

FLIGHTHAWK® BASIC NEW Aviation RF Cable & Antenna Analyzer

FH-AV-BASIC

Minimize AOG Downtime

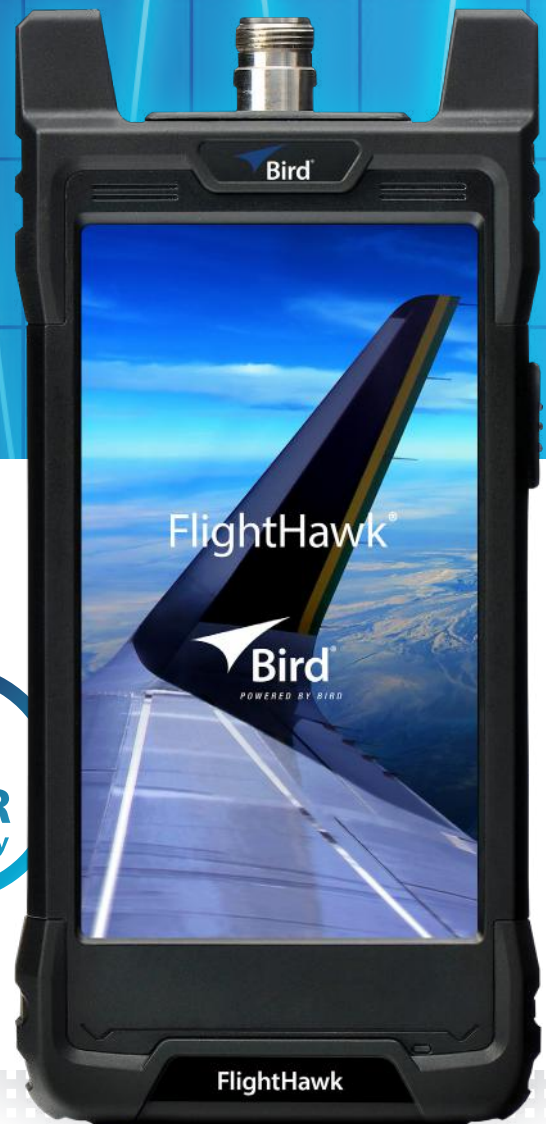
Bird's FlightHawk® RF Aviation Basic Test Kit provides rapid and accurate testing of multiple antenna and cable systems in complex airframe systems. Our Cable and Antenna Analyzer assist aircraft maintenance technicians with commissioning, maintenance and fault-finding of ground-to-air radios, airborne radios, repeaters, antennas, antenna combiners and transmission cables.

FlightHawk Basic is excellent starter kit for the Novice to Expert, Bird's easy to use aviation testing software enables maintenance personnel to test and verify all the radio systems in your fleet. By utilizing an inspection technique called frequency domain reflectometer (FDR), you can test and verify the antennas and cables in your RF system individually or as a complete system.

If you want to expand your testing capabilities, this special designed case has placeholders for Bird's wideband power sensor, needed cabling and adapters –specifically to fit avionics power measurement needs. Also prevents FOD (foreign object damage) from unaccounted equipment. *See upgrade options.

PRODUCT FEATURES

- Test RF cables & antennas at the frequency of operation
- Locate RF cable, connector & antenna problems at the source
- FDR (Frequency Domain Reflectometry) measurement method results in a highly reliable assessment of the health of critical components in your system; ultimately providing a "heads-up" before a failure occurs
- Fault location or DTF mode plots VSWR or Return Loss levels at each distance point along the cable and antenna system length
- Cable Loss function measures insertion loss of the cable system over a given frequency range
- OTG USB communication port for connection to Bird power sensors, storage devices and battery charging



Avoid the Aircraft on Ground (AOG) downtime and expense that results from trial and error testing and component swapping.

CRITICAL MEASUREMENTS

- FDR trace of precision return loss vs. frequency
- Return loss vs. distance
- Voltage standing wave ratio(VSWR)
- Cable loss and distance-to-fault (DTF) measurements

FH-AV-BASIC

Specifications



FLIGHTHAWK®



SK-CAL-MN-C6



FH-AV-CC

MEASUREMENT

Frequency Range	1 MHz to 6000 MHz
Frequency Resolution	1 kHz
Output Power	-10 dBm, typical
Trace Noise Magnitude (IFBW 1kHz)	0.05 dB rms
Measurement Speed	1 ms/data point
Measurement Points	51 to 3201
Measure Bandwidth	100 Hz to 30 kHz
Temperature Stability	0.01 dB/°F (0.02 dB/°C)
Return Loss Measurement Range	0 dB to -60 dB
Resolution	0.01 dB
VSWR Measurement Range	1.0 to 65.0
Cable Loss Measurement Range	0 dB to 30 dB
DTF Range	0 to 5000 ft (0 to 1500 m)
Corrected Directivity	> 38 dB
Maximum Input Voltage	50 V
Immunity to Interfering Signals	+13 dBm
Power Measurement	Yes

ACCURACY

Frequency Accuracy	$\pm 2.5 \times 10^{-6}$ @25 °C
Reflect Amplitude Accuracy	-10 dB to 0 dB: ± 0.6 dB
	-20 dB to -10 dB: ± 0.8 dB
	-35 dB to -20 dB: ± 3.0 dB

CONNECTORS

Connector	USB Type-C, USB 3.0
Test Port Connector Impedance	N-type, Female 50 ohms

ENVIRONMENTAL

Operating Temperature	14 °F to 131 °F (-10 °C to 55 °C)
Storage Temperature	-40 °F to 176 °F (-40 °C to 80 °C)
Battery Charging Temperature	32 °F to 95 °F (0 °C to 35 °C)

SYSTEM

Display	5.5 in, 720p
Languages	English, Chinese, Spanish
Battery Type	Lithium-ion rechargeable
Battery Operating Time	10 hours typical
Battery Charge Time	5 hours typical
Storage Capacity	Thousands of trace and setups
Recommended Calibration Interval	2 years
Compatible With	For a complete list of compatible sensors see Bird's RF Meter page http://bit.ly/rfmetrapp2

PHYSICAL

Size	7.7 in x 3.6 in x 2.4 in (195 mm x 90 mm x 60 mm)
Weight	1.98 lb (0.9 kg)

CERTIFICATIONS

CE	EMC: Standard EN 61326-1:2006
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STANDARD ACCESSORIES

Cable & Antenna Analyzer	FLIGHTHAWK-AV
Calibration Combo	SK-CAL-MN-C6
Stylus	SK-TP-112
AC Adapter (12 Vdc Output)	SK05T-1200300Z
Hard Carrying Case	FH-AV-CC
RF Cable, 10 feet long	5A2970-16-120B
USB Drive	5A2745-1
USB Adapter	SK-CONN-OTG-2

SK-CAL-MN-C6 CALIBRATION COMBO Specifications

MEASUREMENT

Frequency	DC to 6 GHz
Resistance	50 Ohm
Average Power	≤ 1 W
Load Return Loss	-35 dB
Load VSWR	≤ 1.025
Open Phase Deviation	≤ ± 0.6°
Short Phase Deviation	≤ ± 0.6°

INTERFACE

Connectors	N (m)
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ENVIRONMENTAL

Operating Temperature	15 °C to 35 °C (49 °F to 95 °F)
Storage Temperature	-40 °C to 75 °C (-40 °F to 167 °F)

FH-AV-CC HARD CASE

PHYSICAL

Size	15.27 in x 12.13 in x 6.69 in (38.8 cm x 30.8 cm x 17 cm)
Weight	4.5 lb (2.04 kg) without foam
Body	Polypropylene

CERTIFICATIONS

Compliance	IP67, MIL-STD, 810F, 512.4, Drop Tested Per MIL-STD-3010C Method 5007
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KIT OPTIONS

*UPGRADE OPTIONS

Wideband Power Sensor	5017D-AV, 100 MHz - 1.3 GHz
RF Termination	25-T-MN, 25 W
Adapter Kit	4240-401
Adapter, N(m) – SMA(m)	4240-500-23
Adapter, N(m) – SMA(f)	4240-500-10
Adapter, Avionics	4240-443
Adapter, Avionics	4240-444

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