

PRINCIPAL SPECIFICATIONS

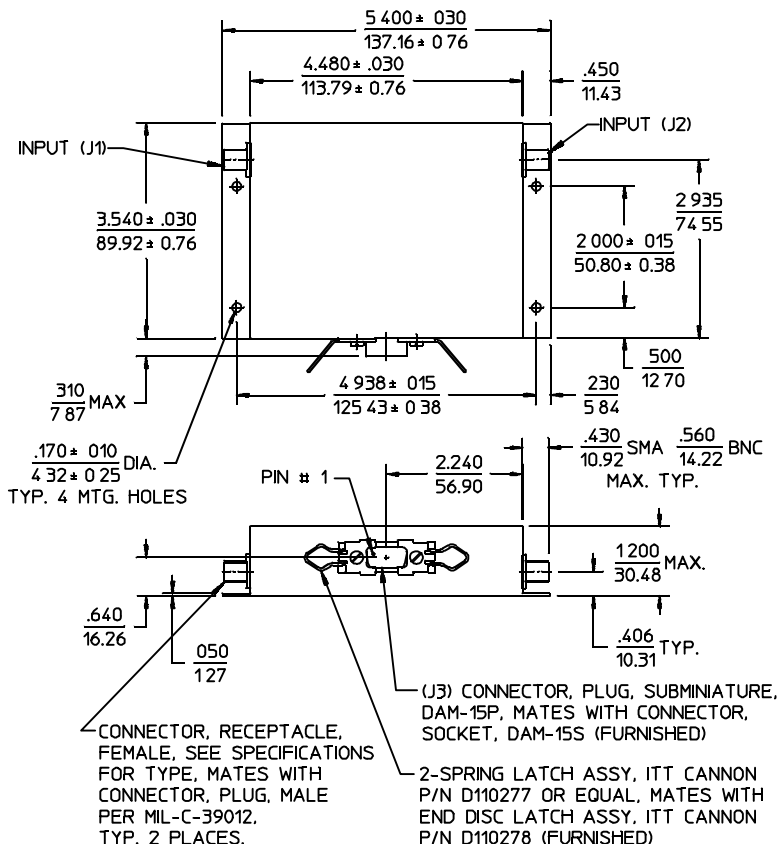
Calibration Frequency f_c , MHz	SMA Model Number	BNC Model Number
10 - 250	PTM-64A-**B	PTB-64A-**B

For complete model number replace ** with desired calibration frequency, f_c , in MHz

GENERAL SPECIFICATIONS

- Usable Bandwidth: $f_c \pm 2.5\%$
- Phase Shift Range: 0° to 360° nom. @ f_c
- Least Significant Bit: 5.6°
- Most Significant Bit: 180°
- Accuracy @ f_c : $1/2$ of LSB typ.
(guaranteed monotonic)
- Impedance: 50Ω nom.
- VSWR: 1.35:1 max.
- Insertion Loss, I_L : 3 dB nom.
- I_L , Variation vs. Cont: ± 0.5 dB @ f_c
- Input Power: +10 dBm max.
- Control Input: 6 Bit TTL
- Logic Sense: Positive
- Supply Power: +5 VDC @ 350 mA nom.
+15 VDC @ 100 mA nom.
- Settling Time: 100 ns typ., 250 ns max.
- Weight, nominal: 10 oz (285 g)
- Operating Temp: -55° to $+85^\circ$ C

Package Outline



NOTES: 1. Tolerance on 3 place decimals $\pm .020(.51)$ except as noted.
2. Dimensions in inches over millimeters.

Phase Shift Increments

Bit	1 (LSB)	2	3	4	5	6 (MSB)
Phase	5.5°	11.2°	22.5°	45.0°	90.0°	180°

General Notes:

- PTM-64A series phase shifters are controlled directly from TTL logic circuits and are available for center frequencies from 10 to 250 MHz.
- Their lumped element design is inherently narrow band since it utilizes a quadrature hybrid in each switch section. However, this approach provides much smoother phase transitions than a switched cable design since the switching does not take place in the RF signal path. This feature makes the PTM-64A series preferable for applications where minimizing switching transients is important.
- Accuracy and temperature stability of each phase shift section allows for a resolution of 5.6° , but as total phase shift increases, overall accuracy deteriorates due to cumulative internal reflections.

24May96