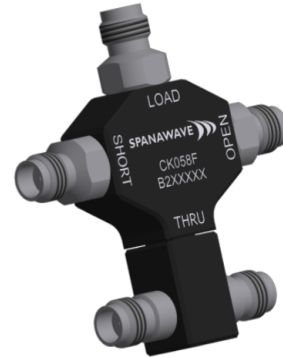
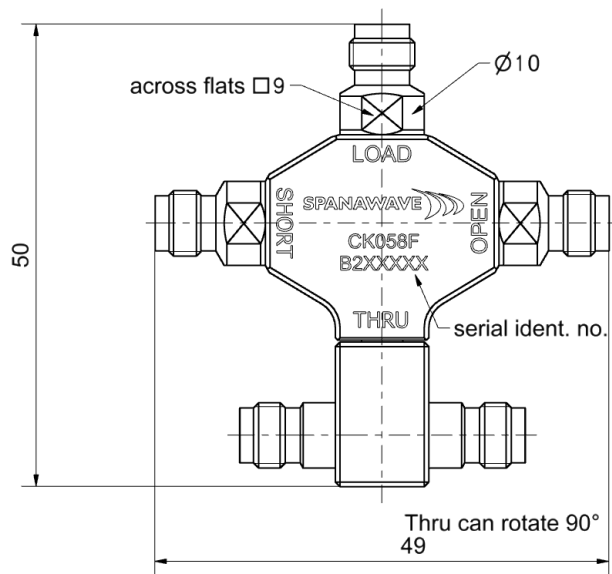


CK058F: 4-in-1 OSLT Calibration Kit, DC to 70 GHz, Type-1.85 mm (f)



Price*: \$4,155.00

Interface

According to 1.85mm (f)
Mechanically compatible with 2.4 mm

Contents and Documentation

This kit is delivered with

- **Standard Definitions Card**
Printed Standard Definitions that can be used on nearly all Vector Network Analyzers
- **Test Results Documentation**
- **Hard Shell Case**

Material and plating

Connector parts

Center conductor
Outer conductor
Body
Dielectric
Substrate

Material

Beryllium copper
Stainless steel
Aluminum
PS
Al₂O₃

Plating

Gold, min. 1.27 μm, over nickel
Passivated
black anodized

*Prices are for US customers only. International prices may differ based on region.

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Electrical data

Frequency range DC to 70 GHz

Thru

Return loss ≥ 28 dB, DC to 4 GHz
 ≥ 21 dB, 4 GHz to 26.5 GHz
 ≥ 20 dB, 26.5 GHz to 50 GHz
 ≥ 17 dB, 50 GHz to 70 GHz

Open

Error from nominal phase¹ $\leq 2.0^\circ$, DC to 4 GHz
 $\leq 5.0^\circ$, 4 GHz to 26.5 GHz
 $\leq 7.0^\circ$, 26.5 GHz to 50 GHz
 $\leq 10.0^\circ$, 50 GHz to 70 GHz

Short

Error from nominal phase² $\leq 2.0^\circ$, DC to 4 GHz
 $\leq 5.0^\circ$, 4 GHz to 26.5 GHz
 $\leq 7.0^\circ$, 26.5 GHz to 50 GHz
 $\leq 10.0^\circ$, 50 GHz to 70 GHz

Load

Return loss ≥ 35.0 dB, DC to 4 GHz
 ≥ 25.0 dB, 4 GHz to 26.5 GHz
 ≥ 22.0 dB, 26.5 GHz to 50 GHz
 ≥ 20.0 dB, 50 GHz to 70 GHz
 DC Resistance $50 \Omega \pm 0.5 \Omega$
 Power handling ≤ 0.5 W, derate by 0.005 W/K

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.

² The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance.

Mechanical data

Mating cycles ≥ 500
 Maximum torque 1.65 Nm
 Recommended torque 0.90 Nm
 Gauge 0.00 mm to 0.05 mm

General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behavior of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

Thru

Offset Z_0 / Impedance / Z_0 50Ω
 Offset Delay 84.492 ps
 Length (electrical) / Offset Length 25.33 mm
 Offset Loss $4.00 \text{ G}\Omega/\text{s}$
 Loss $0.0294 \text{ dB}/\sqrt{\text{GHz}}$
 Line Loss @ 1GHz $0.0012 \text{ dB}/\text{mm}$

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Open

Offset Z_o / Impedance / Z_o	50 Ω
Offset Delay	16.678 ps
Length (electrical) / Offset Length	5.00 mm
Offset Loss	3.75 G Ω /s
Loss	0.0109 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances	$C_0 = 1.70000 \times 10^{-15} \text{ F} \quad / \quad 1.70000 \text{ fF}$ $C_1 = 170.000 \times 10^{-27} \text{ F/Hz} \quad / \quad 0.17000 \text{ fF /GHz}$ $C_2 = -6.30000 \times 10^{-36} \text{ F/Hz}^2 \quad / \quad -0.00630 \text{ fF /GHz}^2$ $C_3 = 0.04000 \times 10^{-45} \text{ F/Hz}^3 \quad / \quad 0.00004 \text{ fF /GHz}^3$

Short

Offset Z_o / Impedance / Z_o	50 Ω
Offset Delay	16.678 ps
Length (electrical) / Offset Length	5.00 mm
Offset Loss	4.17 G Ω /s
Loss	0.0121 dB/ $\sqrt{\text{GHz}}$
Short Inductance	$L_0 = -21.0000 \times 10^{-12} \text{ H} \quad / \quad -21.0000 \text{ pH}$ $L_1 = 700.000 \times 10^{-24} \text{ H/Hz} \quad / \quad 0.70000 \text{ pH/GHz}$ $L_2 = -15.0000 \times 10^{-33} \text{ H/Hz}^2 \quad / \quad -0.01500 \text{ pH/GHz}^2$ $L_3 = 0.10000 \times 10^{-42} \text{ H/Hz}^3 \quad / \quad 0.00010 \text{ pH/GHz}^3$

Load

Offset Z_o / Impedance / Z_o	50 Ω
Offset Delay	0.0000 ps
Length (electrical) / Offset Length	0.000 mm
Offset Loss	0.00 G Ω /s
Loss	0.0000 dB/ $\sqrt{\text{GHz}}$

Environmental data

Operating temperature range ³	+20 °C to +26 °C
Rated temperature range of use ⁴	0 °C to +50 °C
Storage temperature range	-40 °C to +85 °C
RoHS	compliant

³ Temperature range over which these specifications are valid.

⁴ This range is underneath and above the operating temperature range, within the calibration kit is fully functional and could be used without damage.

Includes

Standard delivery for this kit includes Test Results. The documentation issued reports which quantities were tested individually, traceable to national / international standards. Model based standard definitions of the calibration standards are reported in Agilent / Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Calibration interval

Recommendation	12 months
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Packing

Standard	1 per bag
Weight	1.20 oz.

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.