



WR-90 30 dB Directional Waveguide Broadwall  
 Coupler, UG-39/U Square Cover Flange, E-Plane  
 Coupled Port, 8.2 GHz to 12.4 GHz

TECHNICAL DATA SHEET

PEWCP1019

The PEWCP1019 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**

<b>Size</b>	
Length	16.68 in [423.67 mm]
Height	2.742 in [69.65 mm]
Weight	1.83 lbs [830.07 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, UG-39/U Square Cover Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz PEWCP1019](#)



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**Configuration**

Design Directional E-Plane Broadwall  
Size WR-90

Description	Input Flange	Output Flange	Coupled Flange(s)
Flange Type	Square Cover	Square Cover	Square Cover
Flange Designation	UG-39/U	UG-39/U	UG-39/U
Material	Copper Alloy	Copper Alloy	Copper Alloy
Plating	Silver	Silver	Silver

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

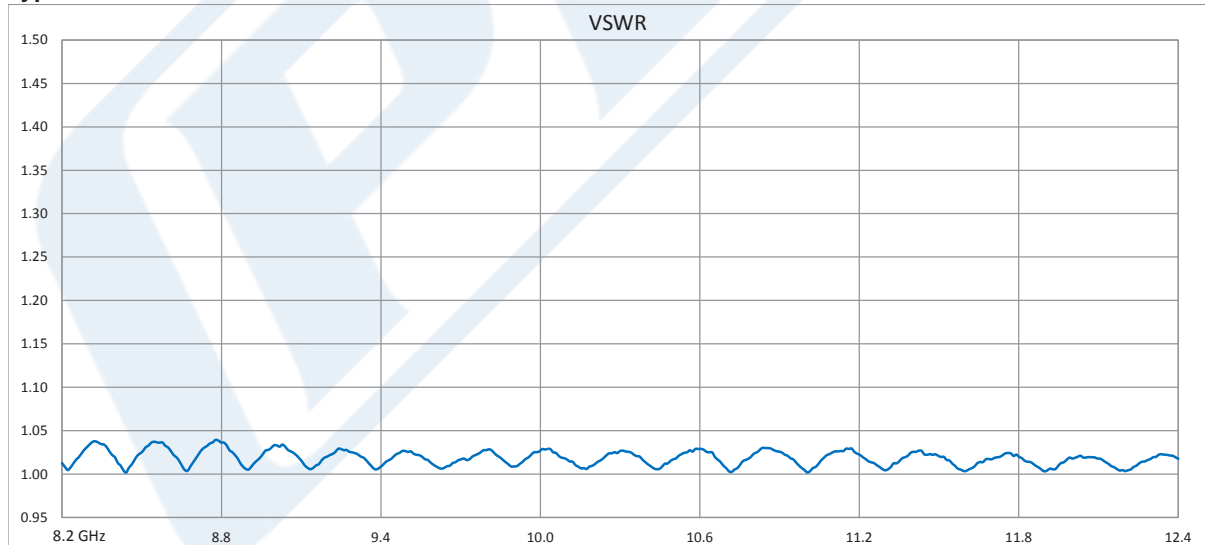
RoHS Compliant  
REACH Compliant 12/17/2015

**Plotted and Other Data**

Notes:

- Values at 25 °C, sea level

**Typical Performance Data**



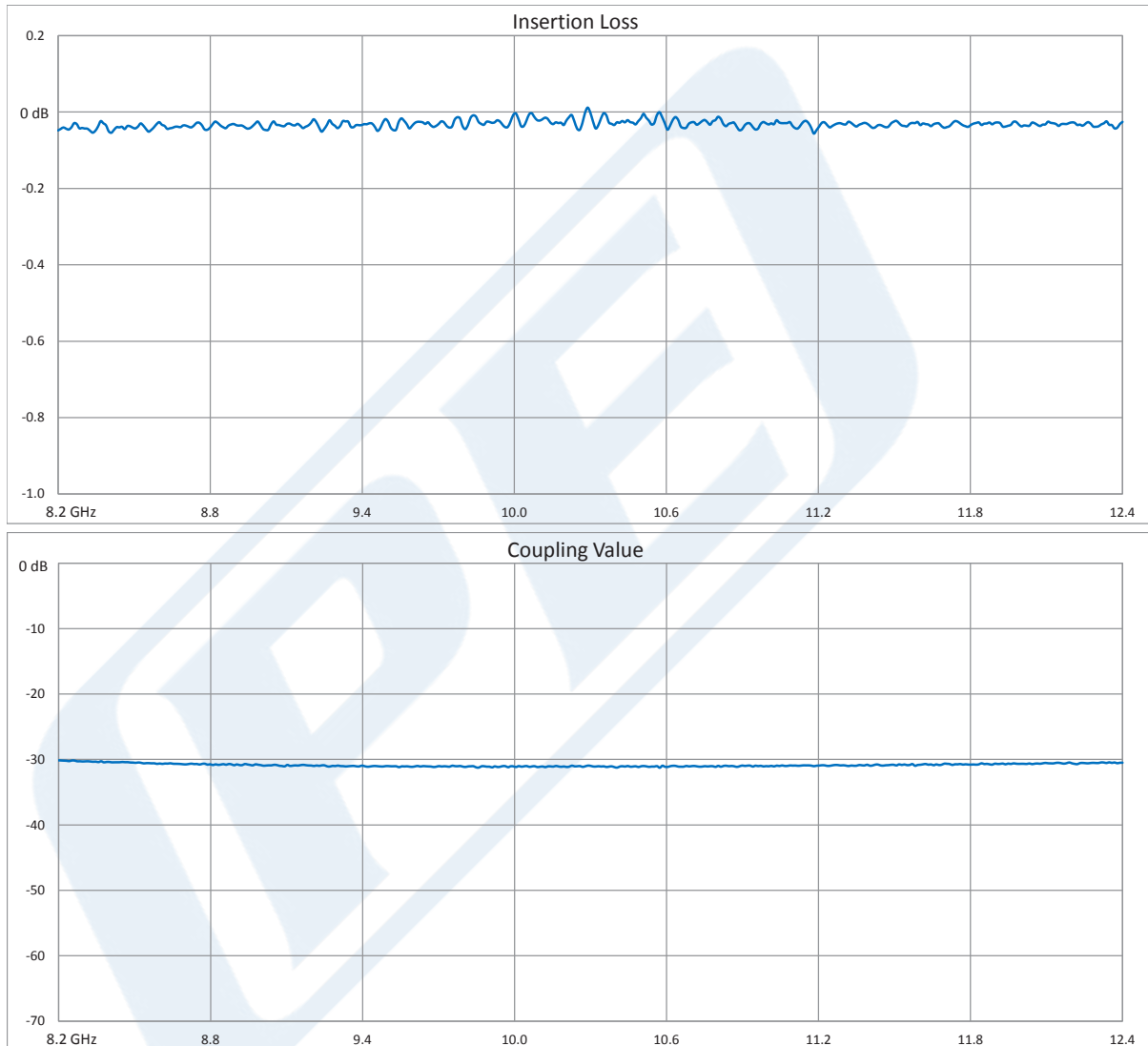
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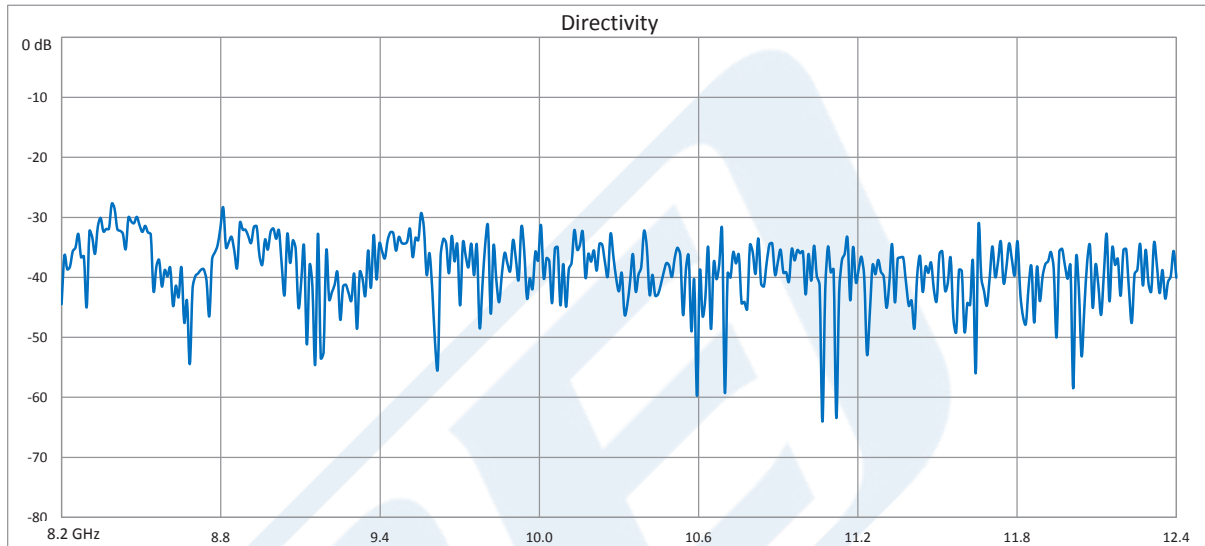
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WR-90 30 dB Directional Waveguide Broadwall Coupler, UG-39/U Square Cover Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

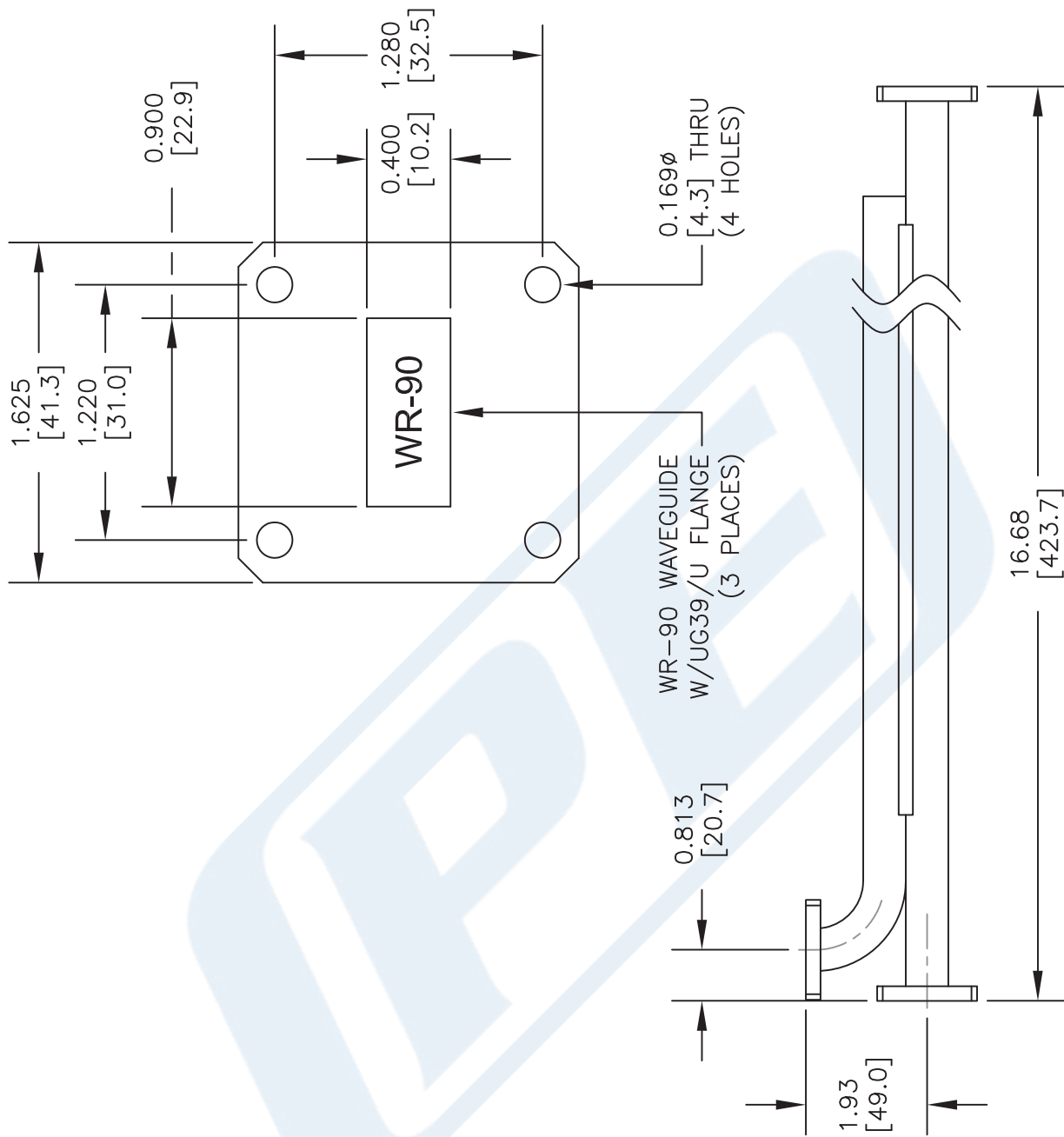
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

# PEWC1019 CAD Drawing

WR-90 30 dB Directional Waveguide Broadwall Coupler, UG-39/U Square Cover Flange, E-Plane Coupled Port, 8.2 GHz to 12.4 GHz



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.  
 DECIMALS ±0.030  
 ANGLES ±1/2 DEG.  
 FRACTIONS ±1/32  
 .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	
<b>PEWC1019</b>	
FSCM NO. 53919	CAD FILE 041516
SCALE N/A	SIZE A
	2233

**PE PASTERNAK**  
 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623  
 Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com