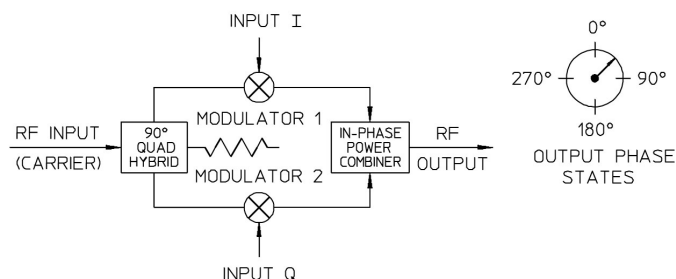


# VECTOR I&Q MODULATOR - VMF-3F-2223 SQ

## TECHNICAL FEATURE

### FEATURES

- Space Qualified
- High Accuracy
- Hi-Rel Flatpack



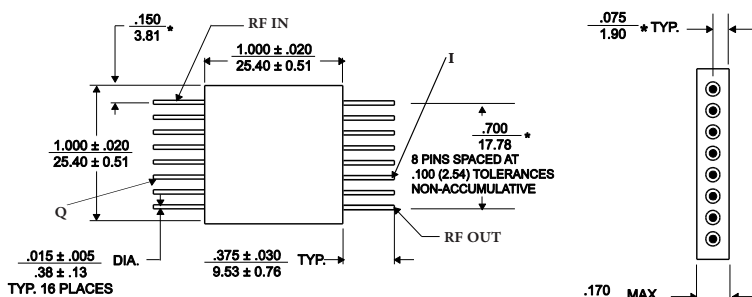
### PERFORMANCE

|   |  |
|---|--|
| RF Input Frequency.....                                   | 2223 MHz (2218-2228MHz)                            |
| RF Input Power .....                                      | +10 dB nom., +13 dB max.                           |
| I&Q Input Power Level .....                               | 0 dBm max.   |
| I&Q Bandwidth .....                                       | DC - 10 MHz  |
| Conversion Loss.....                                      | 10 dB typ., 12 dB max.<br>(below Modulation Input) |
| VSWR RF/LO .....  | 1.5:1 typ., 1.8:1 max.                             |
| Impedance.....  | 50 Ohm nom.  |
| Modulation Accuracy (measured @ 4 quadrants, 0 dBm input) |  |
| Phase Balance .....                                       | ± 7° max.  |
| Amplitude Balance .....                                   | 1.3 dB max.  |
| Operating Temperature .....                               | -55° to +85° C                                     |

### DESCRIPTION

I & Q modulators are integrated devices that produce linear phase modulation of an RF carrier. In the VMF Series, specially optimized circuits are used to provide superior performance across very wide bandwidths and high data rates. This has been designed, manufactured and qualified per Merrimac document CENG-0001, "Standard Design Requirements for Space Qualified Devices".

## PACKAGE OUTLINE



- NOTES:
1. Tolerance on 3 place decimals ± .010(.25) except as noted.
  2. Dimensions in inches over millimeters.
  3. Dimensions marked with \* apply only at body.
  4. All unmarked pins are case ground.

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