



SiteHawk Test Kits

General Purpose - 7003A001 Series



The RF Experts

Do you need to quickly identify faulty antennas, cables and connectors to get your RF systems back into service?

Avoid the downtime and expense of trial and error of swapping components to fix your issue with the Bird® SiteHawk Test Kit. Our Test Kit includes the SK-4500 Antenna and Cable Analyzer in a hard carrying case along with a selection of essential accessories; it's ideally suited for field techs and engineers who need to quickly diagnose and resolve problems with communications systems. The pocket-sized SiteHawk Antenna and Cable Analyzer operates from 1 MHz to 4.5 GHz and features an intuitive interface readily accessible to even the first time user.

With the SiteHawk Test Kit, it is simple to:

- 1) Determine if there is a problem with your cable and antenna system using the Measure Match function.
- 2) Locate the source of the problem with the Use Distance to Fault measurement.
- 3) Take various power measurements with one of the included Bird Power Sensors.

Select from one of five different kit options that best suit your needs. The table below shows what each kit contains.

KIT NUMBER	INCLUDED POWER SENSOR	COMMON COMPONENTS
7003A001-5	No Sensor	Hard Case (5000-035), SiteHawk (SK-4500-TC), Calibration Combo (SK-CAL-MN-C), 25W Termination (25-T-MN), 10' RG142 Cable (5A2970-16-120B), Adapter Kit (4240-401)
7003A001-6	7020-1-010101	
7003A001-7	7020-1-030301	
7003A001-8	5017D	
7003A001-9	7022-1-020201	
7003A001-19	5019D	

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SITEHAWK SPECIFICATIONS

Model	SK-4500
Frequency Range	1 MHz - 4500 MHz
Frequency Accuracy	$\pm 2.5 \times 10^{-6}$
Frequency Resolution Setting	1 kHz
Output Power	-10dBm
Reflect Amplitude Accuracy	
-15 dB to 0 dB	± 0.4 dB
-25 dB to -15 dB	± 1.5 dB
-35 dB to -25 dB	± 4.0 dB
Trace Noise Magnitude (IFBW 1kHz)	0.02 dB rms
Measurement Speed	1ms / data point
Measurement Points	51 to 3201
Measure Bandwidth	100 Hz to 30kHz
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))
Test Port Connector	N-type, Female
Impedance	50 ohms
Connector	Micro USB B, USB 2.0
Dimensions (LxWxH)	7.7 x 3.6 x 2.4 in. (195 x 90 x 60 mm)
Weight	1.98 lbs. (0.9 kg)
Maximum Input Voltage	50 V
Operating Temperature	14° to 131° F (-10° to +55° C)
Storage Temperature	-40° to 176° F (-40° to +80° C)
Battery Charging Temperature	32° to 95° F (0 to +35° C)
Storage Capacity	Thousands of Trace and Setups
Immunity to Interfering Signals	+13dBm
CE	Standard EN 61326-1:2006
EMC	Standard EN 71010-1:2001
Safety	
Battery SK-4500-TC	Lithium-ion rechargeable 10 Hrs Typical Operating Time
Battery Charge Time	5 Hrs Full Charge
Power Measurement	Yes

Compatible With For a complete list of compatible sensors see Bird's RF Meter Page <http://bit.ly/rfmetrapp>



WIDEBAND POWER SENSOR SPECIFICATIONS

Model	5017D, 5019D
Frequency Range	25 MHz - 1.0 GHz
Connector	N Female (Both)
Power Supply	
USB Port	Less than one low-power USB load
DC Input Connector	7-18 VDC at less than 0.1A
Impedance	50 Ohms (nominal)
Weight	1.2 lb. maximum
Dimensions HxWxD [inches (mm)]	4.8" x 4.6" x 1.3" (122 mm x 117 mm x 33 mm)
Data Logging	Requires 5000-XT, VPM3 or Bird RF Meter App
Operating Temps °C(°F)	-10° to 50°C (+14° to +122°F)
Storage Temps °C(°F)	-40° to +80°C (-40° to +176°F)
Mechanical Shock & Vibration	IAQ MIL-PRF-28800F class 3
CE	EMC EN 61326-1-2006
Power Range 5017D	500mW - 500 Watts Avg / 1300 Watts Peak
Power Range 5019D	100 mW - 100 Watts, 260 Watts Peak
Insertion VSWR	<1.05
Insertion Loss	<0.05 dB
Directivity	28 dB up to 100 MHz, 30 dB from 100 to 1000 MHz
Interface	
DPM	DB9 proprietary interface
PC Interface (1)	RS-232, 9600 Baud, no parity, 8 data bits, 1 stop bit, DB9
PC Interface (2)	USB 2.0 Type B



- Includes Bird RF Meter App.
- Units cover frequency ranges of 1-4500 MHz.
- USB communication port for connection to storage device and battery charging.

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POWER SENSOR SPECIFICATIONS



STATISTICAL POWER SENSOR SPECIFICATIONS

Frequency Range	350 MHz - 4.0 GHz (7020-1-010101) 25 MHz - 1.0 GHz (7020-1-030301)
Power Measurement Range	0.15 W to 150 W (7020-1-010101) 0.5 W to 500 W (7020-1-030301)
Measurement Accuracy	+/- (4% of reading + 0.05 W) (above 35 °C or below 15 °C add 3%)
Min, Forward Power for Reflected Measurement	5.0 W
Peak/Average Ratio, Max	12 dB
Insertion Loss, Max:	0.1 dB
Insertion VSWR	1.10 max
Impedance, Nominal	50 ohms
Response Time	100 ms
VSWR Range	1.15 to 99.9
PIM Rating	-130 dBc @ 460 MHz
RF Connector	N Female
Directivity, Min	28 dB
Recommended Calibration Interval	Annually
Power Supply	
Source	5Vdc from USB host
Current Draw	35 mA
Interface	
Protocol	USB 2.0
Connector	USB Type 'B' with "SeaLATCH" locking USB connector
Data Logging	with VPM3 Software

Frequency Range	350 MHz to 6 GHz
Frequency Measurement accuracy	± 3MHz with CW signals
Power Measurement Range	0.25 W to 500 W average
Dynamic Range	33 dB
Peak to Average Ratio	12 dB, absolute peak power limited to 1500 W
Impedance, Nominal	50 Ohms
Insertion Loss, Max	0.05 dB
Insertion VSWR, Max	1.065 350 - 2000 MHz 1.12, 2000 - 6000 MHz
RF Connectors	N Female
Data Logging	Yes, with the VPM3 software
Interface	USB 2.0 Type B (USBTMC)
Power Supply	USB Port
Sample Rate	44 M Samples/s Max
Time Resolution	50nSec to 10 Sec
Available Modes	Statistical, Average, Time Domain



Quickly and easily connect to all of your RF Systems to verify cables and antenna.



Clearly confirm whether antenna and/or cable lines require replacement with on-screen indicators.

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CALIBRATION COMBO SPECIFICATIONS

Model	SK-CAL-MN-C
Frequency	DC - 4.5 GHz
Resistance	50 Ohm
Average Power	≤ 1 W
Connectors	N (m)
Load Return Loss	≤ -38 dB
Load VSWR	≤ 1.025
Open Phase Deviation	≤ ± 0.6°
Short Phase Deviation	≤ ± 0.6°
Operating Temperature	49° to 95° F (15° to 35° C)
Storage Temperature	-40° to 167° F (-40° to 75° C)



TERMINATION SPECIFICATIONS

Model	25-T-MN
Power Rating	25 W
Frequency Range	DC - 4 GHz
VSWR DC - 1 GHz	1.10:1 max.
VSWR 1 GHz - 4 GHz	1.15:1 max.
Impedance	50 Ohms, Nominal
Temperature Range	-40° to +40° C (-40° to 104° F)
Product Type	Dry (Convection-Cooled)
Operating Position	Any
Connector	N-type, male
Finish	Black Anodized
Dimensions	4.7" L x 2.3" Dia. (119.4 x 58.5 mm)
Weight	7 oz. (198g)



HARD CASE SPECIFICATIONS

Exterior (L x W x D)	15.27 x 12.13 x 6.69 (38.8 x 30.8 x 17 cm)
Body	Polypropylene
Temperature Range	-40° to +99° C (-40° to 210° F)
Weight Without Foam	4.5 lbs
Certifications	IP67, MIL-STD, 810F, 512.4, Drop Tested Per MIL-STD-3010C Method 5007

STANDARD ACCESSORIES PROVIDED

SK-CAL-MN-C	Calibration Combo
SK-TP-112	Stylus
SK05T-1200300Z	AC Adapter (12 Vdc Output)
5000-035	Hard Carrying Case
4240-500-23	Adapter, N(m) – SMA(m)
4240-500-10	Adapter, N(m) – SMA(f)
4240-443	Adapter, Avionics
4240-444	Adapter, Avionics
5A2970-16-120B	RF Cable, 10 feet long
5A2745-1	USB Drive
SK-CONN-OTG-2	USB Adapter

