

USB-SA44B Spectrum Analyzer Measuring Receiver

1 Hz to 4.4GHz



The perfect tool for general field and lab use, electronic engineering students, ham radio enthusiasts, and electronic hobbyists alike

Now with real-time mode for spans of 250 kHz or less

Write automated testing and/or data collection applications with included API that is Windows®-based and Matlab®/LabVIEW® compatible

Phase noise, harmonics, and modulation measurement utilities included

Use over the entire operating temperature range with full accuracy. Standard temperature range of 0°C to +70°C and optional extended temperature range of -40°C to +85°C

USB-SA44B Spectrum Analyzer/Measuring Receiver

6 March 2015

FREQUENCY

- Frequency Range: 1Hz to 4.4GHz (RF Preamp Off); 500kHz to 4.4GHz (RF Preamp On)
- Internal Frequency Reference Accuracy: ± 1 ppm
- Counter Accuracy: $\pm (1\text{Hz} + \text{timebase error})$
- Resolution Bandwidth: 0.1Hz to 250kHz and 5MHz

AMPLITUDE

- Range: +10dBm to Displayed Average Noise Level (DANL)
- Absolute Accuracy: $\pm 1.5\text{dB}$ (0dBm to DANL); $\pm 2.0\text{dB}$ (+10dBm to >0dBm)

Displayed Average Noise Level: (dBm/Hz with 0dB input attenuation)

FREQUENCY	RF PREAMP OFF	RF PREAMP ON
10Hz	-124 dBm	NA
100Hz to 10kHz	-135 dBm	NA
10KHz to 500kHz	-142 dBm	NA
500kHz to 10MHz	-142 dBm	-153 dBm
10MHz to 100MHz	-148 dBm	-161 dBm
100MHz to 1GHz	-144 dBm	-158 dBm
1GHz to 2.6GHz	-139 dBm	-151 dBm
2.6GHz to 3.3GHz	-135 dBm	-151 dBm
3.3GHz to 4.4GHz	-128 dBm	-134 dBm

MEASURING RECEIVER

- Operating Frequency 150kHz to 4.4GHz
- FM Accuracy $\pm 1\%$ typical
- AM Accuracy $\pm 1\%$ typical
- Synchronous Level Detector $\pm 0.25\text{dBc}$ ([0dBm to -125dBm, 150kHz to 1GHz] and [0dBm to -115dBm, 1GHz to 4.4GHz])

CALIBRATION INTERVAL 1-year

OPERATING TEMPERATURE

- 0°C to +70°C (Standard); -40°C to +85°C (Option-1)

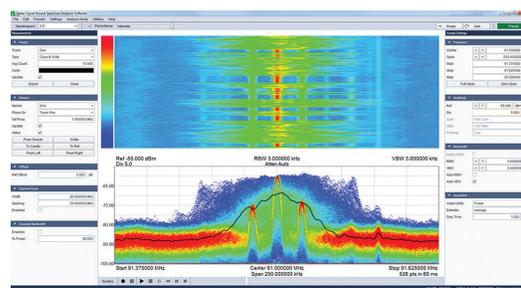
OPTIONAL ACCESSORIES

- 20dB Fixed Attenuator, Mini Circuits Part # VAT-20+
- DC Block, Mini Circuits Part # BLK-89+
- SMA(m) to BNC(f) Adapter, Mini Circuits part# SM-BF50+
- 3GHz RF Probe, p/n P-20A (made by Auburn Technology, www.auburntec.com, phone 316-529-4520)



The Signal Hound USB-SA44B is a USB-powered, 1Hz to 4.4GHz, economy spectrum analyzer and measuring receiver. The Signal Hound SA44B has the sensitivity, accuracy, and dynamic range you'd expect in a unit many times its cost. The Signal Hound SA44B is powered from the USB cable, eliminating the need for a separate power supply. Measuring less than 8 inches long and weighing only 10 ounces, the Signal Hound SA44B can be used virtually anywhere!

Signal Hound's Spike™ software allows the SA44B to function as a real-time spectrum analyzer (RTSA), using its real-time mode, for sweeps of 250 kHz and less—that means every RF event will be captured when using spans that are ≤ 250 kHz. Graphics include color persistence and a 2D waterfall display.



SYSTEM REQUIREMENTS

Signal Hound's Spike™ software is compatible with Windows® 7, 8, and 10 operating systems. You must have at least 200MB of free disc space, 4GB of RAM, one USB 2.0 port, and a minimum of an Intel® Atom™ N2600 or Intel® Core™ i3 processor.