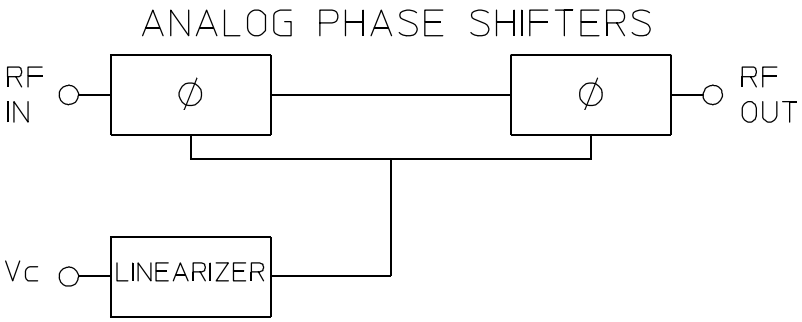
PLB & PLM Series LINEAR PHASE MODULATORS

10 to 500 MHz / 0° to 180° Coverage / 10% Bandwidth / Voltage Controlled / SMA or BNC

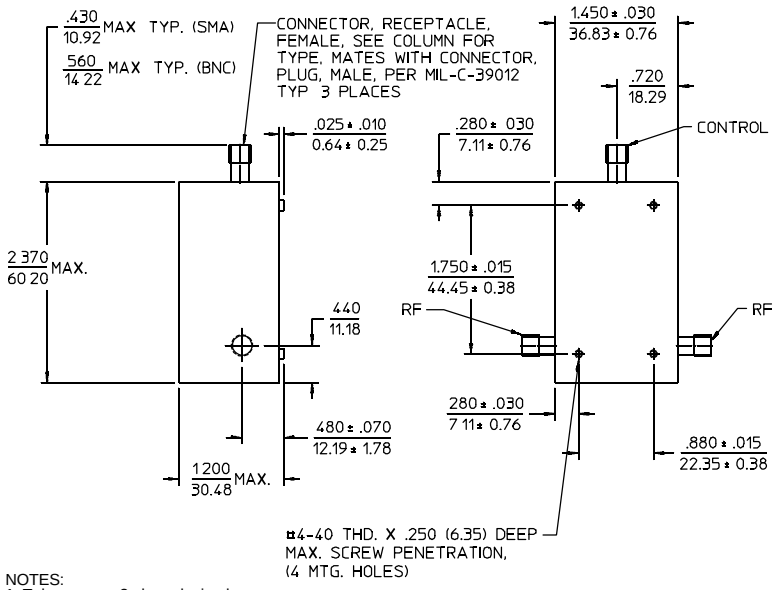


PRINCIPAL SPECIFICATIONS

SMA Model Number	BNC Model Number	Center Freq, f_o, Range, MHz	Phase Shift @ f_o	Linearity @ f_o	Percent AM	Insertion Loss, dB, Max.	Fø VSWR Max.	Weight oz (g)
PLM-3B-***B	PLB-3B-***B	10 to 500	180°	5%	5%	2	1.5:1	3.4 (95)

For complete Model Number replace *** with desired center frequency, f_o in MHz.

Package Outline

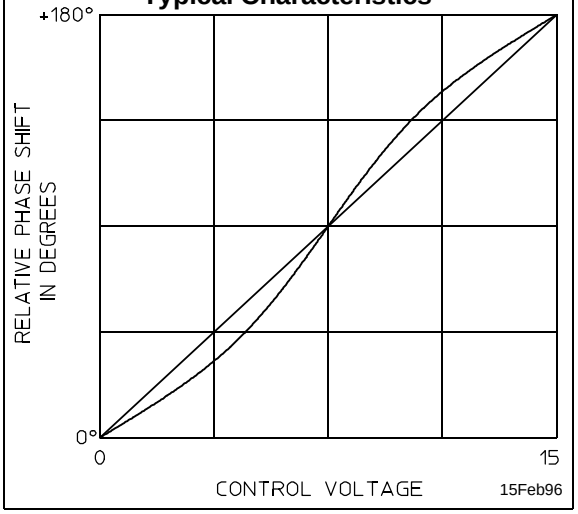


NOTES:
1. Tolerance on 3 place decimals ±.020(.51) except as noted.
2. Dimensions in inches over mm.

GENERAL SPECIFICATIONS

Bandwidth:	10% of f_o
Modulation Rate:	1% of f_o nom.
Impedance:	50 Ω nom.
Input Power:	– 10 dBm max.
Control Voltage for full range:	0 to +15 V max.
Response Time (50 Ω source):	50 µs max.
Phase Stability, typical:	0.2° per °C
Operating Temperature:	– 55° to +85°C

Typical Characteristics



General Notes:

1. The PLB & PLM series use a control voltage of 0 to +15V to vary relative phase across a 180° range.
2. Each phase shifter element employs quadrature hybrids with matched pairs of varactor tuned LC networks acting as sliding short circuits on the outputs. The electrical length of this short circuit controls the delay in the reflected signal appearing at the isolated port of each quadrature hybrid.
3. These units are suitable for high reliability and space applications.

For further information contact ***MERRIMAC / 41 Fairfield Pl, West Caldwell, NJ, 07006 / 973-575-1300 / FAX 973-575-0531***