

**30 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 FMWCP1022 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.



**Features:**

- Broadwall Waveguide Coupler
- 30 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

**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		30		dB

\* Values at 25°C, sea level

**Mechanical Specifications**

**Size**

Length 16.68 in [423.67 mm]  
Height 2.742 in [69.65 mm]  
Weight 1.885 lbs [855.02 g]

**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

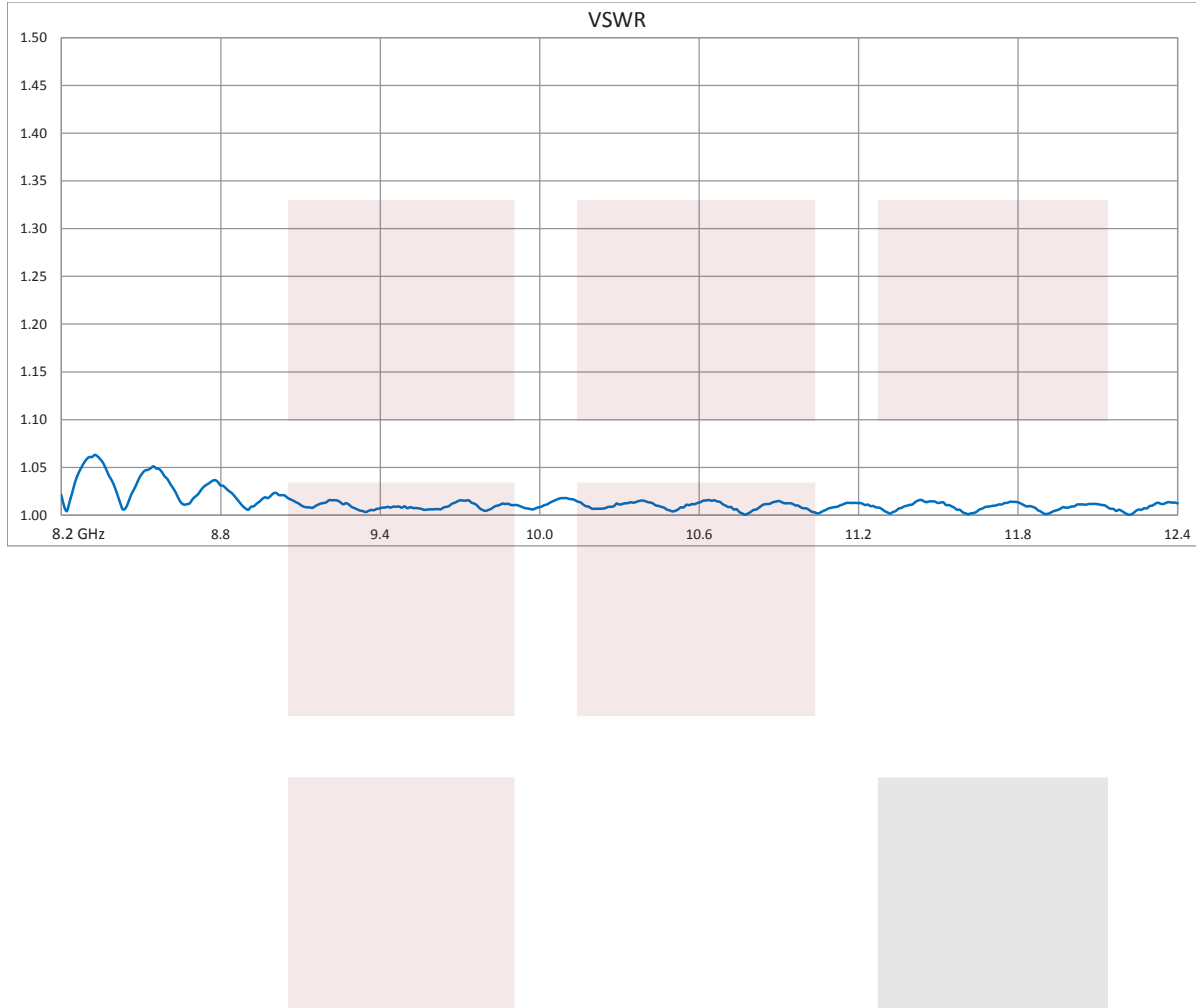
Fairview Microwave  
1130 Junction Dr. #100  
Allen, TX 75013  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

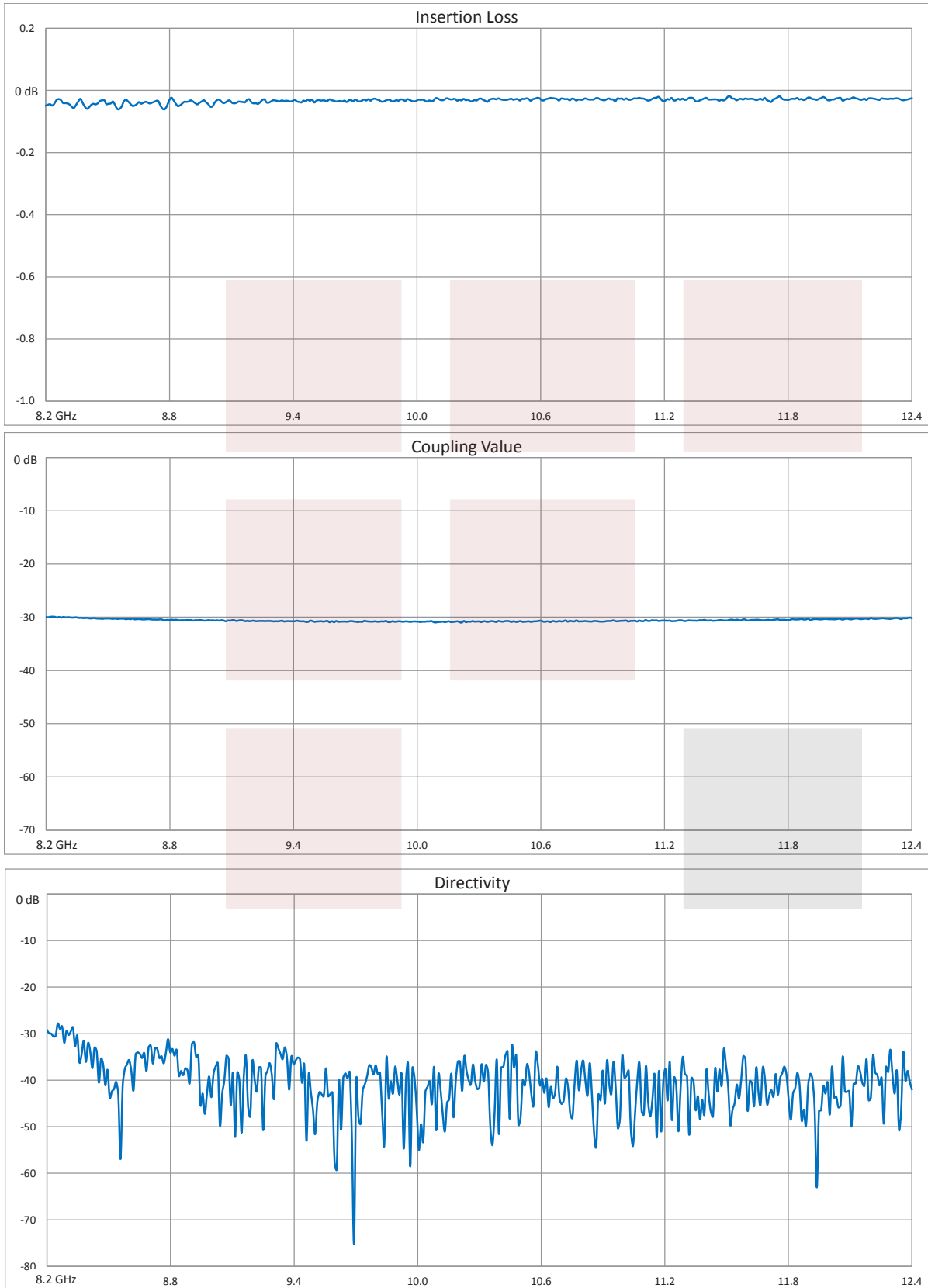
**Plotted and Other Data**

Notes:

- Values at 25 °C, sea level

**Typical Performance Data**





30 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.

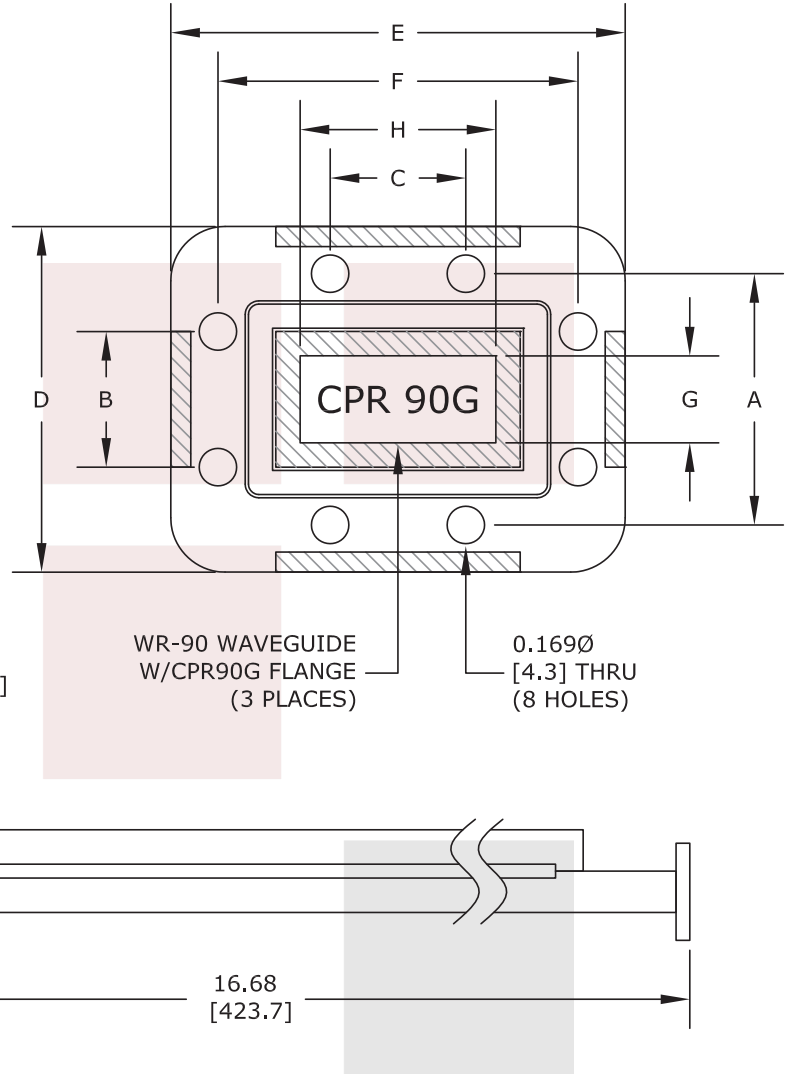
For additional information on this product, please click the following link: [30 dB WR-90 Directional Waveguide Broadwall Coupler With CPR-90G Grooved Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz FMWCP1022](#)

URL: <http://www.fairviewmicrowave.com/30-db-wr-90-directional-waveguide-broadwall-coupler-cpr-90g-grooved-e-fmw-cp1022-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



CPR 90G		
Dimension	Inches	mm
A	1.156	29.36
B	0.624	15.84
C	0.624	15.84
D	1.590	40.39
E	2.090	53.09
F	1.656	42.06
G	0.400	10.16
H	0.900	22.86



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES.

DECIMALS	ANGLES
.X ±.030	±1/2 DEG.
.XX ±.015	FRACTIONS
.XXX ±.005	±1/32

\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].		
TITLE 30 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	DWG NO <b>FMWCP1022</b>	CAGE CODE <b>3FKR5</b>		
CAD FILE 041516	SHEET	SCALE N/A	SIZE A	2233