MS46522A 2-Port ShockLine™
Vector Network Analyzer

Anritsu
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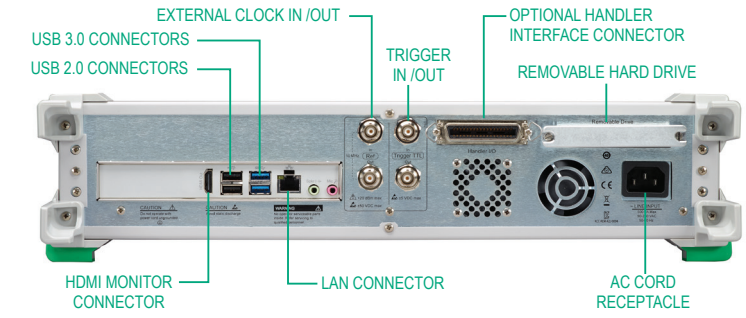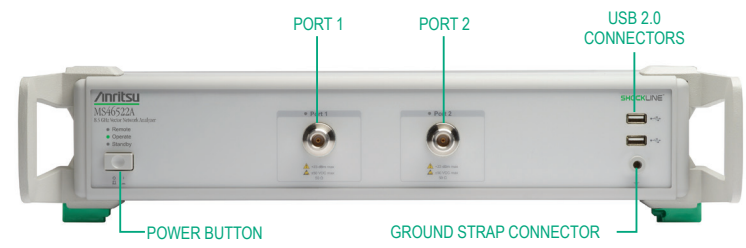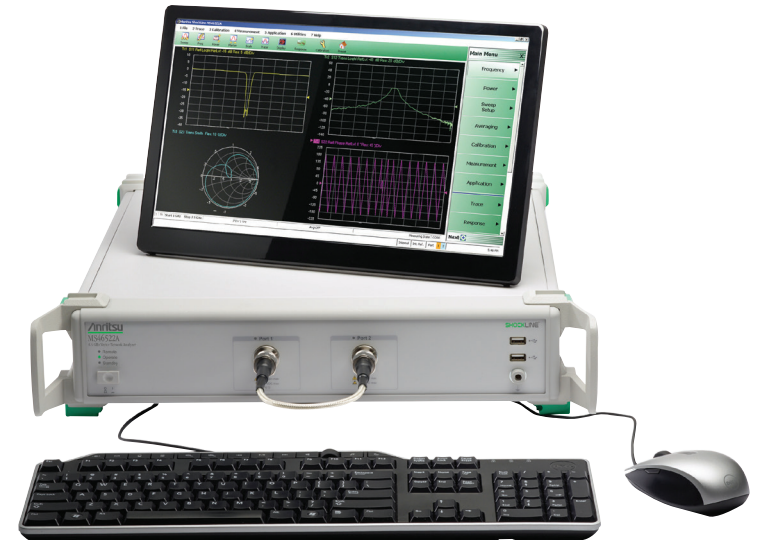## Ideal for testing Passive Devices

The MS46522A is a series of 2-port RF ShockLine™ Vector Network Analyzers with frequency ranges from 50 kHz to 4.5/8.5 GHz.

The MS46522A series of low cost VNAs are packaged in a compact and rugged 2U chassis. With 70 microseconds per point sweep speed, and better than 110 dB dynamic range, these VNAs are suitable for a variety of passive device test applications to 8.5 GHz in simple engineering, production and education applications.

The MS46500A series has a unique architecture which allows simultaneous measurements of forward and reverse parameters in a single sweep. This capability essentially reduces the measurement time in half as compared to traditional 2-port serial sweep.

ShockLine™ 2-Port VNA Highlights

- Simultaneous sweep captures all S-parameters in a single sweep increasing production throughput
- Ideal for testing passive RF devices
- Fast sweep speed and wide dynamic range minimizes production test time
- Excellent corrected directivity allows for less measurement uncertainty
- Time domain with gating option grants easier and faster fault identification
- The 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

PORT 1   PORT 2   USB 2.0 CONNECTORS

POWER BUTTON   GROUND STRAP CONNECTOR

EXTERNAL CLOCK IN /OUT   OPTIONAL HANDLER INTERFACE CONNECTOR

USB 3.0 CONNECTORS   USB 2.0 CONNECTORS   TRIGGER IN /OUT   REMOVABLE HARD DRIVE

HDMI MONITOR CONNECTOR   LAN CONNECTOR   AC CORD RECEPTACLE

SHOCKLINE™

Simple. Economical. Great Performance.

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Key Specifications

Analyzer Performance	
Frequency Option (only one per unit)	MS46522A-004, 50 kHz to 4.5 GHz, type N(f) ports MS46522A-010, 50 kHz to 8.5 GHz, type N(f) ports
Dynamic Range	> 110 dB
Sweep Speed	70 us / data point, typical
Corrected Directivity	> 42 dB

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 per trace
Remote Control Interface	SCPI/Software drivers over LAN
Display	Powerful GUI displayed on user-provided monitor, touchscreen compatible
Temperature	Operating Temperature 0 °C to 50 °C, humidity 95% or less at 40 °C
Dimensions	108 mm x 484 mm x 590 mm
Weight:	< 11 kg (< 25 lb), typical

Product Options

Option Number	Description
MS46522A-001	Rack mount
MS46522A-002	Time Domain with time gating
MS46522A-005	Handler Interface

Calibration Accessories

Part Number	Description
MN25208A	2-Port SmartCal 8.5 GHz USB 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

Accessories

Cables

Automatic Calibration Unit

Calibration Accessories

Torque Wrenches

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