

## WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 GHz, Brass



## **Waveguide Couplers Technical Data Sheet**

## **PEWRD750CP02-50**

The PEWRD750CP02-50 is a WRD-750 Directional Broadwall double ridge waveguide coupler with N female coupled port that operates in the frequency range of 7.5 to 18 GHz. This Waveguide component has a maximum VSWR of 1.5:1. 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
- 50±2 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 7.5 GHz to 18 GHz Frequency Range

Source Leveling

- Main Line VSWR < 1.25:1</li>
- Max Power 400W (CW)

### **Applications**

- Test Benches
- Radar
- Satellite

- · Microwave Radio
- · Attenuation Measurements
- · Power Measurements

### **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	7.5		18	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		50		dB
Directivity	20			dB
Insertion Loss			0.3	dB
Main Line VSWR			1.25:1	
Secondary Line VSWR			1.5:1	
Coupling Flatness			±2	dB
Input Power (CW)			400	Watts
Input Power, Peak			3	kWatts

#### **Mechanical Specifications**

Size

 Length
 10.63 in [270 mm]

 Width
 2.05 in [52.07 mm]

 Height
 1.38 in [35.05 mm]

 Weight
 3.37 lbs [1.53 kg]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 GHz, Brass PEWRD750CP02-50

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451

Sales@Pasternack.com • Techsupport@Pasternack.com



# WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 GHz, Brass



## **Waveguide Couplers Technical Data Sheet**

PEWRD750CP02-50

Interface

Waveguide Size WRD-750
Flange Type Cover
RF Connector Type N Female
Coupler Body Material and Plating Brass, Gray

#### **Environmental Specifications**

Compliance Certifications (see product page for current document)

#### **Plotted and Other Data**

Notes:

WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 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: WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 GHz, Brass PEWRD750CP02-50

URL: https://www.pasternack.com/wrd750-waveguide-50db-broadwall-coupler-18ghz-pewrd750cp02-50-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.

#### PEWRD750CP02-50 CAD Drawing WRD-750 Double Ridge Waveguide 50 dB Broadwall Coupler, N Female Coupled Port, 7.5 GHz to 18 GHz, Brass INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 WRD-750 Waveguide Coupler with N-type Female Connector, 50dB **APPROVED** SPONG 1 P SHEET PEWRD750CP02-50 NONE CHANGED BY KDANG PASTERNACK ITEM NO. Website: www.Pasternack.com Phone: 1.866.727.8376 | 1.949.261.1920 3/31/2023 Coupling DATE an INFINIT® brand KDANG REVISION OUT 36.7 DRAWN BY INITIAL RELEASE DESCRIPTION CAGE CODE SIZE ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. ± 1/32 ANGLES ± 1° <12 [305] = +1 [25] /-0 >12 [305] ≤ 60 [1624] = +2 [51] /-0 >60 [1524] ≤ 120 [3048] = +4 [102] /-0 >120 [3048] ≤ 300 [7620] = +6 [152] /-0 UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS FRACTIONS CABLE LENGTH TOLERANCES: >300 [7620] = +5% / -0 က TOLERANCES: ÆV ⋖ $X = \pm .2$ [5] $X = \pm .02$ [.5] $X = \pm .02$ [.13] ZONE [270.0] 10.63 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. AMY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLICGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO US. LAW PROHIBITED. [2.37±0.02] DOWEL PIN 2XØ .093±.001 .321±.003 [8.15±0.08] [3.45±0.05] 136±.002 [4.39±0.05] .173±.002 [6.40] .252 2X .169 [4.30] $\oplus$ 2X FLANGE DETAIL [17.55±0.08] **(** 35.00 $.691\pm.003$ $\geq$ 1.378 1.060 [26.92] .432 [10.97] LC. WRD750D DOUBLE-RIDGE FPWRD750D24 FLANGE **•** 2XØ .138<sup>+.009</sup> -.006 [3.50<sup>+</sup>0.23] N FEMALE 1.000 [25.40] 2XØ .094<sup>+.002</sup> $\left[2.40^{+0.05}_{-0.04}\right]$ 2X\_ 6-32UNC-2B © 2020 Pasternack Enterprises All Rights Reserved PEWRD750CP02-50 REV

3