USB-SA44B Spectrum Analyzer
1 Hz to 4.4 GHz

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

4 March 2021  

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: ± (1Hz + timebase error)
Resolution Bandwidth: 0.1Hz to 250kHz and 5MHz

AMPLITUDE

- Range: +10dBm to Displayed Average Noise Level (DANL)
- Absolute Accuracy: ±1.5dB (0dBm to DANL); ±2.0dB (+10dBm to >0dBm)

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

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>RF PREAMP OFF</th>
<th>RF PREAMP ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>10Hz</td>
<td>-124 dBm</td>
<td>NA</td>
</tr>
<tr>
<td>100Hz to 1kHz</td>
<td>-135 dBm</td>
<td>NA</td>
</tr>
<tr>
<td>10KHz to 500kHz</td>
<td>-142 dBm</td>
<td>NA</td>
</tr>
<tr>
<td>500kHz to 10MHz</td>
<td>-142 dBm</td>
<td>-153 dBm</td>
</tr>
<tr>
<td>10MHz to 100MHz</td>
<td>-148 dBm</td>
<td>-161 dBm</td>
</tr>
<tr>
<td>100MHz to 1GHz</td>
<td>-144 dBm</td>
<td>-158 dBm</td>
</tr>
<tr>
<td>1GHz to 2.6GHz</td>
<td>-139 dBm</td>
<td>-151 dBm</td>
</tr>
<tr>
<td>2.6GHz to 3.3GHz</td>
<td>-135 dBm</td>
<td>-151 dBm</td>
</tr>
<tr>
<td>3.3GHz to 4.4GHz</td>
<td>-128 dBm</td>
<td>-134 dBm</td>
</tr>
</tbody>
</table>

MEASURING RECEIVER

- Operating Frequency 150kHz to 4.4GHz
- FM Accuracy ±1% typical
- AM Accuracy ±1% typical
- Synchronous Level Detector ±0.25dBc ([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)

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.

NSN 6625-01-615-6469 (Standard)  •  6625-01-608-8783 (Option-1)