

VNA-LIBRE

6GHz PC Based Vector Network Analyser



FEATURES

- Open-source USB-based 2-Port Vector Network Analyzer
- Wide frequency coverage from 100 kHz to 6 GHz
- Measures complete S-parameter set
- High-speed measurement capability with up to 4501 measurement points
- FPGA-based signal processing architecture
- Real-time PC-based measurement and analysis
- Supports Windows, Linux and macOS platforms
- Can perform VNA measurements as well as two-channel spectrum analysis
- Compact and portable design

SPECIFICATIONS

VNA

- Frequency range: 100 kHz - 6 GHz
- Test Ports: 2
- Output power: -40 dBm - 0 dBm
- Frequency accuracy: < 2 ppm
- Measurement points: 2 - 4501
- Measurement bandwidth: 10 Hz - 50 kHz
- Dynamic range: > 95 dB (<3 GHz), > 50 dB (<6 GHz)
- Measurement parameters: S11, S21, S12, S22
- Impedance: 50 Ω

Signal generator

- Frequency range: 100 kHz - 6 GHz
- Output power: -40 dBm - 0 dBm

Spectrum analyser

- Frequency range: 100 kHz - 6 GHz
- Input power: <-5 dBm
- Resolution bandwidth: 13 Hz - 112 kHz
- Phase noise: -103 dBc/Hz (1 GHz, 10 kHz offset)

General

- Power supply: DC 5V, 1.5A (USB or 3.5 mm connector)
- Supported OS: Windows, Linux, MacOS
- Dimensions: 122 x 98 x 16 mm

PROS AND CONS

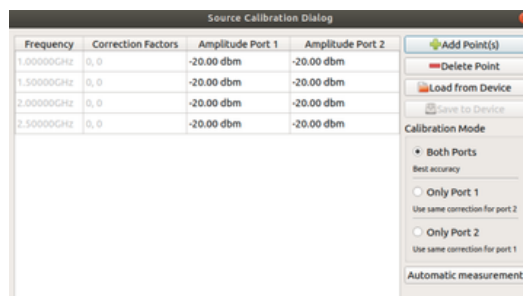
- Costeffective solution
- Real 2 ports VNA
- Limited dynamic range

RF & Microwave Applications

- Antenna characterization and testing
- RF component measurement
- Filter characterization
- Cable and transmission line testing
- Impedance matching analysis
- Return loss and VSWR measurement
- Amplifier and RF circuit analysis

ACCESSORIES

- The LibreVNA comes by default with:
- USB to USB cable
- USB to USB-C cable
- 2x 30cm SMA male to male SS405 RF cable
- SMA male calibration kit - OPEN
- SMA male calibration kit - SHORT
- 2x SMA male calibration kit - LOAD
- 2x SMA female to female connector
- 2x SMA male to male connector



Source Calibration