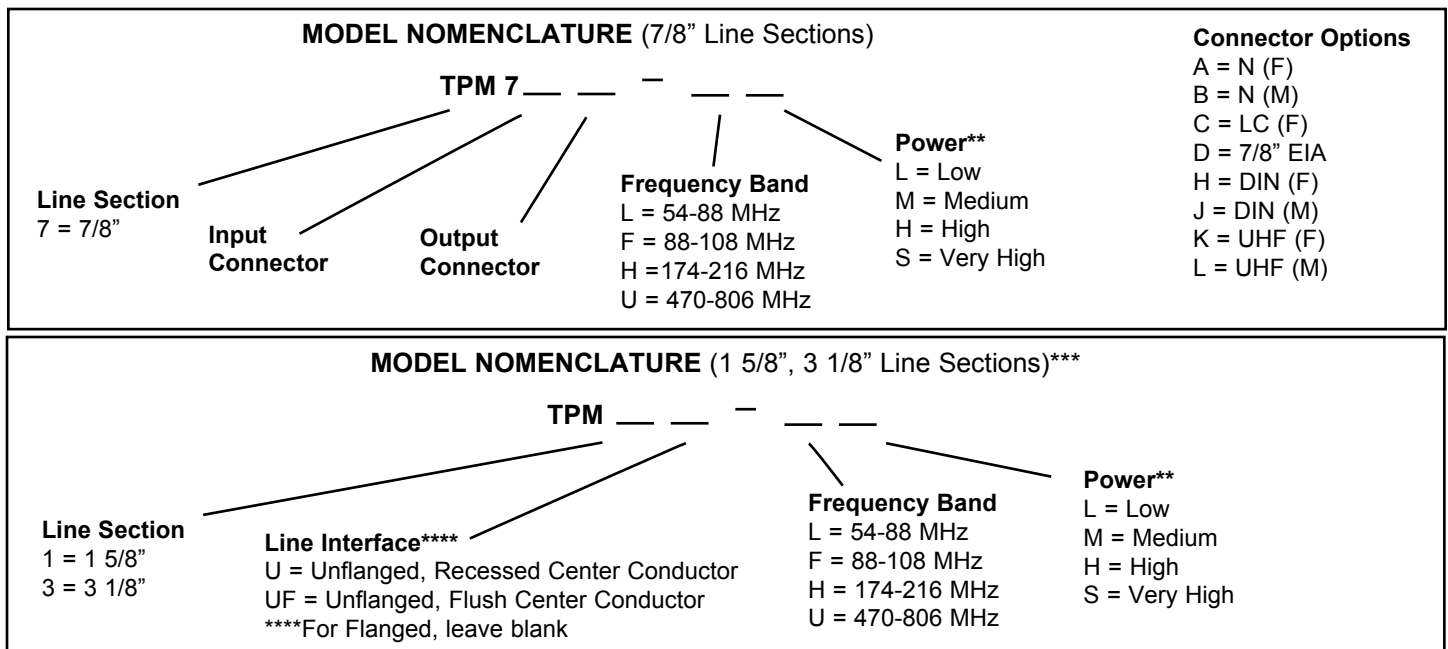




TRANSMITTER POWER MONITOR (TPM*)

BIRD® TPM SPECIFICATIONS

- Low Cost **IN-SITU POWER MEASUREMENT** solution designed for operation inside the transmitter
- DB9 output provides a linear DC voltage output from 0 to 4 volts allowing for a wide variety of interface options
- In-line calibration capability allows for greater accuracy in a single application (with an accurate power reference)
- Integrated non-directional coupler allows for spectral analysis of the signal in minimal space requirements
- Accurately measures true average power for digitally modulated systems
- +/- 5% of reading accuracy for both forward and reflected power (10:1 ratio for forward to reflected power)
- Handles peak-to-average ratio of 10 dB
- 7/8", 1 5/8", and 3 1/8", 50 ohm lines available for FM, VHF, and UHF broadcast frequencies
- Contact the factory #440-248-1200 for special requirements such as power, frequency, and line size



* Patent Pending

** see Chart A for power ranges on backside.

*** Other sizes and power ranges available upon request.



RF Measurement and Management in Your World



Bird® Technologies Group combines the industry leading brands of both Bird Electronic and TX RX Systems and is a global, innovative supplier of RF products, systems, services and educational solutions. Bird® Technologies Group reserved the right to modify specifications or discontinue any product without notice.

www.bird-technologies.com 440.248.1200/866.695.4569 sales@bird-technologies.com

683-TPM-DS04122008

TRANSMITTER POWER MONITOR (TPM) BIRD® TPM SPECIFICATIONS

TPM OPERATING CHARACTERISTICS

Frequency Ranges	L = 54-88 MHz F = 88-108 MHz H = 174-216 MHz U = 470-806 MHz
Forward Power Range	See tables below
Reflected Power Range	10% of Forward Power Range
Measurement Type	In-Line, True Average Power
Peak/Average Ratio	10 dB maximum
Directivity, Rfl	30 typical, 26 dB minimum
Accuracy	±5% of reading
Dynamic Power Range	16 dB
Outputs	DB 9 Voltage I/O
Displays Offered	3140-A4 (4 Channel) 3140-A8 (8 Channel)

LINE SECTION

Operating Temperature	-10° to +50° C (14° to 122° F)
Storage Temperature	-40° to +80° C (-40° to 176° F)
Humidity	95% ±5% max. (noncondensing)
Altitude	up to 10,000 feet (3048 m)
Weights	TPM7 = 3.5 lbs TPM1 = 5.5 lbs TPM3 = 8.0 lbs 3140 = 2.5 lbs
Calibration cycle	Annual*

* Standard calibration cycle of 1 year for reverification, but can be recalibrated by the customer with an accurate power reference. See the Application note on TPM calibration at www.bird-electronic.com

Chart A	VHF (54-216 MHz)		UHF (470-806 MHz)	
Line Size	Power Designator	Forward Power Range	Power Designator	Forward Power Range
7/8"	Low Medium High Very High	15 W - 500 W 30 W - 1.0 kW 80 W - 2.5 kW 150 W - 5.0 kW	Low Medium High	15 W - 500 W 30 W - 1.0 kW 80 W - 2.5 kW
1 5/8"	Low Medium High Very High	30 W - 1.0 kW 80 W - 2.5 kW 150 W - 5.0 kW 300 W - 10 kW	Low Medium High	30 W - 1.0 kW 80 W - 2.5 kW 150 W - 5.0 kW
3 1/8"	Low Medium High Very High	150 W - 5.0 kW 300 W - 10 kW 800 W - 25 kW 1.5 kW - 50 kW	Low Medium High	150 W - 5.0 kW 300 W - 10 kW 800 W - 25 kW

Note: For best accuracy, pick the lowest power range that includes your maximum average operating power.

In-Situ Calibration:

- **WORLD CLASS** first in-situ power measurement standard.
- Calibrate during operation, while ON-AIR.
- Never any need to remove from service which equates to no downtime.
- Traceable to National Institute of Standards and Technology (NIST).



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