

Bird® Model 5011 & 5011-EF Terminating Power Sensor

Designed to make Terminating Power Measurements with the full flexibility of a portable precision instrument
(Requires Bird® MODEL 5000-EX, SA-4000, SA-2500A or SA-1700-P)

- Significant cost and time savings, easy to use and field ready
- No calibration and no elements required
- Both digital as well as analog modulations including (CDMA, GSM, TDMA, 8-VSB and COFDM)
- Broadcast Transmitter Power with accuracy of ±5% of readings
- Measure power directly or via coupled test port



Model 5011 Terminating Power Sensor

SPECIFICATIONS

Sensor Type	Terminating Power Sensor. Terminated average power measurement.
Frequency Range	5011 - 40 MHz - 4 GHz 5011EF - 40 MHz to 12 GHz
Power Range	-20.000 to +10.000 dBm (10.000 µW to 10.000 mW)
Peak/Average Ratio	12 dB max.
Accuracy	±5% of reading ±1mW RSS (excluding mismatch uncertainty)*
Warm Up Time	5 Minutes
Input Impedance	50 ohm (nominal)
Input VSWR	5011 -Typical 1.03 (36.6 dB return loss); maximum 1.20 (20.8 dB return loss) 5011-EF -Typical 1.05 (32.3 dB return loss); maximum 1.25 (19.1 dB return loss)
Input Connector	Precision N Male
Output Connector	Male DB-9 to interface to Digital Power Meter or Site Analyzer®
Power Supply	From host instrument via cable connection
Operating Temp.	-10°C to 50°C (14°F to 122°F)
Storage Temp.	-40°C to 80°C (40°F to 176°F)
Humidity	95% maximum (non-condensing)
Altitude	15,000 ft operating
Size	6" long (including connectors); 1.5" diameter
Weight	3/4 lb. max.

*When operating below 100 MHz and above 40°C, add 1%.
NOTE: The Bird® Model 5000-EX or the Bird® Site Analyzer® Series (SA-4000, SA-2500A, or SA-1700-P) is required.



ACCESSORIES

Model	Description
5000-EX SA-2500A	Digital Power Meter (DPM) Site Analyzer®, Antenna & Cable Tester (780 - 2500 MHz)
SA-4000	Site Analyzer®, Antenna & Cable Tester (25 - 4000 MHz)
SA-1700-P	Site Analyzer®, Antenna & Cable Tester (25 - 1700 MHz)
8353A040-50**	Attenuator, 50 W, 40 dB, N (F) to N (M) 100 mW to 50 W with TPS 5011
8353A030-10	Attenuator, 10 W, 30 dB, N (F) to N (M) 10 mW to 10 W with TPS 5011
5011-CALDATA	Calibration Data for TPS 5011 Attenuators and Accessories.
4240-500-1	Adapter, N (F) to N (F)
4240-500-3	Adapter, right angle, N (F) to N (M)
4240-500-4	Adapter, N (F) to SMA (F)
4240-500-5	Adapter, N (F) to SMA (M)
PA-FNME	Adapter, N (F) to 7/16 DIN (M)
PA-FNFE	Adapter, N (F) to 7/16 DIN (F)
TC-MNFN-1.5-G	Test cable, 1.5 m., N (M)/N (F) conn.
TC-MNFN-1.5	Test cable, armored, PS, 1.5 m., N (F) to N (M)
TC-MNFN-3.0	Test cable, armored, PS, 3.0 m., N (F) to N (M)
5011A035-1	DC Block, N (F) to N (M)

**Optional 40 dB attenuator provides 100 mW to 50 W capability, other ranges also available.

Bird® Wideband Coupler

- Cost effective
- Portable
- Easy-to-use



SPECIFICATIONS

Frequency Range	45 MHz - 230 MHz (VHF Models) 450 MHz - 890 MHz (UHF Models) 450 MHz - 800 MHz (6" UHF Models)
Maximum Power	Transmission line and frequency dependent
Nominal Coupling	Transmission line dependent (See Table 1)
Directivity	28 dB Min.
Coupler Output Connector	Type "N" Female
Coupler Output VSWR	1.2 Max.
Main Line VSWR	1.1 Max.
Coupling Uncertainty (after correction)	±0.05 dB
Operating Temp.	-10°C to 40°C
Storage Temp.	-20°C to 85°C
Weight	Transmission Line Dependent (See Table 2)
Dimensions	Transmission Line Dependent (See Table 2)

TABLE 1

Line Size	VHF	UHF
1-5/8"	62 dB ±2 dB	59 dB ±2 dB
3-1/8"	69 dB ±2 dB	64 dB ±2 dB
4-1/16"	70 dB ±2 dB	67 dB ±2 dB
6-1/8"	75 dB ±2 dB	75 dB ±2 dB

TABLE 2

Line Size	Length (in.)	Weight (lbs.)
1-5/8" Flanged	6.75	3.65
1-5/8" Unflanged	6.38	1.8
3-1/8" Flanged	7.03	6.0
3-1/8" Unflanged (recessed)	6.5	2.75
3-1/8" Unflanged (flush)	6.5	2.75
4-1/16" Flanged	8.38	8.88
4-1/16" Unflanged	7.5	2.88
6-1/8" Flanged	10.22	13.2
6-1/8" Unflanged	9.63	7.2