg (4.0 lb)

General System Specifications

Connector Type	75 Ω Type-N
Nominal Impedance	75 Ω
Frequency Range	DC to 3 GHz
Compatible Network Analyzers	Agilent / Keysight 75 Ohm network analyzers
Calibration Methods Supported	SOLT (Short-Open-Load-Thru)

Male Open Standards Specifications

Offset Delay (Male Open)	17.544 ps
Offset Loss (Male Open)	1.3 GΩ/s
Offset Z0 (Male Open)	75 Ω
C0 Coefficient (Male Open)	$61.89 \times 10^{-15} \text{ F}$
C1 Coefficient (Male Open)	$65 \times 10^{-27} \text{ F/Hz}$
C2 Coefficient (Male Open)	$-80 \times 10^{-36} \text{ F/Hz}^2$
C3 Coefficient (Male Open)	$22 \times 10^{-45} \text{ F/Hz}^3$

Female Open Standards Specifications

Offset Delay (Female Open)	17.544 ps
Offset Loss (Female Open)	1.3 GΩ/s
Offset Z0 (Female Open)	75 Ω
C0 Coefficient (Female Open)	$61.89 \times 10^{-15} \text{ F}$
C1 Coefficient (Female Open)	$65 \times 10^{-27} \text{ F/Hz}$
C2 Coefficient (Female Open)	$-80 \times 10^{-36} \text{ F/Hz}^2$
C3 Coefficient (Female Open)	$22 \times 10^{-45} \text{ F/Hz}^3$

Male Short Standards Specifications

Offset Delay (Male Short)	17.544 ps
Offset Loss (Male Short)	1.3 GΩ/s
Offset Z0 (Male Short)	75 Ω
L0 Coefficient (Male Short)	0 H
L1 Coefficient (Male Short)	0 H/Hz
L2 Coefficient (Male Short)	0 H/Hz ²
L3 Coefficient (Male Short)	0 H/Hz ³

Female Short Standards Specifications

Offset Delay (Female Short)	17.544 ps
Offset Loss (Female Short)	1.3 GΩ/s
Offset Z0 (Female Short)	75 Ω
L0 Coefficient (Female Short)	0 H
L1 Coefficient (Female Short)	0 H/Hz
L2 Coefficient (Female Short)	0 H/Hz ²
L3 Coefficient (Female Short)	0 H/Hz ³

Broadband Load Standards (Terminations)

Return Loss - Low Frequency Range (Male Load)	≥ 46 dB ($p \leq 0.00501$) @ DC to ≤2 GHz
Return Loss - High Frequency Range (Male Load)	≥ 40 dB ($p \leq 0.01000$) @ >2 to ≤3 GHz
Return Loss - Low Frequency Range (Female Load)	≥ 46 dB ($p \leq 0.00501$) @ DC to ≤2 GHz
Return Loss - High Frequency Range (Female Load)	≥ 40 dB ($p \leq 0.01000$) @ >2 to ≤3 GHz
Resistive Element Substrate	Distributed resistive element on sapphire

Calibration Adapters (In-Series / Out-of-Series)

Adapter Configuration	Type-N 75 Ω (m-m, f-f)
Adapter Connection Structure	Dual-beaded connector structure
Offset Z0 (Adapters)	75 Ω
Offset Delay (Adapters)	101.121 ps
Offset Loss (Adapters)	1.5 GΩ/s

Connector Mechanical Specifications

Pin Depth Limits (Fixed Load)	0 to -0.0508 mm (0 to -0.0020 in)
Pin Depth Limits (Male Short)	0 to -0.0127 mm (0 to -0.0005 in)
Pin Depth Limits (Female Short)	0 to -0.0127 mm (0 to -0.0005 in)
Pin Depth Limits (Type-N Adapters)	0 to -0.0762 mm (0 to -0.0030 in)

Environmental and Quality Metrology

Calibration Reference Temperature Range	+20 °C to +26 °C
Measurement Accuracy Window	±1 °C of calibration temperature

Physical and Ordering Information

Part Number (Male Short)	85036-60012
Part Number (Female Short)	85036-60011
Part Number (Male Open)	85036-60014
Part Number (Female Open)	85036-60013
Part Number (Male Load)	85036-60015
Part Number (Female Load)	85036-60016
Part Number (Type-N f-f Adapter)	85036-60010
Part Number (Type-N m-m Adapter)	85036-60009

Environmental

Storage Temperature Range	-40 °C to +75 °C
Operating Altitude	Up to 4,500 m (15,000 ft)
Storage Altitude	Up to 15,000 m (50,000 ft)
Relative Humidity Range	Up to 95% at +40 °C (non-condensing)

Mechanical

Recommended Coupling Torque	1.3 N-m (12 lb-in)
Wrench Size	3/4 in (19 mm)

Usage Precautions

Connector Compatibility Warning	Never mate 50 Ohm Type-N connectors with 75 Ohm Type-N connectors to prevent permanent damage to the female contact.
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Adapter Specifications

Return Loss (Male-Male Adapter)	≥ 38 dB (DC to 3 GHz)
Return Loss (Female-Female Adapter)	≥ 38 dB (DC to 3 GHz)

TECHNOLOGY

Coaxial RF & Microwave Calibration

APPLICATIONS

Vector Network Analyzer Calibration

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.