

## KEYSIGHT TECHNOLOGIES (AGILENT HP)

# 85033D

The Keysight (Agilent HP) 85033D is a precision 3.5 mm mechanical calibration kit designed for calibrating network analyzers from DC up to 6 GHz. It contains high-accuracy fixed loads, open circuits, and short circuits in both male and female genders, supporting measurements of devices with 3.5 mm and SMA connectors.

## SPECIFICATIONS

### Physical

|                       |                   |
|-----------------------|-------------------|
| Operating Temperature | 15 °C to 35 °C °C |
|-----------------------|-------------------|

### General Specifications

|                                     |                                                |
|-------------------------------------|------------------------------------------------|
| Frequency Range                     | DC to 6 GHz                                    |
| Nominal Impedance                   | 50 Ω                                           |
| Connector Type                      | 3.5 mm                                         |
| Compatible Connector Type           | SMA                                            |
| Compatible Vector Network Analyzers | Agilent/Keysight network analyzers up to 6 GHz |

### Kit Standards & Contents

|                            |          |
|----------------------------|----------|
| Male Open Standard         | Included |
| Female Open Standard       | Included |
| Male Short Standard        | Included |
| Female Short Standard      | Included |
| Male Fixed Load Standard   | Included |
| Female Fixed Load Standard | Included |

### Accessories & Ordering Information

|                        |                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------|
| Option 100 Description | Adds phase-matched 7 mm to 3.5 mm adapters (male and female) for use with 7 mm test port cables |
| Option 200 Description | Adds four Type-N to 3.5 mm adapters                                                             |

### Standard-Specific Electrical Characteristics

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| Broadband Fixed Load Return Loss | ≥ 46 dB, ≥ 44 dB, or ≥ 38 dB (frequency dependent) |
|----------------------------------|----------------------------------------------------|

### Environmental & Calibration Standards

|                                         |                 |
|-----------------------------------------|-----------------|
| Calibration Reference Temperature Range | 20 °C to 26 °C  |
| Storage Temperature Range               | -40 °C to 75 °C |

**Standard Definitions**

|                           |           |
|---------------------------|-----------|
| Male Open Offset Delay    | 29.243 ps |
| Female Open Offset Delay  | 29.243 ps |
| Male Short Offset Delay   | 31.785 ps |
| Female Short Offset Delay | 31.785 ps |
| Standard Offset Impedance | 50 Ω      |

**Environmental**

|                        |                                    |
|------------------------|------------------------------------|
| Operating Altitude     | < 4,500 m                          |
| Non-Operating Altitude | < 15,240 m                         |
| Relative Humidity      | Up to 95% @ 40 °C (non-condensing) |

**Performance**

|                                      |         |
|--------------------------------------|---------|
| Fixed Load SWR (DC to 2 GHz)         | ≤ 1.011 |
| Fixed Load SWR (2 to 6 GHz)          | ≤ 1.025 |
| Fixed Load SWR (6 to 9 GHz)          | ≤ 1.040 |
| Fixed Load Return Loss (DC to 2 GHz) | ≥ 46 dB |
| Fixed Load Return Loss (2 to 6 GHz)  | ≥ 38 dB |
| Fixed Load Return Loss (6 to 9 GHz)  | ≥ 34 dB |

**TECHNOLOGY**

Coaxial Calibration Standard

**APPLICATIONS**

RF & Microwave 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.