Power Meter Model 4421-110
Data Sheet

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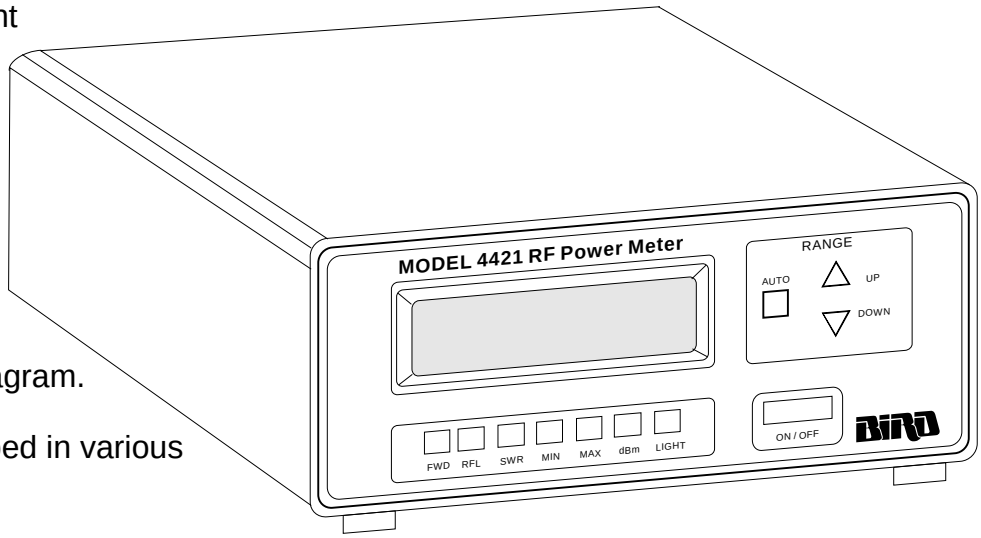
This data sheet is used to document components not documented elsewhere.

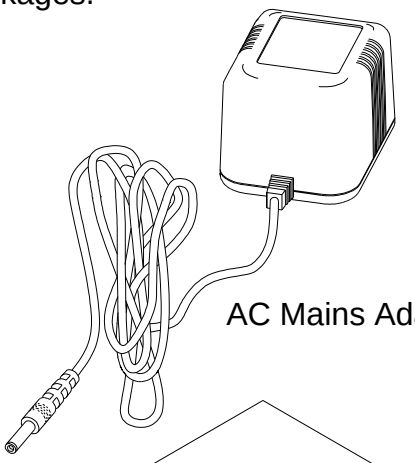
Power Meter documentation is included in a separate manual with parts differences noted within this sheet.

Refer to the following pages for specifications and system block diagram.

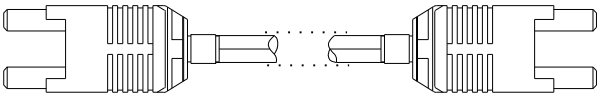
Note: These components are shipped in various packages.



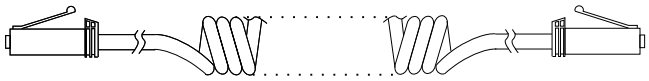
Power Meter



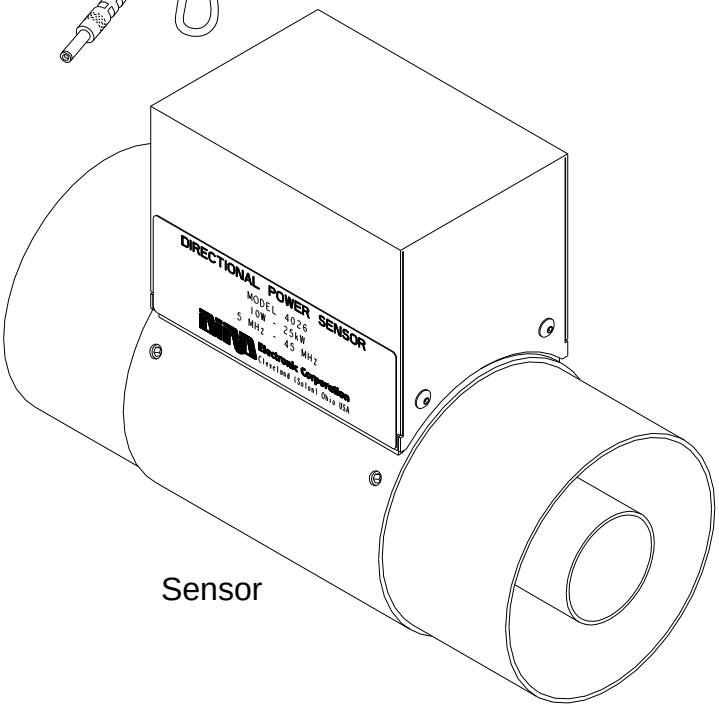
AC Mains Adapter



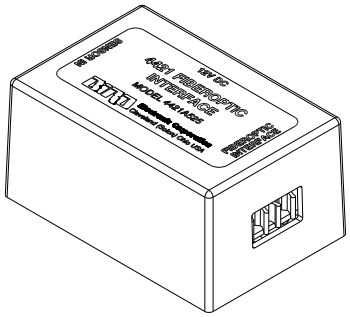
Fiberoptic Cable



Sensor Cable



Sensor



Fiberoptic Interface

RF Power Meter Parts List Changes

Parts listed in the Model 4421 Operating Instructions for the Model 4421-107 are the same as the Model 4421-110 with the following exceptions:

PC Board, Main Control, Assembly	p/n 6085A012
EPROM	p/n 4421-052
Panel, Rear Assembly	p/n 6085-008

Power Sensor Model 4026 Specifications

Type:	Thruline® Design for direct insertion in 50 ohm line
Circuitry:	Microprocessor-based measurement and conversion
Power Input Range:	10W - 25kW (30kW maximum)
Frequency Range:	5MHz to 45MHz
VSWR Range:	1.00 to - 2.00 (40.0 to 9.5dB return loss)
Accuracy:[1]	
FWD:[2]	±3% of reading
RFL:[3]	±3% of reading ± $\frac{\text{FWD PWR}}{1000}$
VSWR:[4]	Power measurement dependent
Impedance:	50 ohms nominal
Insertion VSWR:	1.05 maximum (32.3dB return loss)
Insertion Loss:	<0.05dB
Minimum Directivity:	30dB
Sampling Rate:	Approximately 2 readings / second
Calibration:	Calibration vs. frequency curve stored in non-volatile memory within each sensor. Sensor output corrected at a frequency of measurement within rated range.
Temperature Range:	
Operating:	Temperature compensated for rated accuracy from 0° to 50°C (32° to 122°F)
Storage:	-20° to 70°C (-4° to 158°F)
Connectors:	3-1/8" unflanged
Electrical Length:	7.5" (190.5mm)
Weight:	4 lb. 8 oz. (2kg)
Power:	Supplied via sensor cable

[1] For rated accuracy, no more than 1% AM harmonics -50dBc or less, terminating VSWR 2:1 or less.
[2] Forward power is defined as power traveling from the source to the load. Measurement accuracy is referenced to the load connector.
[3] Reflected power is defined as power traveling from the load to the source. Measurement accuracy is referenced to the source connector.
[4] Calculated from forward and reflected power.

System Block Diagram

Refer to safety information in the model 4421 operating instructions prior to installation.
Transmitted traveling waves should always be applied to source input of power sensor.
Applying travelling waves to load port will result in erroneous display.