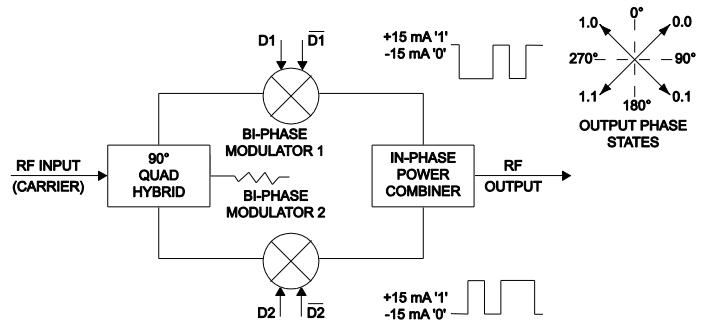


JPF-21F-2250 SQ

TECHNICAL FEATURE

FEATURES

- High Data Bandwidth
- Differential EXL/TTL Compatible Drive
- Hi-Rel Package



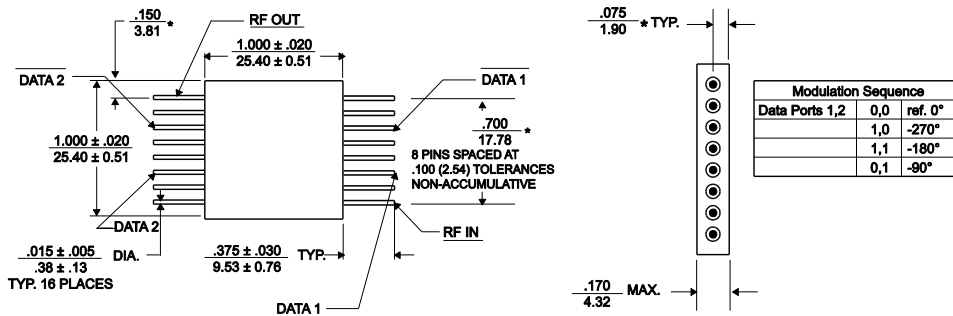
PERFORMANCE

Center Frequency f_0	2250 MHz
RF Input Bandwidth.....	10% of f_0
Amplitude Balance at Center, f_0	1.0 dB max,
Phase Balance at Center, f_0	$\pm 2^\circ$ typ., $\pm 6^\circ$ max.
Phase Balance at 10% Band Limits.....	$\pm 2^\circ$ typ., $\pm 6^\circ$ max.
Insertion Loss.....	13.5 dB max.
Impedance.....	50 Ω nom.
VSWR.....	RF Input 1.5:1 max
VSWR.....	RF Output 2:1 max
Isolation: RF In and Out to Data Inputs.....	20dB min.
RF Input Level.....	0 dBm nom.
Data Bandwidth.....	100 MHz nom.
Data Signal Levels.....	Logic 1: +15 mA nom.
.....	Logic 0: -15 mA nom.
Operating Temperature.....	-55° to +85°C

DESCRIPTION

The JPF-21F-2250 SQ is a Quadrature Modulator and is composed of two biphas modulators, a 90° quadrature hybrid and an in-phase power combiner. This device is generally used in systems to generate QPSK coded signals. The unit accept two differential data inputs each of which independently biphas modulates an RF carrier. These are then combined to produce a quadrature output of 0, 90, 180 and 270 degrees. Differential drive allows easy interface with ECL/TTL drivers.

Merrimac Quadrature 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.



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