



WR-137 Waveguide 50 dB Crossguide Coupler, CPR-137G Flange, 5.85 GHz to 8.2 GHz, Bronze

Waveguide Couplers Technical Data Sheet

PEWCP1078

The PEWCP1078 is a WR-137 crossguide waveguide coupler that operates in the frequency range of 5.85 to 8.2 GHz. This Waveguide component has a typical VSWR of 1.05:1. These designs are made of Bronze and incorporate a cross wall configuration that result in a mid-band nominal coupling value of 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. This WR-137 waveguide coupler uses grooved CPR-137 Brass flanges. Pasternack offers a complete family of waveguide Crossguide and Top wall couplers that are in-stock and ship same day.

Features

- Crossguide Waveguide Coupler
- 50 dB Nominal Coupling Level
- 5.85 GHz to 8.2 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR
- Grooved CPR

Applications

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

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|------------------------|---------|---------|---------|-------|
| Frequency Range | 5.85 | | 8.2 | GHz |
| Coupler | | | | |
| Nominal Coupling Level | | 50 | | dB |
| Directivity | | 10 | | dB |
| Insertion Loss | | 0.1 | | dB |
| Main Line VSWR | | 1.05:1 | | |

Mechanical Specifications

Size

| | |
|--------|----------------------|
| Length | 5 in [127 mm] |
| Width | 5 in [127 mm] |
| Weight | 2.015 lbs [913.99 g] |

Interface

| | |
|-----------------------------------|----------|
| Waveguide Size | WR-137 |
| Flange Type | CPR-137G |
| Flange Material and Plating | Brass |
| Coupler Body Material and Plating | Bronze |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-137 Waveguide 50 dB Crossguide Coupler, CPR-137G Flange, 5.85 GHz to 8.2 GHz, Bronze PEWCP1078](#)



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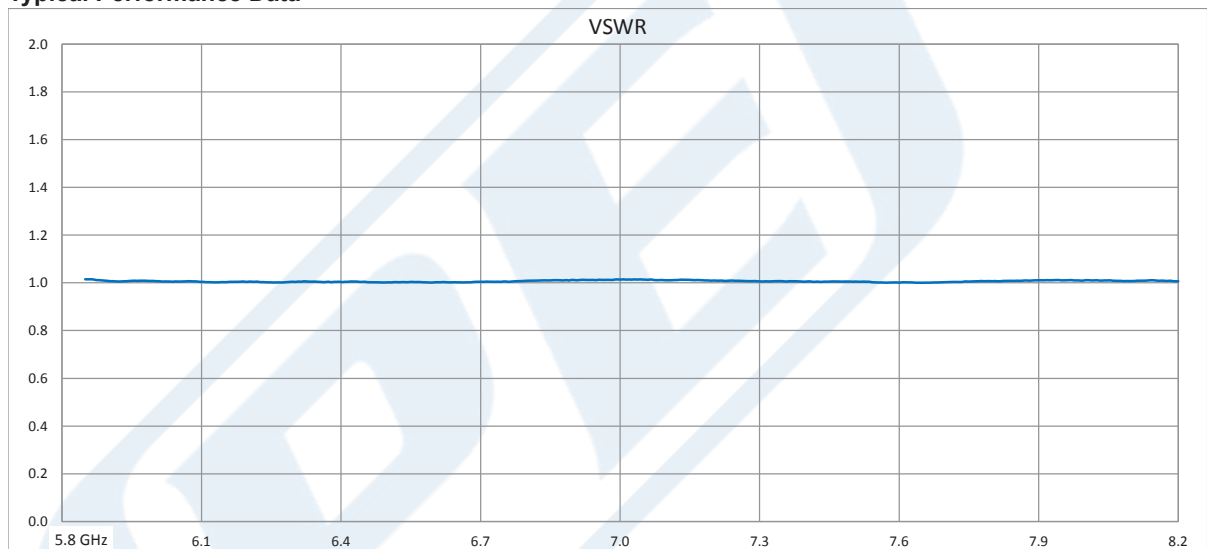
Environmental Specifications

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

Plotted and Other Data

Notes:

Typical Performance Data



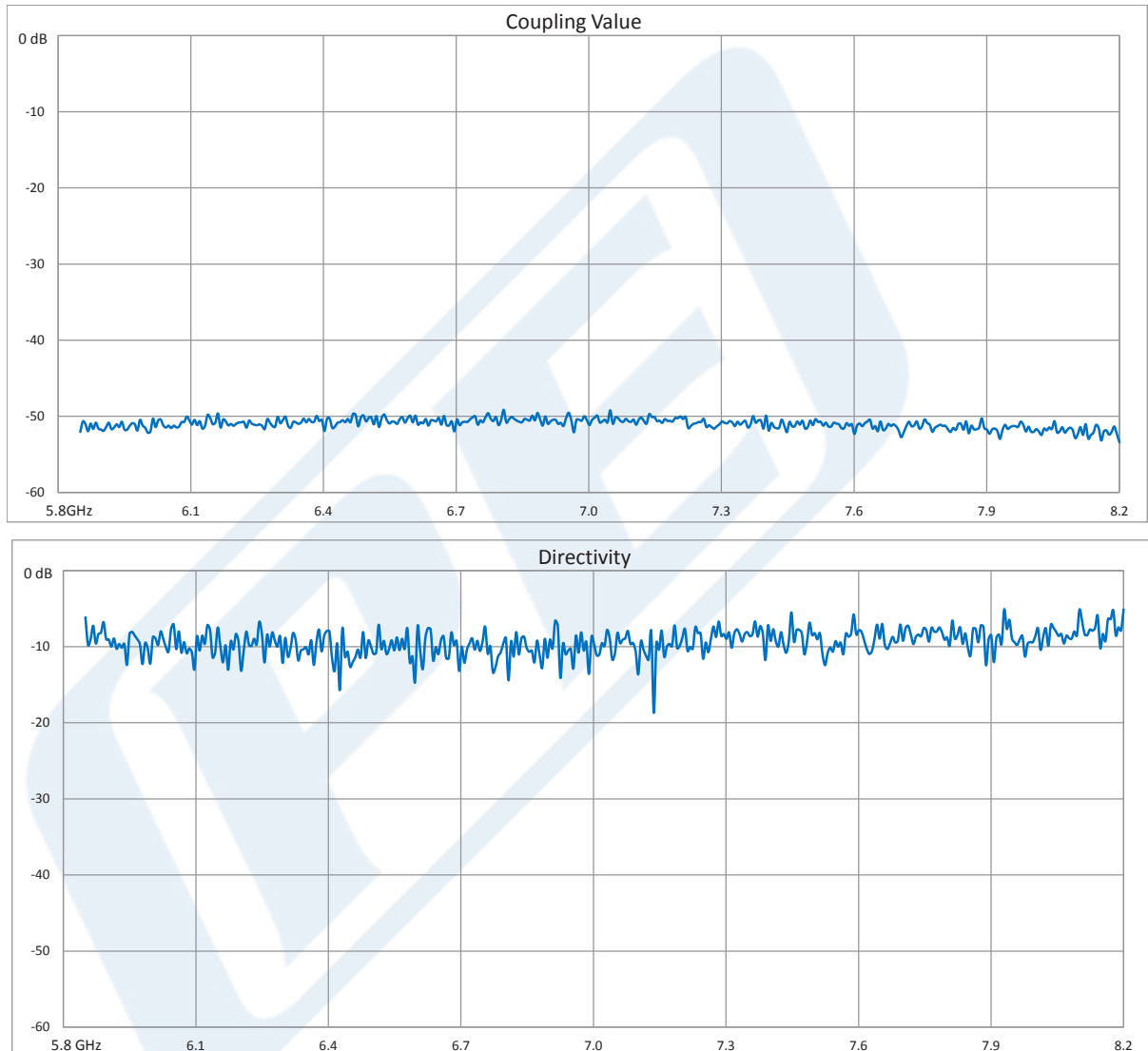
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WR-137 Waveguide 50 dB Crossguide Coupler, CPR-137G Flange, 5.85 GHz to 8.2 GHz, Bronze from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-137 Waveguide 50 dB Crossguide Coupler, CPR-137G Flange, 5.85 GHz to 8.2 GHz, Bronze PEWCP1078](https://www.pasternack.com/wr137-50db-waveguide-coupler-cpr-137g-crossguide-pewcp1078-p.aspx)

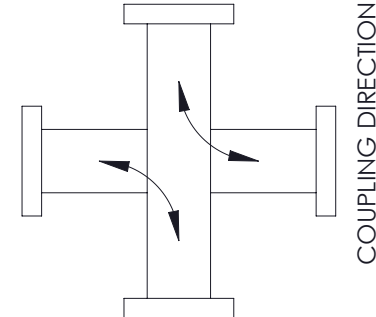
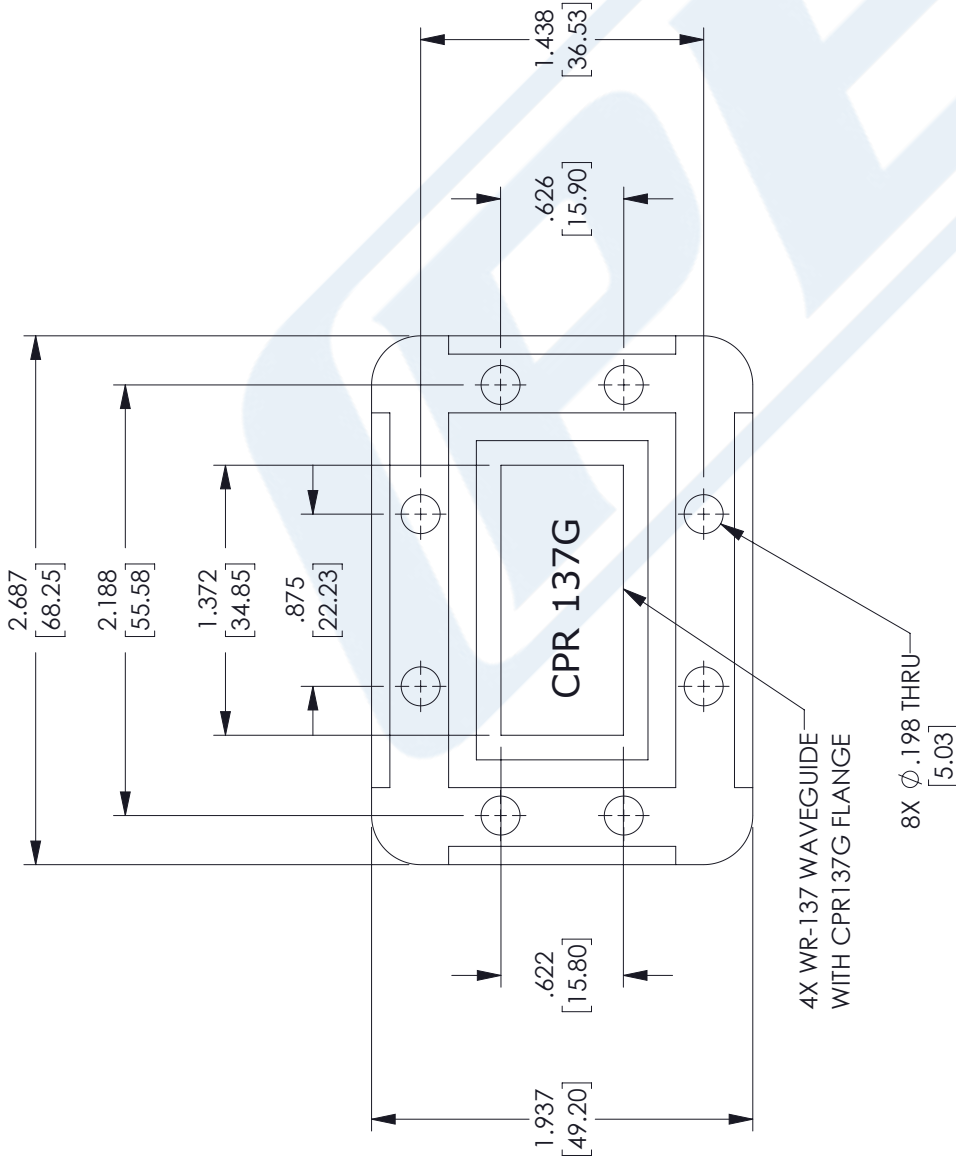
URL: <https://www.pasternack.com/wr137-50db-waveguide-coupler-cpr-137g-crossguide-pewcp1078-p.aspx>

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.

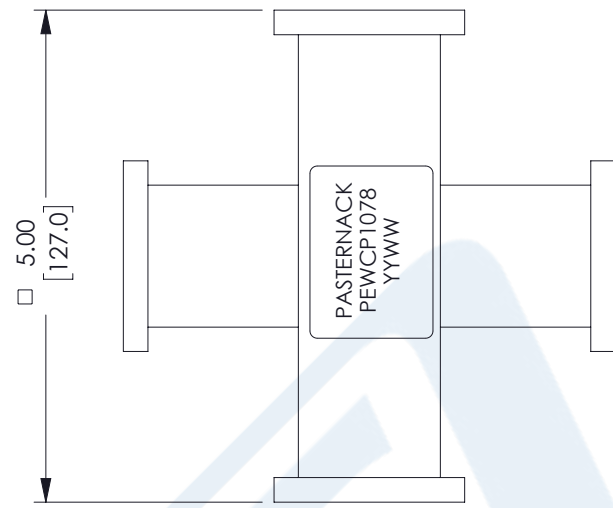
PEWC1078 CAD Drawing

WR-137 Waveguide 50 dB Crossguide Coupler, CPR-137G Flange, 5.85 GHz to 8.2 GHz, Bronze

| REVISIONS | | | |
|-----------|------------------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| B | PCR FMWCP1078 20220812 | 08/17/2022 | SPONG |



COUPLING DIRECTION



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

TOLERANCES:

| | | |
|--------------|--------|-------------|
| .X = ±.2 | [5.08] | FRACTIONS |
| .XX = ±.02 | [.51] | ± 1/32 |
| .XXX = ±.005 | [.13] | ANGLES ± 1° |

CABLE LENGTH (L) TOLERANCES:

| | | |
|----------------------|--------|-----------------|
| L ≤ 12 | [305] | = +1 [25] / -0 |
| 12 [305] < L ≤ 60 | [1524] | = +2 [51] / -0 |
| 60 [1524] < L ≤ 120 | [3048] | = +4 [102] / -0 |
| 120 [3048] < L ≤ 300 | [7620] | = +6 [152] / -0 |
| 300 [7620] < L | | = +5%L / -0 |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

PE PASTERNAK
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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
SCALE N/A

| | | | | |
|------|-----------|-----------|----------|-----|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. | REV |
| A | 53919 | AKRESOWSK | PEWC1078 | B |