Quick Fact Sheet

Shockline™ ME7869A

Modular 2-Port VNA Enabled by PhaseLync™

Anritsu
Advancing beyond

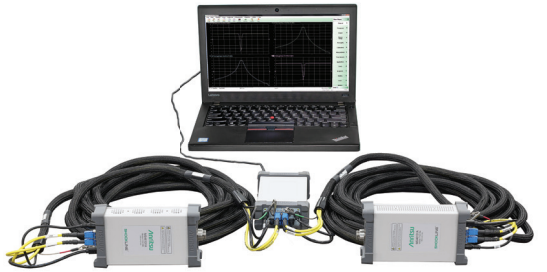
World's First Distributed Modular 2-Port VNA Capable of Making Vector Corrected 2-port S-parameter Measurements Over Longer Distances.

The ShockLine ME7869A 2-port systems are uniquely configured with two 1-port MS46131A VNAs that are synchronized together to form a fully reversing VNA. Using patented PhaseLync synchronization technology, the 1-port VNAs are phase synchronized over a distance of up to 100 meters to enable full 2-port vector S-parameter measurements. This architecture eliminates the need for long cables by bringing the VNA port to the device-under-test (DUT). This simplifies and improves the S-parameter measurements over distances in applications like over-the-air (OTA) and large vehicle shielding and propagation testing.

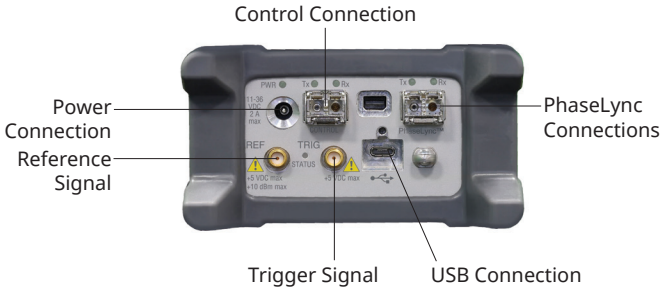
The ShockLine ME7869A is offered in 8 GHz, 20 GHz, and 43.5 GHz frequencies, and requires cabling between the two ShockLine MS46131A VNAs to support the PhaseLync option to support distances of up to 100 meters between the two ports of the VNA.

ShockLine Compact VNA Highlights

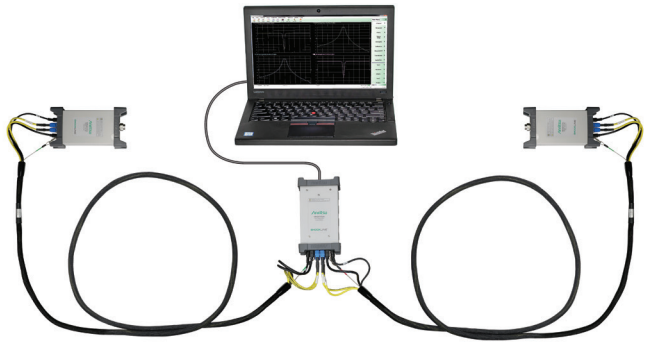
- Portable and remote ShockLine ME7869A VNA ports eliminate long cables by bringing the VNA to the DUT, improving measurement stability and dynamic range
- PhaseLync technology enables vector corrected magnitude and phase measurements between two ShockLine MS46131A VNAs separated by up to 100 meters
- Modular architecture maximizes uptime by making ports easily replaceable
- A single external PC controls the pair of ShockLine MS46131As as a fully reversing 2-port VNA with powerful ShockLine software
- No on-board data storage eliminates the need for data purging in secure applications
- Fast and easy calibrations with AutoCal™
- Single power supply required for ME7869A from the control module to the 2 VNA heads



ShockLine ME7869A Configuration



Remote ShockLine MS46131A Connections



ShockLine ME7869A 20 Meter 2-Port Configuration

SHOCKLINE™ **Simple | Economical | Great Performance**

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Key Specifications

Analyzer Performance	
System Dynamic Range	105 dB Typical
High Level Noise	0.003 dB Typical
General	
Measurement Parameters	Single-ended S-parameters: S11, S21, S12, S22 Mixed-Mode S-parameters: SDD, SCC, SDC, SCD User-defined combination: a1, a2, b1, b2, 1
Display Graphs	Log Magnitude, Phase, Group Delay, Linear Magnitude, Real, Imaginary, SWR, Impedance, Smith Chart, Polar
Measurement Data Points	2 to 16,001 points
Display Channels and Traces	Up to 16 channels with a maximum of 16 traces each. 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
Display	Powerful GUI displayed on user-provided computer
Temperature	Operating temperature –10 °C to 55 °C
Dimensions	191.8 mm x 107 mm x 54 mm (H x W x D)
Weight	< 1 kg (< 2.2 lb), typical weight

**For complete 2-port specifications, please refer the ShockLine ME7869A Technical Data Sheet (P/N 11410-02904)*

Product Options

Option Number	Description
ME7869A-010	8 GHz, 2 port VNA system
ME7869A-020	20 GHz, 2 port VNA system
ME7869A-043	43.5 GHz, 2 port VNA system
Must order one PhaseLync synchronization option for each MS46131A VNA	
MS46131A-025	PhaseLync synchronization to 20 m
MS46131A-050	PhaseLync synchronization to 50 m
MS46131A-100	PhaseLync synchronization to 100 m
MS46131A-002	Time Domain (must be enabled on both ShockLine MS46131As to enable option)
Must order two cable sets (total length must be within the length of the PhaseLync synchronization software option)	
2000-2123-R	PhaseLync 2 meter cable set
2000-2124-R	PhaseLync 5 meter cable set
2000-2125-R	PhaseLync 10 meter cable set
2000-2126-R	PhaseLync 25 meter cable set
2000-2127-R	PhaseLync 50 meter cable set
2000-2128-R	PhaseLync 75 meter cable set

Calibration Accessories

Part Number	Description
MN25208A	2-Port SmartCal 8.5 GHz USB Auto Calibration Unit
MN25218A	2-Port SmartCal 20 GHz USB Auto Calibration Unit
TOSLN50A-18	Precision N Male Through/Open/Short/Load Mechanical Calibration Tee
TOSLNF50A-18	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
TOSLK50A-43.5	Precision Extended-K Male Through/Open/Short/Load Mechanical Calibration Tee, DC to 43.5 GHz, 50 ohm, includes .s1p files for data-based calibration support
TOSLKF50A-43.5	Precision Extended-K Female Through/Open/Short/Load Mechanical Calibration Tee, DC to 43.5 GHz, 50 ohm, includes .s1p files for data-based calibration support
36585K	2-Port AutoCal 40 GHz Auto Calibration Unit
3653A	Type N Calibration Kit
3652A	Type K Calibration Kit
3650A	SMA / 3.5 mm Calibration Kit

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