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## BIRD 43 Thruline®



Measures both forward and reflected CW power in 50Ω coaxial transmission lines. Low VSWR and insertion loss, ± 5% of full scale accuracy. Plug-in elements provide a wide choice of frequency ranges from 2 to 1000MHz and power levels from 1W to 10KW. Select one or more elements to suit your requirements.

Comes with your choice of SO-239 or Type-N connectors. Other Quick Change connectors available (see page 165).

6 7/8"h x 5 1/8"w x 3 5/8"d, 4.5 lbs.

| Part #             | Description                 | Price Ea. |
|--------------------|-----------------------------|-----------|
| BIRD MODEL 43-UHF  | with SO-239 UHF Female Conn | \$348.00  |
| BIRD MODEL 43-N    | with Type N Female Conn.    | 348.00    |
| BIRD MODEL 43P-N   | CW/PEAK WATTMETER. N Conn.  | 573.00    |
| BIRD MODEL 43P-UHF | CW/PEAK with SO-239 UHF     | 573.00    |

\* Quick Change Connectors can be found on page 165, Standard 7/8" Elements on page 162-163 and Peak Reading Elements on page 163.

**Ask about our reconditioned Bird Wattmeters.**

## 81000-A & 83000-A Series Wattmeters



Coaxial Dynamics Model 81000-A wattmeter can measure RF Power in 50 Ohm coaxial cable and transmission lines, and accept plug-in elements in the range of 100 mW to 10 kW full scale, and from 0.45 to 2300 MHz.

The 81000-A is easy to use. Simply connect the Wattmeter between the transmitter and antenna or dummy load, plug in the appropriate measuring element and select forward or reflected direction. The RF power is directly displayed on the 4-1/2" triple scale meter.

Versatile and strong, the Model 81000-A can be used with accessory cables up to 200 feet from the meter and is protected by a rugged, virtually indestructible shockproof housing. For added convenience, two sockets for storage of additional elements are located on the back of the unit. The use of a rugged shock mounted meter with a mirror-backed scale, along with superior taut band technology, provides reliable and accurate readings, and also that satisfies both the US Navy and Canadian standards for bounce and vibration. This is your assurance of complete accuracy.

The 83000-A is the same as the 81000-A with Peak Kit installed.

### Specifications

|   |                               |
|---|-------------------------------|
| Model:                                  | 81000-A                       |
| Impedance:                              | 50 ohms                       |
| Power Range:                            | 100mW to 10kW                 |
| RF Connectors:                          | Type-N female standard*       |
| Frequency Range:                        | 0.45 MHz to 2300 MHz          |
| Nominal Size:                           | 4" D x 5" W x 7.3"H           |
| VSWR:                                   | with N Connectors 1.05:1 max. |
| Weight:                                 | 3.6 lbs.                      |
| Accuracy:                               | ±5% of full scale             |
| Case Finish:                            | Blue Polyurethane Enamel      |
| *other Quick Match Connectors available |                               |



Shock mounted "taut band" Meter

- 4 1/2" mirrored Scale
- Quick Match Connectors
- Internal Line Section
- Gold Plated Plug-In Elements
- Two Year Limited Warranty

| Part #      | Description                            | Price Each |
|-------------|--|------------|
| CD81000AN   | with Type N Connectors                 | \$289.00   |
| CD81000AUHF | with SO-239 UHF Connectors             | 289.00     |
| CD83000AN   | with P.E.P. Kit and Type N Connectors  | 413.00     |
| CD83000AUHF | with P.E.P. Kit and UHF Connectors     | 413.00     |
| CD83050     | P.E.P. Kit for 81000-A                 | 130.00     |
| CD88950A    | Replacement Meter Movement for 81000-A | 135.00     |
| CD88800     | Carrying Case for 81000-A              | 75.00      |

## Looking for a Spectacular Deal?

Check out the Used Equipment section on our website at:

[www.rfparts.com](http://www.rfparts.com)

*You never know what you might find !*



- Wattmeters & Kits
- Carry Cases
- Elements
- Directional Couplers
- and more!*



## 81021 Dual Socket Wattmeter



The new Model 81021 Average Reading Dual Socket Wattmeter allows you to measure both Forward and Reflected RF power with the flip of a switch. The Model 81021 uses standard Elements to accurately detect average RF power from 100mw to 10 kW over a frequency range of 0.45 MHz to 2.3 GHz.

Complete with an internal dual socket 7/8" Line Section and Quick Match RF connectors, Model 81021 offers the speed and reliability you expect from Coaxial Dynamics. A convenient front panel switch gives the user the ability to display Forward or Reflected power on the analog meter.

The Model 81021 is easy to use. No additional black boxes or delicate remote sensors are needed. Simply connect the Wattmeter in-line between the RF source and the Antenna or Load, insert the appropriate Elements and select either the Forward or Reflected switch position. The RF power is visually identified directly on the large 4 1/2" mirrored scale.

Versatile and strong, the Model 81021 uses a heavy gauge metal case to protect the Wattmeter from impact shock and a leather strap makes for safe and comfortable handling. For added convenience, two sockets for storage of additional elements are located on the back of the unit.

Our use of a rugged shock mounted meter with a mirrored-backed scale along with superior taut band technology provides reliable and accurate readings, plus the integrity that satisfies both the US Navy and Canadian standards for bounce and vibration. This is your assurance of complete accuracy.

### Specifications

Model: 81021  
 Impedance: 50 ohms  
 Power Range: 100mW to 10kW  
 RF Connectors: Type-N female standard\*  
 Frequency Range: 0.45 MHz to 2.3 GHz  
 Nominal Size: 4" D x 5" W x 7.25"H  
 VSWR: with N Connectors 1.05:1 max.  
 Weight: 3.8 lbs.  
 Accuracy: ±5% of full scale  
 Case Finish: Textured Nitro-Blue Paint  
 \*other Quick Match Connectors available

| Part #     | Description                | Price Each |
|------------|----------------------------|------------|
| CD81021N   | with Type N Connectors     | \$385.00   |
| CD81021UHF | with SO-239 UHF Connectors | 385.00     |



- Shock Mounted "Taut Band" Meter
- Large 4-1/2" Mirrored Scale
- Internal Dual Socket 7/8" Line Section
- Switch for Forward or Reflected Power
- Quick Match Connectors
- Uses Standard Gold Plated Plug-In Elements
- Two Year Limited Warranty

## 83060 Peak Reading Wattmeter



Similar in appearance and operation to our standard Model 81010 Wattmeter, the Model 83060 converts from Average Reading to Peak Reading with the flip of a switch, by inserting a peak reading amplifier between the element and the meter.

The Model 83060 is designed to measure RF power in amplitude modulated systems such as television, telemetry, radar and peak envelope power (PEP) such as SSB and AM signals.

The use of a rugged shock mounted meter with a mirror-backed scale, along with superior taut band technology, provides reliable and accurate readings, and also that satisfies both the US Navy and Canadian standards for bounce and vibration. This is your assurance of complete accuracy.

Your confidence in the quality and dependability of the Model 83060 Wattmeter is assured with the Coaxial Dynamics Two Year Limited Warranty.

### Specifications

Model: 83060  
 Power Ranges: 15, 50, 150, 500 and 1500 watts full scale (500 watts maximum from 800 to 1000 MHz)  
 Frequency Range: 25 MHz to 1000 MHz  
 VSWR: 1.08 max. from 25 to 512 MHz (with UHF female connectors) 1.12 max. from 512 to 1000 MHz (with UHF female connectors)  
 Accuracy: **(Average Mode)** 25 to 100 MHz, ±7% of full scale using corrections chart 100 to 512 MHz, ±6% of full scale, no correction required 512 to 1000 MHz, ±7% of full scale, no correction required **(Peak Mode)** 25 to 100 MHz, ±9% of full scale using corrections chart 100 to 512 MHz, ±8% of full scale, no correction required 512 to 1000 MHz, ±9% of full scale, no correction required  
 Insertion Loss: 0.10 dB max. from 25 to 512 MHz (with UHF female connectors) 0.15 dB max. from 512 to 1000 MHz (with UHF female connectors)  
 Element: Non-removable Broadband (25 to 1000 MHz, 1500 watts max.)



- Non-removable broadband Element
- Shock mounted "taut band" Meter
- 4 1/2" mirrored Scale
- Quick Match Connectors
- Internal Line Section
- Supplied with Type-N female connector
- Gold Plated Plug-In Elements
- Two Year Limited Warranty

Part #: CD83060 · Price Ea. \$723.00

## BIRD Model 4304A



Covers all power ranges required for measurement of all two-way communications systems.

25-1000 MHz, with one broadband, locked-in-place element calibrated to the instrument. 5-500 watt, selectable scales: 5, 15, 50, 150, 500w (150w max, 800-1000 MHz).

Similar to Model 43, with UHF connectors. Other connectors available using Bird Quick Change or Unidapt system.

RF Parts Special: \$647.00



## BIRD Model 4308



Dedicated UHF/Cellular/Trunking Wattmeter

440-960 MHz, two-way / trunking / cellular. 1.5-50 watts, selectable scales 1.5, 5, 15, 50 watts included.

Connectors: TNC female. Other connectors available using Bird Quick Change or Unidapt system.

RF Parts Special: \$781.00



## Wattmeters by Diamond Antenna

The **SX20C**, **SX40C** and **SX240C** are compact SWR-power meters, featuring cross needle design for measuring SWR and output power simultaneously.

Compact size makes them very useful for testing mobile as well as base station installation. The SX240C also features a 3KW Power Range for HF use.



### SX20C Specifications:

Freq. Range:  
3.5-30 / 50-54 / 130-150 MHz

Power Ranges:  
30W & 300W

Size:  
3 5/16" W x 3 5/16" H x 3 3/4" D

Model: **SX20C**  
Price: **\$89.95 ea.**

### SX40C Specifications:

Freq. Range:  
144 - 470 MHz

Power Ranges:  
30W & 300W

Size:  
3 5/16" W x 3 5/16" H x 3 3/4" D

Model: **SX40C**  
Price: **\$82.95 ea.**



### SX240C Specifications:

Freq. Range:  
1.8-54 / 140-470 MHz (220 MHz with correction factor)  
Power Ranges: 30W, 300W and 3 KW (HF only)

Model: **SX240C** · Price: **\$349.95 ea.**

## 7601 Field Strength Meter



### Coaxial Dynamics Model 7601

Relative Field Strength Meter is used for measuring the relative strengths of radiating fields of patterns from a transmitting antenna system, making relative RF power measurements, or peaking and adjusting fixed or portable transceivers and antennas.

The Model 7601 is usable over a frequency range of 1 to 3000 MHz with superior performance characteristics and with greater sensitivity. A one watt CW source from a unity gain antenna at 150 MHz will typically cause full scale deflection at a distance of 10 feet with the gain control set at maximum. The large easy to read meter is plainly visible from many feet away.

The detachable antenna feature allows the user to select from two available antennas. The instrument is normally supplied with a Rubber Duck style antenna. An optional telescoping antenna (see options below) with a range of 4 to 19 inches is also available for even greater sensitivity.

Your confidence in the quality and dependability of the Model 7601 Relative Field Strength Meter is assured with the Coaxial Dynamics Two Year Limited Warranty.

*Note: Model 7601 can also be connected directly to an existing base or mobile antenna.*

### Specifications

|                      |   |     |
|----------------------|---|-----|
| Model:               | 7   | 601 |
| Frequency Range:     | 1 to 3000 MHz   |     |
| Typical Sensitivity: | 1 Watt CW source from a unity gain antenna at 150 MHz will cause full scale deflection at 10-ft with the gain control set at maximum. |     |
| Battery:             | One   |     |
| Dimensions:          | 3.13" x 5" x 2.13"  |     |
| Weight:              | 8 oz. (without Antenna attached)  |     |
| Case Finish:         | Textured Blue and Tan Polyurethane Enamel   |     |

Part #: **CD7601** · Price: **\$219.00**



- Superior Sensitivity
- Broadband Operation
- Adjustable Gain Control
- Internal Battery Test Circuit
- Detachable Antenna
- Two Year Limited Warranty

## BIRD 4041 Field Strength Meter



The Model 4041 Meter is a self-contained, compact instrument that performs exactly the same functions as the 4030 element in a Bird 43 meter.



### Specifications:

|                            |  |   |
|----------------------------|--|---|
| Model:                     | 404  | 1 |
| Frequency Range:           | 1 to 10  |   |
| Dynamic Range:             | 30 dB min.   |   |
| Typical Sensitivity:       | Full-scale deflection at 8 ft. (2 1/2 m) from a 1 W source broadcasting at 150 MHz through a quarter wave antenna. |   |
| Battery Life:              | 200 hours min.   |   |
| Battery Type:              | One 9V Alkaline "transistor" battery (NEDA #1604A)   |   |
| Ambient Temperature Range: | 0°C to +50°C   |   |

Nominal Size (w/out antenna): 4 3/8" L x 2 1/2" W x 2 1/4" D  
Weight (includes batteries): 10 oz.

Part #: **4041** · Price: **\$345.00 ea.**

## 81041 Dual Socket Directional Wattmeter



- Forward & Reflected Power in W & dBm
- Auto Calculation of SWR & Return Loss
- Internal Dual Socket 7/8" Line Section
- Switch for Forward or Reflected Power
- Quick Match (QM) Connectors
- Uses Standard 7/8" Elements
- Two Year Limited Warranty

**Part #: 81041N**  
**Price: \$579.00 ea.**

\* Quick Change (QM) Connectors are listed on page 165, and Standard Elements on page 163.

The Model 81041 is a portable, self-contained RF Wattmeter that features a studio-quality analog meter and USB interface. Numeric, analog meter, and bar graph data are simultaneously displayed on a PC's monitor. The functions indicated are Forward and Reflected Power, both in Watts and dBm, plus an automatic calculation of SWR and Return Loss. The internal dual socket line section and forward/reflected switch gives the user the ability to display either forward or reflected on the analog meter, while both are displayed on the PC.

Our use of a rugged shock mounted meter with a mirror-backed scale along with superior taut band technology, provides reliable and accurate readings of either forward or reflected power on the meter.

The Model 81041 uses standard elements\* to detect average RF power from 100 mW to 10 kW over a Frequency Range of 2 MHz to 2.3 GHz.

Software and a detachable six foot USB cable are included for a simple installation on any PC using Windows Vista, 2000, XP or NT. No additional cables, AC or DC power adapters, batteries or custom remote sensors are required. Type N female connectors are standard with over 20 interchangeable QM connectors\* available such as 7/16, SMA, UHF, BNC and TNC types in male and female genders.

|                       |                             |
|-----------------------|-----------------------------|
| <b>Specifications</b> |                             |
| Power Range           | 100mW to 10kW               |
| Frequency Range       | 2 MHz to 2.3 GHz            |
| VSWR                  | 1.05:1 Max (w/ N connector) |
| Accuracy              | +/- 5% of full scale        |
| Impedance             | 50 Ohms                     |
| RF Connectors         | N Standard                  |
| Nominal Size          | 7.25" H x 5" W x 4" D       |
| Weight                | 4.3 lbs (2kg)               |
| Case Finish           | Textured Nitro Blue Paint   |

## 81030 Directional Wattmeter

### RF Power Meter Features

#### Microcontroller & LCD Display

The model 81030 portable RF Power Meter features a large LCD Display for faster and better readability at a distance or any viewing angle compared to analog (needle) indicators.

Forward or reflected RF Power from 100 mW to 10 kW (+20 dBm to +70 dBm) and 2 to 2300 MHz are possible with precision, plug-in elements that are standard in the marketplace. RF Power is displayed in either Watts or dBm and accuracy is +/- 5% of full scale. Internal rechargeable batteries are included along with a customer-specified 110 or 220 VAC adapter/charger at no additional cost.

N type female connectors are standard with up to 20 interchangeable QM connectors\* available such as 7/16, SMA, BNC and TNC.

|                       |  |
|-----------------------|--|
| <b>Specifications</b> |  |
| Power Range           | 100mW to 10kW                            |
| Frequency Range       | 2 to 2300 MHz                            |
| VSWR                  | 1.05:1 Max (w/ N connector)              |
| Accuracy              | +/- 5% of full scale                     |
| Impedance             | 50 Ohms                                  |
| RF Connectors         | N Standard<br>(other QM Types available) |
| Nominal Size          | 7.25" H x 5" W x 4" D                    |
| Weight                | 4.3 lbs (2kg)                            |
| Case Finish           | Textured Nitro Blue Paint                |

**Part #: 81030-110 (110VAC) - Price: \$439.00 ea.**  
**Part #: 81030-220 (220VAC) - Price: \$439.00 ea.**

\* Quick Change (QM) Connectors are listed on page 165, and Standard Elements on page 163.



- Advanced 3/4" LCD Display
- Watt or dBm Readout
- Internal 7/8" Line Section
- Quick Match (QM) Connectors
- Uses Standard 7/8" Elements
- Two Year Limited Warranty

## BIRD Model 4391A

### RF Directional Wattmeter

The ruggedly built, multifunction Model 4391A RF Power Analyst features a digital display, microprocessor-based operation, and simplified, push-button control. This wattmeter is well suited to C3, telemetry, two-way communications, avionics and radar, as well as standard radio and television applications.



Ask about reconditioned 4390 & 4391 meters.

- Frequency: 0.45 to 2700 MHz.
- Power: 100 mW to 10 kW with 20% over-range.
- Reads forward and reflected CW or FM power in watts or dBm, Peak Envelope Power or SSB/DSB and symmetrical AM in watts, and peak power for pulses as narrow as 0.8 ms.
- Calculates SWR, return loss in dB and % modulation.
- Stores peak and null readings to facilitate adjustment of maximum and minimum signal levels.
- Shock-resistant keyboard and range switches. RFI protection.
- Built-in international power supply/charger.

### Specifications:

|                       |  |
|-----------------------|--|
| Model:                | 4391A  |
| Power Range:          | 100mW to 10 kW using Bird Plug-in Elements   |
| Frequency Range:      | 450 kHz to 2.7 GHz   |
| Insertion VSWR:       | with N Connectors 1.05 max to 1000 MHz   |
| Accuracy:             | Power Readings: ±5% of full scale CW ±8% PEP;<br>VSWR: ±10% of reading %<br>Modulation: (CW power 1/3 or more of full scale) ±5%<br>(0-90%) ±10% (90-100%) |
| Usable Over-range:    | to 120% of scale (CW, PEP, SWR and Return Loss)  |
| Sampling Rate:        | 2 to 3 readings per second   |
| Display:              | 3 1/2 digit, 0.3" LED strobed  |
| Modulation Frequency: | 25 to 10,000 Hz (Audio)  |
| Pulse Parameters:     | (min.) Pulse width 0.8 ms (100-2700 MHz), 1.5 ms (26-99 MHz) and 15 ms (2-25 MHz); Repetition Rate 25 PPS, and Duty Factor 1 x 10-4 min.                   |
| Return Loss:          | ±0.3 dB to corresponding SWR value   |
| Battery Life:         | ± 8 hours (rechargeable)   |
| AC Power:             | 100-130/200-260 V, 50/60 Hz, 6 W   |
| Connectors:           | QC Type (Female N normally supplied)   |
| Nominal Size:         | (includes connectors) 9 9/16" L x 5 7/32" W x 4 5/16" H  |
| Weight:               | 5 3/4 lbs.   |

**Part #: 4391A - RF Parts Special: \$1760.00**



# WATTMETER ACCESSORIES

## Bird Variable RF Signal Sampler



**Bird Models 4273 (1.5 to 35 MHz, 5 kW max.) and Model 4275 (20 to 1000 MHz, 1 kW max.)** are "stand alone", wide-range, THRULINE® RF coupling probes for spectrum analysis, RF signal observation on a scope, or frequency counting and control. They feature very low VSWR throughout a broad frequency and attenuation range. Insertion loss is a negligible 0.1 dB. Both Models produce an unrectified sample at the BNC port that is adjustable. Once adjusted, the setting can be locked in place. The main power line connectors are Bird QC type.



### Specifications for both Models

Impedance: 50 ohms nominal  
 Coupling: Adjustable as shown within  $\pm 3$ dB  
 Ambient Temp Range:  $-40^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$   
 Connectors: QC type as specified  
 Nominal Size: 2 51/64" L x 2 7/8" W x 1 1/4" D  
 Weight: 10 oz.

### 4273 Specifications

Power Rating: 5 kW max  
 Frequency Range: 1.5 - 35 MHz  
 Insertion VSWR: with N connectors ~ 1.07 max.

### 4275 Specifications

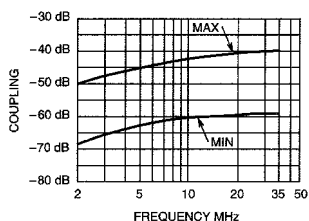
Power Rating: 1 kW max.  
 Frequency Range: 20 - 1000 MHz  
 Insertion VSWR: with N connectors ~ 0.1 dB max.

| Part #   | QC Connectors      | Price Ea. |
|----------|--------------------|-----------|
| 4273     | No Connectors*     | \$242.00  |
| 4273-020 | N: Male/Female     | 273.50    |
| 4273-025 | N: Female/Female   | 260.00    |
| 4273-030 | UHF: Male/Female   | 330.00    |
| 4273-035 | UHF: Female/Female | 280.00    |

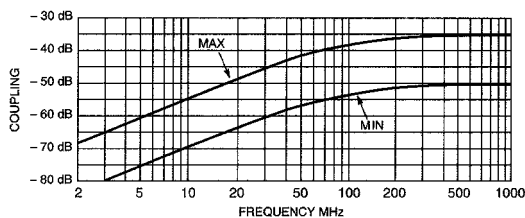
\*Select from our list of QC Connectors.

| Part #   | QC Connectors      | Price Ea. |
|----------|--------------------|-----------|
| 4275     | No Connectors*     | \$242.00  |
| 4275-020 | N: Male/Female     | 273.50    |
| 4275-025 | N: Female/Female   | 260.00    |
| 4275-030 | UHF: Male/Female   | 330.00    |
| 4275-035 | UHF: Female/Female | 280.00    |

\*Select from our list of QC Connectors.



Model 4273



Model 4275

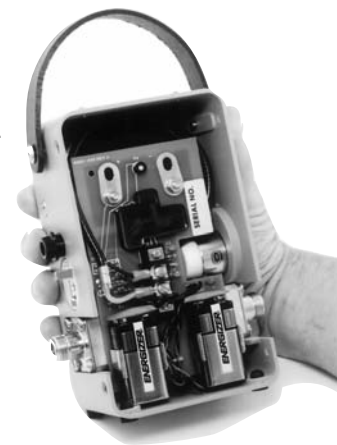
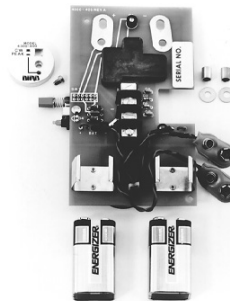
## Peak Power Measurement Modification Kit

for BIRD Model 43 Wattmeters

15 minutes/no soldering will turn your Bird into a True Peak Reading Meter.

Accuracy: CW mode  $\pm 5\%$ /Peak mode  $\pm 8\%$ .  
 9V transistor radio batteries included.

Part #: 4300-400  
 Price: \$178.00



## Misc. Accessories



### Connector Cables

**Special meter connecting cable for Bird Directional Couplers.**

Allows 2080-002 meter to be remotely operated from Directional Couplers shown on page 161

| Part          | Our Part #  | Net     |
|---------------|-------------|---------|
| Connector     | 7500-076    | \$15.95 |
| 39 1/2" Cable | 7500-072-1  | 24.95   |
| 15' Cable     | 7500-072-3  | 27.95   |
| 25' Cable     | 7500-072-25 | 36.95   |

## Replacement Meters for the Bird 43

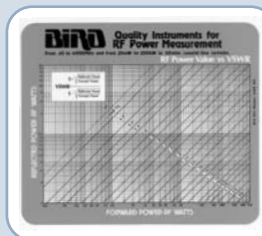
**Fix that broken wattmeter with a new calibrated BIRD Meter Movement.**

These meters may be connected to BIRD's directional couplers for remote measurement. See connecting cables 7500 series above.



Part #: 2080-002 · \$95.00

## BIRD Power vs. VSWR Chart



**Nomograph gives fast reference from Power to VSWR.**

Made of laminated plastic for heavy use. 5 1/2" x 6 1/2", 2 sided.

Part #: 4400-012 · \$10.00 ea.

## Replacement Feet for Bird Wattmeters

4 per package.

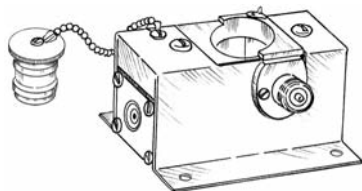
Part #: RP5-1388 · \$2.00/pkg.

WATTMETER ACCESSORIES: RF Signal Sampler, Peak power Mod Kit, and Misc.

## Directional Couplers



All couplers utilize standard BIRD Quick Change Connectors and BIRD Elements. Mounting brackets included with 4522-002-5. These couplers are designed to match standard BIRD meter P/N 2080-002.



**Single Directional Coupler**  
With Cover/Bracket

**Part #: 4230-059**  
**Price: \$169.95**



**Dual Directional Coupler**  
Ideal for remote measurements. Switch between the two elements for forward & reverse power reading.

**Part #: 4522-002-5**  
**Price: \$215.00**

## Bird Directional Coupler Elements



The directional coupler plug-in elements listed below are used for signal leveling, frequency control, wave-shape monitoring, local oscillator or marker signal injection, etc. They extract a calibrated amount of power from the main line signal flowing in the direction of the arrow. This attenuated signal is NOT rectified (as in the standard measuring elements), but is brought out through a female BNC connector on top of the element. Coupler elements fit the standard sockets, but there are no dc output tabs on the element body since no dc is produced. An added convenience is rotating the element between 0° and 180°; varies the amount of coupling like a variable attenuator. Minimum attenuation of the main line signal is the nominal coupling  $\pm 1$  dB shown for each unit within the stated frequency band. Select from table below.

| Frequency Band (MHz) | Nominal Coupling<br>Max. Main Line Power* | Model   | Price Each |
|----------------------|---|---------|------------|
| 50-100               |   | 400-50  | \$ 135.00  |
| 75-150               |   | 400-75  | 135.00     |
| 125-250 -40          | dB  | 400-125 | 135.00     |
| 225-450 1            | kW  | 400-225 | 135.00     |
| 400-800 400-400      |   |         | 135.00     |
| 750-1250 400-750     |   |         | 135.00     |

\*The power rating of the directional couplers cannot exceed the peak and average power ratings of the transmission line.

## Sampler Elements

### CD X-Tractor Sampler Elements



The X-Tractor Series sampler elements from Coaxial Dynamics are Directional or Non-Directional couplers that replace the standard element in your wattmeter for such applications as RF signal observation, spectrum analysis or frequency counting and control where main line power does not exceed 10,000W on Non-Directional or 1000W on Directional X-Tractors. CDI elements come with a 2 Year limited Warranty.

#### Non-Directional, Adjustable

| Model | Line Size | Coupling (dB) | Price    |
|-------|-----------|---------------|----------|
| 87004 | 7/8"      | 43 +/- 8 dB   | \$100.00 |
| 87005 | 7/8"      | 45 +/- 8 dB   | 100.00   |

Power Range: Up to 10,000 Watts  
 Frequency Range: 2 MHz to 1000 MHz  
 VSWR: 1.1:1 max 2 to 512 MHz  
 1.25:1 max 512 to 1000 MHz  
 Insertion Loss: 0.1 dB max 2 to 512 MHz  
 0.2 dB max 512 to 1000 MHz  
 Accuracy:  $\pm 5\%$  of full scale  
 Impedance: 50-Ohms  
 Connector: BNC Female  
 Weight: 1.25 oz. (.035 kg)

#### Directional, Fixed

| Model   | Line Size | Max Power | Coupling (dB)   | Frequency Range | Price    |
|---------|-----------|-----------|-----------------|-----------------|----------|
| 87014S* | 7/8"      | 1000 W    | 37.5 +/- .75 dB | 54 to 90 MHz    | \$147.00 |
| 87015*  | 7/8"      | 1000 W    | 50 +/- 1 dB     | 50 to 500 MHz   | 105.00   |
| 87016   | 7/8"      | 1000 W    | 37.5 +/- .75 dB | 174 to 230 MHz  | 147.00   |

\* +/- 1 dB at 174 to 500 MHz, Coupling drops to 48 dB at 50 MHz

VSWR: 1.1:1 max  
 Insertion Loss: 0.1 dB max  
 Accuracy:  $\pm 5\%$  of full scale  
 Directivity: 30 dB  
 Impedance: 50-Ohms  
 Connector: BNC Female  
 Weight: 1.25 oz. (.035 kg)

### BIRD 4274 Sampler Elements



The 4274 Series sampler elements are non-directional couplers that replace the standard element in your Bird 43 wattmeter for such applications as RF signal observation, spectrum analysis or frequency counting and control where main line power does not exceed 500 w. The Model 4274-025 is a wide range device that provides an unrectified signal at about -50 dB  $\pm 2$  dB from 25-1000 MHz tapering to -66 dB at 2 MHz. The Model 4274-050 delivers a variable unrectified signal from -35 to -48 dB ( $\pm 1$  dB) from 100-400 MHz.

#### Non-Directional Sampler Elements for QC-Type or 7/8" EIA Line

| Model    | Frequency Band (MHz) | Nominal Coupling                       | Max. Main Line Power | Price Each |
|----------|----------------------|--|----------------------|------------|
| 4274-025 | 25-1000              | -50 dB $\pm 2$ dB<br>(-66 dB @ 2 MHz)  | 500w                 | \$129.00   |
| 4274-050 | 100-400              | -35 to -48 dB ( $\pm 1$ dB) Adjustable | 500 w                | 138.95     |

## Peak Reading Elements for Model 43

| Power  | 0.45 - 2.5 MHz | Net Each  |
|--------|----------------|-----------|
| 1000w  | Bird 1000P     | \$ 180.00 |
| 2500w  | Bird 2500P     | 265.00    |
| 5000w  | Bird 5000P     | 265.00    |
| 10000w | Bird 10000P    | 265.00    |



# WATTMETER ACCESSORIES

## 7/8" Wattmeter Elements for BIRD 43 and Coaxial Dynamics 81000 Series Meters



Coaxial Dynamics and Bird Electronics 7/8" Elements are designed to meet the same specifications, and are 100% interchangeable.



**Dust / Safety Plug**  
Part #: 3610-031 · Price Each: \$ 8.95

*RF Parts Company is an Authorized Coaxial Dynamics Distributor. Contact RF Parts for all your Coaxial Dynamics needs.*

### Standard Elements

| Watts | 0.45-2.5 MHz |        | 2-30 MHz      |          | 25-60 MHz  |          | 50-125 MHz |          | 100-250 MHz |          | 200-500 MHz |          | 400-1000 MHz |       |
|-------|--------------|--------|---------------|----------|------------|----------|------------|----------|-------------|----------|-------------|----------|--------------|-------|
| 5     | -            |        | Not Available | Bird 5A  | \$83.00    | Bird 5B  | \$83.00    | Bird 5C  | \$83.00     | Bird 5D  | \$83.00     | Bird 5E  | \$83.00      |       |
|       | -            |        | Not Available | CD 82012 | 75.00      | CD 82020 | 75.00      | CD 82028 | 75.00       | CD 82036 | 75.00       | CD 82045 | 75.00        |       |
| 10    | -            |        | Bird 10H      | \$171.00 | Bird 10A   | 83.00    | Bird 10B   | 83.00    | Bird 10C    | 83.00    | Bird 10D    | 83.00    | Bird 10E     | 83.00 |
|       | -            |        | Not Available | CD 82013 | 75.00      | CD 82021 | 75.00      | CD 82029 | 75.00       | CD 82037 | 75.00       | CD 82046 | 75.00        |       |
| 25    | -            |        | Bird 25H      | 171.00   | Bird 25A   | 83.00    | Bird 25B   | 83.00    | Bird 25C    | 83.00    | Bird 25D    | 83.00    | Bird 25E     | 83.00 |
|       | -            |        | Not Available | CD 82014 | 75.00      | CD 82022 | 75.00      | CD 82030 | 75.00       | CD 82038 | 75.00       | CD 82047 | 75.00        |       |
| 50    | -            |        | Bird 50H      | 171.00   | Bird 50A   | 83.00    | Bird 50B   | 83.00    | Bird 50C    | 83.00    | Bird 50D    | 83.00    | Bird 50E     | 83.00 |
|       | -            |        | CD 82004      | 105.00   | CD 82015   | 75.00    | CD 82023   | 75.00    | CD 82031    | 75.00    | CD 82039    | 75.00    | CD 82048     | 75.00 |
| 100   | -            |        | Bird 100H     | 171.00   | Bird 100A  | 83.00    | Bird 100B  | 83.00    | Bird 100C   | 83.00    | Bird 100D   | 83.00    | Bird 100E    | 83.00 |
|       | -            |        | CD 82005      | 105.00   | CD 82016   | 75.00    | CD 82024   | 75.00    | CD 82032    | 75.00    | CD 82041    | 75.00    | CD 82049     | 75.00 |
| 250   | -            |        | Bird 250H     | 171.00   | Bird 250A  | 83.00    | Bird 250B  | 83.00    | Bird 250C   | 83.00    | Bird 250D   | 83.00    | Bird 250E    | 83.00 |
|       | -            |        | CD 82006      | 105.00   | CD 82017   | 75.00    | CD 82025   | 75.00    | CD 82033    | 75.00    | CD 82042    | 75.00    | CD 82050     | 75.00 |
| 500   | -            |        | Bird 500H     | 171.00   | Bird 500A  | 83.00    | Bird 500B  | 83.00    | Bird 500C   | 83.00    | Bird 500D   | 83.00    | Bird 500E    | 83.00 |
|       | -            |        | CD 82007      | 105.00   | CD 82018   | 75.00    | CD 82026   | 75.00    | CD 82034    | 75.00    | CD 82043    | 75.00    | CD 82051     | 75.00 |
| 1000  | Bird 1000P   | 265.00 | Bird 1000H    | 171.00   | Bird 1000A | 83.00    | Bird 1000B | 83.00    | Bird 1000C  | 83.00    | Bird 1000D  | 83.00    | Bird 1000E   | 83.00 |
|       | -            | -      | CD 82008      | 105.00   | CD 82019   | 75.00    | CD 82027   | 75.00    | CD 82035    | 75.00    | CD 82044    | 75.00    | CD 82052     | 75.00 |
| 2500  | -            |        | Bird 2500H    | 259.00   |            |          |            |          |             |          |             |          |              |       |
|       | -            |        | CD 82009      | 139.00   |            |          |            |          |             |          |             |          |              |       |
| 5000  | -            |        | Bird 5000H    | 259.00   |            |          |            |          |             |          |             |          |              |       |
|       | -            |        | CD 82010      | 139.00   |            |          |            |          |             |          |             |          |              |       |

WATTMETER ACCESSORIES: Standard Elements

## 7/8" Wattmeter Elements for BIRD 43 and Coaxial Dynamics 81000 Series Meters

### Pulse Power Elements

| Watts | 0.45-2.5 MHz |        | 2-30 MHz                  |        | 25-60 MHz  |        | 50-125 MHz  |        | 100-250 MHz |        | 200-500 MHz |        | 400-1000 MHz |        |
|-------|--------------|--------|---------------------------|--------|------------|--------|-------------|--------|-------------|--------|-------------|--------|--------------|--------|
| 2500  | Bird 2500P   | 265.00 | —                         | —      | Bird 2500A | 175.00 | Bird 2500B  | 175.00 | Bird 2500C  | 175.00 | —           | —      | Bird 2500E   | 175.00 |
|       | —            | —      | —                         | —      | CD 82053   | 162.00 | CD 82054    | 162.00 | CD 82055    | 162.00 | CD 82056    | 162.00 | CD 82057     | 162.00 |
| 5000  | Bird 5000P   | 265.00 | —                         | —      | Bird 5000A | 175.00 | Bird 5000B  | 175.00 | Bird 5000C  | 175.00 | —           | —      | Bird 5000E   | 175.00 |
|       | —            | —      | —                         | —      | CD 82058   | 162.00 | CD 82059    | 162.00 | CD 82060    | 162.00 | CD 82061    | 162.00 | CD 82062     | 162.00 |
| 10000 | Bird 10000P  | 265.00 | Bird 10000H               | 259.00 | —          | —      | Bird 10000B | 259.00 | —           | —      | —           | —      | Bird 10000E  | 259.00 |
|       | —            | —      | CD 82011                  | 162.00 | CD 82063   | 162.00 | CD 82064    | 162.00 | CD 82065    | 162.00 | CD 82066    | 162.00 | CD 82067     | 162.00 |
| 25000 | —            | —      | Only for 81000A Wattmeter |        | —          | —      | —           | —      | —           | —      | —           | —      | —            | —      |
|       |              |        | CD 820S016                | 166.00 |            |        |             |        |             |        |             |        |              |        |

Bird Elements 500 - 1000 Watts, 950 - 1260 MHz, are rated at 100 Watts average. Bird Elements 2500 Watts and higher, 25-1000 MHz, are rated at 1000 Watts average. Bird Elements are capable of reading peak and average power. Coaxial Dynamics Elements are peak mode only.

### High Frequency Elements



| Watts | 950-1260 MHz |        | 1100-1800 MHz |        | 1700-1999 MHz |        | 1999-2200 MHz |        | 2200-2300 MHz |        | 2300-2400 MHz |        | 2400-2500 MHz |        | 2500-2600 MHz |        | 2600-2700 MHz |        |
|-------|--------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| 1     | BIRD 1J      | 171.00 | BIRD 1K       | 171.00 | BIRD 1L1      | 171.00 | BIRD 1L2      | 171.00 | BIRD 1M       | 171.00 | BIRD 431-17   | 171.00 | BIRD 431-20   | 171.00 | BIRD 431-23   | 171.00 | BIRD 431-120  | 171.00 |
|       | —            | —      | CD 82077      | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 2.5   | BIRD 2.5J    | 171.00 | BIRD 2.5K     | 171.00 | BIRD 2.5L1    | 171.00 | BIRD 2.5L2    | 171.00 | BIRD 2.5M     | 171.00 | BIRD 431-110  | 171.00 | BIRD 431-107  | 171.00 | BIRD 431-108  | 171.00 | BIRD 431-117  | 171.00 |
|       | —            | —      | CD 82078      | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 5     | BIRD 5J      | 171.00 | BIRD 5K       | 171.00 | BIRD 5L1      | 171.00 | BIRD 5L2      | 171.00 | BIRD 5M       | 171.00 | BIRD 432-15   | 171.00 | BIRD 432-28   | 171.00 | BIRD 432-2    | 171.00 | BIRD 432-12   | 171.00 |
|       | CD 82068     | 156.00 | CD 82079      | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 10    | BIRD 10J     | 171.00 | BIRD 10K      | 171.00 | BIRD 10L1     | 171.00 | BIRD 10L2     | 171.00 | BIRD 10M      | 171.00 | BIRD 432-125  | 171.00 | BIRD 432-141  | 171.00 | BIRD 432-102  | 171.00 | BIRD 432-104  | 171.00 |
|       | CD 82069     | 156.00 | CD 82080      | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 25    | BIRD 25J     | 171.00 | BIRD 25K      | 171.00 | BIRD 25L1     | 171.00 | BIRD 25L2     | 171.00 | BIRD 25M      | 171.00 | BIRD 433-19   | 171.00 | BIRD 433-20   | 171.00 | BIRD 433-35   | 171.00 | BIRD 433-36   | 171.00 |
|       | CD 82070     | 156.00 | CD 82081      | 149.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 50    | BIRD 50J     | 171.00 | BIRD 50K      | 171.00 | BIRD 50L1     | 171.00 | BIRD 50L2     | 171.00 | BIRD 50M      | 171.00 | BIRD 433-37   | 171.00 | BIRD 433-38   | 171.00 | BIRD 433-163  | 171.00 | BIRD 433-164  | 171.00 |
|       | CD 82071     | 156.00 | CD 82082      | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 100   | BIRD 100J    | 171.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
|       | CD 82072     | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 250   | BIRD 250J    | 171.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
|       | CD 82073     | 156.00 | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |

### High Frequency Milliwatt Elements



| Watts  | 950-1260 MHz |        | 1250-1500 MHz |        | 1500-1700 MHz |        | 1700-2200 MHz |        | 2300-2400 MHz |        | 2400-2500 MHz |        | 2500-2600 MHz |        |
|--------|--------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| 100 mW | BIRD 430-82  | 262.00 | BIRD 430-209  | 262.00 | BIRD 430-210  | 262.00 | BIRD 430-178  | 262.00 | BIRD 430-211  | 262.00 | BIRD 430-182  | 262.00 | —             | —      |
|        | —            | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 250 mW | —            | —      | —             | —      | —             | —      | BIRD 430-1    | 262.00 | BIRD 430-239  | 262.00 | BIRD 430-240  | 262.00 | BIRD 430-241  | 262.00 |
|        | —            | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |
| 500 mW | —            | —      | BIRD 430-259  | 262.00 | —             | —      | BIRD 430-95   | 262.00 | —             | —      | BIRD 430-159  | 262.00 | —             | —      |
|        | —            | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      | —             | —      |

# WATTMETER ACCESSORIES

## Milliwatt Elements For Bird 43 and Coax Dynamics Meters

| <br>Bird Electronic: \$175.00 |              | <br>Coaxial Dynamics: \$142.00 |              |
|--|--------------|---|--------------|
| Freq. MHz  | Model Number | Freq. MHz   | Model Number |
| <b>100 mW</b>  |              |   |              |
| –  | –            | 20-23   | 820A022      |
| 45-50  | 430-266      | 44-50   | 820A047      |
| –  | –            | 62-70   | 820A066      |
| 72-76  | 430-2        | 72-76   | 820A074      |
| –  | –            | 105-120   | 820A113      |
| 108-136  | 430-57       | 125-136   | 820A130      |
| 135-175  | 430-86       | 135-165   | 820A150      |
| –  | –            | 160-175   | 820A167      |
| –  | –            | 190-205   | 820A198      |
| 320-340  | 430-205      | 310-350   | 820A330      |
| 400-420  | 430-7        | 400-420   | 820A410      |
| 420-450  | 430-208      | –   | –            |
| 450-470  | 430-8        | 450-470   | 820A460      |
| 600-800  | 430-169      | 740-760   | 820A750      |
| 800-1000   | 430-263      | 800-900   | 820A850      |
| <b>250 mW</b>  |              |   |              |
| 72-76  | 430-22       | 70-80   | 820B075      |
| –  | –            | 72-76   | 820B074      |
| 88-108   | 430-217      | –   | –            |
| 105-120  | 430-20       | 105-120   | 820B113      |
| 116-126  | 430-48       | –   | –            |
| 130-150  | 430-13       | 130-150   | 820B140      |
| –  | –            | 150-180   | 820B165      |
| 190-210  | 430-65       | –   | –            |
| –  | –            | 310-350   | 820B330      |
| –  | –            | 416-436   | 820B426      |
| 450-470  | 430-61       | –   | –            |
| –  | –            | 800-900   | 820B850      |
| 800-1000   | 430-264      | 900-950   | 820B925      |
| <b>500 mW</b>  |              |   |              |
| –  | –            | 25-30   | 820C028      |
| –  | –            | 65-90   | 820C078      |
| 72-76  | 430-33       | 72-76   | 820C074      |
| 88-108   | 430-247      | –   | –            |
| 105-120  | 430-26       | 105-120   | 820C113      |
| 120-136  | 430-248      | –   | –            |
| 136-150  | 430-249      | 130-170   | 820C150      |
| 240-290  | 430-27       | 240-290   | 820C265      |
| 290-340  | 430-253      | 300-350   | 820C325      |
| 340-360  | 430-157      | –   | –            |
| 350-400  | 430-254      | –   | –            |
| 400-450  | 430-255      | –   | –            |
| 450-500  | 430-256      | 450-470   | 820C460      |
| 600-800  | 430-258      | 800-900   | 820C850      |
| 800-1000   | 430-265      | 900-950   | 820C925      |

## Low Watt Elements For Bird 43 and Coax Dynamics Meters

| <br>Bird Electronic: \$172.00 |              | <br>Coaxial Dynamics: \$100.00 |              |
|---|--------------|---|--------------|
| Freq. MHz   | Model Number | Freq. MHz   | Model Number |
| <b>1 Watt</b>   |              |   |              |
| –   | –            | 25-30   | 820D028      |
| –   | –            | 28-44   | 820D036      |
| 40-50   | 040-1        | 40-50   | 820D045      |
| 50-60   | 050-1        | 44-70   | 820D057      |
| 60-80   | 060-1        | –   | –            |
| 80-95   | 080-1        | –   | –            |
| 95-125  | 095-1        | 70-120  | 820D095      |
| 110-160   | 110-1        | 108-118   | 820D113      |
| 150-250   | 150-1        | 108-181   | 820D145      |
| –   | –            | 150-250   | 820D200      |
| 200-300   | 200-1        | 200-300   | 820D250      |
| 275-450   | 275-1        | 275-450   | 820D363      |
| –   | –            | 310-350   | 820D330      |
| –   | –            | 327-543   | 820D435      |
| 425-850   | 425-1        | 425-850   | 820D638      |
| 800-1000  | 801-1        | 800-950   | 820D875      |
| <b>2.5 Watts</b>  |              |   |              |
| 25-30   | 025-2        | –   | –            |
| 30-40   | 030-2        | –   | –            |
| 40-50   | 040-2        | –   | –            |
| 50-60   | 050-2        | –   | –            |
| 60-80   | 060-2        | 60-80   | 820E070      |
| 80-95   | 080-2        | 80-140  | 820E110      |
| 95-150  | 095-2        | 95-150  | 820E123      |
| 150-250   | 150-2        | 150-250   | 820E200      |
| 200-300   | 200-2        | 200-300   | 820E250      |
| 250-450   | 250-2        | 225-400   | 820E313      |
| –   | –            | 275-450   | 820E363      |
| 400-850   | 400-2        | 340-560   | 820E450      |
| 800-1000  | 801-2        | 800-950   | 820E875      |

### Low Power Elements for Model 43

1 Watt, 2.5 Watts, 100mW, 250mW and 500mW are available in fixed frequency ranges. Call for current pricing.

Specify frequency, as they are narrowband. Usually a special order item, please allow 30-45 days.

## Bird is in stock!

**Immediate Shipment ~ Best Pricing**

**RF Parts can special order most  
Bird products not listed in our Catalog.**

**Dummy Load & High Power Broadcast Models available.  
Delivery is often only a few days.**

## Quick Change Connectors For use on Bird & Coaxial Dynamic Wattmeters and Directional Couplers

| Photo   | Style          | Part #   | Mfg.       | Price    |
|---|----------------|----------|------------|----------|
|    | LC-F           | 4240-031 | Bird       | \$ 96.00 |
|   |                | RFP031   | Bird Style | 48.00    |
|    | LC-M           | 4240-025 | Bird       | 235.00   |
|   |                | RFP025   | Bird Style | 175.00   |
|    | UHF-F (SO-239) | 4240-050 | Bird       | 19.00    |
|   |                | RFP050   | Bird Style | 13.00    |
|    | UHF-M (PL-259) | 4240-179 | Bird       | 69.00    |
|   |                | RFP179   | Bird Style | 39.00    |
|    | N-F            | 4240-062 | Bird       | 19.00    |
|   |                | RFP062   | Bird Style | 13.00    |
|   | N-M            | 4240-063 | Bird       | 32.00    |
|   |                | RFP063   | Bird Style | 24.00    |
|  | HN-F           | 4240-268 | Bird       | 43.50    |
|   |                | RFP268   | Bird Style | 22.00    |
|  | HN-M           | 4240-278 | Bird       | 78.00    |
|   |                | RFP278   | Bird Style | 50.00    |
|  | TNC-F          | 4240-156 | Bird       | 28.00    |
|   |                | RFP156   | Bird Style | 19.00    |
|  | TNC-M          | 4240-160 | Bird       | 38.00    |
|   |                | RFP160   | Bird Style | 30.00    |
|  | BNC-F          | 4240-125 | Bird       | 32.00    |
|   |                | RFP125   | Bird Style | 18.00    |

| Photo  | Style                    | Part #   | Mfg.       | Price    |
|--|--------------------------|----------|------------|----------|
|     | BNC-M                    | 4240-132 | Bird       | 80.00    |
|  |                          | RFP132   | Bird Style | 56.00    |
|     | MINI UHF-F               | 4240-346 | Bird       | \$ 62.00 |
|  |                          | RFP346   | Bird Style | 46.00    |
|     | SMA-F                    | 4240-336 | Bird       | 108.00   |
|  |                          | RFP336   | Bird Style | 52.00    |
|     | SMA-M                    | 4240-334 | Bird       | 108.00   |
|  |                          | RFP334   | Bird Style | 76.00    |
|     | 7-16 (M)<br>European IEC | 4240-363 | Bird       | 105.00   |
|  |                          | RFP363   | Bird Style | 99.00    |
|    | 7-16 (F)<br>European IEC | 4240-344 | Bird       | 105.00   |
|  |                          | RFP344   | Bird Style | 58.00    |
|  | Open Terminal            | 4240-080 | Bird       | 92.00    |
|  |                          | RFP080   | Bird Style | 66.00    |
|  | C-F                      | RFP100   | Bird Style | 65.00    |
|  |                          |          |            |          |
|  | 7/8"<br>Swivel Flange    | RFP002   | Bird Style | 193.00   |
|  |                          |          |            |          |
|  | 1-5/8"<br>Swivel Flange  | RFP208   | Bird Style | 220.00   |
|  |                          |          |            |          |
|  | 1-5/8"<br>EIA Flange     | RFP096   | Bird Style | 205.00   |
|  |                          |          |            |          |
|  | 3-1/8"<br>EIA Flange     | RFP194   | Bird Style | 229.00   |
|  |                          |          |            |          |

# WATTMETER ACCESSORIES

## BIRD Model 5000-XT

### 5000-XT, Digital Power Meter

The hand-held digital power meter has been completely redesigned with the new Bird® 5000-XT. Ideally suited for field techs and engineers who need to make power measurements anywhere they go, the 5000-XT's new user interface has an intuitive, menu-driven design, making it the easiest to use on the market. It's operable even with one hand and compatible with all our field and legacy sensors.



1. 5000-XT
2. Soft Case and Carabiner
3. Manual
4. Cigarette Adaptor
5. 10ft SeaLatch Cable, 10ft
6. Battery (Installed)
7. Power Supply and (3) Adapters
8. DB9 Cable, 10ft

### Model: 5000-XT Digital Power Meter

|                       |  |
|-----------------------|--|
| Display               | Indoor/Outdoor Viewable Monochrome VGA Display with Backlight  |
| Functions             | Sensor Limited: VSWR, Peak Power, True Average Power, Crest Factor, CCDF, Burst Power and Data Logging   |
| Sensor Detection      | Automatic  |
| Battery               | Rechargeable, Field Replaceable, Lithium Ion Batteries   |
| AC Adapter/ Changer   | 115/230 VAC, 50/60 Hz  |
| Battery Life          | 20 Hours Continuous Usage with WPS Series Sensors, 60 Hours Continuous Usage with All Other Sensors  |
| Calibration Interval  | No calibration required  |
| Languages             | English, Mandarin, Spanish   |
| Dimensions            | 6.6" x 4.0" x 1.95" (168 mm x 102 mm x 50 mm)  |
| Interface             | Sensor: DB9, USB 2.0 SeaLatch Type A. PC: USB 2.0 SeaLatch Type B  |
| Weight (lbs.)         | 1.4 lbs (with battery)   |
| Operating Temperature | 0 to +50 °C, (0 to 122 °F)   |
| Storage Temperature   | -20 to +50 °C, (-4 to 122 °F)  |
| Drop Tested           | EN 61010-1, MIL-STD-810F. MIL-PRF-28800F, Class 2  |
| International Certs   | CE, RoHS   |
| Notes                 | Standard Accessories (included with 5000-XT). Soft Case and Carabiner, User Manual, Cigarette Adaptor, 10 ft. USB SeaLatch Cable, Battery, Power Supply with (3) Adapters and 10 ft. DB9 Cable |

**Part #: 5000-XT · Price: \$940.00**

## BIRD ThruLine® Sensor System



**Bird's most sophisticated ThruLine Sensor System is the heart of the Model 5000XT**

### Model: 5010 Sensor

**Sensor Type:** Bird ThruLine® directional dual-element line section.

|                             |   |
|-----------------------------|---|
| Power / Frequency Range:    | 1 to 1000 W, 2.0 MHz to 3600 MHz.                                       |
| Accuracy:                   | ±5% of reading (0° to 50 °C), ±10% of reading (-10° to 0 °C)            |
| Peak / Average Power Ratio: | 10 dB maximum with APM elements.  |
| Settling Time:              | < 2 seconds.  |
| Connectors:                 | QC Type. Female N normally supplied.                                    |
| Insertion VSWR:             | 1.05:1 from 0.45 to 1000 MHz (with N connectors).                       |
| Dimensions:                 | 1.875"H x 1.875"W x 3.5"D (47.7 x 47.7 x 89.9 mm) excluding connectors. |
| Weight:                     | 1.12 lb (0.51 kg)   |

### General Specifications

|                        |  |
|------------------------|--|
| Power Supply:          | Rechargeable Nickel-Metal Hydride (NiMH) battery. Meter may be operated from AC mains using supplied adapter.                        |
| Battery Life:          | 100 hours, minimum, per charge.  |
| Operating Temperature: | -10° to +50 °C (Meter and Sensor).   |
| Storage Temperature:   | -40° to +80 °C (Meter and Sensor).   |
| Humidity:              | 95% ± 5% max. (non-condensing).  |
| Mechanical Shock:      | MIL-T-28800D Class 3.  |
| Vibration:             | MIL-T-28800D Class 3.  |
| Standard Accessories:  | Instruction manual, soft carrying case, AC charger/adaptor, serial communications cable, automotive power adapter, PC software tool. |

**Part #: 5010B · Price: \$683.00**

- **Dual-Element ThruLine® Design for Simultaneous Forward and Reflected Power Readings.**
- **Measures True Average Power.**
- **±5% of Reading Accuracy Rivals Thermal Wattmeters in Actual Field Use.**
- **Small, Easily-Remoted Sensor Facilitates**
- **Convenient Hand-held Operation.**

The Model 5010 Dual-Socket ThruLine® Power Sensor is a precision 50-ohm 7/8-inch "Smart" Line Section which accepts Bird digital-ready Plug-in Elements. The Model 5010 Sensor provides true average power readings for digital as well as traditional analog RF systems.

The Model 5010 Power Sensor is compatible with many existing accessories for 7/8" line, including signal samplers, and over 20 types of QC connectors. QC Connectors can rapidly and conveniently be changed in the field by removing four screws from the connector.

Use of an external sensor design makes the Model 5000 Digital Power Meter a perfect platform for sensor enhancements and cross-platform compatibility with other Bird product lines.

### Digitally-Modulated RF

- PCS and Other Digital Wireless Communication Services
- DAB, DTV, and HDTV Pre- and Post-Combiner Power Measurements
- Handles Peak-to-Average Power Ratios to 10dB



### CW, AM, and FM

- Cellular Communication
- Analog Wireless Applications
- Television Video and Audio Power
- Aeronautical, Military, Public Service, and Mobile Radio Systems



### Available Accessories

- Non-Directional Samplers and Directional Coupler Elements
- Quick-Change Connectors
- Handset output verification
- Waveform capture



## BIRD Terminating Power Sensor



- Significant cost and time savings
- Easy To Use
- No calibration required
- Field Ready

Designed to make Terminating Power Measurements with the full flexibility of a portable precision instrument.

(Requires Bird MODEL 5000, 5000-EX, 5000-XT, SA-4000, SA-1700-P or SA-2500A)

### Specifications

|                        |   |
|------------------------|---|
| Accuracy:              | ±5% of reading ±1 mW RSS (excluding mismatch uncertainty).<br>When operating below 100 MHz and above 40 °C, add 1%. |
| Altitude:              | Up to 15,000 feet operating   |
| Frequency Range:       | 40 MHz-4 GHz  |
| Humidity:              | 95% max. (non-condensing)   |
| Input Connector:       | Precision N Male  |
| Input Impedance:       | 50 Ohms (nominal)   |
| Input VSWR:            | Typical 1.03 (36.6 dB return loss); maximum 1.20 (20.8 dB return loss)  |
| Operating Temperature: | -10 to 50 °C (14 to 122 °F)   |
| Output Connector:      | Male DB-9 to interface to Digital Power Meter or Site Analyzer  |
| Peak/Average Ratio:    | 12 dB maximum   |



|                      |  |
|----------------------|--|
| Power Range:         | -20.000 to +10.000 dBm (10.1000 µW to 10.000 mW)                   |
| Power Supply:        | From host instrument via cable connection                          |
| Sensor Type:         | Terminating Power Sensor.<br>Terminated average power measurement. |
| Size:                | 6" long (including connectors);<br>1.5" diameter                   |
| Storage Temperature: | -40 to 80 °C (40 to 176 °F)  |
| Warm Up Time:        | 5 Minutes  |
| Weight:              | 3/4 lb. Maximum  |

**Part #: 5011EF • \$1575.00 (40 MHz - 12 GHz)**  
**Part #: 5011 • \$1260.00 (40 MHz - 4 GHz)**

## BIRD Wideband Power Sensor



- Easy to use & competitive price
- Wide dynamic range (350 MHz - 4000 MHz) 30 dB Directivity -  
Up to 3 GHz; 28 dB up to 4 GHz
- Direct connection to PC, Digital Power Meter or Site Analyzer® -  
**NO BLACK BOX!**
- Directional-Forward and Reflected Power -  
**No elements required!**

Bird's® Site Management Solutions for Power Measurement. When combined with a Digital Power Meter, Site Analyzer Family of line and antenna analysis products, or a Personal Computer, the Wideband Power Sensor becomes an integral part of a very robust and sophisticated power measurement solution.

### Specifications

|                  |   |
|------------------|---|
| Altitude:        | 15,000 ft, operating  |
| Directivity:     | 30 dB up to 3.0 GHz, 28 dB up to 4.0 GHz  |
| Frequency Range: | 350 MHz - 4 GHz   |
| Humidity:        | 95% maximum (non-condensing)  |
| Impedance:       | 50 Ohms (nominal)   |
| Input Connector: | "N" Female  |
| Insertion Loss:  | <0.05 dB up to 1 GHz, <0.1 dB from 1 GHz to 4.0 GHz   |
| Insertion VSWR:  | 1.05 up to 2.5 GHz, 1.10 from 2.5 to 4.0 GHz  |
| Interfaces:      | <ul style="list-style-type: none"> <li>• DPM Interface: EIA-232, 9600 Baud, no parity, 8 data bits, 1 stop bit</li> <li>• PC Interface (1): EIA-232, 9600 Baud, no parity, 8 data bits, 1 stop bit</li> <li>• PC interface (2): USB 1.1 compatible interface</li> </ul> |



|                          |   |
|--------------------------|---|
| Mechanical Shock:        | Designed to meet MIL-PRF-28800F class 3   |
| Operating Temp.:         | -10 to +50 °C (+14 to +122 °F)  |
| Output Connector:        | "N" Female  |
| Power Measurement Range: | 0.15 W - 150 W average, 400 W peak  |
| Size:                    | 3.79 X 4.56 X 1.28 inches without connectors (4.73 X 4.56 X 1.28 inches including two "N" (F) connectors) |
| Storage Temperature:     | -40 to +80 °C (-40 ° to +176 °F)  |
| Vibration:               | Designed to meet MIL-PRF-28800F class 3   |
| Weight:                  | 1.1 lb. (0.5kg)   |

**Part #: 5012A • \$2310.00**

## Wattmeter & Accessory Carrying Cases

### 4300 Series Carrying Cases



This hard-sided case includes shock absorbing laminated die-cut foam insets. Features include fold down handles, quick release latches, ridged aluminum frame, and durable polyurethane shell.

| Part #                       | Price Ea. |
|------------------------------|-----------|
| 4300-085 for Model 4391      | \$175.00  |
| 4300-055 for Model 4410      | 230.00    |
| 4300-061 for Model 43 or 43P | 82.00     |

WATTMETER ACCESSORIES: Carrying Cases

### EC-1 Portable Element Case

#### High Impact Element Case

- Holds 12 elements
- High density custom foam insert
- High impact case with durable ABS latches
- Unbreakable, watertight, airtight and dustproof
- Automatic purge valve for quick equalization after changes in atmospheric pressure

**Part Number: BIRD EC-1 • Price: \$60.00**



### Portable Wattmeter Case

#### High Impact Accessory Case for Wattmeters and Accessories



- Case fits Thruline Wattmeter models: APM-16, 43, 43P, 4304A, 4308, 4410A
- High impact case with durable ABS latches
- Unbreakable, watertight, airtight and dustproof
- High density custom foam insert
- Automatic purge valve for quick equalization after changes in atmospheric pressure
- Holds either 1 Wattmeter, 5 Elements and 1 small Load, or 1 Wattmeter and 7 Elements

**Part Number: RFPCC6 • Price: \$65.00**