

## Quick Fact Sheet

# MN25218A SmartCal™ Automatic Calibration Unit



### Low Cost USB Automatic Calibration Units

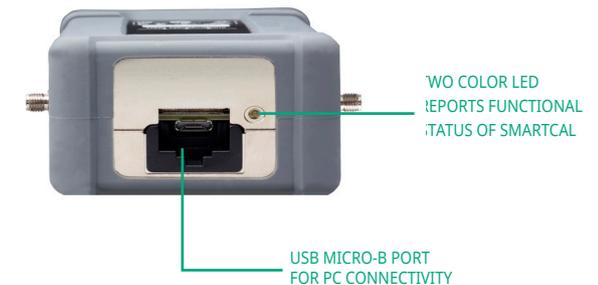
The SmartCal MN25218A is a series of 2-port automatic calibration units covering a frequency range from 300 kHz to 20 GHz. The MN25218A is available with Option 002, K(f) connectors on both ports.

The MN25218A delivers automatic, fast and error-free calibrations for any ShockLine VNA. The SmartCal automatically powers on via an USB connection and loads calibration kit coefficients from on-board memory into the ShockLine software. The SmartCal is ready to use immediately after detection by the VNA because it doesn't require warm-up.

SmartCal improves productivity by providing easier and faster single connection calibrations. Port auto sense and port mapping feature reduce errors and make multipoint calibrations easier. The MN25218A, along with easyTest, can also be used in guided graphical test procedures to further simplify complex calibrations.

### MN25218A SmartCal™ Highlights

- Auto load of calibration kit coefficients speeds up setups and reduces calibration error.
- Auto sense determines the number of VNA ports connected preventing poor connections and calibration.
- VNA to SmartCal Port mapping increases flexibility and simplifies multipoint calibrations.
- ShockLine software auto detects SmartCal providing simple and easy to use calibration software.
- No internal heater eliminates warm up time and provides a stable calibration.
- USB powered and controlled provides the convenience of a one plug interface without an external power supply.
- Single connection calibrations reduce wear and tear on connectors and cables over manual calibrations.
- Supports all ShockLine VNAs with 1-, 2-, 4-port calibration available.
- SCPI command set allows for easy integration into automated test environments.
- Automatic and fast calibrations at a low price.
- Small size provides easier use when moving between VNAs.
- Supports ShockLine Vector Network Analyzer A and B models.



# Quick Fact Sheet

## MN25218A SmartCal™ Automatic Calibration Unit



### Key Specifications

Analyzer Performance	
SmartCal Corrected Performance	
Typical Performance	ShockLine MS46522B and MS46524B VNAs
Corrected Source Match	> 33 dB (300 kHz - 20 GHz)
Corrected Load Match	> 42 dB (300 kHz - 10 GHz) ≥ 37 dB (>10 GHz - 20 GHz)
Corrected Directivity	> 42 dB (300 kHz - 1 GHz) ≥ 37 dB (>1 GHz - 20 GHz)
Transmission Tracking	± 0.06 dB (300 kHz - 10 GHz) ± 0.1 dB (>10 GHz - 18 GHz) ± 0.2 dB (>18 GHz - 20 GHz)
Reflection Tracking	± 0.15 dB (300 kHz - 18 GHz) ± 0.20 dB (>18 GHz - 20 GHz)

### Product Options

Option Number	Description
MN25218A-002	Option 2, K(f) - K(f) Connectors

### Included Accessories

Part Number	Description
2000-1606-R	1.8 m USB A/ Micro-B latch cable

### Recommended Accessories

Part Number	Description
01-201	Torque Wrench, 5/16 in, 0.9 N*m (8 lbf*in)
34NN50A	Precision Adapter, DC to 18 GHz, N(m) - N(m), 50 Ω
33NNF50B	Calibration Grade Adapter, DC to 18 GHz, N(m) - N(f), 50 Ω
33SS50	Calibration Grade Adapter, DC to 26.5 GHz, 3.5 mm (m) - 3.5 mm (m), 50 Ω
K220B	Precision Adapter, DC to 40 GHz, K(m)-K(m), 50 Ω



Simple | Economical | Great Performance

### ShockLine™ Vector Network Analyzer Family

Frequency Ranges from 50 kHz to 92 GHz



**MS46121B 1-port USB VNA**  
MS46122B 2-port Compact VNA  
MS46322B 2-port Economy VNA



**Performance E-Band VNA**  
MS46522B Option 82



**Performance VNA**  
MS46522B 2-port  
MS46524B 4-port

**Pricing | Ordering | Support**

[www.anritsu.com](http://www.anritsu.com)