The SA430 sub-1GHz spectrum analyzer is an easy and affordable tool to help jumpstart your RF development in the sub GHz frequency range. The SA430 is based on the industry leading CC430 ultra-low-power microcontroller system-on-chip with an integrated RF transceiver core. The SA430 analyzer is the most cost effective spectrum analyzer solution in the industry, measuring the power spectrum for known and unknown signals. The CC430 family of microcontrollers leverages TI's industry leading RF expertise with the ultra-low-power MSP430™ microcontroller to offer a powerful sub-1GHz ISM band RF protocol/applications processor. Use the power of the CC430 for prototyping and development of RF links without having to invest heavily on expensive spectrum analyzers.

**Key features**

**Hardware Specifications:**
- Supports sub-1GHz frequency ranges: 300 - 348 MHz
- 389 - 464 MHz
- 779 - 928 MHz
- Minimal frequency step: 397 Hz typ.
- Maximum input level: -40 dBm typ (range extendable with attenuators)
- Minimum detectable level: -100 dBm typ.
- Level resolution: 0.5 dB
- Includes a center-fed dipole antenna centered at 868MHz

**Software GUI Features:**
- Flexible GUI with configurable frequency and amplitude ranges for measurements
- Configurable to show continuous sweep readings or single snapshots
- Up to 4 traces are available to show maximum, average or actual readings
- Markers are available for easy measurement readings
- The GUI view can be configured to show grids, customizable labels, inverted colors and other options
- Screenshot capability is available to record readings as .pdf or .png file types
- Traces can be exported as comma separated file
- Configuration settings for the GUI can be saved and loaded for future measurements

For more information
To learn more about the SA430 Spectrum Analyzer visit: [www.ti.com/sa430](http://www.ti.com/sa430)
The CC430 low-cost UHF Spectrum Analyzer is divided into two main parts. The RF front end performs the measurement tasks and the Virtual Spectrum Analyzer on the PC controls the RF front end and operates as a Graphical User Interface (GUI), enabling the user to setup the measurement and display the result. The power spectrum is sequentially measured at discrete frequency points. For each point a power level is estimated by the RSSI module of the CC430 and sent to the PC where the power offset correction with calibration data is performed. On the PC, all points are collected and then displayed as a spectrum. www.ti.com/cc430
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