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FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CE

This device has been tested and found to comply with the requirements set up in the European council directive on the approximation of the law of member states relating to EMC Directive EN 61326.



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MSP-SA430-SUB1GHZ Spectrum Analyzer Quick Start Guide



The SA430 sub-GHz Spectrum Analyzer is an easy and affordable tool to help jumpstart your RF development in the sub GHz frequency range.

This Quick Start Guide will help to get you started with your Spectrum Analyzer Hardware and Software.



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Kit Contents: MSP-SA430-SUB1GHZ Spectrum Analyzer Hardware, SMA Antenna, USB A to Mini B cable, Resource CD, Quick Start Guide.

1. Software and Driver Installation

Run the installer from attached resource CD or go to www.ti.com/sa430 for latest version. This will install the Spectrum Analyzer Graphical User Interface (GUI), the full User's Guide and the required device drivers.

2. Connect the Hardware

Use included USB cable to connect the SA430 device to a spare USB port on your computer. The Microsoft® certified driver is automatically detected and installs hardware as

MSP-SA430-SUB1GHZ – CDC

virtual COM port device. When the SA430 is connected to the PC, the SA430 blinks a green LED followed by a steady red LED. The SA430 is now ready to be used.

3. Connect RF

The SA430 is equipped with a standard 50 Ohm SMA connector. Use the included SMA antenna for the first measurements. See User's Guide for details and effects of the antenna.

CAUTION: Absolute maximum input level is +0 dBm. Exceeding this level can damage the SA430 hardware.

4. Launch Spectrum Analyzer Software

By default, setup.exe creates a shortcut to the software in the Windows® Start Menu and on the Desktop from where it can easily be launched. It can also be started by running %sa430_install_path%\SA430GUI.exe.

The SA430 GUI starts in the Hardware tab to allow selection of the desired hardware. Assuming only one SA430 connected to this computer the connection can easily be made by pressing the Connect symbol or the Connect button in the hardware tab.



5. Set Frequency Range of Interest

Select the desired frequency range (one of the three supported ranges), then specify the center frequency and span to measure. You can either use Center/Span or Start/Stop frequencies – both settings are equivalent.

6. Set expected Amplitude Level

Select the Reference Level (RefLvL) accordingly to the expected input level. The Reference level gives the maximum level that can be detected without saturation of the input stage. If signal strength is not known, it is a good idea to start with a low reference level and increase it if high readings or artifacts are seen.

7. Start Measurement

Once all settings are made the measurement is triggered with the start button. Use this button whenever you want changed RF settings to become active.



8. First Output

In the left Graph Window the measured spectrum will be displayed. It gives power level information over frequency. By default the actual trace is shown, as well as the maximum value measured since the start button was pressed. More traces can be added from the Trace tab on the right.

9. Marker

Markers are available to allow for easier reading of measurement results. They are enabled in the Marker tab by selecting a trace. With the jog dial the markers can be moved in frequency. The jog dial is assigned to the marker associated with the button being pressed.

10. Further information

More information on how to use the Spectrum Analyzer can be found in the Spectrum Analyzers User's Guide. You can easily launch it from within the GUI in the Help menu or at www.ti.com/sa430.