

Temperature Compensated Thermistor Mounts

Features

- Available for 26 to 170 GHz ♦
- Full waveguide band power ♦
measurements to 110 GHz
- Compatible with ♦
HP-432 power meter
- Temperature compensated ♦
- Calibration data supplied ♦
- MIL standard calibration available ♦

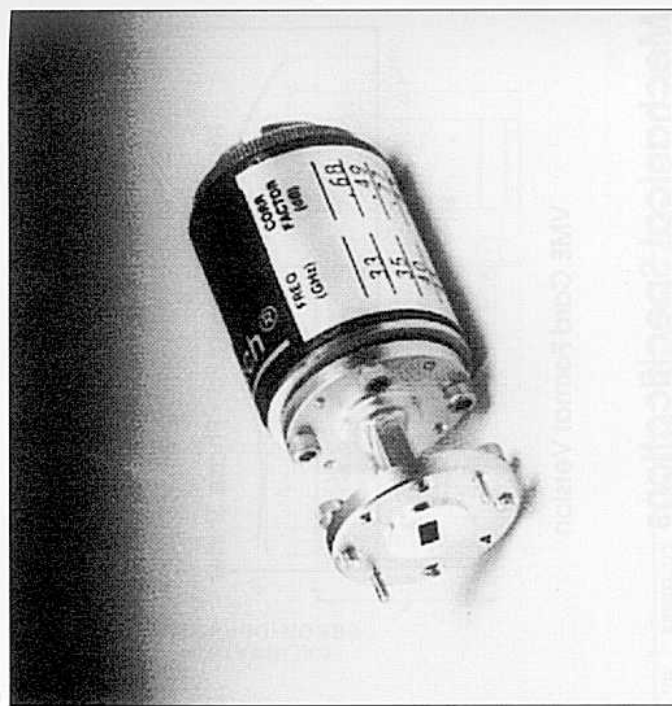
Applications

- ◆ Test and instrumentation
- ◆ Power measurement subsystems
- ◆ Calibration systems

Description

Millitech series **THM** thermistor mounts are designed for use with the Hewlett Packard Model 432 series power meters. These temperature compensated thermistors are useful for measuring power levels in the $10\mu\text{W}$ (-20 dBm) to 10 mW (+10 dBm) range. They are available in the frequency range of 26.5 to 170 GHz in eight waveguide bands, with full waveguide coverage up to 110 GHz, and in 10 GHz intervals over 110 to 170 GHz (F- and D-bands).

Calibration is provided every 5 GHz (additional calibration points available upon request) over any waveguide band



from Ka- (WR-28) through W-band (WR-10). At each calibration frequency, a correction factor (in + dB) is shown on the thermistor. The correction factor is added to the power meter reading to yield the value of true power. A certificate of calibration is supplied with each unit.

Optional MIL standard calibration is available on request. Consult Millitech for details.

Millitech also offers series **PRS** power sensors and series **PME** power meters (page 262) for wide dynamic range power measurement applications.

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Electrical Specifications

MODEL NUMBER		THM-28	THM-22	THM-19	THM-15	THM-12	THM-10	THM-08	THM-06
Frequency Band and Range, GHz		Ka 26.5-40	Q 33-50	U 40-60	V 50-75	E 60-90	W 75-110	F 90-140	D 110-170
Bandwidth, GHz		Full	Full	Full	Full	Full	Full or 20	10	10
Power Range, dBm		-20	-20	-20	-20	-20	-20	-20	-20
CW: Low		+10	+10	+10	+10	+10	+10	+10	+10
CW: High ^①		+27	+27	+27	+27	+22	+22	+22	+22
PULSE: Peak ^②		200	200	200	200	200	200	200	200
Operating Resistance, ohm		2:1	2:1	2:1	2:1	2.3:1	2.3:1	2.5:1	2.5:1
VSWR (max)		6	5	5	6	7	5/9 ^③	3	3
Number Calibration Points (min)		0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8
Basic Accuracy, Worst Case, ± dB									

- ① Maximum power for safe operation.
- ② Maximum peak pulse power for safe operation, 100 ns, 1% duty cycle.
- ③ Partial band/fullband.

How to Order

Specify Model Number **THM-XX-AB000** ➡ (please also specify **center frequency** when ordering 10 and 20 GHz bandwidth units)

XX = waveguide band (WR-Number)

A = flange type

R = round

S = square (WR-28 only)

B = bandwidth options

1 = 10 GHz bandwidth (WR-08 and WR-06 only)

2 = 20 GHz bandwidth (WR-10 only)

F = fullband (WR-28 through WR-10 only)

EXAMPLE: To order a series THM in WR-10 with 20 GHz bandwidth and center frequency 94 GHz, specify THM-10-R2000, 94 GHz center frequency.