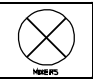
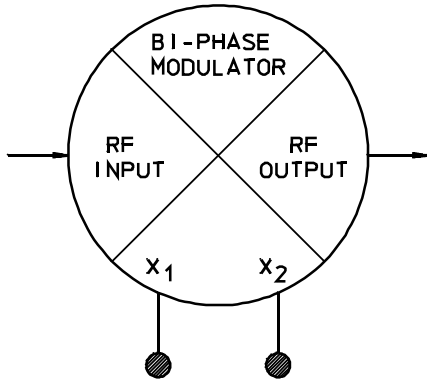




# BPM-2A Series

# BIPHASE MODULATORS

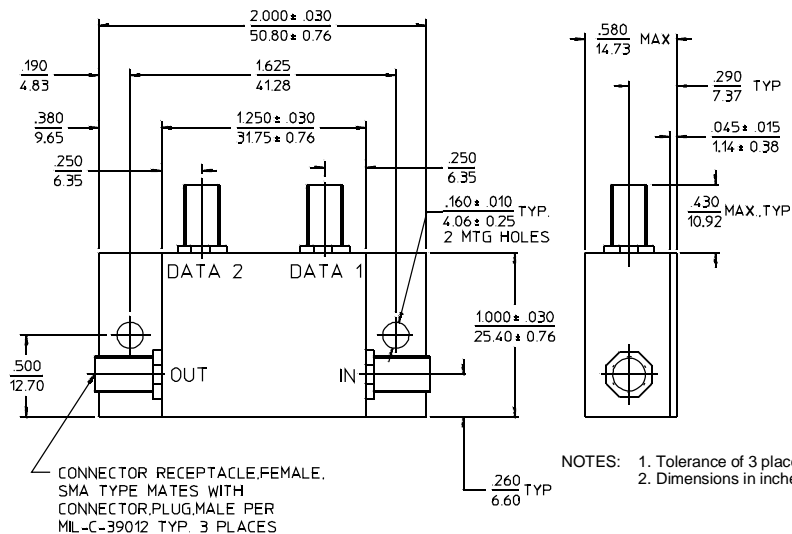
2 to 2000 MHz / ECL & TTL Compatible / Fast Switching / SMA Connectors



## PRINCIPAL SPECIFICATIONS

| Model Number | Frequency Range, MHz | Insertion Loss, dB, |      | Amplitude Balance, dB, |      | Phase Balance |      | Carrier Suppression Typ. |
|--------------|----------------------|---------------------|------|------------------------|------|---------------|------|--------------------------|
|              |                      | Max.                | Typ. | Max.                   | Typ. | Max.          | Typ. |                          |
| BPM-2A-250   | 2 – 500              | 3.5                 | 2.5  | 0.3                    | 0.10 | ±4°           | ±2°  | - 40 dBc                 |
| BPM-2A-500   | 10 – 500             | 3                   | 2    | 0.3                    | 0.20 | ±3°           | ±1°  | - 40 dBc                 |
|              | 500 – 1000           | 4                   | 3    | 0.5                    | 0.20 | ±4°           | ±2°  | - 35 dBc                 |
| BPM-2A-1500  | 1000 – 2000          | 6                   | 5    | 0.75                   | 0.25 | ±5°           | ±2°  | - 30 dBc                 |

## A-Package Outline



NOTES: 1. Tolerance of 3 place decimals ±0.020 (0.51) except as noted.  
2. Dimensions in inches over millimeters.

### General Notes:

1. The BPM-2A Series Biphase Modulators cover the frequency range of 2 to 2000 MHz and is ideal for general applications. Other models available in surface mount packages are electrically similar to the standard flatpack units but have extended frequency range up to 3.6 GHz with proportionately fast risetimes.
2. Customized versions are available for special frequency bands matched to your special applications. Most units are available in a variety of alternative packages such as the TO-8, flatpack or connectorized packages. TTL or ECL drivers can be provided in the larger packages.
3. Merrimac Biphase Modulators cover a variety of frequency bands while providing wide bandwidths suitable for most applications.
4. All units comply with applicable sections MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

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## GENERAL SPECIFICATIONS

|                        |   |                |
|------------------------|---|----------------|
| Impedance:             | 5 | 0 Ω nom.       |
| RF Input Level:        |   | - 3 dBm max.   |
| VSWR:                  |   | 2.0:1 max.     |
| Switching Speed:       |   | 2 ns typ.      |
| Data Levels: Logic 1:  |   | + 15 mA        |
| Logic 0:               |   | - 15 mA        |
| Weight, nominal:       |   | 1.5 oz (42 g)  |
| Operating Temperature: |   | - 55° to +85°C |

For further information contact **MERRIMAC / 41 Fairfield Pl., West Caldwell, NJ, 07006 / 973-575-1300 / FAX 973-575-0531**