

## 20 dB, Bi-Directional Coupler, 1 - 1000 MHz

Rev. V3

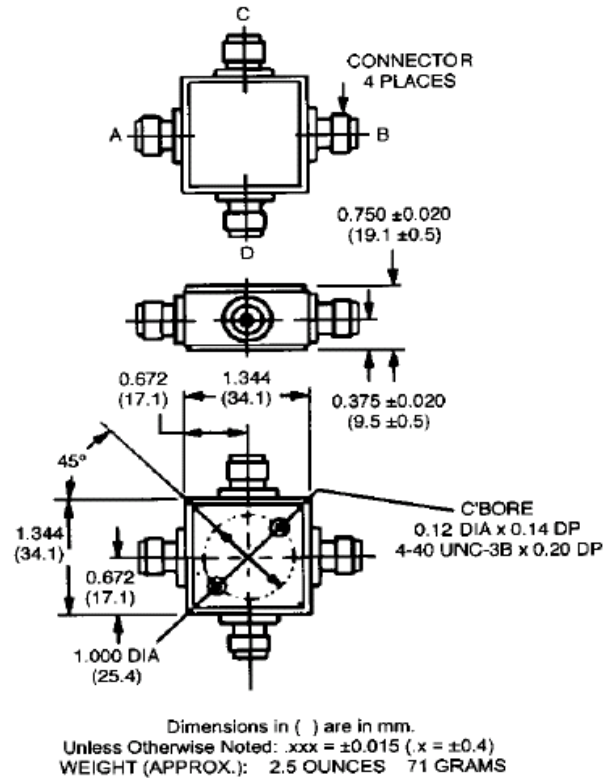
### Features

- Broad Frequency Range
- Constant Coupling—Within  $\pm 0.5$  dB Max
- VSWR: 1.3:1 Max
- 

### C-8

### Description

Bi-Directional Couplers offer the ability to couple the power in two directions while maintaining directivity.



### Electrical Specifications<sup>1</sup>: $T_A = -55^\circ\text{C}$ to $+85^\circ\text{C}$

| Parameter                   | Test Conditions | Frequency    | Units | Min  | Typ  | Max        |
|-----------------------------|-----------------|--------------|-------|------|------|------------|
| Coupling                    | Input to Output | 1-1000 MHz   | dB    | 19.0 | 20.0 | 21.0       |
| Coupling Flatness           | —               | 10 - 500 MHz | dB    | —    | —    | $\pm 0.25$ |
|                             |                 | 1 - 1000 MHz | dB    | —    | —    | $\pm 0.5$  |
| VSWR                        | All Ports       | 10 - 500 MHz | Ratio | —    | —    | 1.2:1      |
|                             |                 | 1 - 1000 MHz | Ratio | —    | —    | 1.3:1      |
| Directivity                 | Both Directions | 10 - 500 MHz | dB    | 25   | —    | —          |
|                             |                 | 1 - 1000 MHz | dB    | 20   | —    | —          |
| Main Line Loss <sup>2</sup> | —               | 10 - 500 MHz | dB    | —    | —    | 0.5        |
|                             |                 | 1 - 1000 MHz | dB    | —    | —    | 0.7        |

1. All specifications apply with 50 ohm source and load impedance.

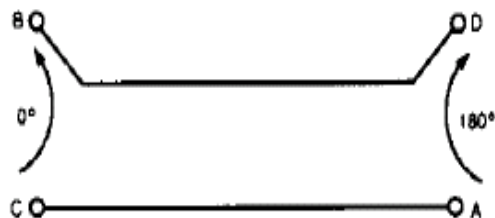
2. Includes theoretical power split.

This product contains elements protected by United States Patent number 3,426,298.

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### Functional Diagram



### Ordering Information

| Part Number | Package       |
|-------------|---------------|
| CH-132 BNC  | Connectorized |
| CH-132 N    | Connectorized |
| CH-132 SMA  | Connectorized |
| CH-132 TNC  | Connectorized |

### Typical Performance Curves

