

# CBN & CCN SERIES, DIRECTIONAL COUPLERS

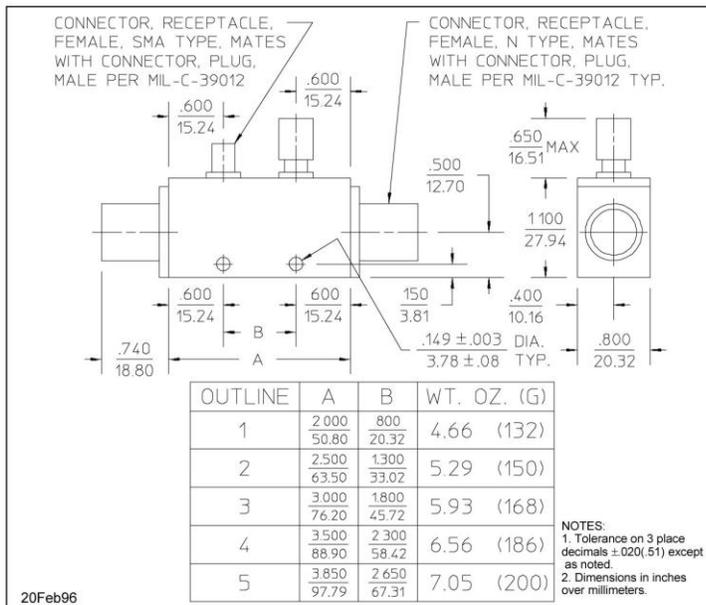
## TECHNICAL FEATURE

### FEATURES

- 1 to 12 GHz
- High power
- Octave & multi-octave models
- 30 or 35 dB coupling
- N-connector

| <b>PRINCIPAL SPECIFICATIONS</b> |                      |                               |                                 |                       |                           |                       |              |
|---------------------------------|----------------------|-------------------------------|---------------------------------|-----------------------|---------------------------|-----------------------|--------------|
| Model Number                    | Frequency Range, GHz | Nominal Coupling, $\alpha$ dB | Frequency Sensitivity, dB, Max. | Directivity, dB, Min. | *Insertion Loss, dB, Max. | VSWR, Main Line, Max. | Outline Ref. |
| CBN-30M-1.5G                    | 1.0 - 2.0            | 30 $\pm$ 1                    | $\pm$ 0.75                      | 18                    | 0.2                       | 1.15:1                | 4            |
| CBN-30M-3G                      | 2.0 - 4.0            | 30 $\pm$ 1                    | $\pm$ 0.75                      | 18                    | 0.2                       | 1.15:1                | 2            |
| CBN-30M-4G                      | 2.6 - 5.2            | 30 $\pm$ 1                    | $\pm$ 0.75                      | 18                    | 0.2                       | 1.20:1                | 2            |
| CBN-30M-6G                      | 4.0 - 8.0            | 30 $\pm$ 1                    | $\pm$ 0.75                      | 18                    | 0.2                       | 1.30:1                | 1            |
| CBN-30M-8G                      | 5.0 - 11.0           | 30 $\pm$ 1                    | $\pm$ 0.50                      | 15                    | 0.2                       | 1.30:1                | 1            |
| CBN-30M-9G                      | 7.0 - 11.0           | 30 $\pm$ 1                    | $\pm$ 0.50                      | 16                    | 0.2                       | 1.30:1                | 1            |
| CCN-30M-2G                      | 1.0 - 4.0            | 30 $\pm$ 1                    | $\pm$ 0.60                      | 15                    | 0.2                       | 1.15:1                | 5            |
| CCN-30M-3G                      | 1.5 - 4.5            | 30 $\pm$ 1                    | $\pm$ 0.60                      | 18                    | 0.2                       | 1.20:1                | 4            |
| CCN-30M-5G                      | 2.0 - 8.0            | 30 $\pm$ 1                    | $\pm$ 0.60                      | 16                    | 0.2                       | 1.30:1                | 3            |
| CCN-35M-6G                      | 1.0 - 11.0           | 35 $\pm$ 1.5                  | $\pm$ 1.50                      | 15                    | 0.2                       | 1.30:1                | 5            |
| CCN-30M-8G                      | 4.0 - 12.0           | 30 $\pm$ 1                    | $\pm$ 0.60                      | 15                    | 0.2                       | 1.30:1                | 2            |

$\alpha$ Coupling is referenced to the input and includes frequency sensitivity      \* Insertion Loss including Coupling "Loss"



### GENERAL SPECIFICATIONS

Peak Power: 10 kW max.  
 CW Input: 600 W max.  
 Impedance: 50  $\Omega$  nom.  
 Operating Temperature: -55° to +85°C  
 Other Coupling Values: Available  
 Other Frequency Bands: Available

### General Notes:

1. The octave band CBN series and multi-octave CCN series of high power Directional Couplers are designed to monitor signals with minimal perturbation to the main line. Each coupler uses air-line coupling technology for simple reliable operation. They are well suited to transmitter carrier power monitoring, leveling and VSWR protection circuits.
2. These units comply with MIL-C-15370 and can be supplied screened for compliance with additional specifications you designate for military and aerospace applications requiring higher reliability.

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