



# Hand-Held Spectrum Analyzer

SignalHawk™ SH-60S-AOA

The **SH-60S-AOA** extends the capability of the SH-60S-TC by adding the ability to triangulate the location of an interferer on a map for signals between 9 kHz and 6 GHz. Highly portable, the SH-60S-AOA easily fits in one hand and boasts an intuitive touchscreen user interface.

Leveraging mapping technology from OpenStreetMap, users can triangulate the source of an interferer by measuring power levels. In addition, the multi-touch technology, users will find a high-resolution touchscreen with familiar, easy to use, methods for setting up and use the RF spectrum analyzer. Field engineers, technicians, wireless equipment manufacturers, service providers, contractors, tower erectors and military personnel alike have come to trust the precision results and efficiency of SignalHawk™.

## Predefined Measurements Include:

- Channel Power
- Adjacent Channel Power Ratio (ACPR)
- Phase Noise
- N dB Down bandwidth
- Occupied Bandwidth (OBW)
- Field Strength
- FM demodulation
- CNR Loss (GNSS signal quality)
- Spectrum Masking and limit lines



Carry Precision and Predefined Measurements with You.

## RF Spectrum Analysis at Your Fingertips!

- Affordably priced; allowing every team member to have one.
- Easy-to-use, intuitive menus to simplify operation for occasional or seasoned users.
- More than 2x faster sweep times than the competition.
- High-resolution, full-color display for indoor or outdoor viewing.
- Two level internal preamplifier.
- View the spectrum with trace display, spectrogram display, or both.
- Includes the Bird RF Meter App that allows interoperability with a wide range of Bird Field sensors.
- Touchscreen display with multi-touch operation.
- Lightest, all-in-one analyzer at only 1.98 lb (0.9 kg).
- Battery offering 4 hours of continuous operation.

# Hand-Held Spectrum Analyzer

SignalHawk™ SH-60S-AOA

## SPECIFICATION

<b>Frequency Range</b>	9 kHz to 6 GHz
<b>Frequency Span Accuracy</b>	±1%
<b>Aging</b>	±1 ppm
<b>Sweep Time</b>	1.1 ms to 1600 s Full Span 2.69 ms to 1600 s Settable Zero Span
<b>Resolution Bandwidth</b>	10 Hz to 5 MHz in 1, 2, 3, 5, 10 Steps
<b>RBW Accuracy</b>	≥1 MHz, ±10% <1 MHz, ±2%
<b>Second harmonic distortion</b>	1.6 GHz -70 dBc
<b>Third-Order Intercept (TOI)</b>	+15 dBm (-10 dBm tones , 1 MHz apart, Preamp Off, Reference Level -10 dBm)
<b>P1dB</b>	+5 dBm Nominal
<b>Phase Noise (1GHz)</b>	-95 dBc/Hz,@10 kHz (typical -97 dBc/Hz) -115 dBc/Hz,@1 MHz (typical -116 dBc/Hz)
<b>Compatible With</b>	For a complete list of compatible sensors see Bird's Rf Meter Page <a href="http://bit.ly/rfmeterapp2">http://bit.ly/rfmeterapp2</a>
<b>Measurement Range</b>	DANL to +20 dBm
<b>Input Attenuator Range</b>	0 to 30 dB, 1 dB step
<b>Max Safe Input Level</b>	
<b>Preamp Off</b>	+30 dBm
<b>Preamp +20 dB</b>	0 dBm
<b>Preamp +40 dB</b>	-20 dBm
<b>Reference Level Range</b>	-140 dBm to +20 dBm -190 dBm to +70 dBm (Ref Level Offset: ON)
<b>Amplitude Accuracy</b>	±1.5 dB (ATT set to 0 dB , input signal -5 to -30 dBm, Detector set to Positive, Sensitivity set to Low, RBW auto-coupled, all other settings auto-coupled, 23±5 °C. Half hour warm-up required.)
<b>RBW Switching Uncertainty</b>	±0.3 dB
<b>Input Attenuator Uncertainty</b>	±0.6 dB
<b>Reference Level Accuracy</b>	≥ -60 dBm, ±0.8 dB

## Display Average Noise Level (DANL)

### Preamp Off

1 GHz, -129 dBm/Hz (typical -132 dBm/Hz)

### Preamp +20 dB

1 GHz, -149 dBm/Hz (typical -152 dBm/Hz)

### Preamp +40 dB

1 GHz, -168 dBm/Hz (typical -169 dBm/Hz)

(Input terminated, Detector set to Positive, Trace Average set to 1000, Span set to 50 kHz, Reference level of -100 dBm, all other settings auto-coupled, 23±5 °C normalized to 1 Hz RBW)

**Residual Responses** -75 dBm

## Connectors

**RF In** N (f)

**USB** USB type C

## Power Interface

DC12V

**Display** 5.5 inch, 1280 \*720p

**OS** Android

**Languages** English, Chinese

**Battery Type** Li-ion

**Battery Operating Time** 4 hours typical

**Battery Charge Time** 6 hours typical

**Operating Temperature** 0°C to 50°C

**Storage Temperature** -20°C to 70°C

**Size** 7.8 x 3.7x 2.4 inches (197 x 93 x 61 mm)

**Weight** 1.98 lb (0.9 kg)

## STANDARD ACCESSORIES

**SK-TP-112** Stylus

**SK05T-1200300Z** AC Adapter (12 Vdc Ouput)

**7002A218-2** Hard Carrying Case

**920-SH-60S** Instruction Manual (SH-60S-TC)

**7002A219-1** Soft Carrying Case

**5A2745-1** USB Drive

**SK-CONN-OTG-2** USB Adapter

**SK-BTY-7468** Battery

