Signal Hound®

USB-SA124B Spectrum Analyzer and Measuring Receiver

100 kHz to 12.4 GHz

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

Use as a down-converter with a 63 MHz IF Output and a 6 MHz Resolution Bandwidth

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

Use over the entire 0°C to +50°C Operating Temperature Range with full accuracy

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

USB-SA124B Spectrum Analyzer and Measuring Receiver
6 March 2015

FREQUENCY
· Frequency Range: 100 kHz to 12.4 GHz
· Timebase: 10 MHz reference in and out
· Internal Frequency Reference Accuracy: ±1ppm (standard);
  1 x 10-7 (option-02)
· Resolution Bandwidth: 1 Hz to 250 kHz and 6 MHz

AMPLITUDE (RBW ≤100 KHZ)
· Range: +10 dBm to Displayed Average Noise
  Level (DANL)
· Absolute Accuracy (0dB to DANL):
  ±1.5 dB (100 kHz to 6 GHz)
  ±2.5 dB (6 GHz to 12.4 GHz)

DISPLAYED AVERAGE NOISE LEVEL (DBM/HZ)

100 kHz to 10 MHz	-147 dBm
10 MHz to 100 MHz	-151 dBm
100 MHz to 3.0 GHz	-152 dBm
3.0 GHz to 5.5 GHz	-145 dBm
5.5 GHz to 7.0 GHz	-149 dBm
7.0 GHz to 8.0 GHz	-147 dBm
8.0 GHz to 11.0 GHz	-134 dBm
11.0 GHz to 12.4 GHz	-129 dBm

RESIDUAL RESPONSES (RBW = 6.5KHZ)

100 kHz to 10 MHz	-100 dBm
10 MHz to 8.0 GHz	-93 dBm
8.0 GHz to 11.0 GHz	-82 dBm
11.0 GHz to 12.4 GHz	-85 dBm

SSB PHASE NOISE AT 10 GHZ (TYPICAL)

Frequency Offset	dBc/Hz
100 Hz	-72
1 kHz	-80
10 kHz	-87
100 kHz	-87
1 MHz	-110

IF OUTPUT
· 63 MHz with 6 MHz bandwidth for down conversion of
  NTSC, PAL, SECAM, ATSC, and DTV formatted signals

CALIBRATION INTERVAL   1-year

**MEASURING RECEIVER (TYPICAL AFTER 30 MIN   WARM-UP AND ±3°C OF REF. START TEMP.)**
· Operating Frequency: 100 kHz to 12.4 GHz
· Modulation Measurement Accuracy: ±1% for AM & FM
· Synchronous Level Detector
  ±0.25 dBc (0 dBm to -127 dBm, 100 kHz to 1.0 GHz)
  ±0.25 dBc (0 dBm to -117 dBm, 1.0 GHz to 6.0 GHz)
  ±0.25 dBc (0 dBm to -102 dBm, 6.0 GHz to 12.4 GHz)

SPIKE™ SOFTWARE
Signal Hound's Spike™ software allows the SA124B 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.

OPERATING TEMPERATURE
· 0°C to +50°C with full accuracy
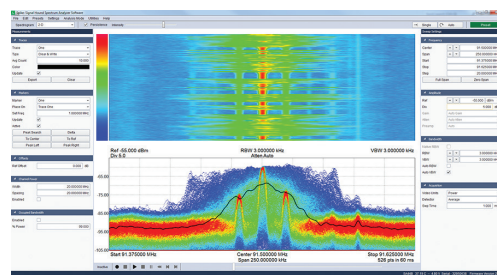
SYSTEM REQUIREMENTS
Signal Hound's Spike™ software is compatible with Windows® 7, 8, and 10 operating systems. You must have at least 200MB of free disc space, 4GB of RAM, two adjacent USB 2.0 ports, and a minimum of an Intel® Atom™ N2600 or Intel® Core™ i3 processor.