



WR-90 Waveguide 50 dB Crossguide Coupler, CPR-90G
Flange, N Female Coupled Port, 8.2 GHz to 12.4 GHz, Bronze

Waveguide Couplers Assemblies Technical Data

PEWCT1083

The PEWCT1083 is a 50 dB WR-90 four port crossguide coupler with one coupled port terminated (making it a three port coupler) and a coax adapter on the opposite coupled port. 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 1.05:1 and are made of bronze with brass CPR-90G flanges. The PEWCT1083 is part of a family of cross guide couplers offered by Pasternack with coupling values ranging from 20 to 50 dB. There is also a full family of top wall (broad wall) couplers. For the three port version of this coupler (terminated but no coax adapter) please see the PEWCT1027. For the four port version of this coupler (no termination, no coax adapter) please see the PEWCP1062.

Features

- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 50 dB Nominal Coupling Level
- N Female Coax Adapter
- 8.2 GHz to 12.4 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR

Applications

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

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		50		dB
Directivity		10		dB
Insertion Loss		0.1		dB
Main Line VSWR		1.05:1		
Termination				
Input Power (CW)			4	Watts
Waveguide to Coax Adapters				
VSWR		1.25:1		

Mechanical Specifications

Interface

Waveguide Size WR-90

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 50 dB Crossguide Coupler, CPR-90G Flange, N Female Coupled Port, 8.2 GHz to 12.4 GHz, Bronze PEWCT1083](#)



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Flange Type	CPR-90G
Flange Material and Plating	Brass
RF Connector Type	N Female
Coupler Body Material and Plating	Bronze
Termination Body Material and Plating	Bronze

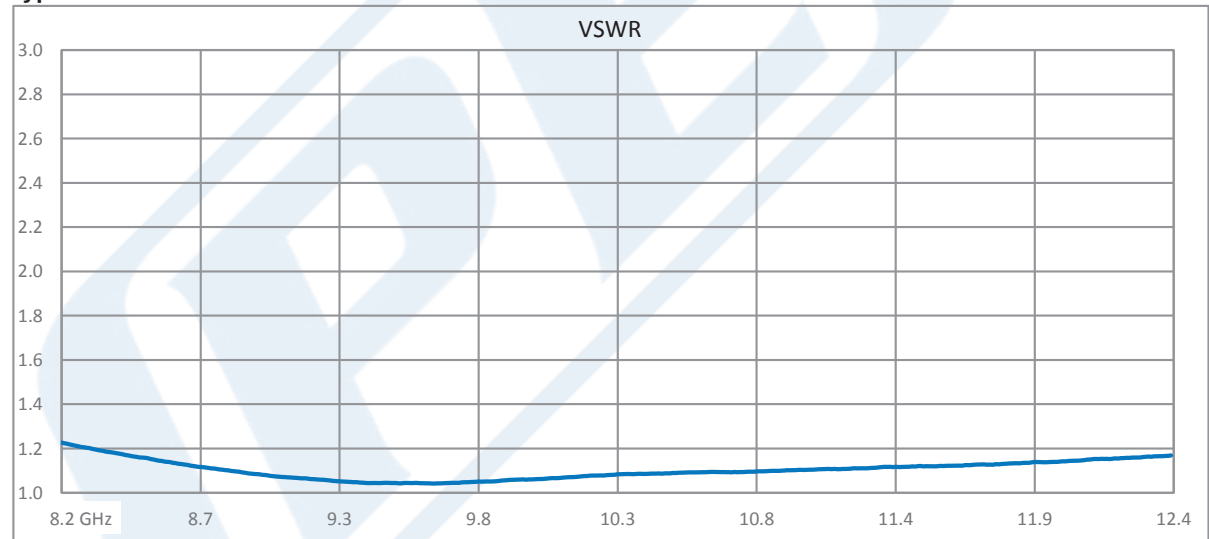
Environmental Specifications

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

Plotted and Other Data

Notes:

Typical Performance Data



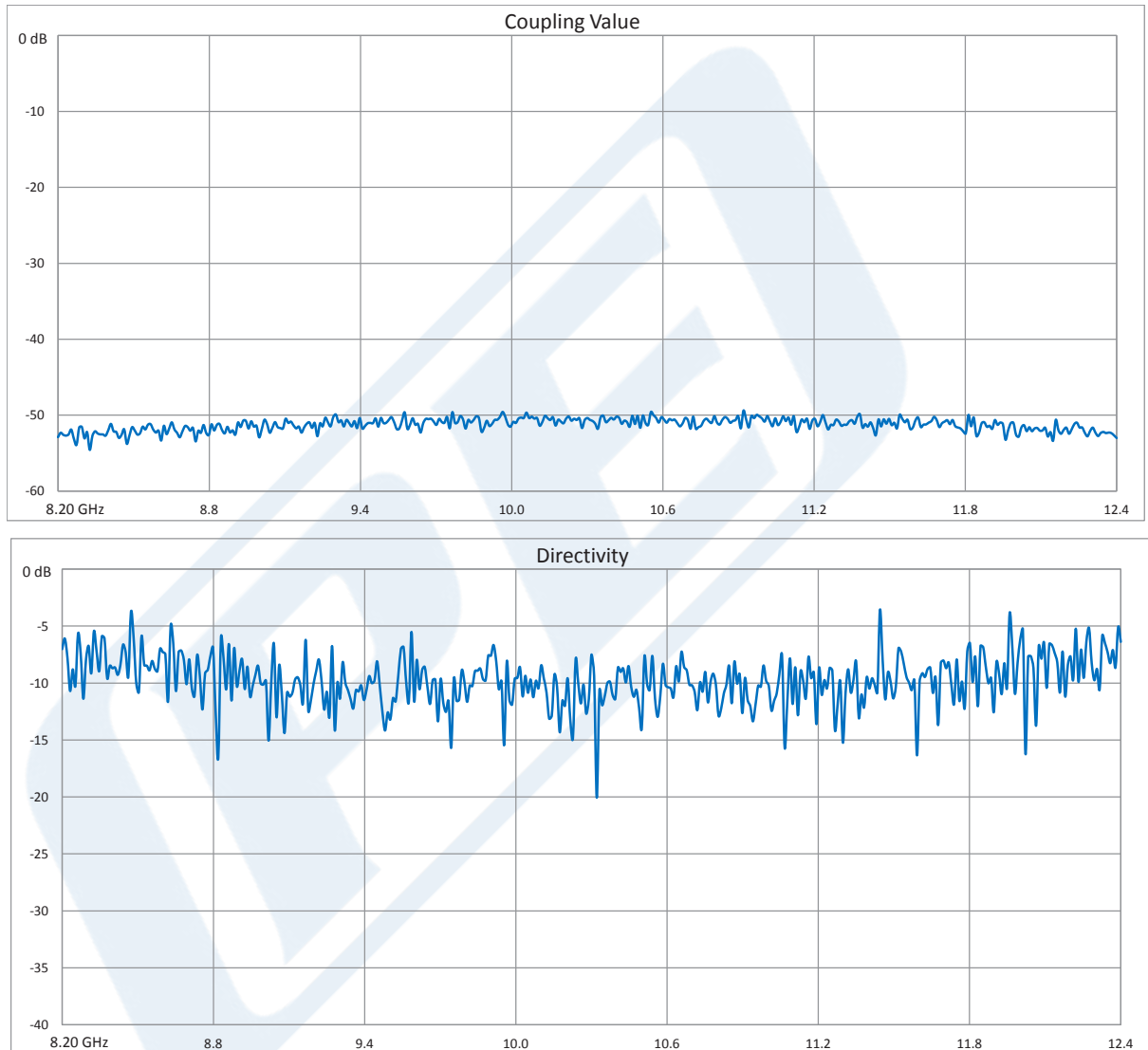
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WR-90 Waveguide 50 dB Crossguide Coupler, CPR-90G Flange, N Female Coupled Port, 8.2 GHz to 12.4 GHz, Bronze from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

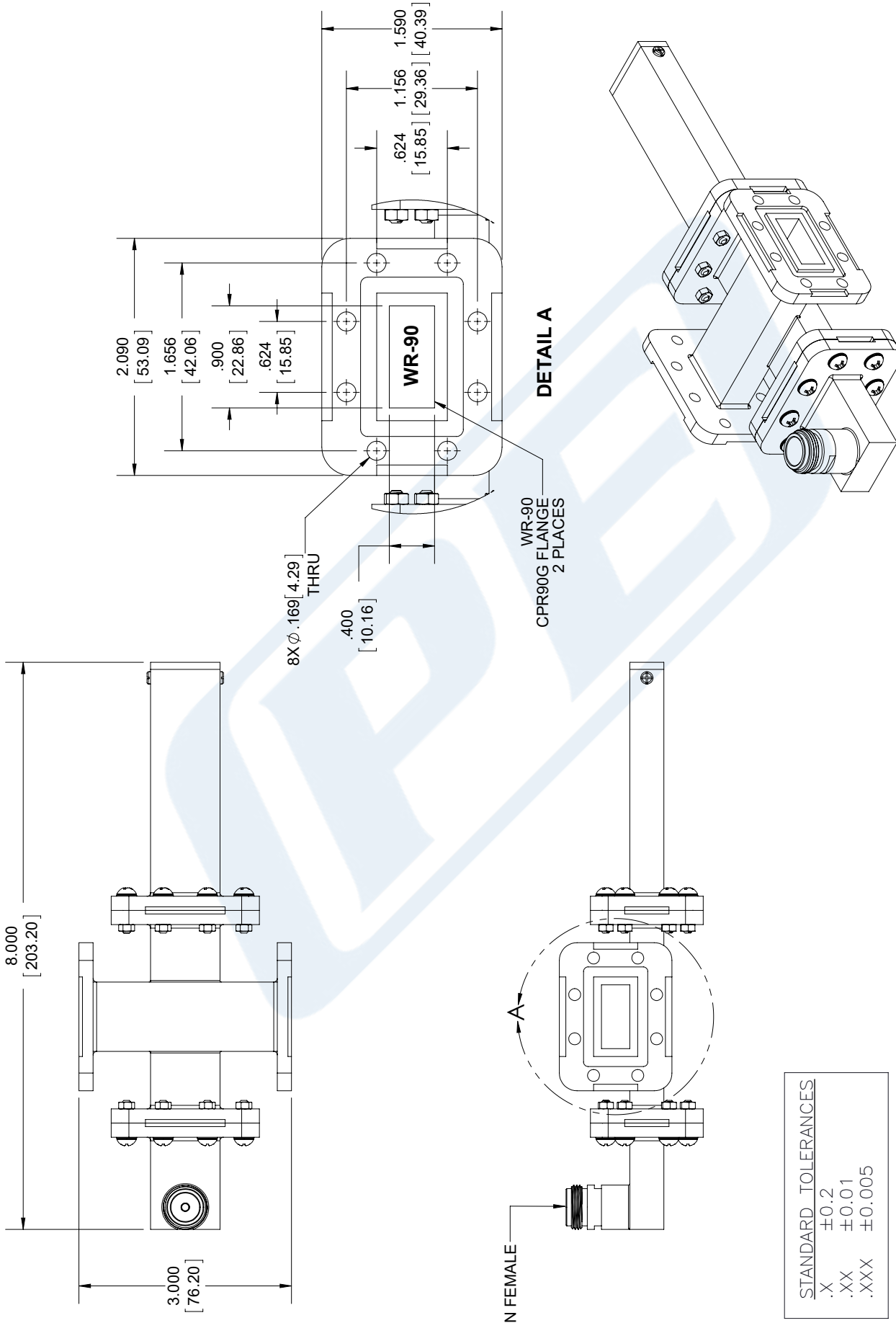
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PEWCT1083 CAD Drawing

WR-90 Waveguide 50 dB Crossguide Coupler, CPR-90G Flange,
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STANDARD TOLERANCES
.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



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

DWG TITLE

PEWCT1083

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].