



#### PicoVNA Dual E-Cal 8.5 GHz Automated calibration kit (SMA)

The PicoVNA Dual E-Cal 8.5 GHz Automated calibration kit (SMA) contains both female and male SOLTs.

Part: TA520

Minimized as far as possible, the manual calibration process involves several torqued connect/disconnect operations and a manual loading of unique data files for each standard. The E-Cal SOLT calibration process reduces this to just one connection by internally switching its calibration standards. The process becomes automatic and highly repeatable, with power, control and data read all managed by the PicoVNA software over a USB interface.

Fast, convenient and less error-prone, an E-Cal standard is to an extent compromised by switch errors, resulting in non-ideal short, open, load and through. Mitigating this, the PicoVNA E-Cal standards include fast-rise oven control of device temperatures, and full-span multipath S-parameters traceably characterize these now stable and minor imperfections. It is also true that the convenience, deskillling and speed of automated calibration tend to promote more regular calibration, and thus more accurate, repeatable and reliable measurement – so much so that some process managers insist upon an automated E-Cal.

All PicoVNA calibration and check standards (below) are calibrated against fully traceable PC3.5 standards and are supplied in a protective carry case.

Name	Type	Ports	Standards	Impedance	Connector	Characterization
SOLT - AUTO -M	Ovened USB-controlled automated E-Cal SOLT	2	Short, open, load, through and separate characterized/polarized port adaptor	50 $\Omega$	SMA(m)	Full S-parameter 300 kHz to 8.5 GHz. Embedded and read from USB device.
SOLT - AUTO -F	Ovened USB-controlled automated E-Cal SOLT	2	Short, open, load, through and separate characterized/polarized port adaptor	50 $\Omega$	SMA(f)	Full S-parameter 300 kHz to 8.5 GHz. Embedded and read from USB device.