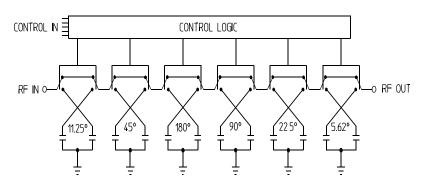
10 to 250 MHz / Low RF Transients / Fast Switching Time / Monotonic Output / BNC or SMA

## CONTROL INPUTS





PRIN	ICIPAL SPECIFICA	TIONS
Calibration Frequency f <sub>c</sub> , MHz	SMA Model Number	BNC Model Number
10 - 250	PTM-64A-**B	PTB-64A-**B

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

## **Package Outline** 5400± 030 137.16 ± 0 76 4.480 ± .030 .450 113.79 ± 0.76 INPUT (J2) INPUT (J1)-2 935 3.540 ± .030 7455 2 000 ± 015 89.92 ± 0.76 50.80 ± 0.38 500 12 70 4 938 ± 015 125 43 ± 0 38 $\frac{.430}{10.92}$ SMA $\frac{.560}{14.22}$ BNC .1<u>70 ± 010</u> DIA 2.240 4 32 ± 0 25 PIN # 1 MAX. TYP. 56.90 TYP. 4 MTG. HOLES $\frac{1200}{30.48}$ MAX. **)**@# .640 <u>.406</u> 10.31 TYP. 16.26 050 127 (J3) CONNECTOR, PLUG, SUBMINIATURE, DAM-15P, MATES WITH CONNECTOR, ∠CONNECTOR, RECEPTACLE, SOCKET, DAM-15S (FURNISHED) FEMALE, SEE SPECIFICATIONS FOR TYPE, MATES WITH -SPRING LATCH ASSY, ITT CANNON CONNECTOR, PLUG, MALE P/N D110277 OR EQUAL, MATES WITH PER MIL-C-39012, END DISC LATCH ASSY, ITT CANNON TYP. 2 PLACES. P/N D110278 (FURNISHED) 1. Tolerance on 3 place decimals $\pm$ .020(.51) except as noted. 2. Dimensions in inches over millimeters.

## **GENERAL SPECIFICATIONS**

Usable Bandwidth:  $f_c \pm 2.5\%$ 

Phase Shift Range:: 0° to 360° nom.@fc

Least Significant Bit: 5.6° Most Significant Bit: 180°

Accuracy @ f<sub>c</sub>: 1/2 of LSB typ.

(guaranteed monotonic)

Supply Power: +5 VDC @ 350 mA nom.

Positive

+15 VDC @ 100 mA nom.

Settling Time: 100 ns typ., 250 ns max.
Weight, nominal: 10 oz (285 g)
Operating Temp: -55° to +85°C

Bit 1 (LSB) 2 3 4 5 6 MS	
Bit   1 (L3B)   2   3   4   3   0   Wit	B)
Phase 5.5°   11.2°   22.5°   45.0°   90.0°   180°	•

## General Notes:

Logic Sense:

- 1. PTM-64A series phase shifters are controlled directly from TTL logic circuits and are available for center frequencies from 10 to 250 MHz.
- 2. 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.
- 3. 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.

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