



WR-90 Waveguide 10 dB Broadwall Coupler, UG Cover Flange,
N-Type Female Coupled Port, 8.2 GHz to 12.5 GHz, Copper

Waveguide Couplers Technical Data Sheet

PEW90CP001-10

The PEW90CP001-10 is a WR-90 Directional Broadwall waveguide coupler with N female coupled port that operates in the frequency range of 8.2 to 12.5 GHz. This Waveguide component has a maximum VSWR of 1.25:1. 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, 30, 40 or 50 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

- Three Port Broadwall Waveguide Coupler
- 10±0.7 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 8.2 GHz to 12.5 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 100W (CW)

Applications

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

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.5	GHz
Coupler				
Nominal Coupling Level		10		dB
Directivity	38			dB
Insertion Loss			0.6	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.25:1	
Coupling Flatness			±0.7	dB
Input Power (CW)			100	Watts
Input Power, Peak			2	kWatts

Mechanical Specifications

Size

Length	17.91 in [454.91 mm]
Width	1.63 in [41.4 mm]
Height	1.63 in [41.4 mm]
Weight	1.51 lbs [684.92 g]
Flange Type	UG Cover

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Waveguide 10 dB Broadwall Coupler, UG Cover Flange, N-Type Female Coupled Port, 8.2 GHz to 12.5 GHz, Copper PEW90CP001-10](#)



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Flange Material and Plating
RF Connector Type

Copper, Passivated
N Female

Coupler Body Material and Plating

Copper, Passivated

Environmental Specifications

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

WR-90 Waveguide 10 dB Broadwall Coupler, UG Cover Flange, N-Type Female Coupled Port, 8.2 GHz to 12.5 GHz, Copper from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

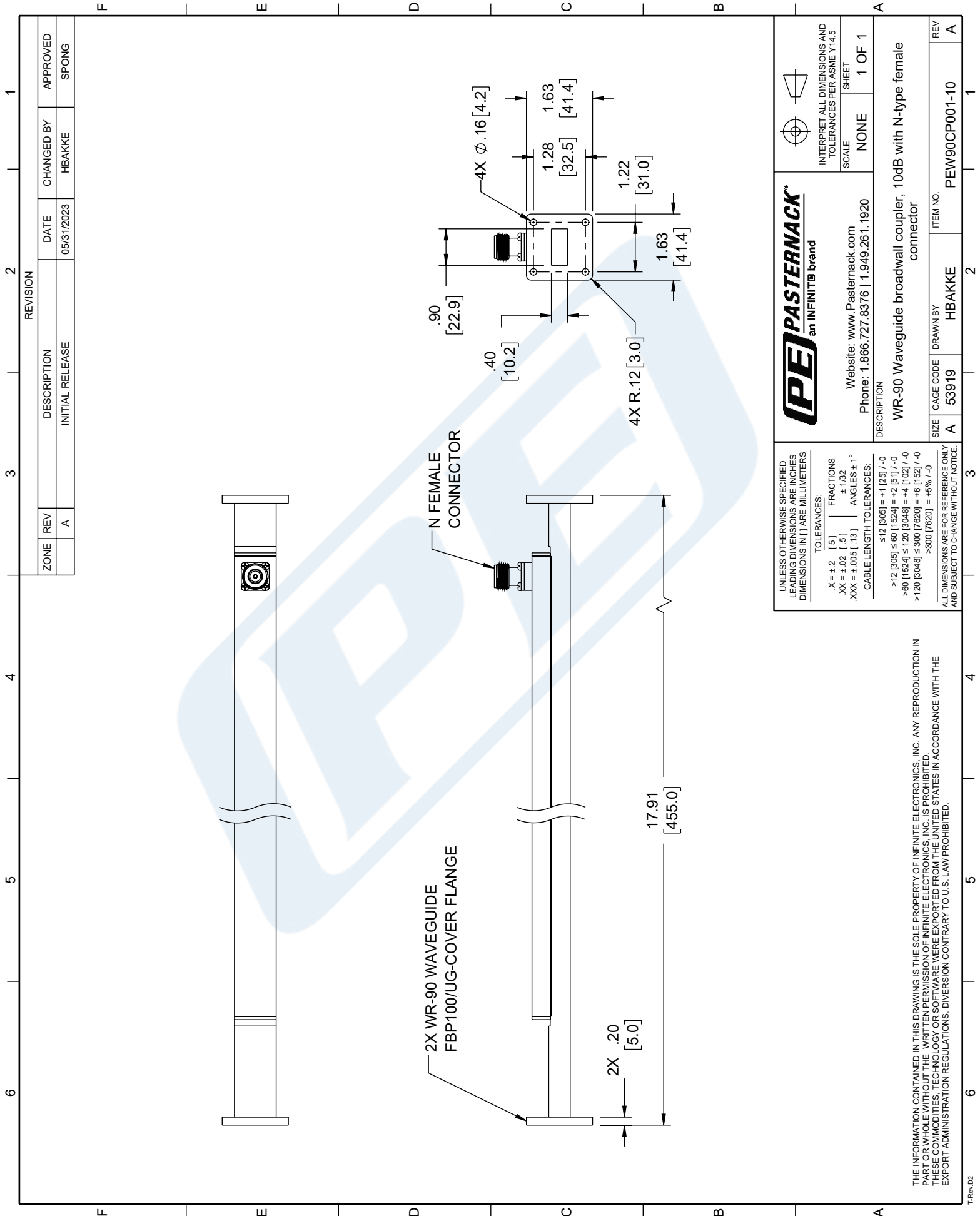
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URL: <https://www.pasternack.com/wr90-waveguide-10db-broadwall-coupler-ug-12.5mhz-pew90cp001-10-p.aspx>

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. 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.

PEW90CP001-10 CAD Drawing

WR-90 Waveguide 10 dB Broadwall Coupler, UG Cover Flange,
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ZONE		REVISION		DATE		CHANGED BY		APPROVED	
REV		DESCRIPTION		INITIAL RELEASE		05/31/2023		HBAKKE	
A								SPONG	

PE PASTERNAK an INFINIT® brand		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5		SCALE: NONE		SHEET: 1 OF 1	
UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		TOLERANCES: .X = ±.2 [5] FRACTIONS .XX = ±.02 [.5] ±.1/32 .XXX = ±.005 [.13] ANGLES ± 1° CABLE LENGTH TOLERANCES: ≤12 [305] = ±.1 [25] / -0 >12 [305] ≤ 60 [1524] = ±.2 [5] / -0 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0 >300 [7620] = ±.5% / -0		DESCRIPTION WR-90 Waveguide broadwall coupler, 10dB with N-type female connector		CAGE CODE A 53919		DRAWN BY HBAKKE	
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