

The **RF** Experts

POWER METER

RF Wattmeter

MODEL 4480A

Element-Free. Digital-Ready.

The Bird 4480A Wattmeter is more than just a tool—it's a game-changing solution designed to meet the rigorous demands of today's RF measurement landscape. With true average power measurements for both Continuous Wave (CW) and digitally modulated signals, the 4480A ensures unparalleled precision across critical frequency spans from 2 MHz to 30 MHz and 25 MHz to 1000 MHz—without the need for traditional, cumbersome elements.

Whether you are working in telecommunications, broadcasting, industrial RF systems, or research and development, the Bird 4480A delivers unmatched accuracy and reliability in every application. Its robust design and versatile capabilities make it the ideal tool for professionals who require consistent and precise measurements in challenging environments.

KEY FEATURES

- **Element-Free Design:** Simplifies measurement across multiple frequency bands without frequency-specific elements.
- **True Average Power Measurements:** Measures true power for both continuous wave (CW) and digitally modulated signals.
- **Wide Frequency Range:** Supports a wide frequency range from 2 MHz to 1000 MHz, making it adaptable to various RF applications.
- **High Power Handling:** Up to 10,000 Watts, making it one of the most versatile wattmeters on the market.
- **Precision Accuracy:** $\pm 4\%$ accuracy ensures reliable power measurements for optimized system performance.

APPLICATIONS

- **Telecommunications:** Ensures optimal performance in wireless systems like cellular, satellite, and Wi-Fi.
- **Broadcasting:** Maintains signal integrity in TV and radio transmission.
- **Military Communications:** Ensures reliable performance of tactical and strategic RF systems.
- **Aerospace & Defense:** Supports precision in complex communication and radar systems.



Beyond Simple Signals: Master
Digitally Modulated Formats

ELEMENT-FREE RF WATTMETER

4480A

Specifications

MEASUREMENT

Frequency Range	
Low Band	2 MHz to 30 MHz
High Band	25 MHz to 1000 MHz
Power Range	
2 MHz to 30 MHz	10 W to 10 kW, low band
25 MHz to 1000 MHz	1 W to 1 kW, high band
Accuracy	±4% of reading (±0.18 dB)
Peak to Average Ratio	10 dB max.
Directivity	25 dB min., 30 dB typ.
Impedance	50 Ω nominal
Input Attenuator Range	0 to 30 dB, 1 dB step

SYSTEM

LCD Display	Transflective, white LED backlit
Battery Type	Internal, NiMH 6-AA
Battery Operating Time	Minimum 8-10 hours
Battery Charge Time	6-8 hours typical (Recharge on or off)
Calibration Interval	Recommended interval of 12 months
Power Supply	DC 12V, 2A (0.6A max. draw)

ENVIRONMENTAL

Operating Temperature	0 °C to 50 °C, (32 °F to 122 °F)
Storage Temperature	-40 °C to 71 °C (-40 °F to 159.8 °F)

PHYSICAL

Size	5 in W x 7.3 in H x 2.65 in D (127 mm W x 185.42 mm H x 67.31 mm D)
Weight	2.9 lb (1.32 kg) typical, including batteries

CERTIFICATIONS

MIL-PRF-28800	Class 3
Certifications	CE, RoHS, UKCA

CONNECTORS

RF Connectors	Input: Type N(f); QC type, field changeable Output: Type N(f); QC type, field changeable
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STANDARD ACCESSORIES

4480A152	Charger, Type-DC Jack, 110/220V AC, DC 12V, 2A
4421-055	Standard Power Cord

OPTIONAL ACCESSORIES

4480A046	Transit Case
5A2416UK	Cord, International (UK)
RPK7000-2	Battery Replacement Kit

Power Measurements

- Forward (FWD)
- Reflected (RFL)
- Voltage Standing Wave Ratio (VSWR)

Accurate measurement of forward and reflected power, as well as VSWR, is essential for ensuring reliable communication and system performance.

Three-button Interface

On/Off, Switch High and Low Band, Backlight: The device's interface is designed for easy use in various conditions, allowing operation with gloves and in low light. It simplifies interactions to ensure a smooth and efficient user experience.



Integrated Battery Life Indicator

Readiness: Users can ensure their equipment is always ready for use, which is essential for operational success.

240x128 pixels Backlit LCD display:

Provides a balance between display resolution and power efficiency, making it suitable for a wide range of applications where information needs to be conveyed clearly and reliably.

QC Series, Quick Change Connectors:

The ability to quickly change or replace components can be critical, allowing many types of radios to be measured with ease.

In dual-band systems, power measurements at both frequencies are essential for maintaining optimal performance, ensuring reliable communication, and adapting to dynamic conditions.

birdrf.com/products

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