RigExpert IT-24 — 2.4 GHz ISM Band Universal Tester

RigExpert IT-24 is a universal, ultra-portable device for testing, checking, tuning or repairing antennas and antenna feedlines of the 2.4 GHz ISM band (operating frequencies are 2.3 … 2.6 GHz).

The following tasks are easily accomplished by using the IT-24:

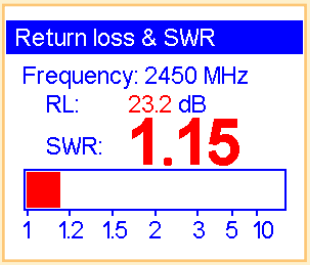
- Quick tests of antennas and RF cables
- Output power measurement of wireless access points and other transmitters
- RF environment monitoring (in the spectrum analyzer mode)

IT-24 may be used by:

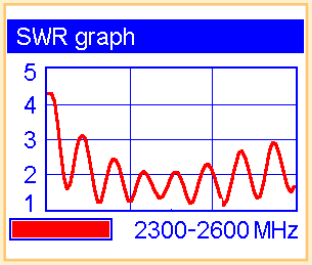
- Telecommunication providers to check their own wireless data transfer networks
- Service companies to test the equipment
- Antenna and transmitter/receiver manufacturers

Technologies:

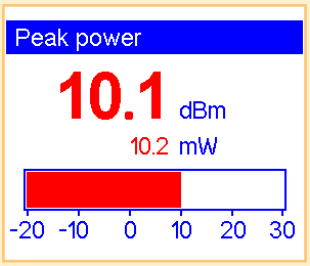
- Wi-Fi
- WiMAX
- ZigBee
- Proprietary data transfer protocols



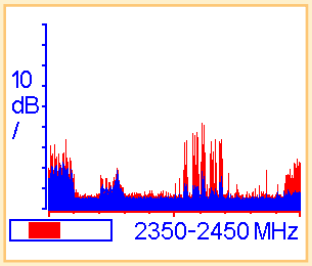
Single-point return loss and SWR measurement



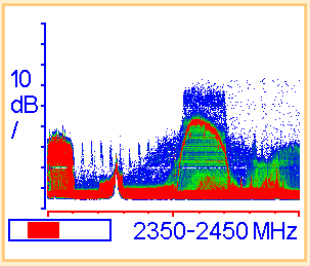
SWR graph mode



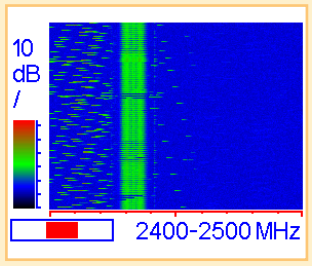
Transmitter power measurement



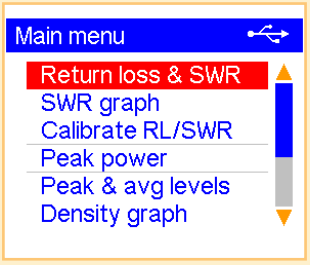
Spectrum analyzer: peak and average levels



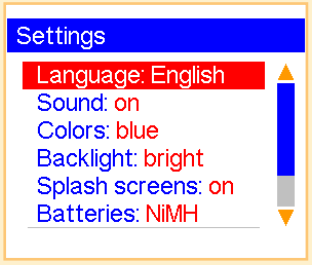
Spectrum analyzer: density graph



Spectrum analyzer: waterfall

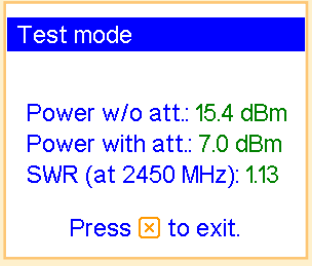


Main menu



Settings screen

Help screen



Self test mode

Rig Expert Ukraine Ltd., Yakira st. 17A, 04119, Kyiv, phone/fax +380 44 353-92-42

Specifications

Single-point return loss and SWR (standing wave ratio) measurement:

- Frequency range: 2.3…2.6 GHz
- Frequency resolution: 1 MHz
- Return loss measurement range: >2 dB
- SWR measurement range: 1…10
- Output power in this mode: about +5 dBm

SWR graph:

- 4 frequency sub-bands: 2.3…2.4 GHz, 2.4…2.5 GHz, 2.5…2.6 GHz, 2.3…2.6 GHz
- SWR display range: 1…5

Transmitter power measurement:

- Frequency range: 2.3…2.6 GHz
- Power limits: -20…+25 dBm (0.01…300 mW)
- Input SWR of the power meter: less than 1.5
- Measurement error: less than ±2 dBm

Spectrum analyzer:

- Display modes: peak and average levels, density graph, waterfall
- Frequency range: 2.3…2.6 GHz
- Bandwidth of sub-bands: 100 MHz (5 overlapping sub-bands), 20 MHz (30 overlapping sub-bands), 10 MHz (60 overlapping sub-bands)
- Input signal levels: about -100… -20 dBm
- Signal level marks: 10 dB/div
- Receive preamplifier: -10 dB, 0 dB, +6 dB

RF connectors:

- RP-SMA for SWR and spectrum modes
- SMA for power measurement

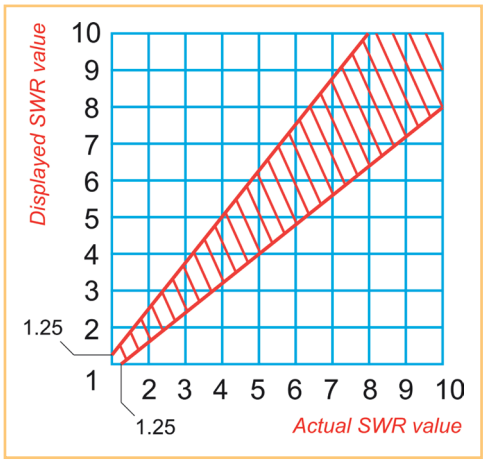
Interface:

- Color TFT display, 320•240 pixels
- Water-proof keypad, 9 keys
- Multi-language menus and help screens
- Computer connection via USB port

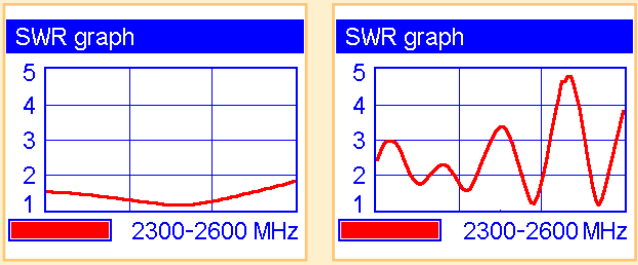
Power:

- 4 pieces of AAA rechargeable or alkaline batteries (the charger is not included with the tester; batteries are not charged inside the tester)
- From a computer USB socket

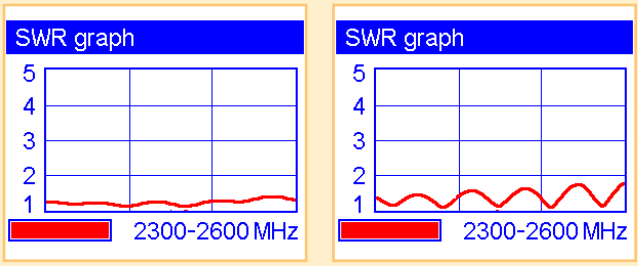
Size: 17•8•3 cm
Operating temperature: 0…40 °C
Weight including batteries: 350 g.



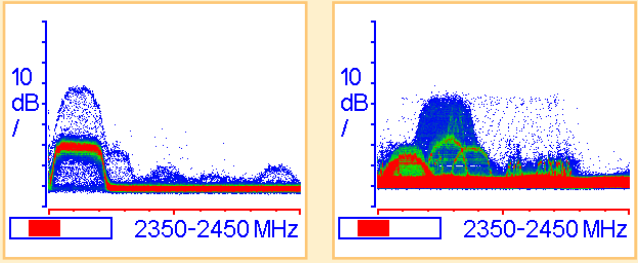
Measurement error limits are displayed by the shaded area on the chart.
These limits are valid for the 2.4...2.5 GHz range



SWR graph mode: good and bad Wi-Fi antennas



SWR graph mode: good and bad coax cables



Density graph mode:
clean and crowded spectrums