

## N Directional Coupler 30 dB 1 GHz to 12.4 GHz Rated to 600 Watts

Directional couplers are indispensable components for isolating, separating and combining signals. For example, they provide a simple way of sampling microwave signals. They also can make accurate attenuator measurements since reflections are eliminated. The MC4061-30 is a 30 dB directional coupler that operates from 1 GHz to 12.4 GHz with 13 dB directivity and can handle up to 600 Watts of CW power. The package interface has type N inputs on the input/output ports and SMA input on the coupled port.

The MC4061-30 is part of Fairview Microwave's family of directional/dual-directional couplers that offer coupling ratio up to 50 dB with excellent performance featuring high directivity, low insertion loss and VSWR. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, VSWR measurements, power combining and distribution.

### Electrical Specifications

| Description             | Min | Typ   | Max  | Units  |
|-------------------------|-----|-------|------|--------|
| Frequency Range         | 1   |       | 12.4 | GHz    |
| Impedance               |     | 50    |      | Ohms   |
| Coupling                |     | 30 ±1 |      | dB     |
| Passive Intermodulation |     | -160  |      | dBc    |
| Input Power (CW)        |     |       | 600  | Watts  |
| Input Power (Peak)      |     |       | 10   | kWatts |

### Performance by Frequency

| Description         | F1     | F2     | F3        | F4 | F5 | Units |
|---------------------|--------|--------|-----------|----|----|-------|
| Frequency Range     | 1 to 4 | 4 to 8 | 8 to 12.4 |    |    | GHz   |
| Insertion Loss, Typ | 0.1    | 0.15   | 0.2       |    |    | dB    |
| Main Line VSWR, Typ | 1.23:1 | 1.33:1 | 1.58:1    |    |    |       |
| Directivity, Typ    | 20     | 17     | 13        |    |    | dB    |

Electrical Specification Notes:  
 Values specified at +25°C, sea level.  
 Coupling includes frequency sensitivity.

### Mechanical Specifications

|             |                      |
|-------------|----------------------|
| <b>Size</b> |                      |
| Length      | 3.85 in [97.79 mm]   |
| Width/Dia.  | 0.8 in [20.32 mm]    |
| Height      | 1.1 in [27.94 mm]    |
| Weight      | 0.428 lbs [194.14 g] |

### Configuration

|                    |            |
|--------------------|------------|
| Input Connector    | N Female   |
| Output Connector   | N Female   |
| Coupled Connectors | SMA Female |



### Features:

- Directional Coupler
- 1 GHz to 12.4 GHz Frequency Range
- Coupling 30±1 dB
- Low PIM -160 dBc
- Max Power 600W (CW)

### Applications:

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

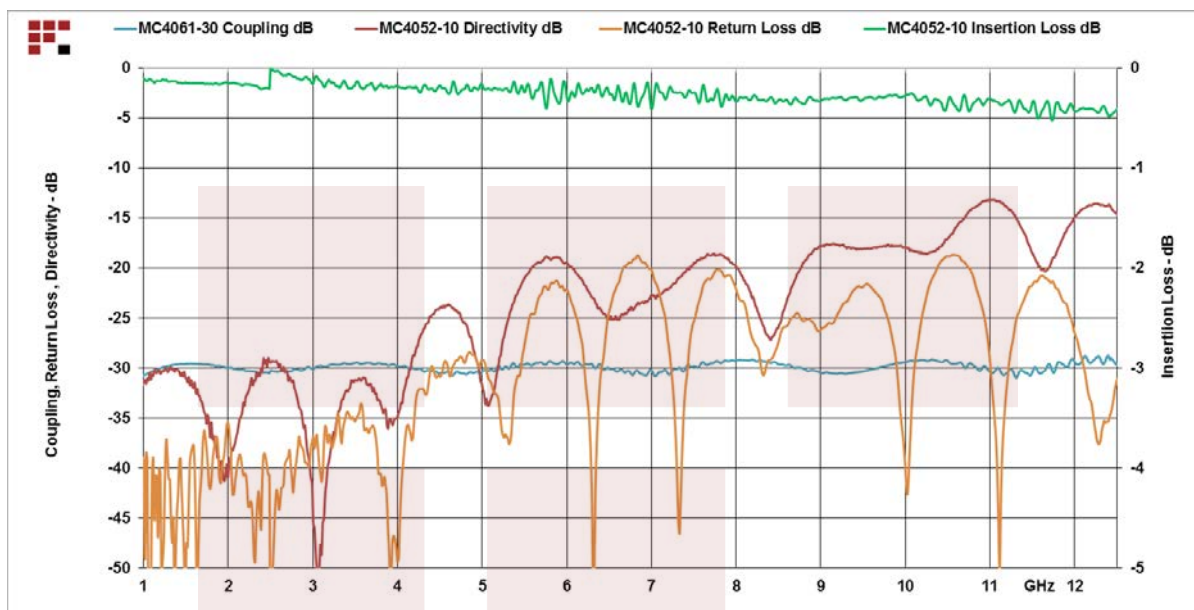
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**Compliance Certifications** (see [product page](#) for current document)

## Plotted and Other Data

Notes:

### Typical Performance Data



N Directional Coupler 30 dB 1 GHz to 12.4 GHz Rated to 600 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N Directional Coupler 30 dB 1 GHz to 12.4 GHz Rated to 600 Watts MC4061-30](#)

URL: <https://www.fairviewmicrowave.com/sma-directional-coupler-30-db-12.4-ghz-600-watts-mc4061-30-p.aspx>

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