

# Couplers

0.5-18 GHz

## SMA Miniature Stripline Coaxial Couplers

- Smallest, Lightest Units Available from 0.5 to 18 GHz
- Highest Directivity, Lowest VSWR
- Excellent Frequency Flatness
- Operational to 105°C without Degradation (125°C Storage)



### Specifications

SMA (F), 0.5 to 18 GHz, 50 W

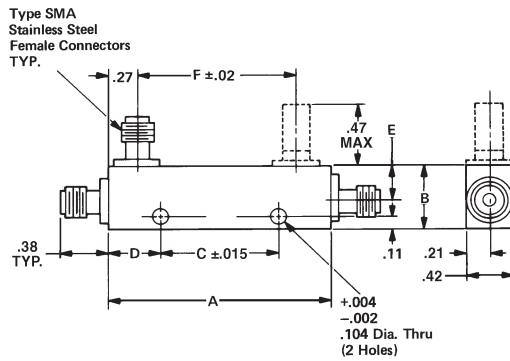
| FREQUENCY RANGE (GHz) | MODEL      | COUPLING (dB) | DIRECTIVITY (dB min.) | INSERTION LOSS (dB)     |      | VSWR                |                       | FREQUENCY SENSITIVITY* (dB max.) | POWER INPUT (W) | REFLECTED POWER |           | WEIGHT (max.) |     |
|-----------------------|------------|---------------|-----------------------|-------------------------|------|---------------------|-----------------------|----------------------------------|-----------------|-----------------|-----------|---------------|-----|
|                       |            |               |                       | EXCLUDING COUPLED POWER | TRUE | PRIMARY LINE (max.) | SECONDARY LINE (max.) |                                  |                 | AVG. (W)        | PEAK (kW) | oz.           | gr. |
| 0.5-1                 | 4011C-10   | 10 ±1.25      | 25                    | 0.20                    | 0.80 | 1.15                | 1.15                  | ±0.75                            | 50              | 5               | 3         | 1.3           | 37  |
|                       | 4011C-20   | 20 ±1.25      | 25                    | 0.20                    | 0.80 | 1.15                | 1.15                  | ±0.75                            | 50              | 50              | 3         | 1.2           | 34  |
| 1-2                   | 4012C-6    | 6 ±1.00       | 25                    | 0.20                    | 1.80 | 1.15                | 1.15                  | ±0.60                            | 50              | 2               | 3         | 0.9           | 26  |
|                       | 4012C-10   | 10 ±1.25      | 25                    | 0.20                    | 0.90 | 1.10                | 1.10                  | ±0.75                            | 50              | 5               | 3         | 0.9           | 26  |
|                       | 4012C-20   | 20 ±1.25      | 27                    | 0.20                    | 0.20 | 1.10                | 1.10                  | ±0.75                            | 50              | 50              | 3         | 0.9           | 26  |
|                       | 4012C-30   | 30 ±1.25      | 27                    | 0.20                    | 0.20 | 1.10                | 1.10                  | ±0.75                            | 50              | 50              | 3         | 0.9           | 26  |
| 2-4                   | 4013C-6    | 6 ±1.00       | 22                    | 0.20                    | 1.80 | 1.15                | 1.15                  | ±0.60                            | 50              | 2               | 3         | 0.6           | 18  |
|                       | 4013C-10   | 10 ±1.25      | 22                    | 0.25                    | 0.80 | 1.15                | 1.15                  | ±0.75                            | 50              | 5               | 3         | 0.6           | 18  |
|                       | 4013C-20   | 20 ±1.25      | 22                    | 0.20                    | 0.25 | 1.15                | 1.15                  | ±0.75                            | 50              | 50              | 3         | 0.6           | 18  |
| 0.5-8                 | 4013C-30   | 30 ±1.25      | 22                    | 0.20                    | 0.20 | 1.15                | 1.15                  | ±0.75                            | 50              | 50              | 3         | 0.6           | 18  |
|                       | 4216-10    | 10 ±1.50      | 15                    | —                       | 1.40 | 1.40                | 1.40                  | —                                | 50              | 5               | 3         | 2.1           | 60  |
|                       | 4216-20    | 20 ±1.50      | 14                    | —                       | 0.80 | 1.30                | 1.30                  | —                                | 50              | 50              | 3         | 2.1           | 60  |
| 4-8                   | 4014C-6    | 6 ±1.00       | 18                    | 0.25                    | 2.00 | 1.25                | 1.25                  | ±0.60                            | 50              | 2               | 3         | 0.6           | 18  |
|                       | 4014C-10   | 10 ±1.25      | 20                    | 0.25                    | 1.00 | 1.25                | 1.25                  | ±0.75                            | 50              | 5               | 3         | 0.6           | 18  |
|                       | 4014C-20   | 20 ±1.25      | 20                    | 0.25                    | 0.30 | 1.25                | 1.25                  | ±0.75                            | 50              | 50              | 3         | 0.6           | 18  |
|                       | 4014C-30   | 30 ±1.25      | 20                    | 0.25                    | 0.25 | 1.25                | 1.25                  | ±0.75                            | 50              | 50              | 3         | 0.6           | 18  |
| 7-12.4                | 4015C-6    | 6 ±1.00       | 15                    | 0.40                    | 2.00 | 1.30                | 1.30                  | ±0.50                            | 50              | 2               | 3         | 0.8           | 23  |
|                       | 4015C-10   | 10 ±1.25      | 17                    | 0.40                    | 1.00 | 1.30                | 1.30                  | ±0.50                            | 50              | 5               | 3         | 0.8           | 23  |
|                       | 4015C-20   | 20 ±1.00      | 17                    | 0.30                    | 0.35 | 1.25                | 1.25                  | ±0.50                            | 50              | 50              | 3         | 0.8           | 23  |
|                       | 4015C-30   | 30 ±1.00      | 17                    | 0.30                    | 0.30 | 1.25                | 1.25                  | ±0.50                            | 50              | 50              | 3         | 0.8           | 23  |
| 7.5-16                | 4055-6**   | 6 ±1.10       | 12                    | 0.60                    | 2.00 | 1.35                | 1.40                  | ±0.60                            | 50              | 2               | 2         | 0.8           | 23  |
|                       | 4055-10**  | 10 ±1.50      | 12                    | 0.60                    | 1.00 | 1.35                | 1.40                  | ±0.75                            | 50              | 5               | 2         | 0.8           | 23  |
|                       | 4055-20**  | 20 ±1.25      | 15                    | 0.50                    | 0.50 | 1.35                | 1.40                  | ±0.75                            | 50              | 50              | 2         | 0.8           | 23  |
|                       | 4055-30**  | 30 ±1.25      | 15                    | 0.50                    | 0.50 | 1.35                | 1.40                  | ±0.75                            | 50              | 50              | 2         | 0.8           | 23  |
| 12.4-18               | 4016D-6    | 6 ±1.00       | 15                    | 0.30                    | 2.00 | 1.35                | 1.40                  | ±0.50                            | 50              | 2               | 1         | 0.7           | 20  |
|                       | 4016D-10   | 10 ±1.00      | 15                    | 0.30                    | 0.85 | 1.30                | 1.40                  | ±0.50                            | 50              | 5               | 1         | 0.7           | 20  |
|                       | 4016C-20   | 20 ±1.00      | 15                    | 0.50                    | 0.55 | 1.30                | 1.40                  | ±0.50                            | 50              | 50              | 1         | 0.8           | 23  |
|                       | 4016C-30** | 30 ±1.00      | 15                    | 0.50                    | 0.55 | 1.30                | 1.40                  | ±0.50                            | 50              | 50              | 1         | 0.8           | 23  |

\* Frequency Sensitivity included in coupling

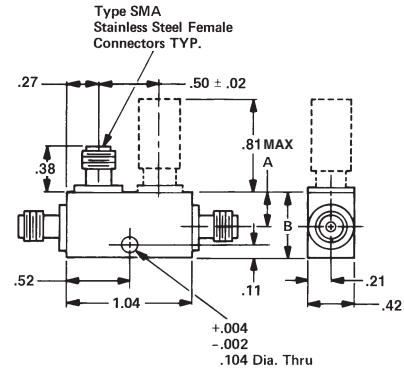
\*\* Special order devices. Minimum quantity may apply.



Outline Drawings



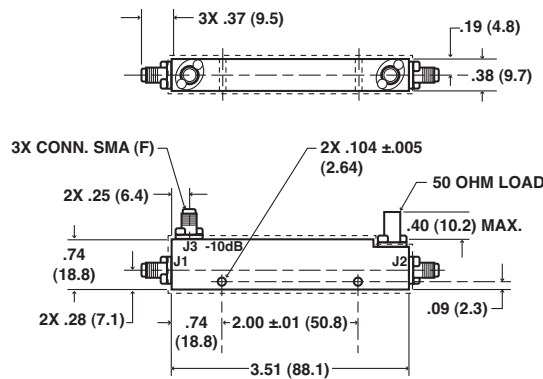
Allow .020 max. sealant build-up per surface.



Allow .020 max. sealant build-up per surface.

| MODEL         | A    | B   | C     | D   | E   | F    |
|---------------|------|-----|-------|-----|-----|------|
| 4011C-10      | 3.06 | .58 | 1.500 | .78 | .34 | 2.52 |
| 4011C-20      | 3.04 | .55 | 1.750 | .65 | .30 | 2.50 |
| 4012C-6       | 1.82 | .55 | .938  | .44 | .30 | 1.28 |
| 4012C-10, -20 | 1.82 | .55 | .938  | .44 | .30 | 1.28 |
| 4012C-30      | 1.82 | .58 | .938  | .44 | .34 | 1.28 |
| 4013C-6       | 1.20 | .55 | .344  | .43 | .30 | .66  |
| 4013C-10, -20 | 1.20 | .55 | .344  | .43 | .30 | .66  |
| 4013C-30      | 1.20 | .59 | .344  | .43 | .35 | .66  |

| MODEL             | Max. Dimensions |     |
|-------------------|-----------------|-----|
|                   | A               | B   |
| 4014C-6, -10, -20 | .30             | .54 |
| 4014C-30          | .34             | .58 |
| 4015C-6, -10, -20 | .30             | .55 |
| 4015C-30          | .43             | .67 |
| 4016D-6, -10      | .30             | .55 |
| 4016C-20, -30     | .43             | .67 |
| 4055-6, -10       | .30             | .55 |
| 4055-20, -30      | .43             | .67 |



NOTES:

1. Dotted area represents .020 max. build-up of sealant per surface.
2. Connectors mate without interference per MIL-STD-348.

TOL:  
XX ±.02 (.51)

MODELS 4216-10, 4216-20

Dimensions in inches (mm in parentheses), unless otherwise specified.