SgLabs
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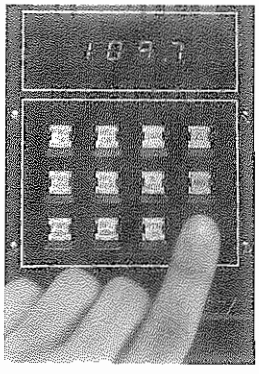


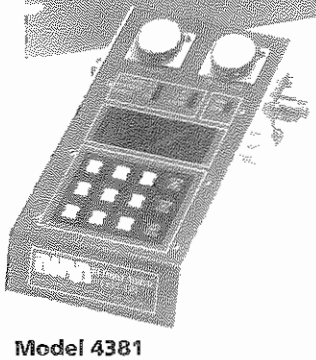
THRULINE® RF Power Analyst models 4381/83/85/87 and 4381/83/85/87-832**

• 0.45-2300MHz • 0.1-10,000 watts

Digital RF wattmeters for two-way communications, avionics, C³, radar and many other applications. the push of a button, these new wattmeters can perform the following functions:

- read incident and reflected CW and FM power in watts or dBm.
- read incident and reflected peak-envelope-power of SSB/DSB and symmetrical AM in watts.
- read incident and reflected peak pulse power as narrow as 50 micro-seconds in watts.
- calculate SWR, dB return loss, percent modulation.
- remember peak and valley readings when adjustments for maximum or minimum signal levels are made.
- over-range at least 20 percent beyond nominal full scale and do this with plug-in elements you may already own from other BIRD THRULINE wattmeters.

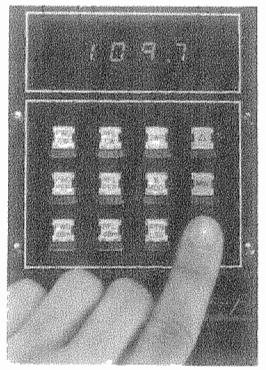
Model 4385



Model 4381

SPECIFICATIONS

Power Range 100mW to 10kW using Bird Plug-in Elements. Accuracy not guaranteed with components not supplied by Bird.
Frequency Range 0.45 to 2300MHz
Insertion VSWR with N Connectors 1.05 max. to 1000MHz
Accuracy
Power Readings ±5% of full scale CW, ±8% PEP
VSWR ±10% of reading.
% Modulation (CW power 1/3 or more of full scale) ±5% (0-90%); ±10% (90-100%)
Usable Over-range to 120% of full scale (CW, PEP, SWR and Return Loss)
Sampling Rate 2 to 3 readings per second
Display 3½ digit, LED-strobed, 0.8" (4385, 4387) 0.3" (4381, 4383)
Modulation Frequency 50 to 10,000Hz (Audio)
Pulse Parameters (min.) Pulse width 50 microsec., repetition rate 100pps and Duty Factor 1%
Return Loss ±.3 db to corresponding SWR value
Connectors QC Type (Female N normally supplied)
Finish 4381 Blue vinyl overlaid control panel with s anodized side panels; 4383 Light Navy g baked enamel (MIL-E-15090) with black anodized panels; 4385, 4387 Light Navy grey baked enamel (MIL-E-15090)
Nominal Size 4381 (includes connectors) 8²⁹⁄₃₂" x 6⅞" x 3²½" (226 x 158 x 93mm); 4383: 7¹⁄₁₆" x 4¾" x 3⅜" (195 x 121 x 86m 4385: 19" x 6³½" x 7⅛" (483 x 165 x 181 4 RU; 4387: 19" x 5⅞₂" x 4⅞₆" (483 x 133 x 113mm) 3 RU
Weight 4381 4 lbs. (1.8kg); 4385 5 1/2 lbs. (2.5kg); 4 2¼ lbs. (1kg); 4387 3¾ lbs. (1.5kg)
Battery Life 4381/83 8 hours (rechargeable)
AC Power 4381/83 115V or 230V, 50/60Hz, 6W (wit Adapter — specify voltage) 4385/87 115/230V, 50/60Hz, 8W (with integral se tor switch)
Optional Carrying Case (4381 only) 4300-080: Pow Analyst & 6 Elements & 4275-100 (Signa Sampler). Also suitable for Model 4383.



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- calculate SWR, dB return loss, percent modulation.
- remember peak and valley readings when adjustments for maximum or minimum signal levels are made.
- over-range at least 20 percent beyond nominal full scale and do this with plug-in elements you may already own from other BIRD THRULINE wattmeters.

Model 4385

Model 4381

SPECIFICATIONS

Power Range 100mW to 10kW using Bird Plug-in Elements. Accuracy not guaranteed with components not supplied by Bird.
Frequency Range 0.45 to 2300MHz
Insertion VSWR with N Connectors 1.05 max. to 1000MHz
Accuracy
Power Readings ±5% of full scale CW, ±8% PEP
VSWR ±10% of reading.
% Modulation (CW power 1/3 or more of full scale) ±5% (0-90%); ±10% (90-100%)
Usable Over-range to 120% of full scale (CW, PEP, SWR and Return Loss)
Sampling Rate 2 to 3 readings per second
Display 3½ digit, LED-strobed, 0.8" (4385, 4387) 0.3" (4381, 4383)
Modulation Frequency 50 to 10,000Hz (Audio)
Pulse Parameters (min.) Pulse width 50 microsec., repetition rate 100pps and Duty Factor 1%
Return Loss ±.3 db to corresponding SWR value

Connectors QC Type (Female N normally supplied)
Finish 4381 Blue vinyl overlaid control panel with silver anodized side panels; 4383 Light Navy grey baked enamel (MIL-E-15090) with black anodized panels; 4385, 4387 Light Navy grey baked enamel (MIL-E-15090)
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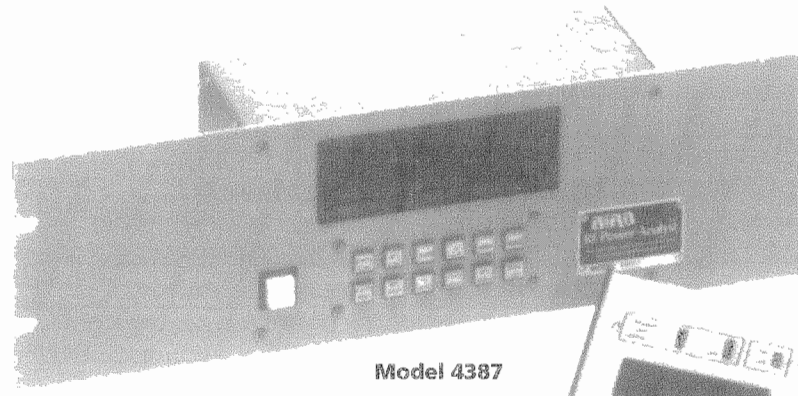

Model 4387

Model 4383

Model 4381 is portable with a built-in coax line section, with an 8 hour battery and separate charger, optional carrying case. **Model 4385** is the stationary, rack-mounted version.

Model 4383 is similar to the Model 4381, but without a coax line section. **Model 4387** is the stationary, rack-mounted version. These are intended for use with permanently installed line sections.

RF POWER ANALYST® Digital Directional Wattmeters also calculate parameter products that used to require tracing on a graph or chart, reveal whether AM modulation is present and — if so — how much, and make min./max. power searches simple to perform.

See page 40 for plug-in elements.

** IEEE-488 RF Power Analyst units equipped with the proper rear panel connector for IEEE-488 as well as RS-232 interface capability require addition of the suffix -832 to the model number (e.g. order model 4383-832 or 4387-832). Requires Bird Interface unit on page 15.

CARRYING CASE 4300-080 for portable 4380 series instruments includes space for optional RF Signal Sampler and spare Elements.