

Quick Start Guide

STEP 1 . Software Installation

- Run the *Setup* application provided in the supplied CD-ROM and Follow the instructions in the screen
- The application will be installed under the *PROGRAM FILES/IBW_RTS400* folder
- Two applications will be installed:
 - ➔ RTS400 Setup To configure the communication interface
 - ➔ RTS400 To control the RTS400 tester
- There will be shortcuts to both applications in the Windows Desktop
- The software runs under Windows7®, Vista® and Windows XP® (with Service Pack 3)

STEP 2 . Hardware connection

IMPORTANT WARNING: Do not turn the RTS400 test device ON without an antenna connection. Otherwise the RTS might result damaged. For the same reason, do not plug or unplug antennas without turning the unit OFF before.



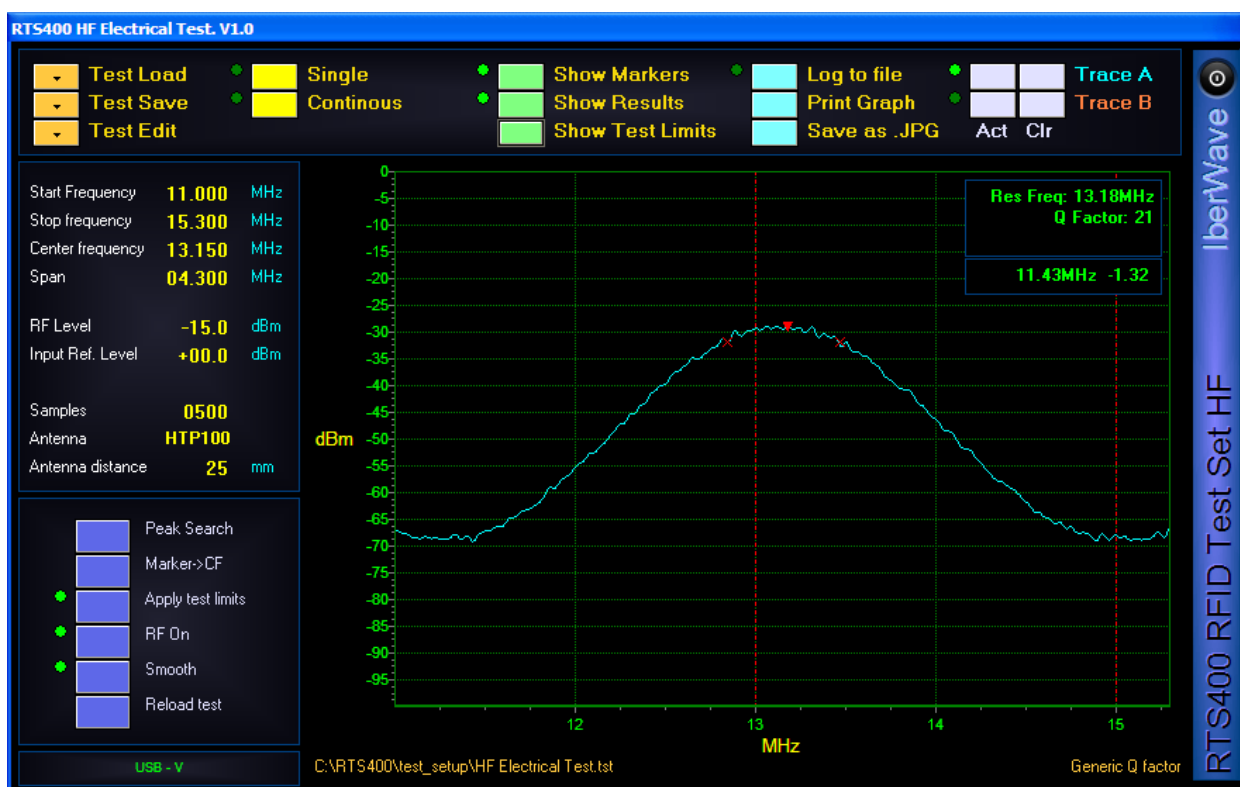
- Connect the RTS400 to the measuring antenna, by means of 50ohm coax cables, or by direct connection with adapters, depending on the type of antenna.
- Make sure that the TX connector of the RTS400 (RF Out) plugs into the TX input of the antenna and the RX connector of the RTS400 (RF In) plugs into the RX output of the antenna.
- Connect the USB, serial or Ethernet cable, depending on the available interface on the host computer.
 - ➔ See USB and Ethernet installation guides in the RTS400 User's guide if needed (for USB driver installation, or IP Address selection if the default value is not valid within the user LAN)
 - ➔ The default IP Address is 192.168.1.33. The default IP Port is 15001
 - ➔ USB is the fastest and simplest interface in the RTS400, so it is recommended
- Connect the power supply to the RTS400, and turn the switch ON
 - ➔ The Power LED in the RTS200 front panel should turn ON (green), as indication of valid power supply
 - ➔ The Test LED should cycle between green/yellow/red colours, as an indication of the internal microcontroller running, and then will remain OFF

STEP 3 . Communication configuration

- Run the RTS400 SETUP application. It has to be run before the RTS400 application, in order to configure the communication interface. The SETUP application allows the configuration of the different interfaces:
 - ➔ *Ethernet:* IP Address, IP Port
 - ➔ *USB*
 - ➔ *Serial Port:* COM port
- Problems are usually related to driver installation for USB, and IP Address selection for ETHERNET. Please, refer to installation section on RTS400 User's guide for instructions on driver installation and IP Address selection.
- Trying to run the RTS400 without a previous selection of the communication interface will result in an error message

STEP 4 . Running the application

- If the interface is properly configured, the application will start showing the main application screen:



- The lower left part of the screen shows the selected interface and the RTS400 firmware version.

- If it is not possible to establish the communication, the application will show an error message and stop working

STEP 5 . Testing a tag

- First select the test suite to be applied (.TSU file). A test suite defines the configuration parameters for the test (start and stop frequencies, RF level, test limits)
 - ➔ Some basic .TSU files are supplied under the /Test Setup folder
 - ➔ It is possible to modify, save and edit the .TSU files from the application

- Place a tag in top of the antenna, and press the *Single* button. The resonance curve of the tag will appear on the screen
- Pressing *Continuous*, will make the test to be performed in a repetitive way
- Clicking on the different parameters (frequency start, stop, span, ...) makes it possible to change the different values
- There are controls to change test parameters (left of the screen), to add some visual information (markers, display the test results), and save the information (log to file the results, print the graph, or save the image as a .jpg file).
- It is also possible to manage 2 different traces (one is kept frozen while the other is updated, which makes it possible compare the resonance of different tags or in different conditions).
- Finally there are some controls (lower left of the screen) to perform different tasks:
 - ➔ **Peak search** finds the maximum response of the tag in the frequency range
 - ➔ **Marker->CF** moves the peak to the centre of the graph (changes start and stop frequencies)
 - ➔ **Apply test limits** makes it possible to compare the test results with the predefined test limits
 - ➔ **RF ON** turns ON and OFF the RF transmission from the RTS400
 - ➔ **Smooth** applies a digital filter to the resonance curve to eliminate noise, and obtain a more stable response
 - ➔ **Reload test** loads again the selected test suite in case any parameter has been manually modified

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