

# MS46522B Option 82

## ShockLine™ Performance Vector Network Analyzer

### Dedicated E-Band VNA for 55-92 GHz Applications

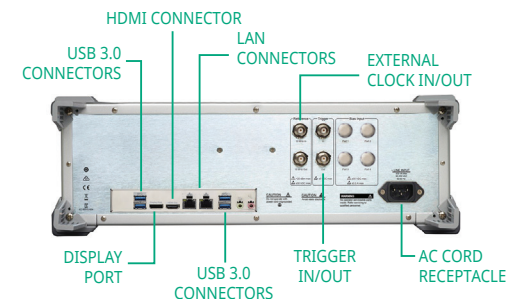
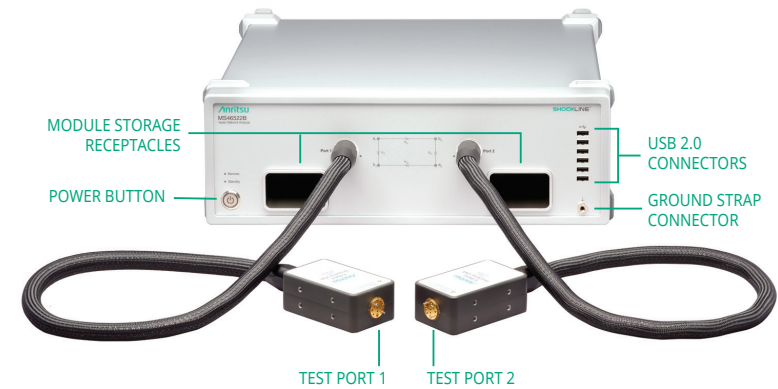
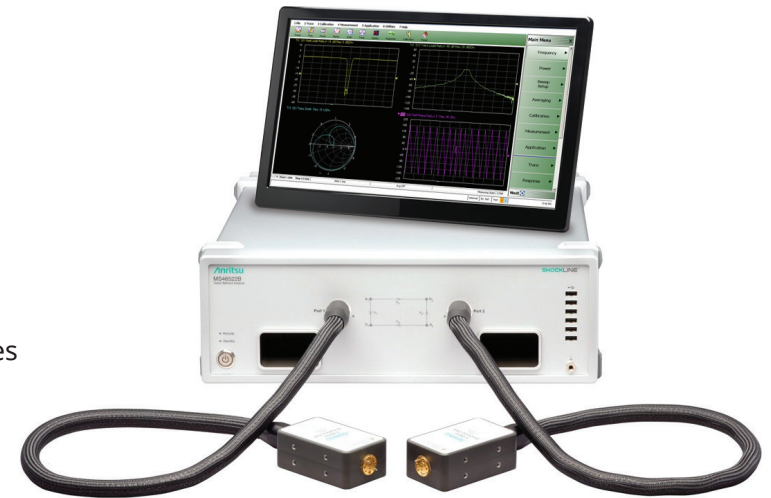
Option 82 is the E-band frequency option for the 2-port MS46522B. It brings banded mm-wave measurement capabilities to an economic cost level unprecedented in the marketplace. For applications requiring only E-band frequency coverage, the new 500B series 55-92 GHz mm-wave option is the best value on the market and enables mass production of E-band components.

The E-band VNA consists of small tethered source/receiver modules and a base chassis. The modules are attached to the chassis through one-meter cables that are permanently attached to the unit making this a compact, ready-to-use E-band VNA. The remote modules have native WR12 waveguide interface for convenient interfacing to typical waveguide devices.

The MS46522B series comes in a 3U high chassis and uses the same GUI, software, command syntax, drivers, and programming environments as the rest of the ShockLine family.

### Key Features and Benefits

- Extended frequency range covering E-band and major parts of V band.
- Wide dynamic range enables measurement of very low reflection artifacts.
- Full-assembled test system eliminates setup errors and increases reliability.
- Tethered modules connect directly to the DUT increasing measurement stability.
- Modern LAN interface for remote control is faster than GPIB.
- A common GUI and SCPI interface within the Shockline Family for ease of use.
- USB ports allow for easy connection to peripherals like keyboard and mouse.
- The small 3U packages allows for the efficient use of rack space.



Simple | Economical | Great Performance

**Key Specifications**

Analyzer Performance	
Frequency Options	MS46522B-082, 55 to 92 GHz, WR-12 Waveguide Flange
Dynamic Range	≥ 111 dB (60 GHz to 90 GHz, typical)
Output Power	-55 dBm to -5 dBm (60 GHz to 69 GHz) -50 dBm to 0 dBm (>69 GHz to 88 GHz) -60 dBm to -10 dBm (>88 GHz to 90 GHz)
General	
Measurement Parameters	$S_{11}$ , $S_{21}$ , $S_{22}$ , $S_{12}$ , and any user-defined combination of $a_1$ , $a_2$ , $b_1$ , $b_2$ , 1.
Display Graphs	Log Magnitude, Phase, Group Delay, Linear Magnitude, Real, Imaginary, SWR, Impedance, Smith Chart (Impedance)
Measurements Data Points	2 to 20,001 points
Limit Lines	Single or segmented. 2 limit lines per trace. 50 segments per trace.
IF Bandwidth	10, 20, 30, 50, 70, 100, 200, 300, 500, 700 Hz 1, 2, 3, 5, 7, 10, 20, 30, 50, 70, 100, 200, 300, 500 kHz
Display and Traces	Up to 16 traces. A separate memory for each trace can be used to store measurement data for later display or subtraction, addition, multiplication or division with current measurement data. The trace data can be saved and recalled.
Markers	12 markers + 1 reference marker
Remote Control Interface	SCPI/Software drivers over LAN
Display	Powerful GUI displayed on user-provided monitor, touchscreen compatible

**General (continued)**

Dimensions (H x W x D)	152 mm x 445 mm x 442 mm (Dimensions apply to chassis only)
Weight:	< 13 kg (< 28 lb), typical

**Product Options**

Option Number	Description
MS46522B-001	Rack mount
MS46522B-002	Time Domain with time gating
MS46522B-022	Advanced Time Domain

**Calibration Accessories**

Part Number	Description
3655E	Waveguide Calibration kit (WR12)

**Accessories****Calibration Kit**
**Pricing | Ordering | Support**
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