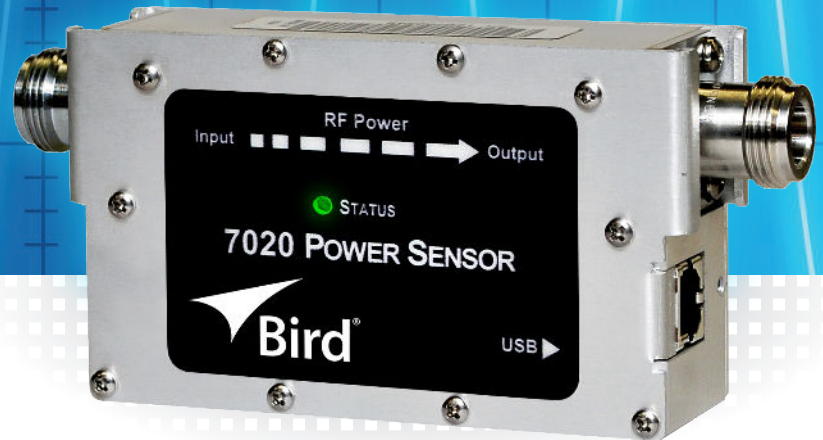


# POWER SENSORS

## Basic Power Sensor

±4% ACCURACY

## 7020 SERIES



## Economical Power Measurement

The Bird 7020 Series of power sensors are a cost-effective, easy to use power measurement solution. This inline device doesn't require a directional coupler and plugs-and-plays with multiple display devices and utilizes the complimentary Virtual Power Meter (VPM3) application. The 7020 Series never requires field calibration giving technicians confidence in accurate field measurements. Using exceptionally accurate measurements of Forward and Reflected True Average Power and VSWR over a wide frequency range of 25 MHz to 1.0 GHz or 350 MHz to 4.0 GHz, the 7020 helps troubleshoot system failures to minimize downtime.

Factory calibration is only suggested once per year and is traceable to the National Institute of Standards and Technology (NIST), providing additional confidence in sensor measurements.

Plug-and play field  
measurement that never  
requires field calibration

### PRODUCT FEATURES

- Measures forward and reflected power and VSWR to troubleshoot system failures
- Supports analog, digital, and multi-carrier signals to measure modulation independent measurements
- Monitor and perform maintenance for monitoring while DUT(Device Under Test) is in-service
- Economical power measurement solution
- Utilizes the complimentary Virtual Power Meter (VPM3) application
- Supported by 5000-NG Power Meter Display
- No field calibration required

### MEASUREMENT APPLICATIONS

- 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

## MEASUREMENT

<b>Accuracy</b>	±4% of reading + 0.05 W Add 3% to uncertainty above 35 °C or below 15 °C
<b>Forward Power for Reflected Measurement</b>	5.0 W min
<b>Peak/Average Ratio</b>	12 dB max
<b>Insertion Loss</b>	0.1 dB max
<b>Insertion VSWR</b>	1.10 max
<b>VSWR Range</b>	1.15 to 99.9
<b>Impedance</b>	50 Ohms nominal
<b>Response Time</b>	100 ms
<b>PIM Rating</b>	-130 dBc @ 460 MHz
<b>Directivity</b>	28 dB

## CONNECTORS

<b>RF Connectors</b>	N Female
<b>Display Interface</b>	USB 2.0 Type 'B' with "SealATCH" locking USB connector

## SYSTEM

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

## PRODUCT SELECTION GUIDE

Model Number	Power Range	Frequency (MHz)
7020-1-030301	0.5 W to 500 W*	25 MHz to 1.0 GHz
7020-1-010101	0.15 W to 150 W	350 MHz to 4.0 GHz
7020-1-020101	350 MHz to 4.2 GHz	0.15 W to 150 W

\* 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.

## ENVIRONMENTAL

<b>Operating Temperature</b>	-30 °C to 60 °C (-22 °F to 140 °F)
<b>Storage Temperature</b>	-40 °C to 80 °C (-40 °F to 176 °F)
<b>Humidity</b>	95% max (non-condensing)
<b>Altitude</b>	Up to 15,000 ft (4,572 m)

## PHYSICAL

<b>Size</b>	4.8 in x 2.6 in x 1.3 in (122 mm x 66 mm x 32 mm)
<b>Weight</b>	1 lb (0.45 kg)

## CERTIFICATIONS

<b>CE</b>	EMC Directive (2004/108/EC): European Standard EN 61326-1:2006 – Electronic Equipment for Measurement, Control and Laboratory Use EMC Requirements in accordance with EMC Directive (2004/108/EC)
<b>RoHS</b>	Compliant
<b>Shock</b>	Mil-PRF-28800F Class 3
<b>Vibration</b>	Mil-PRF-28800F Class 3

## STANDARD ACCESSORIES

<b>5A2653-6L2</b>	SealATCH USB Cable
<b>VPM3</b>	Virtual Power Meter
<b>920-7020S</b>	Instruction Manual (Sensor)
<b>920-VPM3</b>	Instruction Manual (VPM3)

## COMPATIBLE DEVICES

<b>SA-XT Series</b>	SealATCH USB Cable
<b>5000-NG</b>	Digital Power Meter
<b>Bird RF Meter</b>	Android App

[birdrf.com/products](http://birdrf.com/products)

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