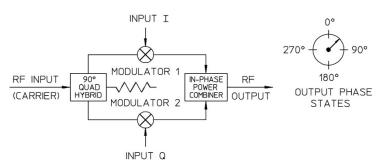
# VMP-2S SERIES – VECTOR I&Q MODULATOR

## **TECHNICAL FEATURE**

## **FEATURES**

- 1.5 to 3 GHz Center Frequency
- Narrowband QPSK
- For MSK Systems
- 10% BW
- Heremetic PC Package



PRINCIPAL SPECIFICATIONS			
Model Number	Center Frequency, f <sub>o</sub> , GHz	Usable RF Bandwidth	
VMP-2S-***B For complete Model Nur	1.5 - 3 mber replace *** with desired Cen	10% of f <sub>o</sub> ter Frequency, f <sub>o</sub> in MHz.	

### General Notes:

1. A vector modulator is used to phase modulate an RF carrier with complex analog signals.

 $\ensuremath{\text{2.Merrimac}}$  Vector Modulators consist of a quadrature hybrid and an in-phase power divider.

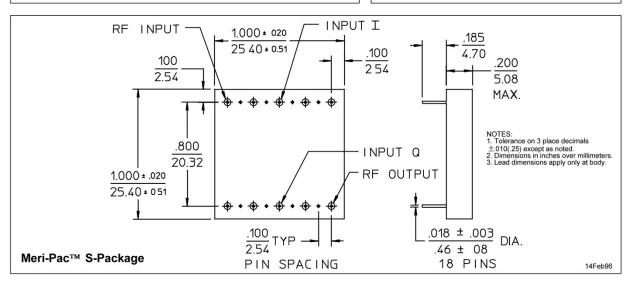
3. Units in the VMP-2S series are capable of modulating the carrier at up to 10% of the RF bandwidth.

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 $\Omega$ nom.	
Insertion Loss		
(below modulation input):	12 dB max.	
Modulation Accuracy		
(measured @ 4 quadrants, 0 dBm input)		
Amplitude Balance:	1.3 dB	
Phase Balance:	± 7°	
Carrier Isolation:	30 dB typ.	
Dynamic Range (output):		
Weight, nominal:	0.35 oz (10 g)	
Operating Temperature:	– 55° to +85°C	

## AVAILABLE OPTIONS

Close tolerance phase and amplitude balance versions are available in custom designs. Units with lower center frequency (e.g., 10 MHz to 1 GHz) are available in the VMP-2R series



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