

The **RF** Experts

SIGNALHAWK™

Handheld Spectrum Analyzers



SH-60S-TC, SH-75S-TC

Carry Precision With You

Get clarity and accuracy on your RF frequency circuits with SignalHawk! Our analyzers provide real-time spectrum monitoring and analysis with a wide frequency range from 9 kHz to 7.5 GHz, designed for field engineers, technicians, wireless equipment manufacturers, service providers, contractors, tower erectors and military field personnel. With SignalHawk you can get detailed insight into your radio signals for faster and easier optimization!



Get ready for the next-generation of signal testing and interference mitigation with SignalHawk's SH-75 analyzer!

With its intuitive touchscreen user interface, best-in-class functionality, expanded Wi-Fi 6E coverage, carrier interference mitigation capabilities and gate scanning for 5G uplink interference, it's the perfect tool for any industry professional who needs to keep track of signal transmissions up to 7.5GHz.

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.
- High-resolution, full-color display for indoor and outdoor viewing.
- Rugged and weather resistant.
- 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
- NEW! Gate Scanning with SH-75S-TC



SH-60S-TC, SH-75S-TC

Specifications

MEASUREMENT

Frequency Range	
SH-60S-TC	9 kHz to 6 GHz
SH-75S-TC	9 kHz to 7.5 GHz
Aging	±1 ppm
Sweep Time	
SH-60S-TC	1.1 ms to 1600 s full span, 2.69 ms to 1600 s settable zero span
SH-75S-TC	1.2 ms to 1600 s full span, 3.99 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)
P1 dB	
SH-60S-TC	+5 dBm nominal
SH-75S-TC	0 dBm nominal
Phase Noise (1 GHz)	
SH-60S-TC	-95 dBc/Hz, @10 kHz (typical -97 dBc/Hz), -115 dBc/Hz, @1 MHz (typical -116 dBc/Hz)
SH-75S-TC	-88 dBc/Hz, @10 kHz (typical -90 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 vs. Pre-amp	All Amps Off: +20 dBm 1 Amp On: -20 dBm All Amps On: -40 dBm
Reference Level Range	-140 dBm to +20 dBm, (Ref level offset: OFF) -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	
SH-60S-TC	-75 dBm
SH-75S-TC	-60 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, 4.5 A

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, 920-SH-75
Battery	SK-BTY-7468

birdrf.com/products

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