

MCAL-KIT-CY 40

Mechanical Calibration Kit

DC–40 GHz coaxial calibration with 2.92 mm standards

At a Glance

MCAL-KIT-CY 40 is a coaxial calibration kit for vector network analyzer measurements from DC to 40 GHz. It provides 2.92 mm male and female open, short and fixed-load standards, three 2.92 mm adapters and a 3.5 mm torque wrench.

A USB drive containing calibration data is included. Electrical specifications apply at 23 ± 3 °C; phase offsets are stated relative to reference standards.



Calibration Kit — Family Illustration

Electrical Specifications

Electrical specifications apply at an operating temperature of 23 ± 3 °C.

Parameter	MCAL-KIT-CY 40
Frequency range	DC–40 GHz
Open-standard phase offset	$\pm 2.0^\circ$
Short-standard phase offset	$\pm 2.0^\circ$
Fixed-load VSWR	≤ 1.07
Adapter VSWR	≤ 1.12

Specifications from DC to 10 MHz are referenced to 10 MHz and are not tested separately.

Open- and short-standard phase offsets are relative to reference standards.

Environmental Specifications

Parameter	MCAL-KIT-CY 40
Operating temperature	+20 °C to +26 °C
Storage temperature	–20 °C to +70 °C

Kit Configuration

Component	Quantity
2.92 mm male open standard	1
2.92 mm female open standard	1
2.92 mm male short standard	1
2.92 mm female short standard	1
2.92 mm female load standard	1
2.92 mm male load standard	1
2.92 mm female–female adapter	1
2.92 mm male–male adapter	1
2.92 mm male–female adapter	1
3.5 mm torque wrench	1
USB drive containing calibration data	1

Use and Care

Take electrostatic discharge precautions before use.

Inspect the connector interfaces before use. Remove dust, cotton fibres, metal fragments and other contaminants, which can substantially affect electrical performance.

Check that the mating connector pin depth is within its normal limits before connection. Abnormal pin depth can permanently damage the calibration standards.

Use a torque wrench to tighten the coupling nut whenever possible to ensure proper operation.

When connecting a standard, rotate the coupling nut on the male connector. Do not rotate the calibration standard or adapter; doing so can sharply reduce its service life.

Store the components carefully and protect them from dust, moisture and severe vibration. If a component is dropped, have its performance verified by a qualified calibration laboratory before returning it to service.

Arrange periodic metrological calibration so that the kit remains within specification during use.

Ordering Information

Model	Description
MCAL-KIT-CY 40	DC–40 GHz coaxial mechanical calibration kit

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