

POWER SENSORS

RF Directional Thruline

4020 SERIES



Cost Effective Solutions for Critical RF Applications

Five models of the Bird 4020 Directional RF Power Sensor Series cover the frequency range of 100 kHz to 3 GHz and power range from 300 mW to 10 kW. These sensors have low insertion loss and full-scale accuracy $\pm 3\%$ for applications requiring accurate forward and reflected power measurement. Also offers direct plug-in operation with industry-standard Bird 4421A Series Multifunction Power Meters.

Direct plug-in operation
with Bird 4421A Series
Multifunction Power Meters

PRODUCT FEATURES

- Models cover frequency range of 100 kHz to 3 GHz
- Models cover power range from 300 mW to 10 kW
- Low insertion loss and full-scale accuracy $\pm 3\%$
- Direct plug-in operation with industry-standard Bird 4421A Series Multifunction Power Meters

FOR USE WITH

- 4421A Multifunction Power Meters
- SCC7 Calibration Cart
- MSCC7 Calibration Cart

MEASUREMENT

Accuracy	± 3% of reading, with no more than 1% AM, harmonics -50 dBc or less, terminating VSWR 2:1 or less
Impedance, Nominal	50 Ohms
VSWR Range	1.00 to 2.00 (40.0 to 9.5 dB Return Loss)

CONNECTORS

RF Connectors	N (F) standard, other customer specified from QC list appropriate for frequency and power.
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SYSTEM

Recommended Calibration Interval	Nominal 1 year
Power Supply	External DC, 12 VDC, supplied from Bird 4421 Power Meter

ENVIRONMENTAL

Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Humidity	95% max (non-condensing)
Altitude	Up to 10,000 ft (3,048 m)

PHYSICAL

Size	5.2 in x 2.5 in x 3.25 in (137 mm x 64 mm x 83 mm)
Weight	1 lb 11 oz (0.8 kg)

CERTIFICATIONS

EMC	Designed to carry CE mark
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PRODUCT SELECTION GUIDE

Model	Freq Range	Power Range	Insertion Loss Max (with female "N" connector)	Insertion VSWR (with female "N" connector)	Directivity
4021	1.8 to 32 MHz	300 mW to 1 kW (1.2 kW max)	0.05 dB	1.05:1	30 dB
4022	25 MHz to 1 GHz	300 mW to 1 kW (1.2 kW max)	0.05 dB, 25 to 512 MHz, 0.13 dB, 512 MHz to 1 GHz	1.05:1: 25 to 512 MHz, 1.10:1: 512 MHz to 1 GHz	30 dB: 25 to 400 MHz, 26 dB: 400 to 1000 MHz
4023A3G	800 to 3000 MHz	300 mW to 200 W	0.15 dB	1.10:1	28 dB
4024	1.5 to 32 MHz	3 W to 10 kW (12 kW max)	0.05 dB	1.05:1	28 dB: 1.5-2.5 and 25 to 32 MHz, 30 dB: 2.5 to 25 MHz
4025	100 kHz to 2.5 MHz	3 W to 10 kW (12 kW max)	0.05 dB	1.05:1	28 dB: 100 to 125 kHz, 30 dB: 125 to 2500 kHz

birdrf.com/products

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