

50 dB WR-137 Waveguide Crossguide Coupler with CPR-137G Flange from 5.85 GHz to 8.2 GHz in Copper Alloy

The FMWCP1078 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 painted copper alloy 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 flanges. Fairview 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
- Body and Flanges made of Copper Alloy
- Low VSWR
- Grooved CPR

Electrical Specifications

| Description | Min | Typ | Max | 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 | | |
| Termination | | | | |

Applications:

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

Mechanical Specifications

| | |
|-----------------------------------|---------------------|
| Size | |
| Length | 5 in [127 mm] |
| Width | 5 in [127 mm] |
| Weight | 2.02 lbs [916.26 g] |
| Interface | |
| Waveguide Size | WR-137 |
| Flange Type | CPR-137G |
| Flange Material and Plating | Copper Alloy |
| Coupler Body Material and Plating | Copper Alloy |

Environmental Specifications

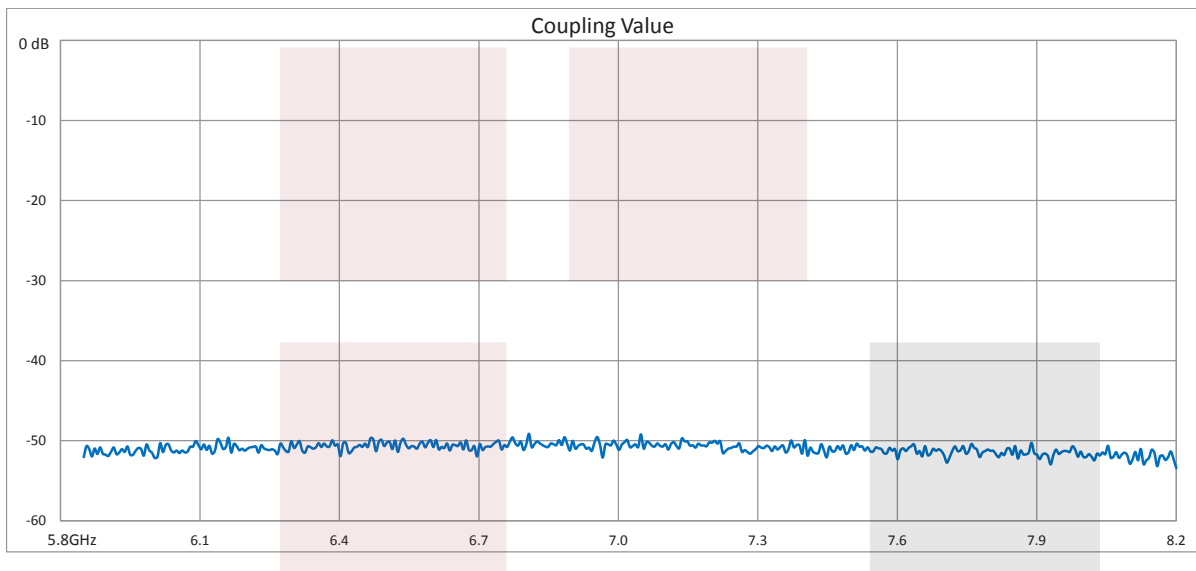
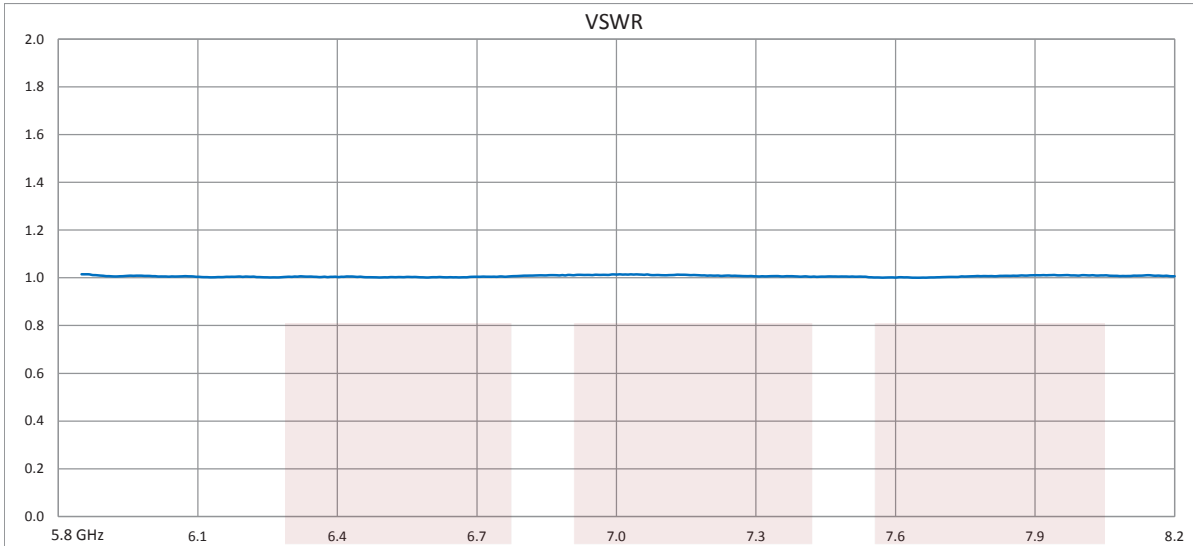
Compliance Certifications (see [product page](#) for current document)

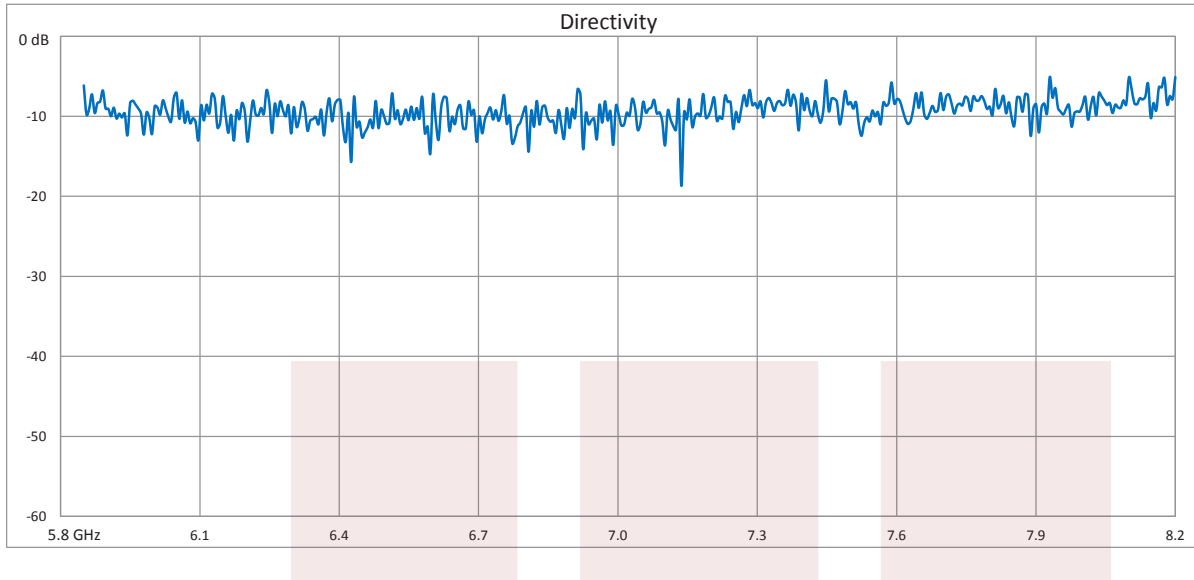
Plotted and Other Data

Notes:

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Typical Performance Data



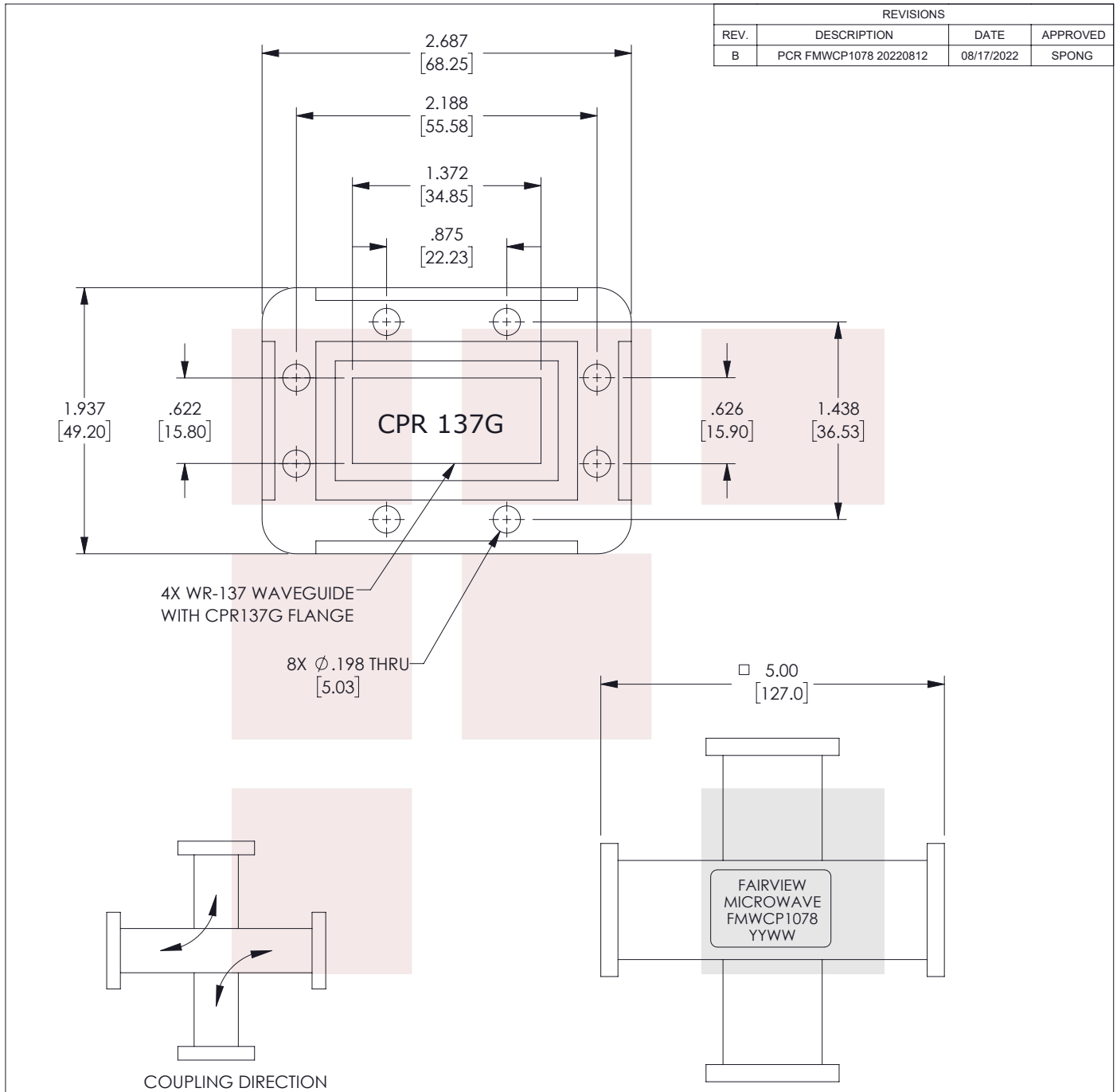


50 dB WR-137 Waveguide Crossguide Coupler with CPR-137G Flange from 5.85 GHz to 8.2 GHz in Copper Alloy from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [50 dB WR-137 Waveguide Crossguide Coupler with CPR-137G Flange from 5.85 GHz to 8.2 GHz in Copper Alloy FMWCP1078](https://www.fairviewmicrowave.com/50-db-wr-137-waveguide-crossguide-coupler-cpr-137g-grooved-fmwcp1078-p.aspx)

URL: <https://www.fairviewmicrowave.com/50-db-wr-137-waveguide-crossguide-coupler-cpr-137g-grooved-fmwcp1078-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



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

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TITLE
50 dB WR-137 Waveguide Crossguide Coupler with CPR-137G Flange from 5.85 GHz to 8.2 GHz in Copper Alloy

| | | |
|---|-----------------|--|
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS | | THIRD-ANGLE PROJECTION |
| TOLERANCES: | | <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</p> |
| CABLE LENGTH (L) TOLERANCES: | | |
| .X = ±.2 [5.08] | FRACTIONS | SHEET 1 OF 1 SCALE N/A |
| .XX = ±.02 [.51] | ± 1/32 | |
| .XXX = ±.005 [.13] | ANGLES ± 1° | |
| 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. | | |
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY AKRESOWSK |
| ITEM NO. FMWCP1078 | | REV B |

T-Rev.D