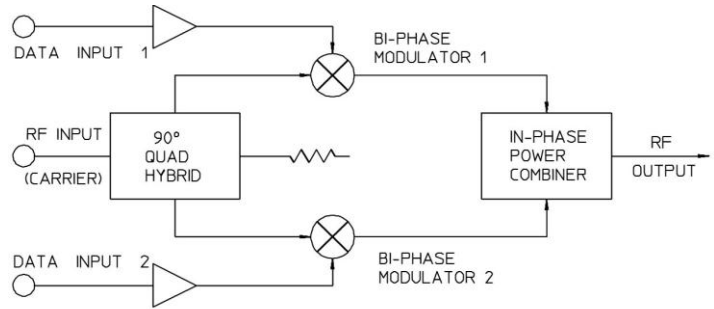


# JTP-2S SERIES – QUADRAPHASE MODULATORS

## TECHNICAL FEATURE

### FEATURES

- 10 to 1000 MHz Center Frequency
- Integrated TTL Drive
- Low Conversion Loss
- Hi-Rel Hermetic Package

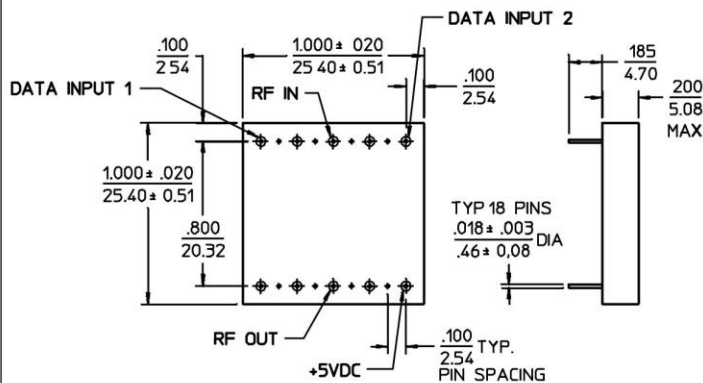


### PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, $f_o$ , MHz	RF Input Bandwidth	Amplitude Balance, dB, Max.	Phase Balance @: $f_o$ Band Limits	Insertion Loss, dB, Max.	VSWR Max.
JTP-2S-***B	10 to 200	10% of $f_o$	0.5	$\pm 2^\circ$ max. $\pm 4^\circ$ max.	6	1.5:1
JTP-2S-***B	200 to 1000	10% of $f_o$	1.0	$\pm 3^\circ$ max. $\pm 5^\circ$ max.	9	1.5:1

For complete Model Number replace \*\*\* with desired Center Frequency,  $f_o$  in MHz.

### Meri-Pac™ S-Package



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

### GENERAL SPECIFICATIONS

- Impedance: 50  $\Omega$  nom.
- RF Input Level: 0 dBm nom.
- Modulation Sequence
  - TTL Data Ports 1,2: 0,0 : ref. 0°
  - 1,0 : +270°
  - 1,1 : +180°
  - 0,1 : +90°
- Data Bandwidth: DC to 5 MHz nom. (Wider Bandwidths in larger package)
- DC Power: +5 V @ 25 mA nom.
- Weight, nominal: 0.35 oz (10 g)
- Operating Temp: -55° to +85°C

### General Notes:

1. Units in the JTP-2S series of Quadrature Modulators are composed of two biphase modulators with TTL drivers, 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 quadrature output of 0, 90, 180 and 270 degrees.
3. Units in the JTP-2S series are available with center frequencies from 10 to 1000 MHz and having a minimum bandwidth equal to 10% of the center frequency.
4. Merrimac Quadrature Modulators comply with the relevant sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military applications requiring the highest reliability.

29Apr96

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