

# Bird<sup>®</sup> Terminating Power Sensor

## 5011, 5011-EF, 5015, 5015-EF

The Bird Terminating Power Sensor (TPS) is the easiest to use and most cost competitive terminating sensor on the market. This one port measurement device will provide True Average Power for forward power or reflected power if attached to a directional coupler or total power in the line if connected to a non-directional coupler. The TPS is a true plug and play solution with no front panel calibration required at any time.

The TPS is truly the most economical terminating sensor, half the price of our leading competitors. Quite a value considering the TPS is a highly accurate (5%) device with calibration traceable to the National Institute of Standards and Technology (NIST). Now available in a USB compatible version.



### PROBLEMS

Tight budgets

Varying field tech skill levels

Need greater confidence in measurement

### SOLUTIONS

- USB connectivity, no meter required
- Complimentary Virtual Power Meter (VPM2) software
- Sensor plugs and plays with 5000-XT meter.
- No field calibration required
- NIST traceable calibration

### APPLICATIONS

WPS measures: Analog Cellular, Digital Cellular, 3G, 4G, Tetra, APCO/P25, Trunking, CDMA, TDMA, WCDMA, GSM, Transportation, Tactical Military, Radar, Avionics, Marine, LMR, Analog Broadcast, Digital Broadcast, GSM, GPRS, EDGE, UMTS, HSDPA, Bluetooth, Fire, GPS, NPSPAC, Paging, Project 25, Public Safety, Telematics, Utilities, WIMAX and WLAN.

Measurements performed: True average power.

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## TPS SPECIFICATIONS

<b>Frequency Range</b>	<b>5011</b>	40 MHz - 4.0 GHz
	<b>5011-EF</b>	40 MHz - 12 GHz
	<b>5015</b>	40 MHz - 4.0 GHz
	<b>5015-EF</b>	40 MHz - 12 GHz
<b>Power Range</b>		-20.000 to +10.000 dBm (10.0010 µW to 10.000 mW)
<b>Impedance</b>		50 Ohms
<b>Peak/Average Ratio</b>		12 dB max.
<b>Accuracy</b>		± 5% of Reading. When operating below 100 MHz and above 40 °C, add 1 %
<b>Insertion VSWR</b>	<b>5011</b>	Typical 1.03 (36.6 dB return loss); maximum 1.20 (20.8 dB return loss)
	<b>5011-EF</b>	Typical 1.05 (32.3 dB return loss); maximum 1.25 (19.1 dB return loss)
	<b>5015</b>	Typical 1.03 (36.6 dB return loss); maximum 1.20 (20.8 dB return loss)
	<b>5015-EF</b>	Typical 1.05 (32.3 dB return loss); maximum 1.25 (19.1 dB return loss)
<b>Warm Up Time</b>		5 Minutes
<b>Connector(s)</b>		Precision N Male
<b>Power Supply</b>		From host instrument via cable connection
<b>Interface(s)</b>	<b>5011</b>	DB9 (Proprietary Configuration)
	<b>5011-EF</b>	DB9 (Proprietary Configuration)
	<b>5015</b>	USB 1.1 Type B
	<b>5015-EF</b>	USB 1.1 Type B
<b>Weight</b>		.75 lb. maximum
<b>Size [inches (mm)]</b>		6" (152 mm) long (including connector); 1.5" (38 mm) diameter
<b>Altitude</b>		15,000 ft. (4570 m) operating
<b>Humidity, Max.</b>		95% maximum (non-condensing)
<b>Safety</b>		Complies with Directive 2006/95/EC for Low Voltage, per EN 61010-1:2001 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory use.
<b>EMC</b>		Complies with Directive 2004/108/EC Relating to Electromagnetic Compatibility, per EN 61326-1:2006 Electrical Equipment for Measurement, control, and Laboratory use.
<b>Operating Temps [°C(°F)]</b>		-10 to 50 (14 to 122)
<b>Storage Temps [°C(°F)]</b>		-40° to +80°C (-40° to +176°F)
<b>Mechanical Shock &amp; Vibration</b>		MIL-PRF-28800F class 3

## ACCESSORIES

<b>8353A040-50</b>	40 dB Attenuator, 50 W, 4 GHz
<b>8353A030-10</b>	30 dB Attenuator, 10 W, 4 GHz
<b>8353A040-50-18</b>	40 dB Attenuator, 50 W, 18 GHz
<b>8353A030-10-18</b>	30 dB Attenuator, 10 W, 18 GHz
<b>4240-500-1</b>	Adapter, N (F) to N (F)
<b>4240-500-3</b>	Adapter, right angle, N (F) to N(M)
<b>4240-500-4</b>	Adapter, N (F) to SMA (F)
<b>4240-500-5</b>	Adapter, N (F) to SMA (M)
<b>PA-FNME</b>	Adapter, N (F) to 7/16 DIN (M)
<b>PA-FNFE</b>	Adapter, N (F) to 7/16 DIN (F)
<b>TC-MNFN-1.5-G</b>	Test cable, 1.5 m., N (M)/N (F) conn.
<b>TC-MNFN-1.5</b>	Test cable, armored, PS, 1.5 m., N (F) to N (M)
<b>TC-MNFN-3.0</b>	Test cable, armored, PS, 3.0 m., N (F) to N (M)
<b>5011A035-1</b>	DC Block, N (F) to N (M)
<b>5A2653-10L2</b>	USB Locking Cable, 10'
<b>5A2653-6L</b>	USB Locking Cable, 6'
<b>5A2653-10</b>	USB Cable, 10'
<b>5A2264-09-MF-10</b>	DB9 Cable, 10'

## COMPATIBLE DEVICES

<b>5011, 5011-EF</b>	5000-EX 5000-XT SA-1700 EXP SA-2500 EX SA-6000 EX SH-36S SH-361S SH-362 SH-362S
<b>5015, 5015-EF</b>	5000-XT VPM2



**YOU'RE HEARD, LOUD AND CLEAR.**

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