

MS46524B 4-Port Performance ShockLine Vector Network Analyzer

RF and Microwave VNAs to 43.5 GHz

The MS46524B is a series of 4-port Performance ShockLine Vector Network Analyzers. Delivering an unprecedented level of value and performance, including best-in-class dynamic range, the Performance series lowers cost-of-test and speeds time to market in numerous testing of applications up to 43.5 GHz. These applications include characterizing and manufacturing, multi-port mobile network equipment, mobile devices, automotive cables, high-speed data interconnects and system integration components.

The MS46524B configured with option 10, 20, or 40 brings RF to microwave frequency capabilities to the Performance ShockLine family. These frequency options, combined with powerful ShockLine software, provide a cost effective solution for the most challenging, passive device testing.

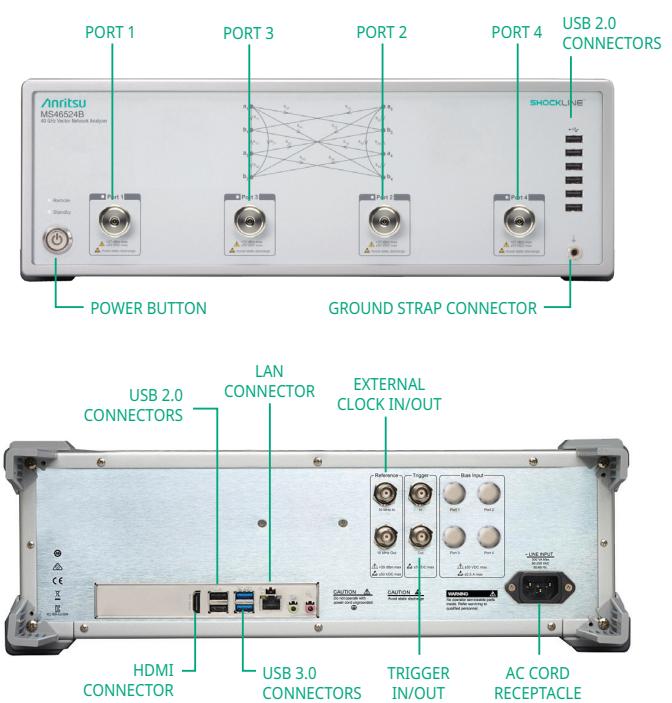
The MS46524B series comes in a 3U high chassis and uses the same GUI, software, command syntax, drivers, and programming environments as the rest of the ShockLine family.

ShockLine 4-Port VNA Highlights

- Ideal for testing single-ended and multi-port RF devices.
- Industry leading dynamic range enables measurement of very low reflection artifacts.
- Excellent corrected directivity minimizes measurement uncertainty.
- Time domain with gating option grants easier and faster fault identification.
- Modern LAN interface for remote control is faster than GPIB.
- A common GUI and SCPI interface within the ShockLine family.
- USB ports allow for easy connection to peripherals like keyboard and mouse.
- The compact 3U high packages allows for the efficient use of rack space.



MS46524B-010 (8.5 GHz VNA SHOWN ABOVE)



Simple | Economical | Great Performance

Quick Fact Sheet

MS46524B 4-Port Performance ShockLine Vector Network Analyzer



Key Specifications

| Analyzer Performance | |
|--------------------------|--|
| Frequency Option | MS46524B-010, 50 kHz to 8.5 GHz, type N(f) ports MS46524B-020, 50 kHz to 20 GHz, type k(m) ports MS46524B-040, 50 kHz to 43.5 GHz, type k(m) ports |
| Dynamic Range | > 140 dB (50 MHz to 2 GHz) |
| Output Power | -30 dBm to +15 dBm (300 kHz to 6 GHz) |
| Corrected Directivity | > 42 dB |
| General | |
| Measurement Parameters | Single ended S-Parameters: $S_{11}, S_{12}, S_{13}, S_{14}, S_{21}, S_{22}, S_{23}, S_{24}, S_{31}, S_{32}, S_{33}, S_{34}, S_{41}, S_{42}, S_{43}, S_{44}$ Mixed-Mode S-Parameters: SD1D1, SD1D2, SD1C1, SD1C2, SD2D1, SD2D2, SD2C1, SD2C2, SC1D1, SC1D2, SC1C1, SC1C2, SC1D2, SC2D2, SC2C1, SC2C2 User-defined combination: $a_1, a_2, a_3, a_4, b_1, b_2, b_3, b_4, 1$. |
| 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 per trace |
| Remote Control Interface | SCPI/Software drivers over LAN |
| Display | Powerful GUI displayed on user-provided monitor, touchscreen compatible |
| Dimensions (H x W x D) | 152 mm x 445 mm x 442 mm |
| Weight: | < 13.6 kg (< 30 lbs), typical |

Product Options

| Option Number | Description |
|---------------|------------------------------|
| MS46524B-001 | Rack mount |
| MS46524B-002 | Time Domain with time gating |

Calibration Accessories

| Part Number | Description |
|--------------|---|
| MN25208A | 2-Port SmartCal 8.5 GHz USB Auto Calibration Unit |
| 36585k | 2-Port Precision AutoCal 40 GHz Auto Calibration Unit |
| TOSLN50A-8 | Precision N Male Through/Open/Short/Load Mechanical Calibration Tee |
| TOSLNF50A-8 | Precision N Female Through/Open/Short/Load Mechanical Calibration Tee |
| TOSLK50A-40 | Precision K Male Through/Open/Short/Load Mechanical Calibration Tee |
| TOSLKF50A-40 | Precision K Female Through/Open/Short/Load Mechanical Calibration Tee |
| 3653A | Type N Calibration Kit |
| 3650A | SMA / 3.5 mm Calibration Kit |
| 15NN50-1.0B | Test port Cable, DC to 18 GHz, N(m)-N(m) |

Accessories

| Cables | Automatic Calibration Unit |
|-------------------------|----------------------------|
| | |
| Calibration Accessories | Torque Wrenches |
| | |

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