



# Hand-Held Spectrum Analyzer

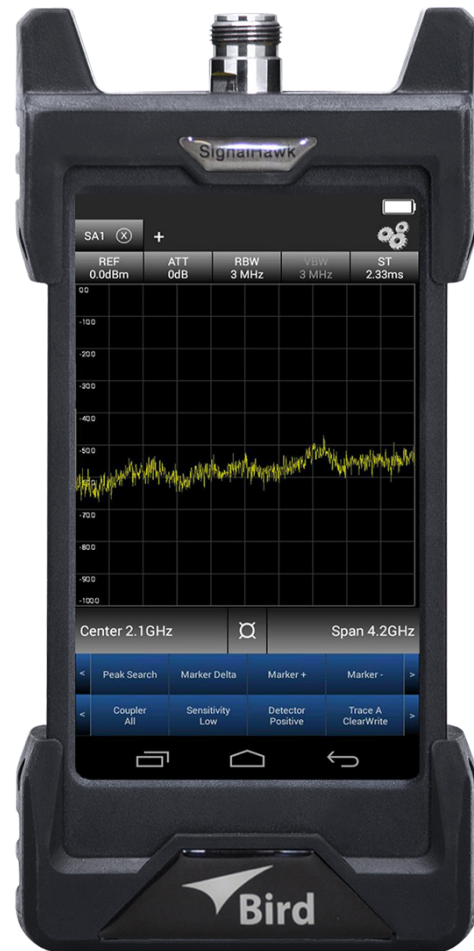
SignalHawk™ SH-42S-TC

The **SignalHawk™ SH-42S-TC** is a new generation of Spectrum Analyzer that offers superb functionality in a small, very affordable package. This highly portable unit fits easily in one hand and offers the user an amazing intuitive user interface.

Built upon a smartphone platform, users will find a high-resolution touch screen with familiar, easy to use, methods for setting up and using the spectrum analyzer. Field engineers, technicians, wireless equipment manufacturers, service providers, contractors, tower erectors and military field personnel alike have come to trust the efficiency and precision results of SignalHawk.

## Predefined Measurements Include:

- Channel Power measurements
- Adjacent Channel Power Ratio (ACPR)
- Phase Noise
- N dB Down bandwidth



Carry Precision and Predefined Measurements with You.

## RF Spectrum Analysis at Your Fingertips

- Priced so that you can buy one for each technician.
- 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.
- Includes the Bird RF Meter App that allows interoperability with a wide range of Bird Field sensors.
- Two level Internal Preamplifier standard.
- Android operation system.
- Fully touch screen with multi-touch operation.
- Lightest, all-in-one analyzer at only 2.8 lb(1.25 kg).
- Long battery life - 6 hours battery operation time.

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## SPECIFICATION

<b>Frequency Range</b>	10 MHz to 4.2 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, Sensitivity LOW, Reference Level -10 dBm)
<b>P1dB</b>	+5 dBm Nominal
<b>Phase Noise (1GHz)</b>	-96 dBc/Hz,@10 kHz (typical -98 dBc/Hz) -118 dBc/Hz,@1 MHz (typical -120 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>	+20 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>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)

<b>Preamp Off</b>	1 GHz, -131 dBm/Hz (typical -133 dBm/Hz)
<b>Preamp +20 dB</b>	1 GHz, -151 dBm/Hz (typical -153 dBm/Hz)
<b>Preamp +40 dB</b>	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)

<b>Residual Responses</b>	-75 dBm
<b>Connectors</b>	
<b>RF In</b>	N (f)
<b>USB</b>	USB type C
<b>Power Interface</b>	Slim Tip, DC20V
<b>Display</b>	5.5 inch, 1280 *720p
<b>OS</b>	Android
<b>Languages</b>	English, Chinese
<b>Battery Type</b>	Li-ion
<b>Battery Operating Time</b>	6 hours typical
<b>Battery Charge Time</b>	2.5 hours typical
<b>Operating Temperature</b>	0°C to 50°C
<b>Storage Temperature</b>	-20°C to 70°C
<b>Size</b>	7.8 x 3.9 x 2.6 inches (200 x 99 x 67 mm)
<b>Weight</b>	2.8 lb (1.25 kg)

## STANDARD ACCESSORIES

<b>Hard Carrying Case</b>	SPM-AS007
<b>Soft Carrying Case</b>	SPM-AS008
<b>AC Power Adapter</b>	SPM-AS001
<b>AC Power cable (US standard)</b>	SPM-AS003
<b>USB Cable</b>	SPM-AS004
<b>USB OTG Cable</b>	SPM-AS005
<b>Touch Pen</b>	SPM-AS006
<b>USB Drive</b>	SPM-AS009
<b>Manual</b>	920-SH-42S
<b>Battery</b>	SPM-021

## OPTIONAL ACCESSORIES

<b>5A5002-6</b>	International Adapter
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