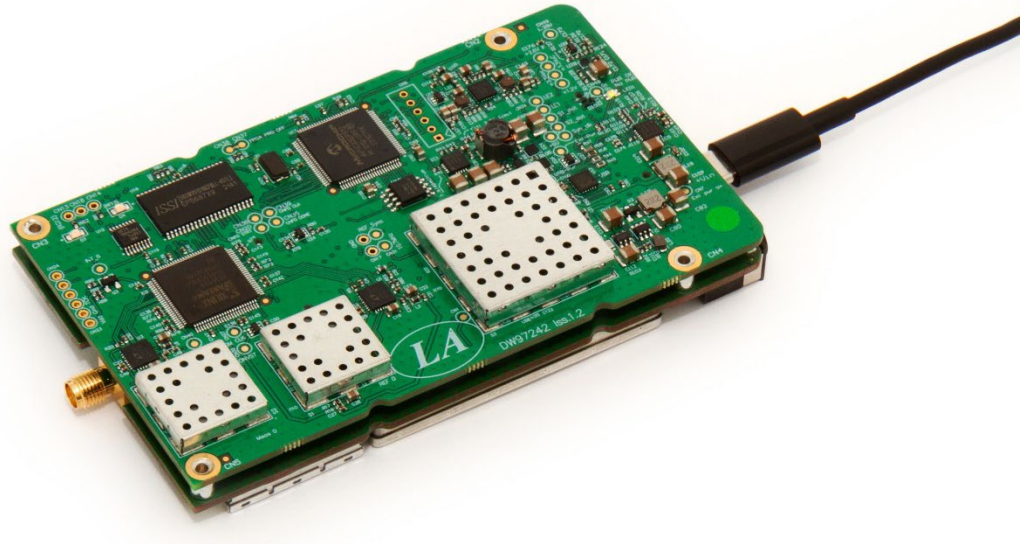
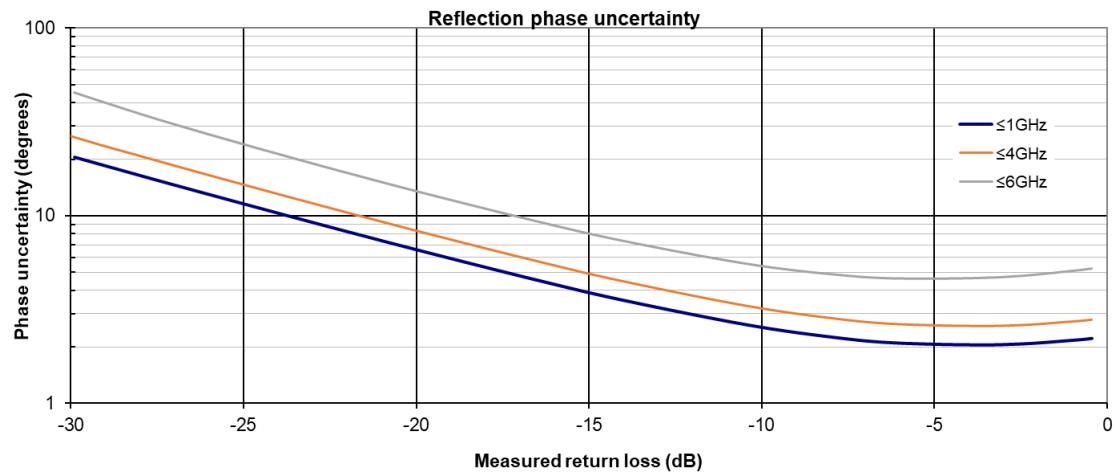
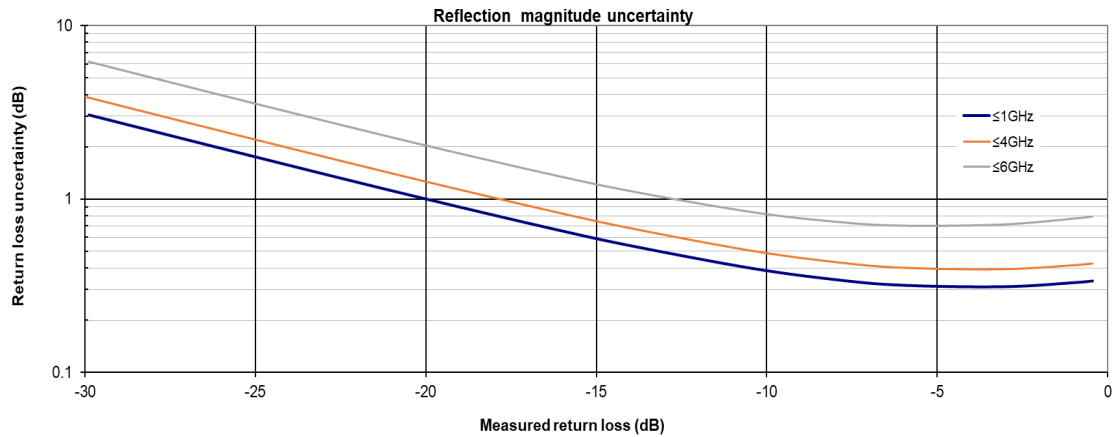


LA19-14-06M OEM VNA Module Specification



Operating Frequency range:	300kHz to 6.4GHz
Specification Frequency range:	300kHz to 6GHz
Frequency setting resolution:	10Hz
Measurement parameters:	S11 (full correction) S21 (optional, frequency response and source match correction only)
Test port 1 return loss (uncorrected):	< -10dB
Test port 2 (aux) return loss:	< -12dB
Test port signal power:	0 to -20dBm
Test signal level accuracy:	±2.0dB
Test port signal harmonics:	<-20dBc, -34dBc typical
Test port signal non-harmonic spurs:	<-30dBc, -44dBc typical
S21 Dynamic range (1kHz BW):	≥80dB, frequency <3GHz, 0dBm test level ≥50dB, frequency ≥3GHz, 0 dBm test level
Measurement speed (140kHz BW):	<110 μs per frequency point (S11 only mode)
Measurement bandwidth (user selectable):	140kHz, 70kHz, 35kHz, 10kHz, 5kHz, 1kHz, 500Hz, 100Hz, 50Hz, 10Hz

S11 Measurement accuracy (Test level $\leq -3\text{dBm}$, 1kHz bandwidth):



S21 Measurement accuracy: 0.5dB, 5° Typical

Test port 1 connector: SMA (female)

Test port 2 connector: SMB (female)

Calibration: SOLT using external calibration kit
Support for E-Cal
Internal calibration store/restore capability (patent applied)

Control/data (and optional power) interface: USB-C

+12V to +15Vdc supply current (optional):	<0.6A
Total power dissipation:	< 7W
Ambient temperature:	+5°C to +40°C
Air flow required (minimum):	0.05m ³ /min
RF Test port 1 protection:	PIN diode limiter (+27 dBm max input)
Reference input:	10MHz, -10dBm to +3dBm
Reference output:	10MHz, +2dBm typical
Trigger input:	3.3V logic
Trigger output:	3.3V logic
Overall dimensions (exc. connectors):	120mm x 69mm x 20mm
Mounting holes:	M2 clearance
Mounting holes separation:	96.90mm x 63.30mm

Notes:

1. Reference input can be programmed to be Trigger input
2. Reference output can be programmed to be Trigger output
3. Harmonic and spurious levels give for an output of 0dBm
4. Some air flow is required to prevent the module's temperature rising too high. Alternatively, heat may be removed with contact to an adequate heatsink using thermally conductive gasket material.
5. Measurement accuracy depends on calibration kit used. Values shown apply using commercial grade 3.5mm (SMA compatible) calibration kit. Test level set to -6 dBm. $\pm 5^{\circ}\text{C}$ of calibration temperature. Better accuracy may be possible with metrology grade kit.

