

## 20 dB WR-90 Directional Waveguide Broadwall Coupler With CPR-90G Grooved Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz

The FMWCP1021 is a WR-90 Directional Broadwall waveguide coupler that operates in the frequency range of 8.2 to 12.4 GHz. This Waveguide component has a typical VSWR of 1.05:1. These designs are made of painted copper alloy and incorporate a broad wall configuration that result in a mid-band nominal coupling value of 10, 20, or 30 dB. Common applications for this component would be where power measurements are required within a system for measuring/sampling power or frequency monitoring with minimal signal loss to the main transmission line. Fairview Microwave offers a complete family of waveguide Crossguide and Broadwall couplers that are in-stock and ship same day.

### Electrical Specifications\*

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
Directivity		40		dB
Insertion Loss		0.15		dB
Main Line VSWR		1.05:1		
Nominal Coupling Level		20		dB

\* Values at 25°C, sea level

### Mechanical Specifications

#### Size

Length 16.68 in [423.67 mm]  
Height 2.742 in [69.65 mm]

#### Configuration

Design Directional E-Plane Broadwall  
Size WR-90

#### Input Flange

Flange Type CPR-90G  
Material Copper Alloy  
Plating Silver

#### Output Flange

Flange Type CPR-90G  
Material Copper Alloy  
Plating Silver

#### Coupled Flange(s)

Flange Type CPR-90G  
Material Copper Alloy  
Plating Silver

### Compliance Certifications (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant Yes  
REACH Compliant 12/17/2015



### Features:

- Broadwall Waveguide Coupler
- 20 dB Nominal Coupling Level
- 8.2 GHz to 12.4 GHz Frequency Range
- Body and Flanges made of Copper Alloy
- Low VSWR

### Applications:

- Test Benches
- Radar
- Satellite
- Microwave Radio
- Attenuation Measurements
- Power Measurements
- Source Leveling

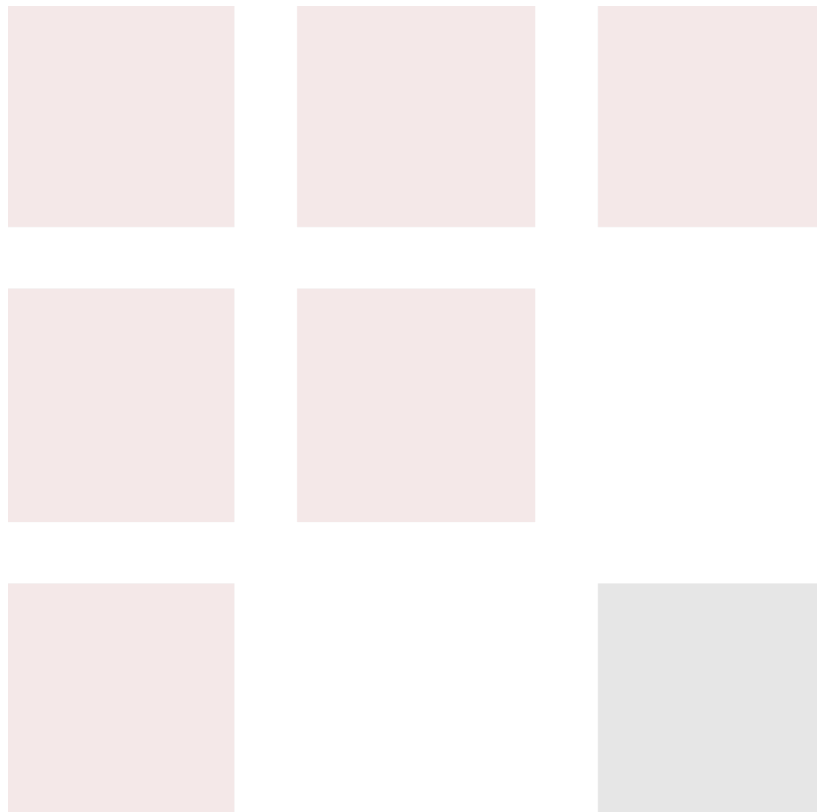
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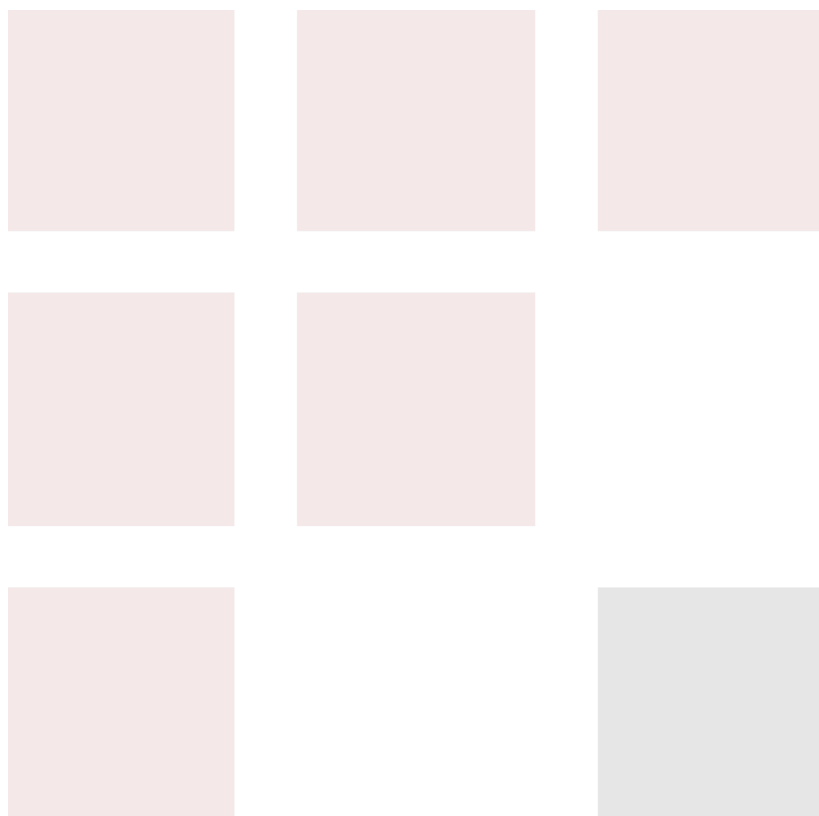
## Plotted and Other Data

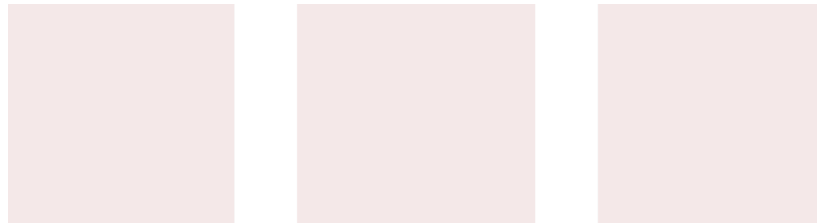
Notes:

- Values at 25 °C, sea level

## Typical Performance Data







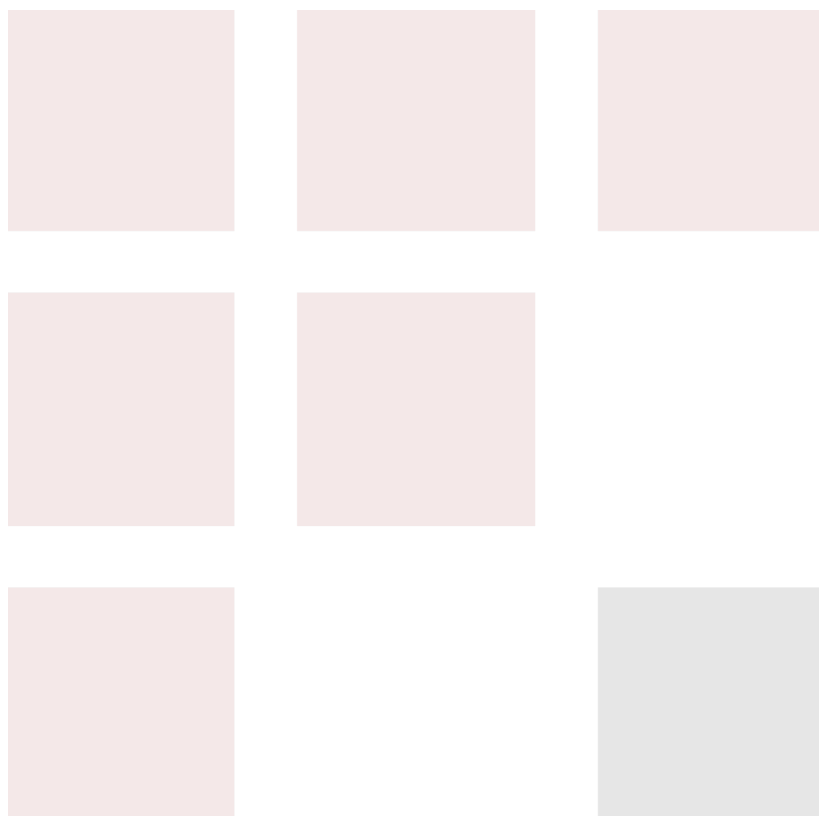
20 dB WR-90 Directional Waveguide Broadwall Coupler With CPR-90G Grooved Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-90 Directional Waveguide Broadwall Coupler With CPR-90G Grooved Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz FMWCP1021](https://www.fairviewmicrowave.com/20-db-wr-90-directional-waveguide-broadwall-coupler-cpr-90g-grooved-e-fmw-cp1021-p.aspx)

URL: <https://www.fairviewmicrowave.com/20-db-wr-90-directional-waveguide-broadwall-coupler-cpr-90g-grooved-e-fmw-cp1021-p.aspx>

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Coupler With CPR-90G Grooved Flange and E-Plane  
Coupled Port from 8.2 GHz to 12.4 GHz