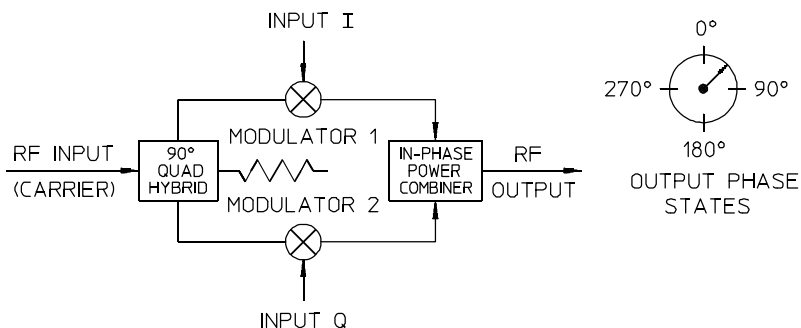


VECTOR I&O MODULATORS

10 to 1000 MHz / Narrowband OPSK / For MSK Systems / 10% Bandwidth / Hermetic PC Package



PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, f_0 , MHz	Usable RF Bandwidth
VMP-2R-***B	10 - 1000	10% of f_0

For complete Model Number replace ***with desired Center Frequency, f_0 in MHz.

General Notes:

1. A vector modulator is used to phase modulate an RF carrier with complex analog signals.
2. Merrimac Vector Modulators consist of a quadrature hybrid and an in-phase power divider.
3. Units in the VMP-2R series are capable of modulating the carrier at up to 10% of the RF bandwidth.
4. These vector modulators comply with the relevant sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

GENERAL SPECIFICATIONS

RF Input:	+10 dBm, nom.
Modulation Inputs:	0 dBm max.
VSWR:	1.5:1 max.
Impedance:	50 Ω nom.
Insertion Loss:	12 dB max.

(below modulation input)

Modulation Accuracy

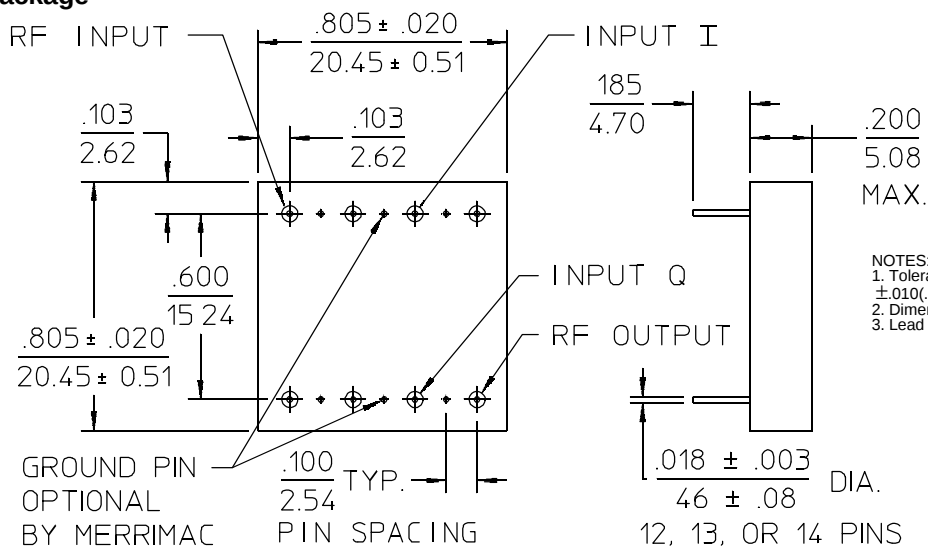
(measured @ 4 quadrants, 0 dBm input)

Amplitude Balance: 1 dB
Phase Balance: $\pm 5^\circ$
Carrier Isolation: 35 dB typ.
Dynamic Range (output): 20 dB nom.
Operating Temperature: -55° to $+85^\circ\text{C}$

AVAILABLE OPTIONS

Close tolerance phase and amplitude balance versions are available in custom designs. Units with higher center frequency (e.g., 1500 MHz to 3 GHz) are available in the VMP-2S series.

Meri-Pac™ R-Package



- NOTES:
1. Tolerance on 3 place decimals
±.010(.25) except as noted.
2. Dimensions in inches over millimeters.
3. Lead dimensions apply only at body.

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