Bird Technologies®

Channel Power Monitor

Be assured that your communication system is up and running at all times with Bird's new Channel Power Monitor. It provides you with continuous information on the health of each component of your system that is accessible on any computer or tablet on the network or even the phone in your pocket.

The Channel Power Monitor is comprised of a 1 RU central processor and a variety of sensors, which work together to monitor all components of a radio system, including each individual radio, the combiner, the feed lines and antenna. These inexpensive sensors are placed throughout the system, with a 5% accuracy that is traceable to NIST and as reliable as you have come to expect from Bird Technologies.

The Channel Power Monitor hosts its own webpage for setup and display of all measurement parameters. This enables you to access the system from any computer, tablet or phone on your network, only limited by your network security. The webpage displays all measurements and easily allows you to set up alarms for failure conditions such as high or low power or poor antenna VSWR. The unit includes both software and hard contact alarms and can even be configured to send you an email to alert you to an emergency condition. Also standard is Data Logging, which takes reliability one step further by enabling you to see degraded performance before it becomes an emergency.

When you need to be certain that your radio communication system is working when you need it, trust the Bird Channel Power Monitor.

FEATURES:

- Monitor up to 16 channels simultaneously, with expansion units available to cover the largest systems.
- Measures forward, reflected and composite power as well as antenna system VSWR.
- Configurable with multiple options for sensors and meters, purchase only what you need.
- Easy remote connection using a built-in web server for setup and monitoring.
- Push-to-talk input for each radio.
- Configurable alarming for high and low level power and high antenna VSWR, utilizing hard contact and SNMP formats.

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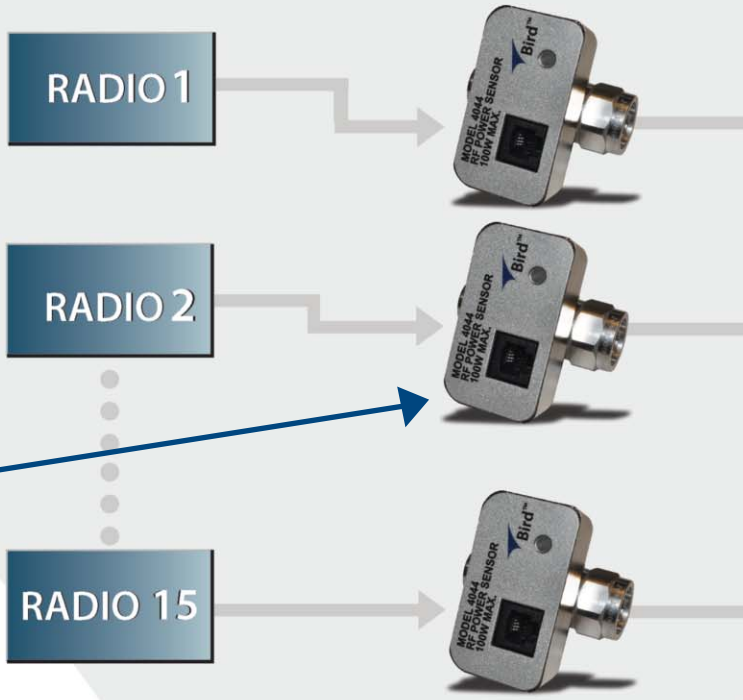
Monitor all aspects of your land mobile radio system with the Bird Channel Power Monitor. Continuously monitor radio performance, combiner loss and antenna/feedline characteristics to identify and alarm on critical changes. With the data logging function, long term performance monitoring can be used to identify performance changes before they negatively impact system performance – enabling your preventative maintenance team to address problems before they occur. Solutions are available for the entire range of Land Mobile Radio frequencies from 140 MHz to 960 MHz.

Features include:

- Data logging
- Slim 1RU package
- Built-in web Server provides SNMP messaging
- Push-to-talk (PTT) compatibility is standard
- Full control of alarm and data logging settings
- 16 channels with expansion modules to cover your largest radio systems
- Software and hard contact alarms

Directly measure the power output of each RADIO simultaneously. Alarm on failure and record measurements for later analysis.



MODEL 4044 POWER SENSOR is an economical sensor capable of measuring the output power of either analog or digitally modulated radios, at power levels up to 100 watts. The Model 4044 is accurate to within +/-5% of reading with traceability to NIST. This sensor is a non-directional sensor that is ideal for use at the input to each channel of the transmit combiner where the VSWR is well controlled.

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Setup and monitoring is simple with the BUILT-IN WEB SERVER. Available anywhere there is an internet connection and a web browser, so it is as close as the computer on your desk or the phone in your pocket. Receive SNMP alerts or just check up on your system at your convenience. Also comes with an ANDROID APP.

MODEL 3141

Channel Power Monitor display is a 1RU central processor that consolidates and communicates information from a variety of sensors. This display hosts its own webpage for setup and display of all measurement parameters and alarm functions.

Utilizing the forward and reflected power measurements of the 4045 sensor, determine the VSWR of your ANTENNA and cable feedline. Know immediately when your antenna is damaged and your transmission is compromised.

COMBINER

Sensors on both the input and output side of the COMBINER enable combiner performance to be measured continuously.

MODEL 4045 DIRECTIONAL POWER SENSOR

provides both forward and reflected composite power measurements with +/-5% of full scale accuracy, at power levels of up to 500 watts and is also NIST traceable. This sensor is intended for use at the transmit combiner output, in order to provide both composite output from the combiner power, as well as antenna VSWR information.

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CHANNEL POWER MONITOR DISPLAY

Model	3141
Operating Voltage	115/230 VAC @ 50/60 Hz
Operating Power	Less than 10 watts
Dimensions	5.25" X 19" X 1.75" (133.35 mm X 483 mm X 44.5 mm)
Weight	Approximately 2 lbs. (0.85 kg)
Operating Temp.	0°C to +50°C (32°F to 122°F)
Storage Temp.	-20°C to + 80°C (-4°F to 176°F)
Humidity	95% ±5% max. (noncondensing)
Altitude	up to 10,000 feet (3,048 m)

NON-DIRECTIONAL POWER SENSOR SPECIFICATIONS

Model	4044
Frequency Range	Bands within 144 - 960 MHz
Max Average Power	100 W
Accuracy	+/- 5% of reading
Impedance	50 OHM
Insertion Loss	< 0.1 dB
Insertion VSWR	<1.07:1
Intermodulation Distortion (PIM)	<-145 dBc
Instrument Interface	0-4 VDC via RJ-25 Connector
RF Connectors	N(M) / N(F)
Power Supply	7/18 VDC, <50 mA (from 3141)
Operating Temperature	0 to 50°C
Dimensions	2.3" (50 mm) Wide x 2.2" (56 mm) Long x 1.7" (43 mm) High
Weight	0.3 lbs (0.14 kg)

DIRECTIONAL POWER SENSOR SPECIFICATIONS

Model	4045
Frequency Range	Bands within 144 - 960 MHz
Max Average Forward Power	500 W
Max Average Reflected Power	50 W
Dynamic Range	10 dB
Accuracy	+/- 5% o.f.s.
Impedance	50 OHM
Insertion Loss	< 0.05 dB
Insertion VSWR	<1.2:1
Intermodulation Distortion (PIM)	<-145 dBc
Instrument Interface	0-4 VDC via RJ-25 Connector
RF Connectors	N(M) / N(F)
Power Supply	7/18 VDC, <50 mA (from 3141)
Operating Temperature	0 to 50°C
Dimensions	1.25" (3.2 cm) Wide x 5.0" (12.7 cm) Long x 3.5" (9.0 cm) High
Weight	0.8 lbs (0.4kg)