

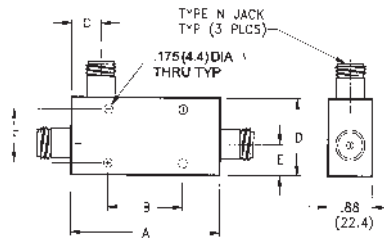
# Couplers

## Directional Couplers - N • TNC Types

### 500 Watt High Performance

- 500 MHz to 18.0 GHz Frequency Range
- Low VSWR - High Directivity
- 500 Watt High Power Capability
- Individually Calibrated

Midwest Microwave's series of High Power Directional Couplers are useable for system or testing where flat frequency response over extended bandwidths is required. They possess high directivity and will withstand high input power under extreme environmental conditions. Standard units have stainless steel Type N female connectors but are also available with TNC connectors.



Note: Case Style 7 has two mounting holes.

### ELECTRICAL SPECIFICATIONS

| Frequency Range (GHz) | Case Style | Model Number                       | Coupling (dB) (Incl Freq Sensitivity) | Frequency Sensitivity (dB) | Insertion Loss (dB) max | Directivity (dB) min | VSWR max | Power (In) |             |               |
|-----------------------|------------|------------------------------------|---------------------------------------|----------------------------|-------------------------|----------------------|----------|------------|-------------|---------------|
|                       |            |                                    |                                       |                            |                         |                      |          | Avg In (W) | Avg Ref (W) | Avg Peak (kW) |
| .5-1.0                | 1          | <a href="#">CPL-5044-10-NNN-79</a> | 10 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 200        | 50          | 10            |
|                       | 1          | <a href="#">CPL-5044-20-NNN-79</a> | 20 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 500        | 500         | 10            |
|                       | 2          | <a href="#">CPL-5044-30-NNN-79</a> | 30 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 500        | 500         | 10            |
| 1.0-2.0               | 3          | <a href="#">CPL-5045-10-NNN-79</a> | 10 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 200        | 50          | 10            |
|                       | 3          | <a href="#">CPL-5045-20-NNN-79</a> | 20 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 500        | 500         | 10            |
|                       | 4          | <a href="#">CPL-5045-30-NNN-79</a> | 30 ± 1.0                              | ± 0.75                     | 0.20                    | 30                   | 1.15     | 500        | 500         | 10            |
| 2.0-4.0               | 3          | <a href="#">CPL-5046-10-NNN-79</a> | 10 ± 1.0                              | ± 0.75                     | 0.20                    | 25                   | 1.15     | 200        | 50          | 10            |
|                       | 3          | <a href="#">CPL-5046-20-NNN-79</a> | 20 ± 1.0                              | ± 0.75                     | 0.20                    | 27                   | 1.15     | 500        | 500         | 10            |
|                       | 4          | <a href="#">CPL-5046-30-NNN-79</a> | 30 ± 1.0                              | ± 0.75                     | 0.20                    | 27                   | 1.15     | 500        | 500         | 10            |
| 4.0-10.0              | 5          | <a href="#">CPL-5047-10-NNN-79</a> | 10 ± 1.0                              | ± 0.75                     | 0.25                    | 20*                  | 1.20     | 200        | 50          | 10            |
|                       | 5          | <a href="#">CPL-5047-20-NNN-79</a> | 20 ± 1.0                              | ± 0.75                     | 0.25                    | 20*                  | 1.20     | 500        | 500         | 10            |
|                       | 6          | <a href="#">CPL-5047-30-NNN-79</a> | 30 ± 1.0                              | ± 0.75                     | 0.25                    | 20*                  | 1.20     | 500        | 500         | 10            |
| 7.0-12.4              | 7          | <a href="#">CPL-5048-10-NNN-79</a> | 10 ± .75                              | ± 0.75                     | 0.25                    | 15                   | 1.25     | 200        | 50          | 10            |
|                       | 7          | <a href="#">CPL-5048-20-NNN-79</a> | 20 ± .75                              | ± 0.75                     | 0.25                    | 15                   | 1.25     | 500        | 500         | 10            |
|                       | 7          | <a href="#">CPL-5048-30-NNN-79</a> | 30 ± .75                              | ± 0.75                     | 0.25                    | 15                   | 1.25     | 500        | 500         | 10            |

\* Directivity is 17 dB from 8.0 - 10.0 GHz.

### MECHANICAL SPECIFICATIONS - INCHES (mm)

| CASE STYLE | A            | B           | C           | D           | E           | F            | WEIGHT |      |
|------------|--------------|-------------|-------------|-------------|-------------|--------------|--------|------|
|            |              |             |             |             |             |              | Lbs    | Kg   |
| 1          | 6.25 (158.8) | 3.00 (76.2) | 0.51 (13.0) | 2.13 (54.0) | 0.87 (22.1) | 1.687 (42.9) | 1.2    | 0.52 |
| 2          | 6.25 (158.8) | 3.00 (76.2) | 0.51 (13.0) | 2.13 (54.0) | 0.69 (17.5) | 1.687 (42.9) | 1.2    | 0.52 |
| 3          | 4.10 (104.1) | 1.09 (27.7) | 0.50 (12.7) | 2.13 (54.0) | 0.87 (22.1) | 1.687 (42.9) | 1.0    | 0.45 |
| 4          | 4.10 (104.1) | 1.09 (27.7) | 0.50 (12.7) | 2.13 (54.0) | 0.69 (17.5) | 1.687 (42.9) | 1.0    | 0.45 |
| 5          | 5.10 (129.5) | 2.00 (50.8) | 0.66 (16.8) | 2.13 (54.0) | 0.57 (14.5) | 1.687 (42.9) | 1.1    | 0.50 |
| 6          | 5.10 (129.5) | 2.00 (50.8) | 0.57 (14.5) | 2.13 (54.0) | 0.69 (17.5) | 1.687 (42.9) | 1.1    | 0.50 |
| 7          | 2.50 (63.5)  | 1.13 (28.7) | 0.60 (15.2) | 1.50 (38.1) | 0.60 (15.2) | 1.093 (27.8) | 0.8    | 0.40 |

Note: TNC or Type N output connectors are available by substituting "TNC" or "NNN" for "SMA" in the Model Number.