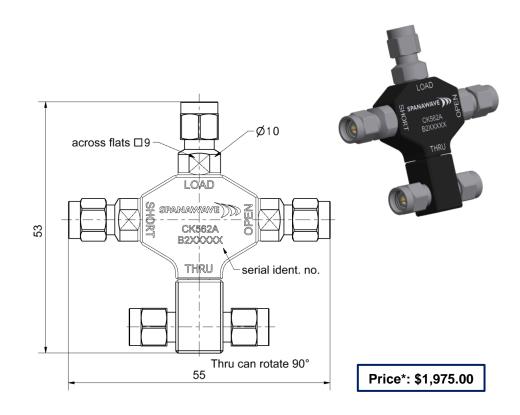
Technical Data Sheet

SPANAWAVE

CK562A: 4-in-1 OSLT Calibration Kit, DC to 40 GHz, 2.92 mm (m)



Interface

According to Mechanically compatible with 2.92mm (m) 3.5 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 Coupling nut Body Dielectric Substrate

Material Stainless steel Stainless steel Aluminum PS AI_2O_3

Plating Beryllium copper Gold, min. 1.27 µm, over nickel Passivated 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 40.0 GHz
Thru	
Return loss	
Return 1055	\geq 32 dB, DC to 4 GHz
	\geq 30 dB, 4 GHz to 26.5 GHz
	\geq 28 dB, 26.5 GHz to 40 GHz
<u>Open</u>	
Error from nominal phase ¹	\leq 1.5°, DC to 4 GHz
	≤ 4.0°, 4 GHz to 26.5 GHz
	≤ 5.0°, 26.5 GHz to 40.0 GHz
Short	
Error from nominal phase ²	\leq 1.5°, DC to 4 GHz
	\leq 4.0°, 4 GHz to 26.5 GHz
	\leq 5.0°, 26.5 GHz to 40.0 GHz
Load	
Return loss	\geq 40.0 dB, DC to 4 GHz
	≥ 28.0 dB, 4 GHz to 26.5 GHz
	≥ 25.0 dB, 26.5 GHz to 40.0 GHz
DC Resistance	50 $\Omega \pm 0.5 \ \Omega$
Power handling	≤ 0.5 W
5	

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	1.70 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 _o / Impedance / Z _o Offset Delay Length (electrical) / Offset Length Offset Loss Loss Line Loss @ 1GHz	50 Ω 83.057 ps 24.90 mm 2.70 GΩ/s 0.0195 dB/ √GHz 0.0008 dB/mm	
Open Offset Z _o / Impedance / Z _o Offset Delay Length (electrical) / Offset Length Offset Loss Loss Fringing Capacitances	50 Ω 28.353 ps 8.50 mm 2.40 GΩ/s 0.0118 dB/ $\sqrt{\rm GHz}$ $C_0=-7.38000 \times 10^{-15} F$ /	-7.38000 fF
	$C_{1} = 1180.00 \times 10^{-27} \text{ F/Hz} / C_{2} = -44.8000 \times 10^{-36} \text{ F/Hz}^{2} / C_{2}$	
	$C_3 = 0.54000 \times 10^{-45} \text{ F/Hz}^3 /$	0.00054 fF /GHz ³

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<u>Short</u>

Offset Z _o / Impedance / Z _o	50 Ω		
Offset Delay	28.353 ps		
Length (electrical) / Offset Length	8.50 mm		
Offset Loss	2.40 GΩ/s		
Loss	0.0118 dB/ √GHz		
Short Inductance	$L_0 = 0.0000 \text{ x } 10^{-12} \text{ H}$	/	0.0000 pH
	L ₁ = 0.0000 x 10 ⁻²⁴ H/Hz	/	0.0000 pH/GHz
	L ₂ = 0.0000 x 10 ⁻³³ H/Hz ²	/	0.0000 pH/GHz ²
	$L_3 = 0.0000 \text{ x } 10^{-42} \text{ H/Hz}^3$	/	0.0000 pH/GHz ³
Load			
Offset Z _o / Impedance / Z _o	50 Ω		
Offset Delay	0.0000 ps		
Length (electrical) / Offset Length	0.000 mm		

0.00 GΩ/s

0.0000 dB/ √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

Offset Loss

Loss

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 Weight	1 per bag 1.5 oz.

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