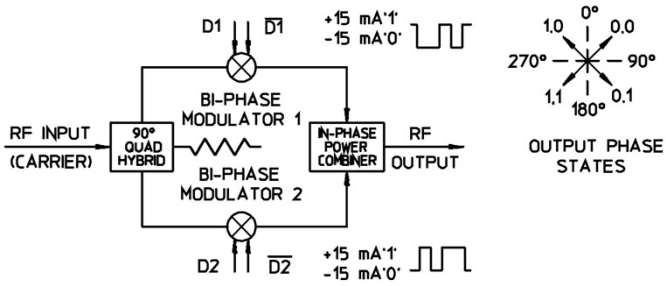
JPP-21S SERIES – QUADRAPHASE MODULATORS

TECHNICAL FEATURE

FEATURES

- Units to 3 GHz
- High Data Bandwidth
- Differential ECL/TTL Compatible Drive
- Hi-Rel Package



PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency f_o, MHz	RF Input Bandwidth	Amplitude Balance at, (dB) MAX	Phase Balance at Center, f_o Typ.	Phase Balance at Center, f_o Max.	Phase Balance at 10% Band Limits Typ.	Phase Balance at 10% Band Limits Max.	Insertion Loss (dB) Max.
JPP-21S-***B	1200 – 2500	10% of f_o	1.3	±2°	±7°	±2°	±7°	10

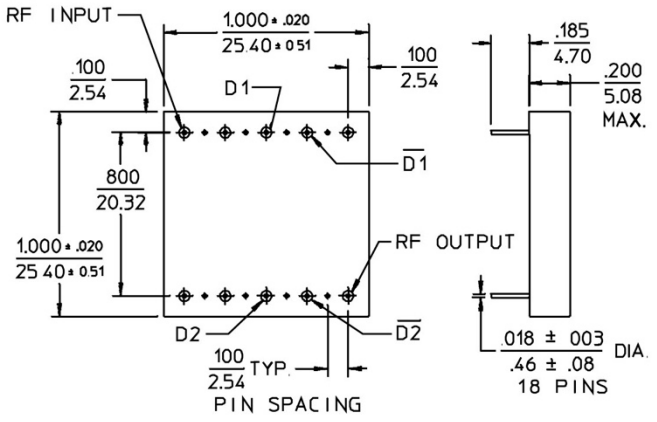
General Notes:

1. Units in the JPP-21S series of Quadraphase Modulators are composed of two biphase modulators, a 90° quadrature hybrid and an in-phase power combiner.
2. These devices are generally used in systems to generate QPSK coded signals. The units accept two differential data inputs each of which independently biphase modulates an RF carrier. These are then combined to produce a quadraphase output of 0, 90, 180 and 270 degrees. Differential drive allows easy interface with ECL/TTL drivers.
3. Merrimac Quadraphase 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

Impedance:	50 Ω nom.
VSWR:	1.5:1 max.
RF Input Level:	0 dBm nom.
Data Bandwidth:	>100 MHz nom.
Data Signal Levels: Logic 1:	+15 mA nom.
Logic 0:	– 15 mA nom.
Weight, nominal:	0.32 oz (9 g)
Operating Temperature:	– 55° to +85°C

Outline of S-Size Meri-Pac™



Modulation Sequence		
Data Ports 1, 2	0, 0	ref. 0°
	1, 0	– 270°
	1, 1	– 180°
	0, 1	– 90°

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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