

SSLT Calibration Kit

Mega Industries offers a complete line of precision waveguide kits used for accurate calibration of Vector Network Analyzer (VNA) systems. These kits include components to perform full two-port Through-Reflect-Line (TRL) and Short-Short-Load-Through (SSLT) calibrations. All components are made to greater precision than the relevant waveguide standards require for flatness, finish and form tolerances.

Key Component Review

Unlike Coaxial kits, where a "calibrated short" and "calibrated open" are readily achievable, waveguide calibration kits utilize precision, offset Short-Circuit sections to represent these two parameters. The length of the offsets, which are set as $\frac{1}{8}\lambda$ and $\frac{3}{8}\lambda$ (lambda) long, are designed to provide a balanced phase response over the waveguide operating frequency range.

A precision straight, $\frac{1}{4}\lambda$ long, through section is provided for two port calibrations. The length of the straight section is designed to provide a balanced phase response over the waveguide operating frequency range.

Unlike other manufacturers, Mega provides our kits with a precision waveguide sliding load to provide optimum performance over the complete waveguide band. Utilizing the capabilities of the sliding load allows the user to create a better match improving the accuracy of the calibration.

In addition, Mega provides precision Coaxial to Waveguide Transitions, which typically display a VSWR of better than 1.15:1 VSWR over the complete waveguide band and better than 1.10:1 VSWR over more than 80% of this band. These precision transitions provide extreme accuracy when measuring low insertion loss devices.

Applications

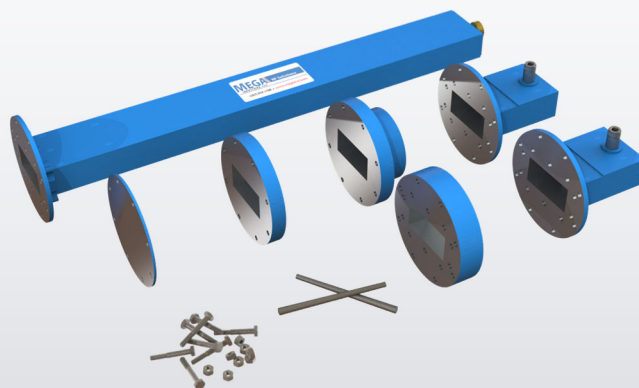
This kit can be used for traditional style calibrations where three impedance standards and one transmission standard are used to create a full two port calibration. The offset short circuits of $\frac{1}{8}\lambda$ and $\frac{3}{8}\lambda$ represent the calibrated open and calibrated short circuit conditions. Two port calibrations can be achieved using the two precision waveguide to coax transitions in conjunction with the flush shorting plate and precision $\frac{1}{4}\lambda$ waveguide section to provide a balanced response over the waveguide band.

Kit Includes:

- 2 each Waveguide Transition to Coax (see table for connector size)
- $\frac{1}{8}\lambda$ Waveguide Offset Short Circuit
- $\frac{1}{4}\lambda$ Waveguide Section
- $\frac{3}{8}\lambda$ Waveguide Offset Short Circuit
- Shorting Plate
- Waveguide Sliding Load
- Alignment Tool (x2) plus flange hardware kit
- Calibration Coefficients Definition Sheet and Data compatible with Keysight VNA's

Finish: RoHS Compliant Conversion Coating

Paint: Mega Blue



Catalog Numbers SSLT Calibration Kits

Size	Cat No.	Flange Type	Coax Type	Size	Cat No.	Flange Type	Coax Type	Size	Cat No.	Flange Type	Coax Type
				WR28	54XX06000	UG599/U	2.4mm	WR34	53XX06000		2.92mm
WR42	52XX06000		2.92mm	WR51	51XX06000	UBR180	2.92mm	WR62	50XX06000		SMA (f)
WR75	49XX00000	UBR120	SMA (f)	WR90	48XX00000		SMA (f)	WR102	47XX01000		SMA (f)
WR112	46XX01000		SMA (f)	WR137	45XX01000		SMA (f)	WR159	44XX01000		SMA (f)
WR187	43XX01000		SMA (f)	WR229	42XX01000		SMA (f)	WR284	41XX02000		Type-N (f)

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