

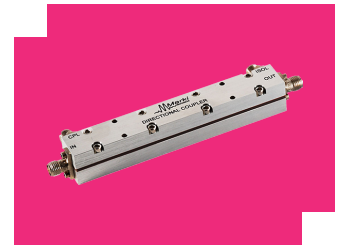
# C20-0R612

## DIRECTIONAL COUPLER

### DEVICE OVERVIEW

#### General Description

The C20-0R612 is a broadband 0.6-12 GHz, 20 dB directional coupler. The multisection tri-plate stripline design exhibits excellent coupling flatness and VSWR at all ports. Custom designs are also available; contact the factory for details.



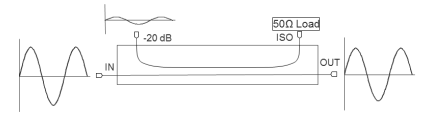
#### Features

- Broadband Performance
- High Directivity
- Low VSWR

#### Applications

N/A

#### Functional Block Diagram



#### Part Ordering Options

| Part Number | Description         | Connectors      | Green Status  | Product Lifecycle | Export Classification |
|-------------|---------------------|-----------------|---------------|-------------------|-----------------------|
| C20-0R612   | DIRECTIONAL COUPLER | <u>Standard</u> | REACH<br>RoHS | Released          | EAR99                 |

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## Revision History

| Revision Code | Revision Date | Comment                      |
|---------------|---------------|------------------------------|
| B             | 2020-04-01    | Updated Direct Line IL specs |

**Specifications**

**Absolute Maximum Ratings**

| Parameter                     | Maximum Rating | Unit |
|-------------------------------|----------------|------|
| RF Power Handling             | 50             | W    |
| Minimum Operating Temperature | -55            | °C   |
| Maximum Operating Temperature | 100            | °C   |
| Maximum Storage Temperature   | 125            | °C   |
| Minimum Storage Temperature   | -65            | °C   |

**Package Information**

| Parameter  | Details | Rating            |
|------------|---------|-------------------|
| Weight     | -       | 90g               |
| Dimensions | -       | 142.24 x 13.97 mm |

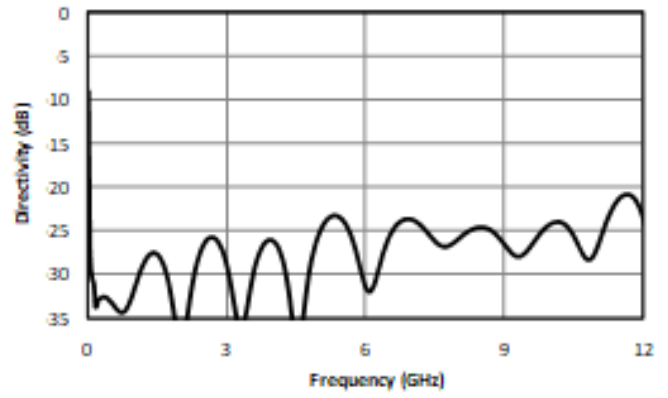
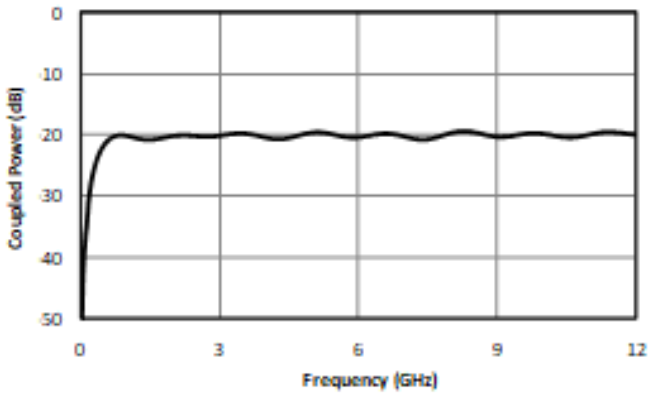
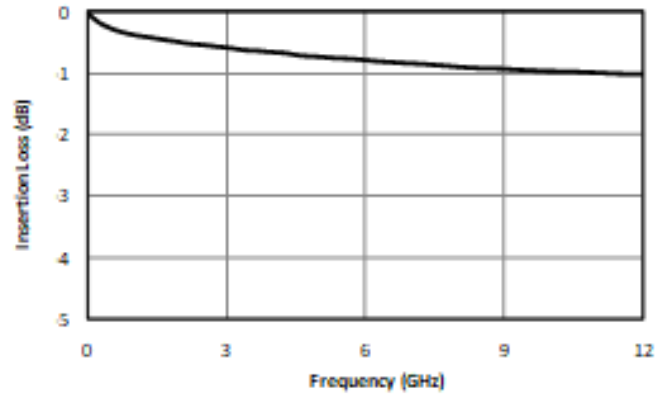
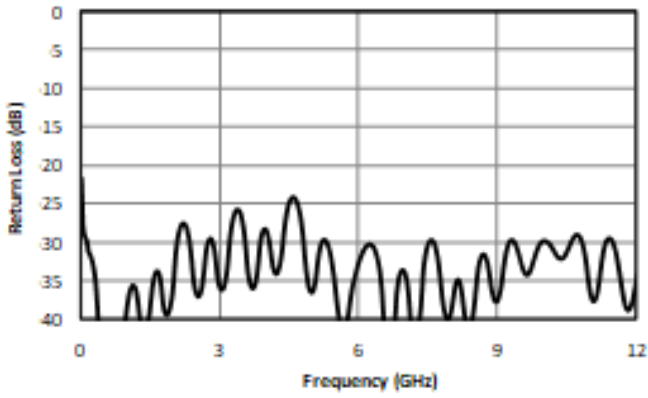
**Electrical Specifications**

The electrical specifications apply at TA=+25°C in a 50Ω system

| Parameter                       | Test Conditions | Minimum Frequency (GHz) | Maximum Frequency (GHz) | Min | Typ | Max  | Unit |
|---------------------------------|-----------------|-------------------------|-------------------------|-----|-----|------|------|
| Amplitude Flatness <sup>1</sup> | -               | 0.6                     | 12                      | -   | 0.6 | 1.2  | dB   |
| Directivity                     | -               | 0.6                     | 12                      | 15  | 22  | -    | dB   |
| Direct Line Insertion Loss      | DC-12GHz        | -                       | -                       | -   | -   | 1.5  | dB   |
| Mean Coupling                   | -               | 0.6                     | 12                      | -   | 20  | -    | dB   |
| VSWR                            | -               | 0.6                     | 12                      | -   | 1.2 | 1.35 |      |

[1] Deviation from average coupling.

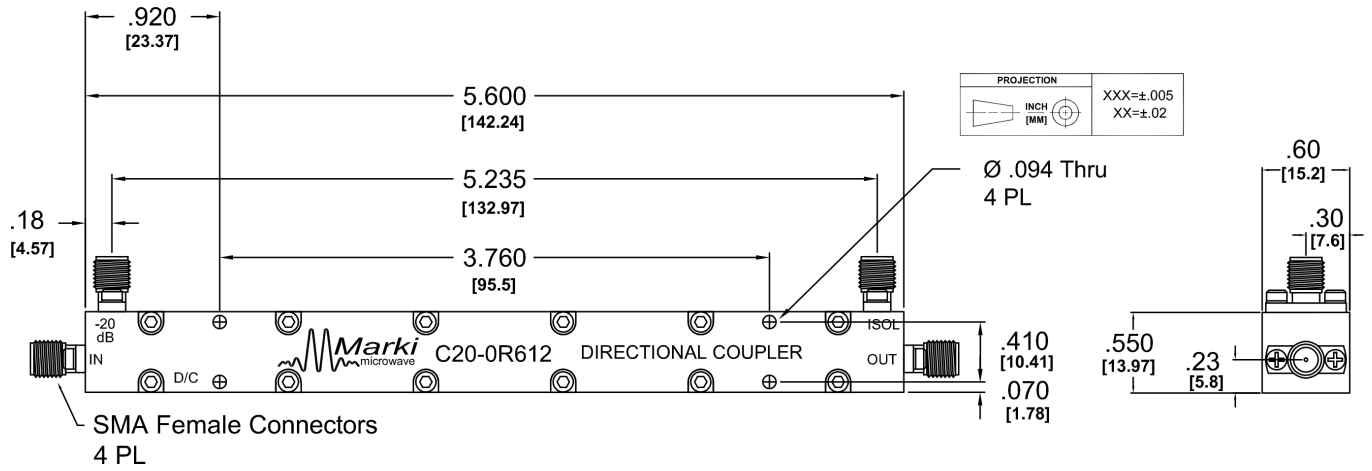
**Typical Performance Plots**



**Mechanical Data**

**Outline Drawing**

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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