

WR-51 Waveguide 40 dB Broadwall Coupler,
UG Square Flange, 2.92mm Female Coupling
Port, 14.5 GHz to 22 GHz, Brass



PEW51CP001-40

Features

- Three Port broadwall Waveguide Coupler
- 40±0.7 dB Nominal Coupling Level
- Integrated 2.92mm Female Connector for the coupled ports
- 14.5 GHz to 22 GHz Frequency Range
- Low VSWR < 1.25:1

Applications

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

Description

The PEW51CP001-40 is a 40 dB WR-51 three port broadwall coupler with integrated 2.92mm Female connectors for the coupled ports. This coupler can be mounted directly into the waveguide signal path, connected via coax to allow signal sampling /monitoring. The coupler has a typical VSWR of 1.1:1 and are made of Brass with UG Square flanges. The PEW51CP001-40 is part of a family of cross guide couplers offered by Pasternack with coupling values ranging from 20 to 50 dB.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	14.5		22	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		40		dB
Coupling Accuracy		±0.7		dB
Directivity	25			dB
Insertion Loss			0.2	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.25:1	
Input Power (CW)			350	Watts
Input Power, Peak			80	kWatts

Mechanical Specifications

Size

Length	7.48 in [189.99 mm]
Width	1.31 in [33.27 mm]
Height	1.31 in [33.27 mm]
Weight	0.02 lbs [9.07 g]

Interface

Waveguide Size	WR-51
Flange Type	UG Square Flange
Flange Material and Plating	Brass Copper, Passivated Stainless Steel
RF Connector Type	2.92mm Female

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Coupler Body Material and Plating
Coupler Body Plating Specification

Brass Copper, Passivated Stainless Steel
Anticorrosion grey paint

Environmental Specifications

Temperature

Operating Range
Storage Range

-40 to +70 deg C
-55 to +85 deg C

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

Plotted and Other Data

Notes:

WR-51 Waveguide 40 dB Broadwall Coupler, UG Square Flange, 2.92mm Female Coupling Port, 14.5 GHz to 22 GHz, Brass 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.

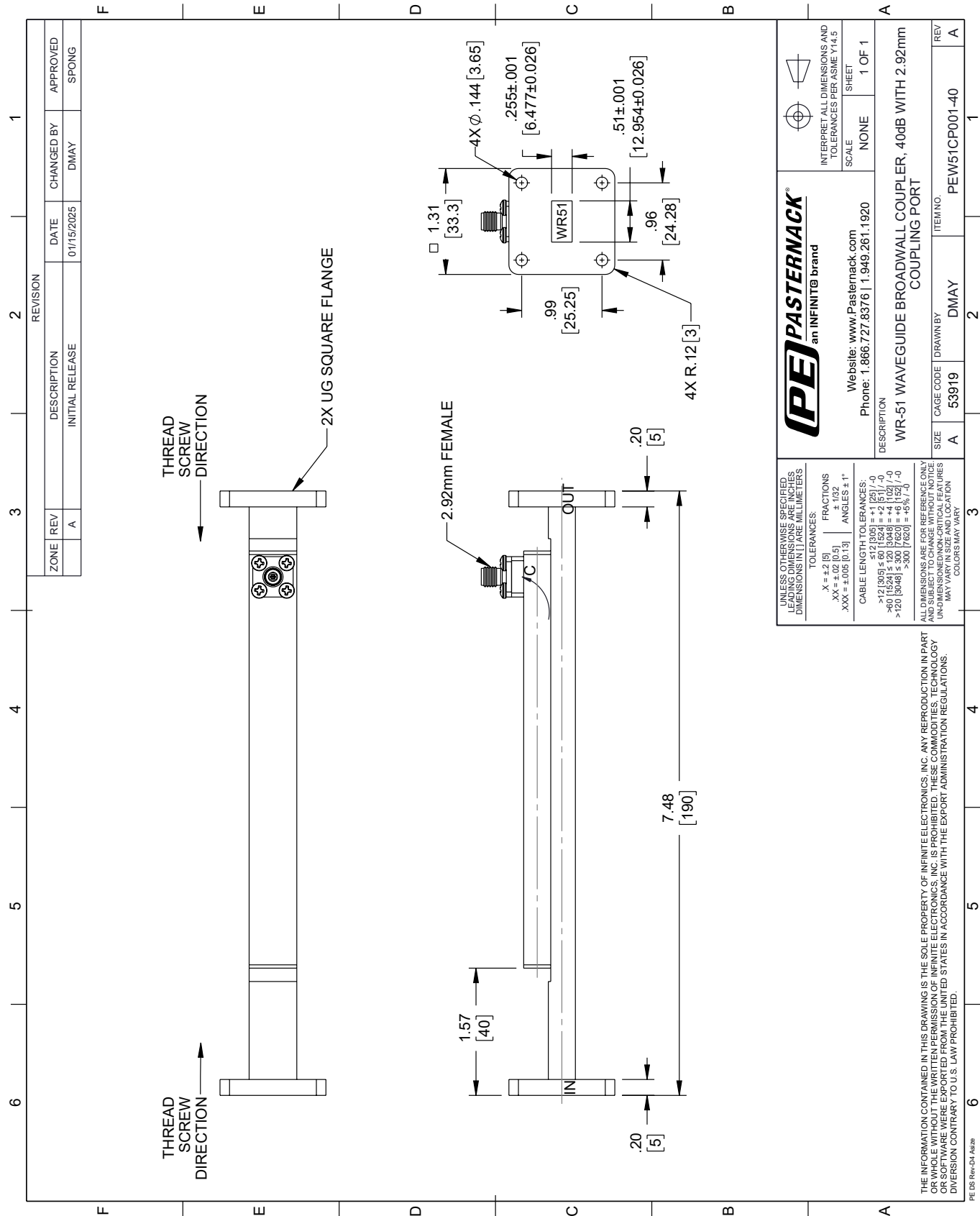
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-51 Waveguide 40 dB Broadwall Coupler, UG Square Flange, 2.92mm Female Coupling Port, 14.5 GHz to 22 GHz, Brass PEW51CP001-40](#)

URL: <https://www.pasternack.com/wr51-waveguide-40db-broadwall-coupler-ug-square-flange-22ghz-pew51cp001-40-p.aspx>

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PEW51CP001-40 CAD Drawing

WR-51 Waveguide 40 dB Broadwall Coupler, UG Square Flange, 2.92mm
Female Coupling Port, 14.5 GHz to 22 GHz, Brass



PEP PASTERNAK an INFINITI® brand		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.		TOLERANCES:		SCALE: NONE	
X = $\pm .2$ [5]		FRACTIONS: $\pm 1/32$		SHEET: 1 OF 1	
.XX = $\pm .02$ [0.5]		ANGLES: $\pm 1^\circ$			
.XXX = $\pm .005$ [0.13]					
CABLE LENGTH TOLERANCES:					
>12 [305] ≤ 60 [1524] = $\pm .125$ [-0]					
>60 [1524] ≤ 120 [3048] = $\pm .125$ [-0]					
>120 [3048] ≤ 300 [7620] = $\pm .125$ [-0]					
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.					
DESCRIPTION: WR-51 WAVEGUIDE BROADWALL COUPLER, 40dB WITH 2.92mm COUPLING PORT		ITEM NO.: PEW51CP001-40			
SIZE: A		CAGE CODE: 53919			
DRAWN BY: DMAY					
REV: A					

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