



# Directional Couplers | CPL

## FEATURES

### STRIPLINE CONSTRUCTION

Repeatable Performance  
Low Cost

### FREQUENCY RANGE

0.2 to 18 GHz

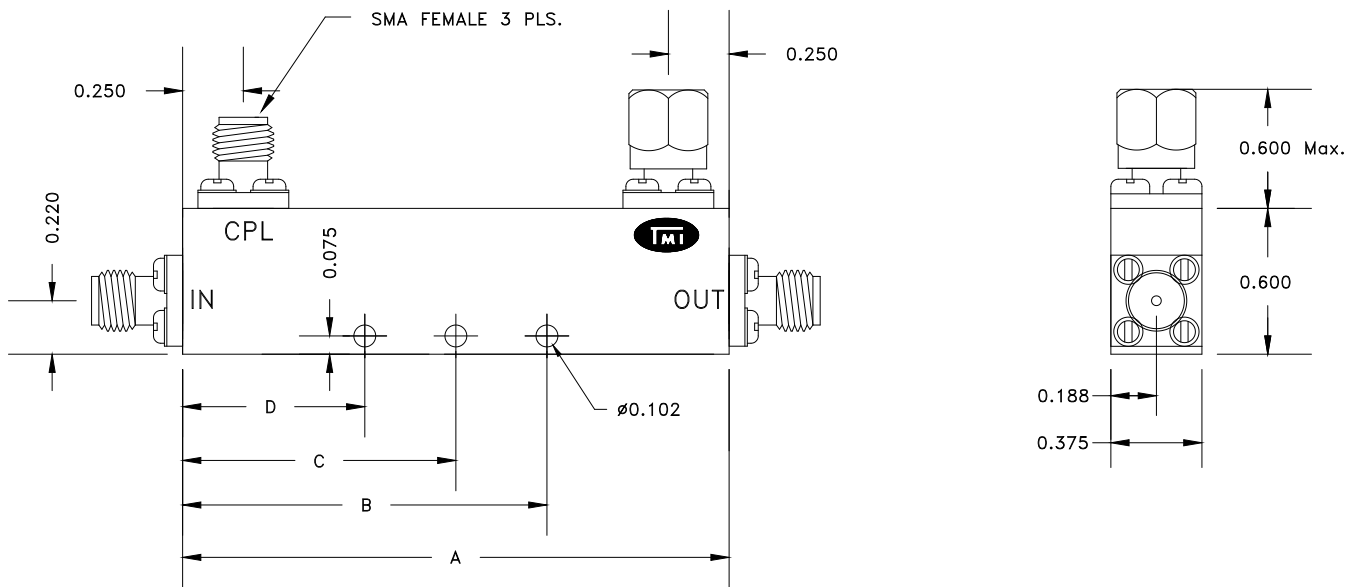
### LOW LOSS

0.10 db Typ.

## DESCRIPTION

TMI's Stripline Couplers, Series CPL are available in 6dB, 10dB, 20 dB and 30dB coupling values. These units feature repeatable performance.

## OUTLINE DIMENSIONS



| OUTLINE | A    | B    | C     | D    |
|---------|------|------|-------|------|
| 1       | 3.25 | 2.25 | -     | 1.00 |
| 2       | 2.25 | 1.50 | -     | 0.75 |
| 3       | 1.25 | -    | 0.625 | -    |

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## ELECTRICAL SPECIFICATIONS

| Model No.  | (1)<br>Frequency Range (GHz) | (2)<br>Coupling (dB)                            | Freq. Sensitivity (dB) | Insertion Loss Above Coupling Loss (dB) | Directivity (dB Min.) | Max. Input/Output VSWR | Max. Avg. Power (Watt Max.) | (4)<br>Figure |
|--|------------------------------|---|------------------------|---|-----------------------|------------------------|-----------------------------|---------------|
| CPL-0510-06<br>CPL-0510-10<br>CPL-0510-20<br>CPL-0510-30 | 0.5-1                        | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.20                                    | 20                    | 1.20                   | 50                          | 1             |
| CPL-1020-06<br>CPL-1020-10<br>CPL-1020-20<br>CPL-1020-30 | 1-2                          | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.20                                    | 20                    | 1.20                   | 50                          | 2             |
| CPL-2040-06<br>CPL-2040-10<br>CPL-2040-20<br>CPL-2040-30 | 2-4                          | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.20                                    | 18                    | 1.25                   | 50                          | 3             |
| CPL-2652-06<br>CPL-2652-10<br>CPL-2652-20<br>CPL-2652-30 | 2.6-5.2                      | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.20                                    | 17                    | 1.35                   | 50                          | 3             |
| CPL-4080-06<br>CPL-4080-10<br>CPL-4080-20<br>CPL-4080-30 | 4-8                          | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.20                                    | 17                    | 1.35                   | 50                          | 3             |
| CPL-7012-06<br>CPL-7012-10<br>CPL-7012-20<br>CPL-7012-30 | 7-12.4                       | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.50                  | 0.35                                    | 15                    | 1.40                   | 50                          | 3             |
| CPL-7516-06<br>CPL-7516-10<br>CPL-7516-20<br>CPL-7516-30 | 7.5-16                       | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.75                  | 0.60                                    | 12                    | 1.40                   | 50                          | 3             |
| CPL-1218-06<br>CPL-1218-10<br>CPL-1218-20<br>CPL-1218-30 | 12.4-18                      | 6 ± 1.50<br>10 ± 1.75<br>20 ± 1.75<br>30 ± 1.75 | ±0.50                  | 0.60                                    | 10                    | 1.50                   | 50                          | 3             |

1-Bandwidth Available up to 10:1 ratio.

3-Up to 100WCW Available.

4-Contact factory for other outlines.

Higher Isolation Available.

See outline for details

Contact Factory for other connectors

Custom Design Available.

Impedance 50 Ohm Nominal

Temperature Range: -55 to +85°C

Finish: Grey Paint per Military Standard : A-A-2787 Type 2