



WR-90 30 dB Directional Waveguide Broadwall Coupler, CPR-90G Grooved Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz

TECHNICAL DATA SHEET

PEWCP1022

The PEWCP1022 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. Pasternack 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** (Values at 25°C, sea level)

Description	Minimum	Typical	Maximum	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

**Mechanical Specifications**

**Size**

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 30 dB Directional Waveguide Broadwall Coupler, CPR-90G Grooved Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz PEWCP1022](#)



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**Configuration**

Design Directional E-Plane Broadwall  
Size WR-90

Description	Input Flange	Output Flange	Coupled Flange(s)
Flange Type	CPR-90G	CPR-90G	CPR-90G
Material	Copper Alloy	Copper Alloy	Copper Alloy
Plating	Silver	Silver	Silver

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

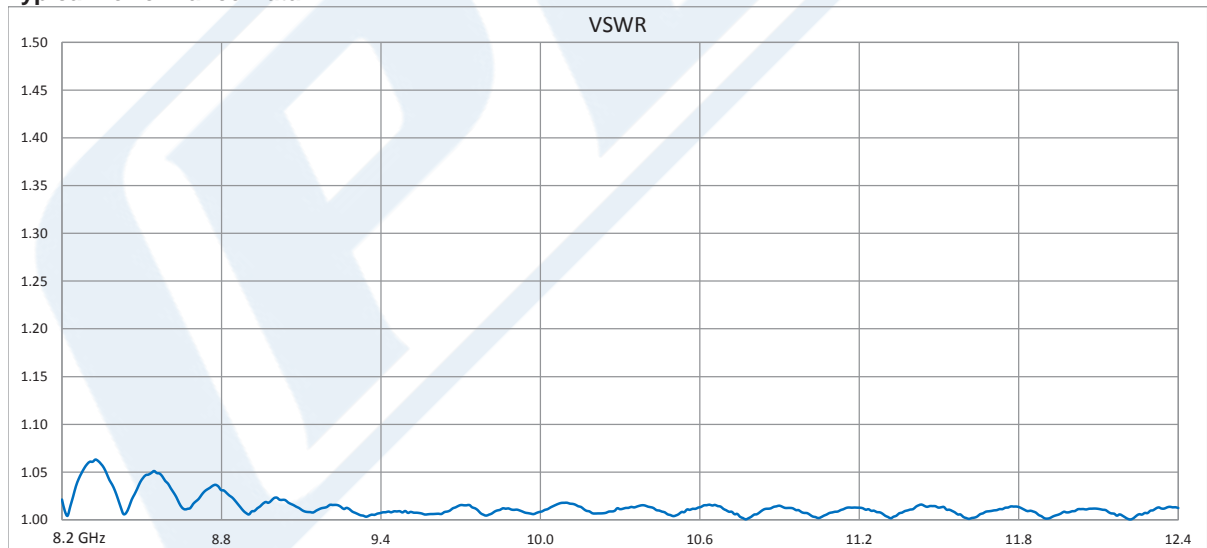
RoHS Compliant  
REACH Compliant 12/17/2015

**Plotted and Other Data**

Notes:

- Values at 25 °C, sea level

**Typical Performance Data**



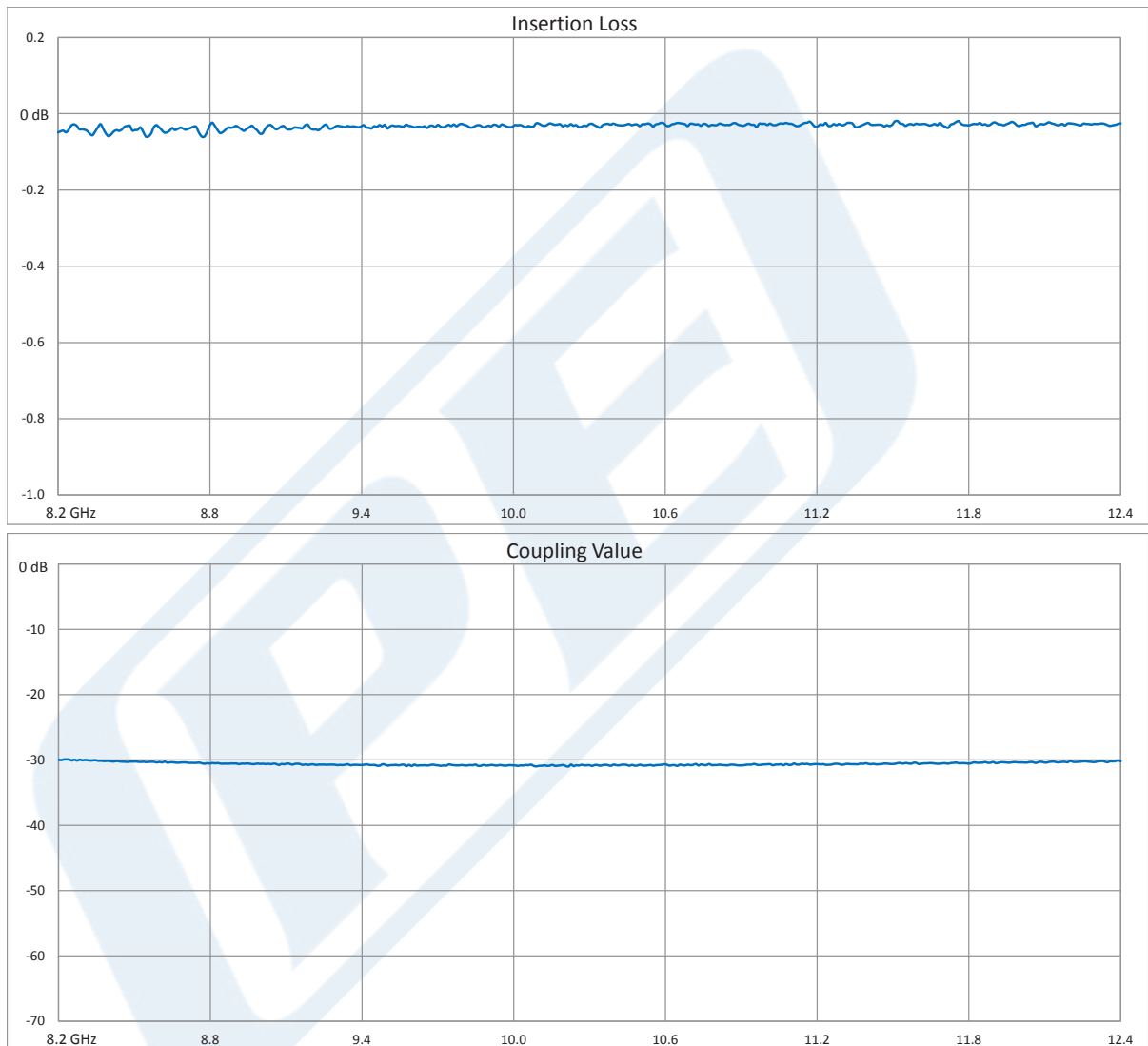
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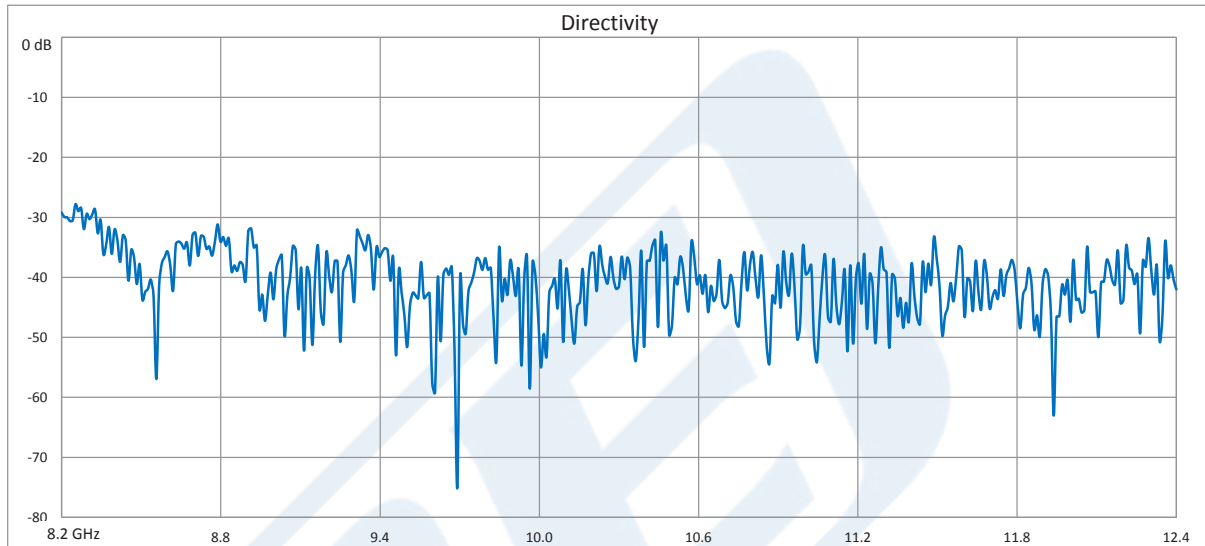
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WR-90 30 dB Directional Waveguide Broadwall Coupler, CPR-90G Grooved Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

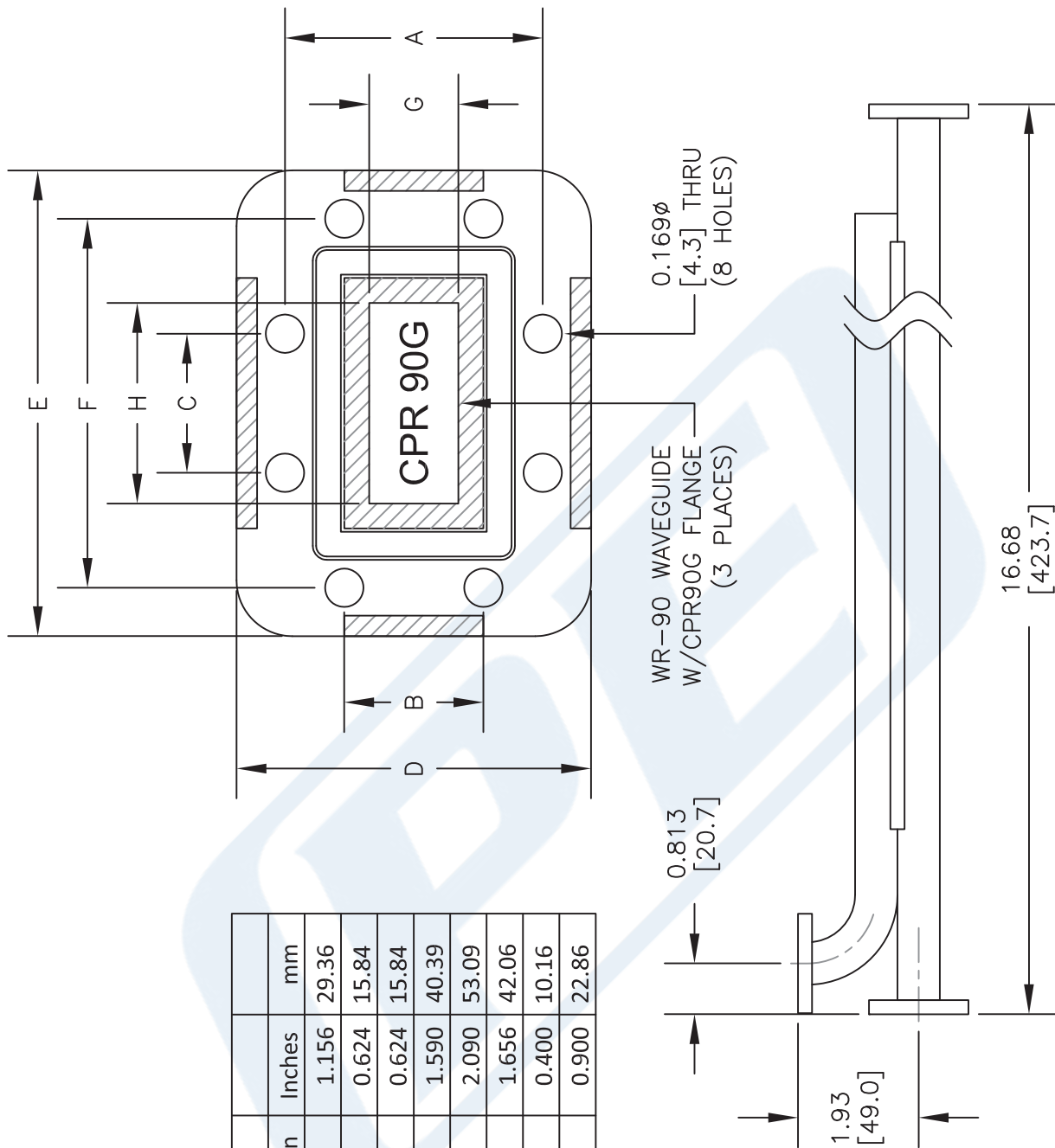
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PEWC1022 CAD Drawing

WR-90 30 dB Directional Waveguide Broadwall Coupler, CPR-90G  
Grooved Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz



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 ±.030  
.X ±.030  
.XX ±.015  
.XXX ±.005

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

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].

DWG TITLE  
**PEWC1022**

FSCM NO. 53919

CAD FILE 041516

SCALE N/A

SIZE A

2233

**PE PASTERNAK**  
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