

RigExpert STICK230

RigExpert Stick 230 Antenna Analyzer User Manual

Model: STICK230 | Brand: RigExpert

1. INTRODUCTION

The RigExpert Stick 230 is a compact, portable antenna analyzer designed for precise measurement of cable and antenna system parameters. It operates within a frequency range of 100 kHz to 230 MHz, making it suitable for various radio communication applications.

1.1 Key Features

- Measures SWR (Standing Wave Ratio), return loss, R, X, Z, L, C, Magnitude, and Phase Angle.
- Frequency range: 0.1 to 230 MHz with 1 KHz resolution.
- Supports 25, 50, 75, 100, 150, 200, 300, 450, and 600-Ohm systems.
- Multiple display modes including SWR chart, fixed HAM bands, and Multé mode.
- Equipped with a 200x200 monochrome e-paper display for clear visibility.
- UHF (SO-239) connector for antenna connection.
- Powered by a 3.7V Li-Ion 18650 battery or via USB.

1.2 Intended Use

This analyzer facilitates:

- Rapid assessment of antenna performance in various environments.
- Precise tuning of antennas to their resonant frequency.
- Comparative analysis of antenna characteristics over time.
- Measurement of capacitance or inductance for reactive loads.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent damage to the device or personal injury:

- Do not expose the device to extreme temperatures, moisture, or direct sunlight for prolonged periods.
- Use only the specified battery type (3.7V Li-Ion 18650) and charging methods.
- Avoid disassembling the device. Refer servicing to qualified personnel.
- Ensure proper connection of antennas and cables to prevent damage to the analyzer's RF port.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- RigExpert Stick 230 Antenna Analyzer
- USB Cable
- Wrist Strap
- Quick Start Guide



Image 3.1: The RigExpert Stick 230 Antenna Analyzer package contents, including the analyzer unit, USB cable, wrist strap, and quick start guide.

4. DEVICE OVERVIEW

Familiarize yourself with the components of the RigExpert Stick 230.



Image 4.1: Front view of the RigExpert Stick 230, highlighting the e-paper display and the 2x3 control keypad.

4.1 Display

The device features a 200x200 monochrome e-paper display, providing clear readings even in bright conditions.

4.2 Control Buttons

The 2x3 keypad includes navigation buttons (up, down, left, right), an Enter button, and a Power button for device operation.

4.3 Connectors

- **RF Connector:** UHF (SO-239) type, located at the top of the device, for connecting antennas or test loads.

- **USB Port:** Located at the bottom, used for charging the internal battery and connecting to a personal computer for data transfer or firmware updates.

5. SETUP

5.1 Charging the Battery

1. Connect the supplied USB cable to the analyzer's USB port.
2. Connect the other end of the USB cable to a powered USB port on a computer or a USB wall adapter.
3. The device will indicate charging status on the display. A full charge typically takes several hours.

The analyzer can also draw power directly from the USB source when connected.

5.2 Initial Power On

1. Press and hold the Power button until the display activates.
2. The device will boot up and display the main menu or the last used measurement screen.

6. OPERATING INSTRUCTIONS

6.1 Basic Antenna Measurement

1. Ensure the analyzer is adequately charged or connected to a power source.
2. Connect the antenna to be tested to the UHF (SO-239) connector on the analyzer. Ensure the connection is secure.
3. Power on the device.
4. Navigate through the menu using the control buttons to select the desired measurement mode (e.g., SWR, Single Frequency).
5. Enter the desired frequency using the navigation buttons. The frequency can be adjusted with 1 KHz resolution.
6. The display will show the measured parameters, such as SWR, return loss, R, and X.

6.2 Display Modes

The RigExpert Stick 230 offers several display modes:

- **Single Frequency:** Displays SWR, return loss, R, X, Z, L, C, Magnitude, and Phase Angle at a specific frequency.
- **SWR Chart:** Plots SWR over a frequency range with 100 data points.
- **HAM Bands Chart:** Provides SWR charts specifically for IARU Region HAM bands.
- **Multé Mode:** Designed for quick checks of multiband antennas.

6.3 System Impedance Selection

The analyzer supports measurements for various system impedances. Access the settings menu to select the appropriate impedance (25, 50, 75, 100, 150, 200, 300, 450, or 600 Ohms) for your application.

6.4 PC Connection

Connect the analyzer to a personal computer via the USB port to:

- Transfer measurement data.
- Update device firmware.
- Utilize companion software (if available from RigExpert) for advanced analysis.

7. MAINTENANCE

7.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use liquid cleaners or solvents, as they may damage the display or casing.

7.2 Storage

Store the analyzer in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, ensure the battery is partially charged (around 50%) to prolong its lifespan.

7.3 Battery Care

The internal Li-Ion battery is designed for long life. To maximize battery health:

- Avoid fully discharging the battery frequently.
- Charge the battery regularly, even if the device is not in frequent use.
- Do not expose the device to temperatures above 60°C (140°F) or below -20°C (-4°F).

8. TROUBLESHOOTING

8.1 Device Does Not Power On

- Ensure the battery is charged. Connect the device to a USB power source and attempt to power it on.
- Verify that the Power button is pressed and held sufficiently.

8.2 Incorrect Measurement Readings

- Check all cable connections to ensure they are secure and free from damage.
- Verify that the correct system impedance is selected in the device settings.
- Ensure the antenna or load being tested is properly connected and functioning.

8.3 Display Issues

- If the display is unresponsive or shows artifacts, try restarting the device.
- Ensure the device is not exposed to extreme cold, which can temporarily affect e-paper display performance.

9. SPECIFICATIONS


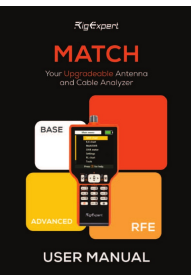


Parameter	Value
Frequency Range	0.1 to 230 MHz
Frequency Entry Resolution	1 KHz
Measurement Impedance	25, 50, 75, 100, 150, 200, 300, 450, 600 Ohms
SWR Measurement Range	1 to 100 (numerical), 1 to 10 (chart)
R and X Range	0 to 10000, -10000 to 10000
RF Connector Type	UHF (SO-239)
RF Output Power	-10 dBm (at 50 Ohm load)



Display	200x200 monochrome e-paper
Interface	2x3 keypad, USB
Power Source	One 3.7V Li-Ion battery, type 18650; USB power
Dimensions	7.28 x 1.73 x 1.3 inches (185 x 44 x 33 mm)
Weight	6.49 ounces (184 Grams)
Manufacturer	RigExpert

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official RigExpert website or contact your authorized dealer. Keep your proof of purchase for warranty claims.

Related Documents - STICK230

	<p>RigExpert AA-3000 ZOOM Antenna and Cable Analyzer User Manual</p> <p>Comprehensive user manual for the RigExpert AA-3000 ZOOM Antenna and Cable Analyzer. Learn about its features, operation, measurement modes, and applications for RF analysis.</p>
	<p>RigExpert MATCH: Upgradeable Antenna and Cable Analyzer User Manual</p> <p>This comprehensive user manual details the RigExpert MATCH, an upgradeable antenna and cable analyzer. It covers device overview, technical specifications, getting started, measurement functions, practical applications, software upgrades via AntScope2, maintenance, care, warranty, and annexes with tools and calibration procedures.</p>
	<p>RigExpert IT-24 2.4 GHz ISM Band Multifunction Tester User Manual</p> <p>Comprehensive user manual for the RigExpert IT-24, a portable 2.4 GHz ISM band multifunction tester for antenna and RF cable analysis, transmitter power measurement, and RF environment monitoring. Includes specifications, usage instructions, and practical examples.</p>
	<p>RigExpert AA-3000 ZOOM Antenna and Cable Analyzer User Manual</p> <p>Comprehensive user manual for the RigExpert AA-3000 ZOOM Antenna and Cable Analyzer. Learn about its features, operation, measurement modes, and applications for RF analysis.</p>

	<p>RigExpert MATCH: Upgradeable Antenna and Cable Analyzer User Manual</p> <p>This comprehensive user manual details the RigExpert MATCH, an upgradeable antenna and cable analyzer. It covers device overview, technical specifications, getting started, measurement functions, practical applications, software upgrades via AntScope2, maintenance, care, warranty, and annexes with tools and calibration procedures.</p>
	<p>RigExpert IT-24 2.4 GHz ISM Band Multifunction Tester User Manual</p> <p>Comprehensive user manual for the RigExpert IT-24, a portable 2.4 GHz ISM band multifunction tester for antenna and RF cable analysis, transmitter power measurement, and RF environment monitoring. Includes specifications, usage instructions, and practical examples.</p>

Documents - RigExpert – STICK230

[\[pdf\]](#) User Manual Documentation

RigExpert Stick 230 Users Manual Every job needs the right tool The analyzer can be turned on in several ways by pressing key when connecting to a PC via USB cable will passion radio fr index controller attachment id 746 ZIV NSFRIHWWXLIVMKLXX SSP 8liijxlwgv iirhmwtpw w 7gv iirww mxgleqsrkxliqwpz iwfv iwwmrk 1/21/2 oi 8liv iev ix s e wx sglerkixliz epyisjxlistiv exmrkjiy iuyirg %wmrkpitv iwwsjxli we ziwxlglgierkierhv icyvrwx 7mrkpiqshi rigexpert files manuals EN AA STICK English User Analizador de hasta MHz Bluetooth WiMo Antenna Analyzer 100 kHz 1/2 %psrktv oi mppfvmrkytxli iptqiry %1qshi 8lmwqshiepps syx sqiewyv ierhmmwtpw xli7 6erxirreglev xsrxlierep ^ iwwgv iirsrsisjxli ih %1v ehmsferhwwyglew OM 58db stick user manual 618008 Stick230 UsersManual fbeed00645345009a51519467d2897d2 wimo media akeneo connector A banoggle dl file 1526 product 5697 rxtx fi storage 8 buytwayradios UserManual Support users 2023 04 Foglio dati prodotto RIGEXPERT ANALIZZATORE ANTENNA HardSoft Products hspshop it WebRoot StoreIT7 Shops 167668 6499 D96F 98C5 593C D3ED 0A0A B010 7FE4 K PO k po 27591 02 and Cable 2024 17 — This is due limited support for Low Energy protocol used Windows operating systems together with documentation Apr will apr Інструкція користувача ENG Englishbuytwayradios manualRigExpert toolRigExpert toolІнструкція 230Stick ENRigExpert ManualZIV RigExpertUsers 230RigExpert ManualRigExpert ManualUserManual EnglishUser ENGRigExpert WiMoThe will The will 8liijxlwgv 7mrkpiqshiRigExpert PO2024 withApr will17 willRigExpert MHz8liijxlwgv 7mrkpiqshi1/2 ehmsferhwwyglewRIGEXPERT ProductsRIGEXPERT ProductsAA 58dbbrigexpert manualUsers 230AA manualusers 230Users 230rigexpert manualrigexpert 230users 230wimo 58dbbuytwayradios manualpassion 746wimo 58dbbrxtx fbeed00645345009a51519467d2897d2buytwayradios manualhspshop 230k 230buytwayradios manualbanoggle 230passion 746rxtx fbeed00645345009a51519467d2897d2hspshop 230hspshop epagesIT manualrxtx fbeed00645345009a51519467d2897d2rigexpert 230rxtx EnglishUsers 230User ehmsferhwwyglewRigExpert PORIGEXPERT fbeed00645345009a51519467d2897d2k will Stick an antenna vector allows you measure various parameters of antennas cables lines lters many others in 8liijxlwgv |||

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