



WR-159 Waveguide 50 dB Crossguide Coupler, CPR-159F
Flange, N Female Coupled Port, 4.64 GHz to 7.05 GHz, Aluminum

Waveguide Couplers Technical Data Sheet

PEWCP1082-50

The PEWCP1082-50 is a 50 dB WR-159 three port crossguide coupler with integrated N Female connector for the 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 1.1:1 and are made of Aluminum with CPR-159F flanges. The PEWCP1082-50 is part of a family of cross guide couplers offered by Pasternack with coupling values ranging from 20 to 50 dB.

Features

- Three Port Crossguide Waveguide Coupler
- 50±1.5 dB Nominal Coupling Level
- Integrated N Female Connector for the coupled port
- 4.64 GHz to 7.05 GHz Frequency Range
- Low VSWR < 1.25:1

Applications

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

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	4.64		7.05	GHz
Coupler				
Nominal Coupling Level		50		dB
Coupling Accuracy			±1.5	dB
Directivity	18			dB
Insertion Loss		0.1		dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.25:1	
Input Power (CW)			1.2	kWatts
Input Power, Peak			500	kWatts

Mechanical Specifications

Size

Length	6.693 in [170 mm]
Width	4.724 in [119.99 mm]
Height	3.53 in [89.66 mm]
Weight	1.102 lbs [499.86 g]

Interface

Waveguide Size	WR-159
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-159 Waveguide 50 dB Crossguide Coupler, CPR-159F Flange, N Female Coupled Port, 4.64 GHz to 7.05 GHz, Aluminum PEWCP1082-50](#)



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Flange Type
RF Connector Type

CPR-159F
N Female

Coupler Body Material and Plating

Aluminum, Chromate

Environmental Specifications

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

Plotted and Other Data

Notes:

WR-159 Waveguide 50 dB Crossguide Coupler, CPR-159F Flange, N Female Coupled Port, 4.64 GHz to 7.05 GHz, Aluminum 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-159 Waveguide 50 dB Crossguide Coupler, CPR-159F Flange, N Female Coupled Port, 4.64 GHz to 7.05 GHz, Aluminum PEWCP1082-50](#)

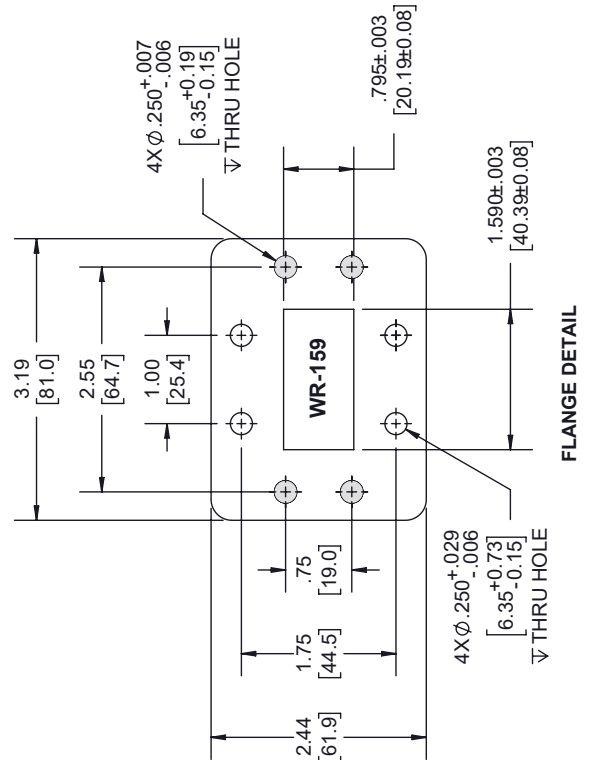
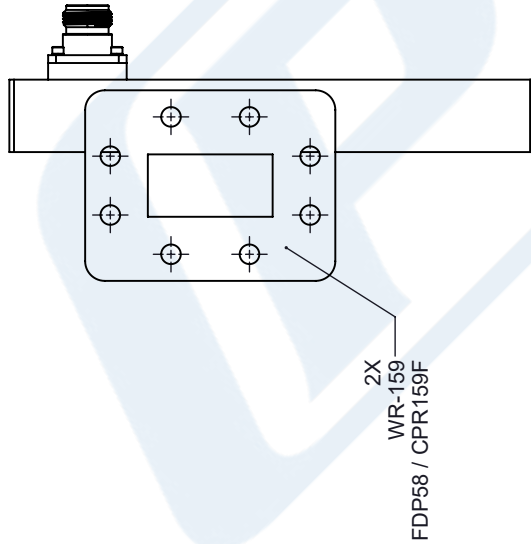
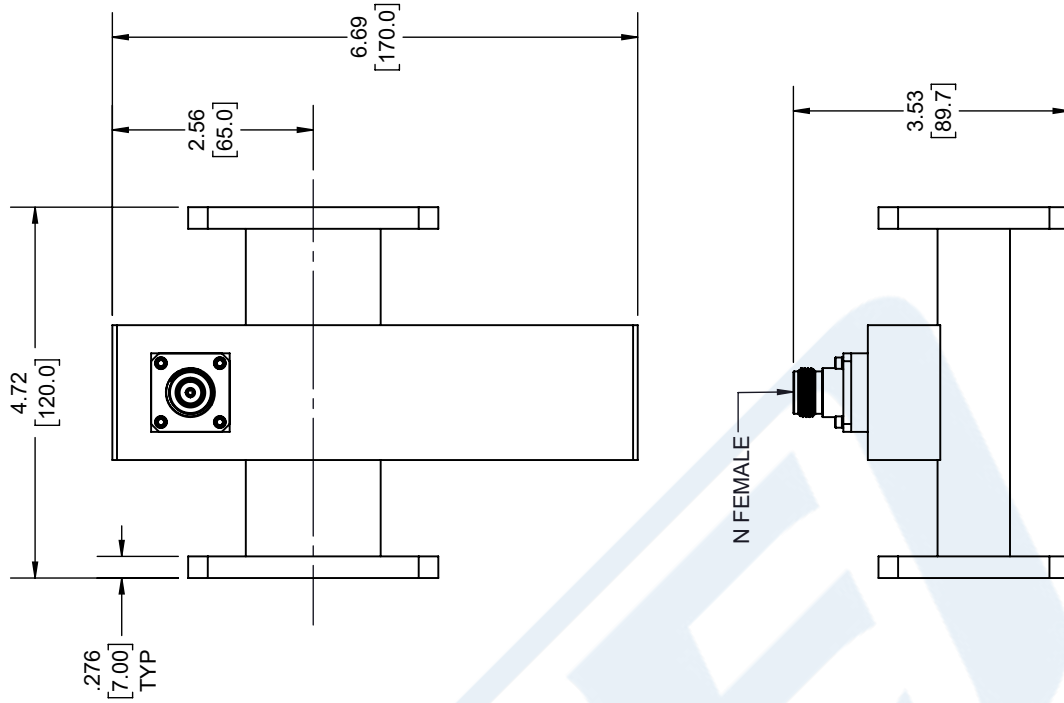
URL: <https://www.pasternack.com/50-db-wr-159-waveguide-crossguide-coupler-pewcp1082-50-p.aspx>

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.

PEWCP1082-50 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	7/7/2022	S. PONG



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

FRACTIONS	ANGLES	CABLE LENGTH (L)	TOLERANCES:
X = ± .2	± .132	L ≤ 12 [305]	± .125 / -0
.XX = ± .02	± .13	12 [305] < L ≤ 60 [1524]	± .125 / -0
.XXX = ± .005	± .13	60 [1524] < L ≤ 120 [3048]	± .125 / -0
		120 [3048] < L ≤ 300 [7620]	± .125 / -0
		300 [7620] < L	± .125 / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

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SHEET 1 OF 1

SCALE N/A

REV. A

DATE 7/7/2022

APPROVED S. PONG