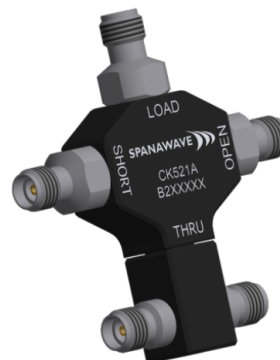
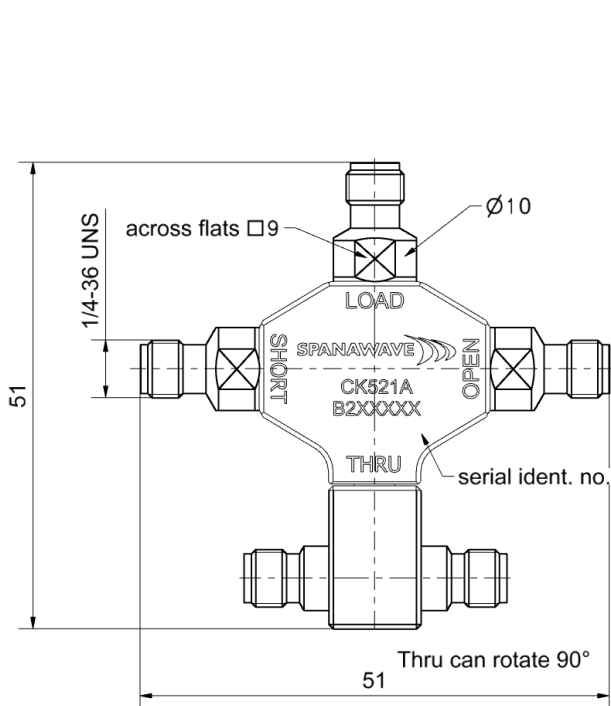


**CK521A:** 4-in-1 OSLT Calibration Kit, DC to 26.5 GHz, Type-3.5 mm (f) 50 Ohm



**Price\*: \$1,375.00**

**Interface**

According to 3.5 mm (f)  
Mechanically compatible with 2.92 mm and SMA

**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  
Al<sub>2</sub>O<sub>3</sub>

**Plating**

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

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

## CK521A: 4-in-1 OSLT Calibration Kit, DC to 26.5 GHz, Type-3.5 mm (f) 50 Ohm

### Electrical data

Frequency range	DC to 26.5 GHz
<b>Thru</b>	
Return loss	$\geq 34$ dB, DC to 4 GHz $\geq 32$ dB, 4 GHz to 8 GHz $\geq 30$ dB, 8 GHz to 26.5 GHz
<b>Open</b>	
Error from nominal phase <sup>1</sup>	$\leq 1.0^\circ$ , DC to 4 GHz $\leq 2.0^\circ$ , 4 GHz to 8 GHz $\leq 3.0^\circ$ , 8 GHz to 26.5 GHz
<b>Short</b>	
Error from nominal phase <sup>2</sup>	$\leq 1.0^\circ$ , DC to 4 GHz $\leq 2.0^\circ$ , 4 GHz to 8 GHz $\leq 3.0^\circ$ , 8 GHz to 26.5 GHz
<b>Load</b>	
Return loss	$\geq 40.0$ dB, DC to 4 GHz $\geq 35.0$ dB, 4 GHz to 8 GHz $\geq 30.0$ dB, 8 GHz to 26.5 GHz
DC Resistance	$50 \Omega \pm 0.5 \Omega$
Power handling	$\leq 0.5$ W

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

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

### Mechanical data

Mating cycles	$\geq 500$
Maximum torque	1.70 Nm
Recommended torque	0.90 Nm
Gauge	0.00 mm to 0.08 mm

### General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour 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 / $Z_0$	50 $\Omega$
Offset Delay	84.058 ps
Length (electrical) / Offset Length	25.20 mm
Offset Loss	2.51 G $\Omega$ /s
Loss	0.0183 dB/ $\sqrt{\text{GHz}}$
Line Loss @ 1GHz	0.0007 dB/mm

#### Open

Offset $Z_0$ / Impedance / $Z_0$	50 $\Omega$
Offset Delay	33.356 ps
Length (electrical) / Offset Length	10.00 mm
Offset Loss	2.20 G $\Omega$ /s
Loss	0.0127 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances	$C_0 = -17.500 \times 10^{-15}$ F / -17.500 fF $C_1 = -2000.0 \times 10^{-27}$ F/Hz / -2.0000 fF /GHz $C_2 = 140.00 \times 10^{-36}$ F/Hz / 0.1400 fF /GHz <sup>2</sup> $C_3 = -2.7000 \times 10^{-45}$ F/Hz / -0.0027 fF /GHz <sup>3</sup>

## CK521A: 4-in-1 OSLT Calibration Kit, DC to 26.5 GHz, Type-3.5 mm (f) 50 Ohm

### Short

Offset $Z_o$ / Impedance / $Z_o$	50 $\Omega$
Offset Delay	33.356 ps
Length (electrical) / Offset Length	10.00 mm
Offset Loss	2.36 G $\Omega$ /s
Loss	0.0137 dB/ $\sqrt{\text{GHz}}$
Short Inductance	$L_0 = -44.000 \times 10^{-12} \text{ H} \quad / \quad -44.000 \text{ pH}$ $L_1 = 3700.0 \times 10^{-24} \text{ H/Hz} \quad / \quad 3.7000 \text{ pH /GHz}$ $L_2 = -250.00 \times 10^{-33} \text{ H/Hz}^2 \quad / \quad -0.2500 \text{ pH /GHz}^2$ $L_3 = 5.0000 \times 10^{-42} \text{ H/Hz}^3 \quad / \quad 0.0050 \text{ pH /GHz}^3$

### Load

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

### Environmental data

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

<sup>3</sup> Temperature range over which these specifications are valid.

<sup>4</sup> 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
----------------	-----------

### Packing

Standard	1 per bag
Weight	1.24 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.