

SITEHAWK™ TEST KITS General Purpose

7003A001 SERIES



Fast Diagnosis for Minimal Downtime

Bird's General Purpose RF Test Kits provide all the necessary equipment needed to perform precise power measurements to quickly identify faulty antennas, cables, and connectors in order to resolve issues and return radio systems to service. Easily select your kit by frequency range and power range with a variety of combinations of sensors and analyzers for expanded capabilities.

Avoid the downtime and expense of trial and error component swapping to find and fix issues by using the Bird® SiteHawk Test Kit.

PRODUCT FEATURES

- Utilize the Measure/Match function to sweep your system to determine how well your components are matched to 50 ohms.
- Use the Distance to Fault (DTF) to display RF return loss or VSWR data versus distance. Allows quick identification of poor connections, damaged cables, or faulty antennas.
- Multiple models available utilizing Bird power sensors with varying frequency and power ranges in order to select the model best suited to the application.

PRODUCT SELECTION GUIDE

Model* (Includes the SK-4500-TC)	Sensor	Frequency Range	Power Range
7003A001-5	None	N/A	N/A
7003A001-6	7020-1-010101	350 MHz to 4.0 GHz	105 mW to 150 W
7003A001-7	7020-1-030301**	25 MHz to 1.0 GHz	500 mW to 500 W
7003A001-8	5017D	25 MHz to 1.0 GHz	500 mW to 500 W 1000 W Peak
7003A001-9	7022-1-020201	350 MHz to 6.0 GHz	0.25 W to 500 W
7003A001-19	5019D	25 MHz to 1.0 GHz	100 mW to 100 W 260 W Peak

* SK-6000 can be substituted for SK-4500 by adding a -6 to the part number, e.g. 7003A001-5-6

** Derate maximum average power rating from 500 W at 300 MHz to 100 W at 1 GHz using a straight line on a log-log scale.

GENERAL PURPOSE RF TEST KIT

SITEHAWK ANALYZERS

Specifications

MEASUREMENT

Frequency Range	SK-6000-TC: 1 MHz to 6000 MHz SK-4500-TC: 1 MHz to 4500 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	±2.5 ppm @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	3 years
Compatible With	For a complete list of compatible sensors see Bird's RF Meter page http://bit.ly/rfmeterp2

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 Safety: Standard EN 71010-1:2001
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STANDARD ACCESSORIES

Calibration Combo	SK-CAL-MN-C6
Stylus	SK-TP-112
AC Adapter (12 Vdc Output)	SK05T-1200300Z
Hard Carrying Case	5000-035
Adapter Kit, Interseries	4240-401
Load	25-T-MN
RF Cable, 10 feet long	5A2970-16-120B
USB Drive	5A2745-1
USB Adapter	SK-CONN-OTG-2

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7020 SERIES BASIC POWER SENSORS

Specifications

MEASUREMENT

Frequency	
7020-1-030301	25 MHz to 1.0 GHz
7020-1-010101	350 MHz to 4.0 GHz
7022-1-020201	350 MHz to 6.0 GHz
Power Range	
7020-1-030301	0.5 W to 500 W*
7020-1-010101	0.15 W to 150 W
7022-1-020201	0.25 W to 500 W
Accuracy	±4% of reading + 0.05 W, add 3% to uncertainty above 35 °C or below 15 °C
Insertion VSWR	1.10 max
Insertion Loss	0.1 dB max
Directivity	28 dB

* Derate maximum average power rating from 500 W at 300 MHz to 100 W at 1 GHz using a straight line on a log-log scale.

CONNECTORS

RF Connectors	N Female
Display Interface	USB 2.0 Type 'B' with "SeaLATCH" locking USB connector

SYSTEM

Recommended Calibration Interval	1 year
Power Supply	5 VDC from USB host, 35 mA current draw
Data Logging	with VPM3 software
Upgradeability	Firmware field-upgradable via the USB port

5017D/5019D WIDEBAND POWER SENSORS

MEASUREMENT

Frequency Range	25 MHz to 1.0 GHz
Power Range	
5017D	500 mW to 500 W Avg, 1300 W Peak**
5019D	100 mW to 100 W, 260 W Peak
Accuracy	±4% of reading
Insertion VSWR	<1.05
Insertion Loss	<0.05 dB
Directivity	28 dB up to 100 MHz, 30 dB from 100 to 1000 MHz

**Derate maximum average power rating from 500 W at 300 MHz to 100 W at 1GHz using a straight line on a log-log scale

CONNECTORS / INTERFACES

Connectors	N Female (Both)
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

SYSTEM

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)
Data Logging	Requires 5000-NG or VPM3

4240-401 ADAPTER KIT

PHYSICAL

Size	6.5 in x 4.63 in x 1.69 in (16.5 cm x 11.8 cm x 4.3 cm)
Weight	4.5 lb (2.04 kg) without foam
Body	Polypropylene

CONNECTORS INCLUDED

(1) Male, (1) Female, Type N
 (1) Male, (1) Female, Type BNC
 (1) Male, (1) Female, Type TNC
 (1) Male, (1) Female, Type UHF
 (1) Male, (1) Female, Type SMA
 (5) 50 Ohm couplers

GENERAL PURPOSE RF TEST KIT

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)

5000-035 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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25-T-MN TERMINATION/LOAD RESISTOR

MEASUREMENT

Power Rating	25 W
Frequency	DC - 4 GHz
VSWR DC - 1 GHz	1.10:1 max
VSWR 1 GHz - 4 GHz	1.15:1 max
Impedance	50 Ohms, Nominal

INTERFACE

Connectors	N (m)
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ENVIRONMENTAL

Temperature Range	-40 °C to 40 °C (-40 °F to 104 °F)
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PHYSICAL

Product Type	Dry (Convection-Cooled)
Operating Position	Any
Finish	Black Anodized
Size	4.7 in L x 2.3 in Dia (119.4 mm x 58.5 mm)
Weight	7 oz (198 g)



SITHAWK™



POWER SENSORS



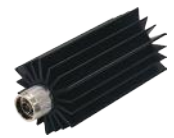
SK-CAL-MN-C6



5000-035



4240-401



25-T-MN

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