

# BB60C Real-Time Spectrum Analyzer & RF Recorder

9 kHz to 6.0 GHz



**Exceptionally Clean Spurious** Digital modulation analysis Selectable Streaming and Residual Responses tools included Bandwidths from 250 kHz up to 27 MHz Operate Remotely with vPro **Exceptionally Clean Spurious** Sweeps 24 GHz / sec Enabled Intel i5 NUC Computer, and Residual Responses -40°C to +65°C Operating model DC53427HYE **Temperature Range Available** Captures RF Events as Short as 1µs with 100% Probability of Intercept





## BB60C Real-Time Spectrum Analyzer & RF Recorder 6 March 2015

The Signal Hound BB60C is a high speed real-time spectrum analyzer (RTSA) and RF recorder. It tunes from 9kHz to 6GHz, collects 80MSamples/second, streams data to your computer via USB3.0 at 140MB/sec., comes with the Spike<sup>™</sup> API and spectrum analyzer application, has selectable color persistence display mode, 2-D color waterfall, and digital modulation analysis tools.

The digital modulation analysis tools include constellation diagrams, EVM measurements, symbol tables, and bit pattern matching for BPSK, DBPSK, QPSK, DQPSK, OQPSK, π/4DQPSK, 8PSK, D8PSK, and QAM16.

With a US price point under \$3K, the BB60C is a compelling choice for a broad range of applications.

## FREQUENCY

- Range: 9 kHz to 6.0 GHz
- Streaming calibrated I/Q data: 250kHz to 27MHz of selectable IF bandwidth that is amplitude corrected
- Resolution Bandwidths (RBW): 10 Hz to 10 MHz
- Internal Timebase Accuracy: ±1ppm per year
- Sweep Speed (RBW ≥10 kHz): 24GHz/sec

## AMPLITUDE (RBW ≤100KHZ)

- Range: +10 dBm to Displayed Average Noise Level (DANL)
- Absolute Accuracy: ±2.0 dB (arbitrary & non-native RBW's) +2.0dB/-2.6dB (native RBW's-faster DSP)

## DISPLAYED AVERAGE NOISE LEVEL

Input Frequency Range	DANL
9kHz to 500kHz	–140dBm/Hz
500kHz to 10MHz	–154dBm/Hz
10MHz to 6GHz	–158dBm/Hz + 1.1dB/GHz

## RESIDUAL RESPONSES: REF LEVEL ≤ -50dBm, **0dB ATTENUATION**

Input Freq. Range	Residual Level	Applicable Serial Prefix
500kHz to 6GHz	–106dBm	4119, 4150, 4226, 4296
500kHz to 6GHz	-103dBm	5047 and higher

**LO LEAKAGE** ≤ −80 dBm

## PHASE NOISE AT 1 GHz

Frequency Offset	dBc/Hz
100 Hz	-70
1 kHz	-76
10 kHz	-83
100 kHz	-93
1 MHz	-117

## SPURIOUS & IMAGE REJECTION (any ref level from -50dBm to +10dBm, using 5dB increments and input signal 10dB below ref level) [Auto ATTEN, ≤30kHz RBW]

Input Frequency Range	Spurious Level
9kHz to 6GHz	-50dBc

## SYNCHRONIZATION (≤ 20MHz IBW)

1 PPS GPS input port enables ±50ns time stamping

## **OPERATING TEMPERATURE**

32°F to 149°F (0°C to +65°C) Standard; -40°F to 149°F (-40°C to +65°C) for Option-1

## **SIZE AND WEIGHT**

- 8.63" x 3.19" x 1.19" (219mm x 81mm x 30mm)
- Net, 1.10 lbs. (0.50 kg)

## POWER

One USB 3.0 port and one adjacent USB 2.0 or USB 3.0 port

## CONTROL AND COMMUNICATION

• USB 3.0 serial bus

## SYSTEM REQUIREMENTS

Intel i7, 3rd generation or later with a quad core processor, one USB 3.0 port, and one adjacent USB 2.0 or USB 3.0 port Note: RF recording using streaming I/Q bandwidths > 8MHz requires the computer's mass storage drive to have at least 250MB/sec of sustained write speed such as an SSD, RAID-0, or RAID-5.