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■RF Wattmeter

The RFWattmeter measures and passes signals from 100 kHz to 10 MHz, up to 2,000 watts full scale, with minimal loss.

The RFWattmeter is enclosed in a handheld plastic housing with BNC connectors, a DC power connector, a micro-B USB connector, and an optional SMB connector for triggering an oscilloscope or other DAQ device.

RFWattmeter Selection Matrix

Model	USB Interface	Power Scale (Watts)	Resolution (Watts)	Calibration Point (Watts)	Channels
21B		0-200	0.001	20	1
22B		0-2,000	0.01	200	1
23B	\checkmark	0-200	0.001	20	1
24B	\checkmark	0-2,000	0.01	200	1
25B	\checkmark	0-200	0.001	20	4

Technical Specifications

Calibration Details

Calibration is performed using an absorptive power meter as a reference standard. An included certificate of calibration lists calibration conditions and reading accuracy deviations. A detailed test report will be provided upon request at an additional charge, which includes plots of the RFWattmeter's frequency response and power linearity.

Reference meter:

Agilent/HP EPM-441A RF power meter

Agilent/HP 8482H RF power sensor, calibrated 0.1 MHz – 4.2 GHz

Bird model 8322 RF attenuator 200 watts continuous, 30 dB, 50 Ω

Analog signal output	Average power, voltage, and current
Screen output data	Average power (P), voltage (V), current (I), impedance magnitude (Z), and phase angle (A)
Sample rate	8 - 64 samples/second (up to 800 Samples/second with custom software)
Loss through meter	<0.01 dB at 50 Ω
Calibration point	20 watts into 50 Ω at 2.5 MHz* on 200 W range; 200 watts into 50 Ω at 2.5 MHz* on 2,000 W range
RF connectors	BNC(f) Input and Output
Load impedance	50 Ω (nom.), 10 – 250 Ω OK
Power supply	Wall wart AC/DC adapter with interchangeable international plug adapters included (battery powered optional): 100 – 240 V _{AC} , 50 – 60 Hz input; 6 V _{DC} output
Frequency	100 kHz to 10 MHz (other frequencies available upon request)
Accuracy	Accurate to +- 2.5% across the bandwidth. Full characterization upon request at additional charge.

* Other calibration frequencies available upon request

