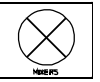
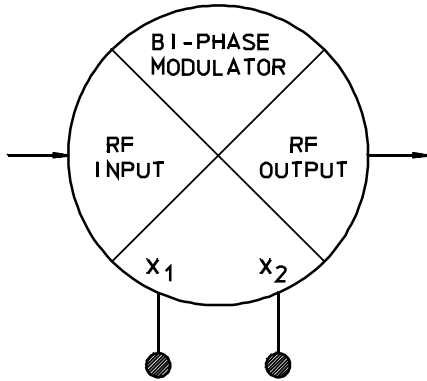




# BPP-2N Series

# BIPHASE MODULATORS

10 to 2000 MHz / ECL & TTL Compatible / Fast Switching / Hermetic Package

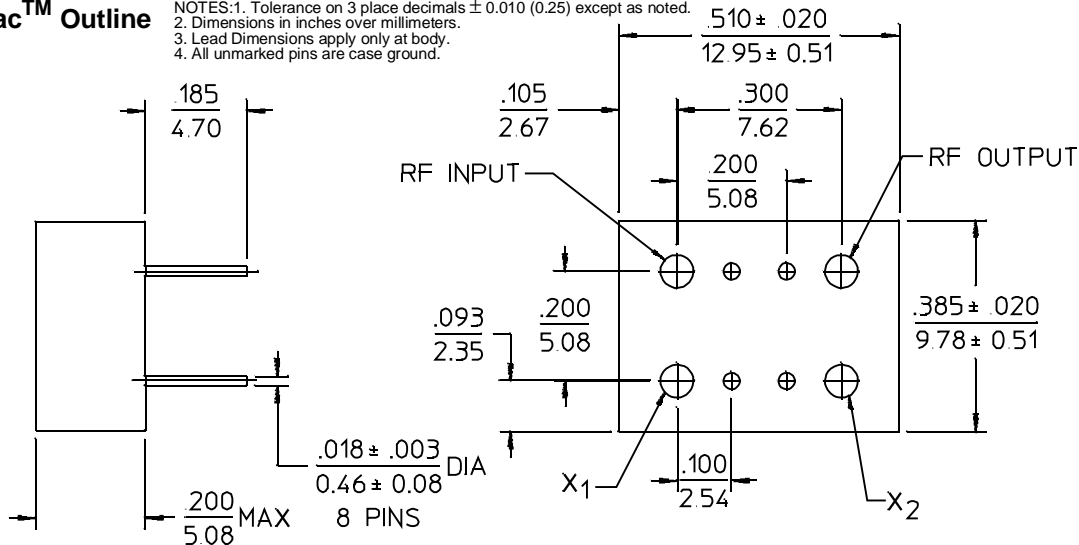


## PRINCIPAL SPECIFICATIONS

| Model Number | Frequency Range, MHz | Insertion Loss, dB, |      | Amplitude Balance, dB, |      | Phase Balance |      | Carrier Suppression, Typ. |
|--------------|----------------------|---------------------|------|------------------------|------|---------------|------|---------------------------|
|              |                      | Max.                | Typ. | Max.                   | Typ. | Max.          | Typ. |                           |
| BPP-2N-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                  |
| BPP-2N-1500  | 1000 – 2000          | 6                   | 5    | 0.75                   | 0.25 | ± 5°          | ± 2° | - 30 dBc                  |

### N-Merripac™ Outline

NOTES: 1. Tolerance on 3 place decimals ± 0.010 (0.25) except as noted.  
 2. Dimensions in inches over millimeters.  
 3. Lead Dimensions apply only at body.  
 4. All unmarked pins are case ground.



### General Notes:

1. The BPP-2N series of Biphase Modulators covers the frequency range of 10 to 2000 MHz with sub-nanosecond switching times in the higher frequency units.
2. Customized versions are available for special frequency bands matched to your special applications.
3. The BPP-2N series can be driven directly by either TTL or ECL drivers. Most units are available in a variety of alternative packages such as the TO-8, flatpack or connectorized packages. TTL or ECL drivers may be included in the larger packages.
4. All units comply with applicable sections of 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:             | 50 Ω nom.                           |
| RF Input Level:        | - 3 dBm max.                        |
| VSWR:                  | 2.0:1 max.                          |
| Switching Speed:       | 2 nS typ.                           |
| Data Levels:           | Logic 1: +15 mA<br>Logic 0: - 15 mA |
| Weight, nominal:       | 0.1 oz (2.8 g)                      |
| Operating Temperature: | - 55° to +85°C                      |