

The **RF** Experts

SIGNALHAWK™ Handheld Spectrum Analyzer

SH-60S-TC



Carry Precision With You

The SH-60S-TC provides real-time spectrum monitoring and analysis of RF frequency circuits with a wide frequency range of between 9 kHz to 6 GHz. Our analyzer has been developed for field engineers, technicians, wireless equipment manufacturers, service providers, contractors, tower erectors and military field personnel.

Bird combines best-in-class functionality with a compact package and boasts an intuitive touchscreen user interface. SH-60S-TC lets you experience high performance and rich features that are available wherever you take it.

Signal bursts and transients can be viewed using the “Zero-span” function with video-level triggering (i.e. an oscilloscope with time on the x-axis) or “Waterfall” display (color-coded scrolling chart display) to analyze intermittent signal sources.



PRODUCT FEATURES

- Spectrogram/Waterfall display shows intermittent power levels at a glance.
- FM demodulation allows for rapid verification of communications at the specified frequency.
- Predefined measurements scan and discover spectrum events other analyzers miss.
- View the spectrum with trace display, spectrogram display, or both.
- Easy-to-use, intuitive menus with multi-touch operation.
- More than 2x faster sweep times than the competition.
- High-resolution, full-color display for indoor and outdoor viewing.
- Rugged and weather resistant.
- 5 hours of continuous battery operation.
- Includes the Bird RF Meter App for interoperability with a wide range of Bird Field sensors.

PREDEFINED MEASUREMENTS

- 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



MEASUREMENT

Frequency Range	9 kHz to 6 GHz
Aging	±1 ppm
Sweep Time	1.1 ms to 1600 s full span, 2.69 ms to 1600 s settable zero span
Resolution Bandwidth	10 Hz to 5 MHz in 1, 2, 3, 5, 10 steps
Second Harmonic Distortion	1.6 GHz to 70 dBc
Third Order Intercept (TOI)	+15 dBm (-10 dBm tones, 1 MHz apart, preamp off, reference level -10 dBm)
P1dB	+5 dBm nominal
Phase Noise	-95 dBc/Hz, @10 kHz (typical -97 dBc/Hz), -115 dBc/Hz, @1 MHz (typical -116 dBc/Hz)
Measurement Range	DANL to +20 dBm
Input Attenuator Range	0 to 30 dB, 1 dB step
Max Safe Input Level	Preamp Off: +30 dBm Preamp +20 dB: 0 dBm Preamp +40 dB: -20 dBm
Reference Level Range	-140 dBm to +20 dBm, -190 dBm to +70 dBm (Ref level offset: ON)
RBW Switching Uncertainty	±0.3 dB
Input Attenuator Uncertainty	±0.6 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

ACCURACY

Frequency Span Accuracy	±1%
RBW Accuracy	≥1 MHz, ±10%, <1 MHz, ±2%
Amplitude Accuracy	±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.)
Reference Level Accuracy	≥ -60 dBm, ±0.8 dB

CONNECTORS

RF In	N (f)
USB	USB type C
Power Interface	Slim tip, DC 20 V

SYSTEM

Display	5.5 in, 1280 *720p
OS	Android
Languages	English, Chinese
Battery Type	Li-ion
Battery Operating Time	5 hours typical
Battery Charge Time	6 hours typical
Compatible With	For a complete list of compatible sensors see Bird's RF Meter page http://bit.ly/rfmeterrapp2

ENVIRONMENTAL

Operating Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to 70 °C

PHYSICAL

Size	7.8 in x 3.7 in x 2.4 in (197 mm x 93 mm x 61 mm)
Weight	1.98 lb (0.9 kg)

STANDARD ACCESSORIES

Hard Carry Case	7002A218-2
Soft Carry Case	7002A219-1
AC Adapter (12Vdc Output)	SK05T-1200300Z
Stylus	SK-TP-112
USB Drive	5A2745-1
USB Adapter	SK-CONN-OTG-2
Manual	920-SH-60S
Battery	SK-BTY-7468

birdrf.com/products

The RF Experts | USA Sales : 30303 Aurora Rd, Solon, OH 44139 | www.birdrf.com
Phone: +1 440.248.1200 / 866.695.4569 [Toll Free] | Fax: +1 440.248.5426 / 866.546.4306 [Toll Free]