Hardware Manual for *miniVNA Tiny*

Congratulation on your choice of mini RADIO SOLUTIONS Vector Network Analyzer!
The new miniVNA Tiny is a new extraordinary PC based, handheld Vector Network Analyzer, the first with the very large frequency range from 1MHz up to 3GHz!

Safety

Please carefully read the safety instruction included in this manual.
The software for miniVNA Tiny is continuously under developement.
For the latest software and updates, visit www.miniradiosoutions.com

Specifications

- Frequency range 1-3000 MHz
- Calibration using open-short-load for accurate results
- Range of Z from 1 to 1000 ohm
- Two ports VNA with S11 and S21; displayed and save results
- RF Generator with output power of -6dBm @ 500 MHz
- Low power consumption, 370mA @ 5 V
- SMA connectors for better isolation
- Dynamic range up to 70 dB @ 500 MHz
- Boot loader for future firmware upgrades
- User friendly interface for PC: Windows, Linux and Mac
- Android Mobile Phone software
- Integrated Smith chart in software
- Export data in several formats – JPEG, EXCEL, ZPLOT, S2P, PDF
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Basic Carton Content:

- miniVNA Tiny
- USB Cable (miniUSB)
- this Manual

Caution!

Safety Instructions – which must be strictly observed.
Hazardous Environments:
Do not operate the analyzer in hazardous environments. This equipment is intended to be used for maintenance, research, evaluation, simulation and other analytical or scientific applications in areas such as public utilities, hospitals, universities, laboratories, automotive service centers and electronic repair shops. We are not liable for any problems resulting from the use of the analyzer in hazardous environments and misuse.
Warning!
The use of this device may be subject to national restrictions or regulations. Check your local authority or dealer before purchasing and using this product.

Warning

RF inputs are protected against overload up to 25VDC and 10mW RF. Input power exceeding those limits my cause permanent damage to the unit. Warranty is voided for damaged units due to overload.

www.miniradiosolutions.com   support@miniradiosolutions.com

CE   ROHS

WiMo ®

Connections RF side

DUT Port ("device under test") is typically connected to the antenna under test when the analyzer is set by the software to work in Reflection mode.

CAUTION! Not apply to this port DC signals over 25Vdc and RF signals over 10mW (voids Warranty)

DET Port ("detector") is used to check filters and amplifiers when the analyzer is set by the software to work in Transmission mode .

CAUTION! Not apply to this port DC signal over 25Vdc and RF signals over 10mW (voids Warranty).

Connections USB side

The USB connection is required for power and communication to the PC via USB cable (included in the package).

CAUTION!

DO NOT Use Any other Voltage Source.

When connecting the analyzer via USB first time, FTDI drivers are to be installed. Unless this driver is not already installed on your system, a popup window will open and ask for the new driver, which is downloadable to the FTDI web site:
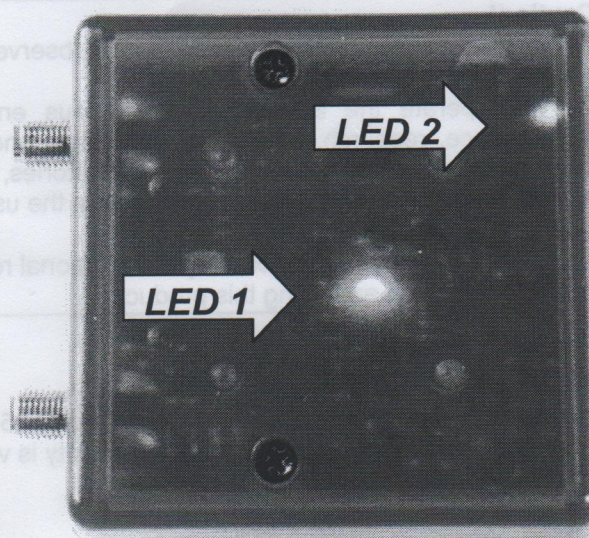
http://www.ftdichip.com/Drivers/VCP.htm
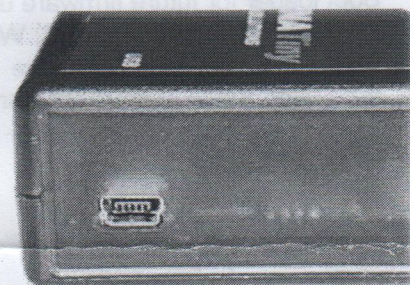
LED Placement and meaning.

Led 1, green: Analog POWER ON

Led 2, orange: blinks during serial communication

Suggested Option:

CALIBRATION KIT, containing SMA open / short / 50Ohm termination

part no. 21010.SMA

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