

**20 dB WR-90 Waveguide Crossguide 3 Port Coupler with CPR-90G Flange from 8.2 GHz to 12.4 GHz in Bronze**

The FMWCT1024 is a 20 dB three port, terminated WR-90 crossguide waveguide coupler that operates in the frequency range of 8.2 to 12.4 GHz. The coupler has a typical VSWR of 1.05. These designs are made of Bronze with Brass CPR-90G Flanges. Fairview offers a complete family of crossguide couplers in both three port (terminated) and four port (unterminated) configurations that are in stock and ship on the same day. Top wall couplers are also available.

**Electrical Specifications**

| Description            | Min | Typ    | Max  | Units |
|------------------------|-----|--------|------|-------|
| Frequency Range        | 8.2 |        | 12.4 | GHz   |
| <b>Coupler</b>         |     |        |      |       |
| Nominal Coupling Level |     | 20     |      | dB    |
| Directivity            |     | 25     |      | dB    |
| Insertion Loss         |     | 0.1    |      | dB    |
| Main Line VSWR         |     | 1.05:1 |      |       |
| <b>Termination</b>     |     |        |      |       |
| VSWR                   |     | 1.02   |      |       |
| Input Power (CW)       |     |        | 4    | Watts |

**Mechanical Specifications**

|                                       |                   |
|---------------------------------------|-------------------|
| <b>Size</b>                           |                   |
| Length                                | 6.5 in [165.1 mm] |
| Width                                 | 3 in [76.2 mm]    |
| <b>Interface</b>                      |                   |
| Waveguide Size                        | WR-90             |
| Flange Type                           | CPR-90G           |
| Flange Material and Plating           | Brass             |
| 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:



**Features:**

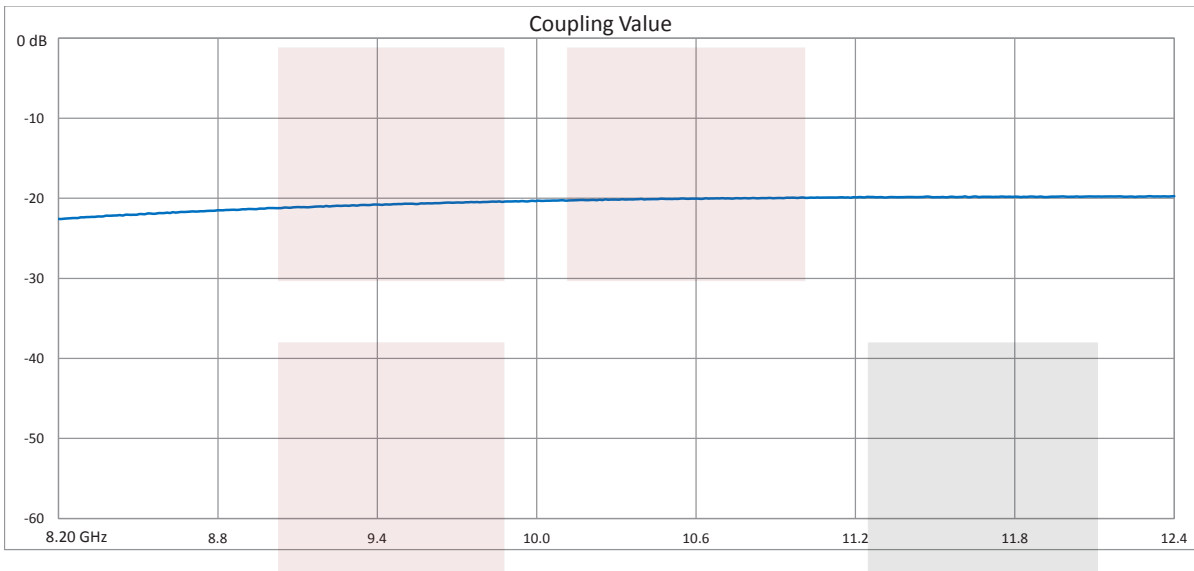
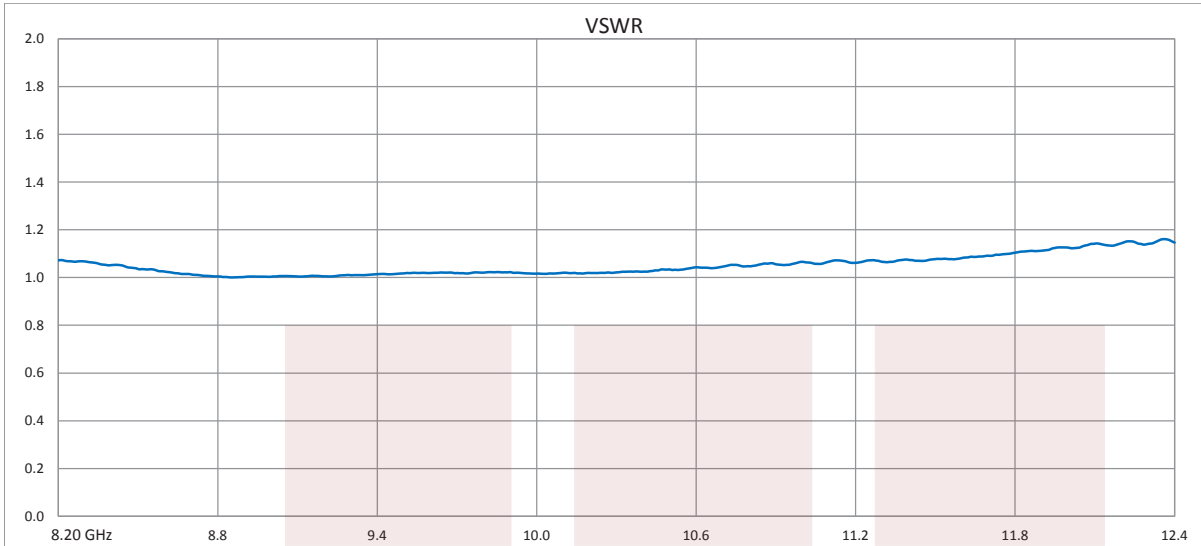
- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 20 dB Nominal Coupling Level
- 8.2 GHz to 12.4 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR
- Grooved CPR

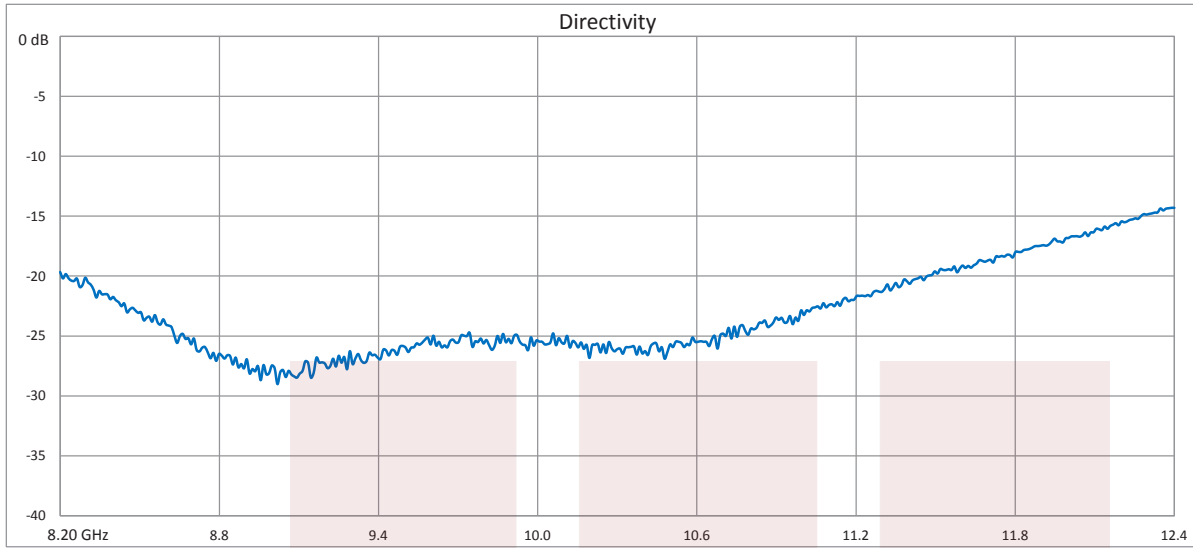
**Applications:**

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

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**Typical Performance Data**



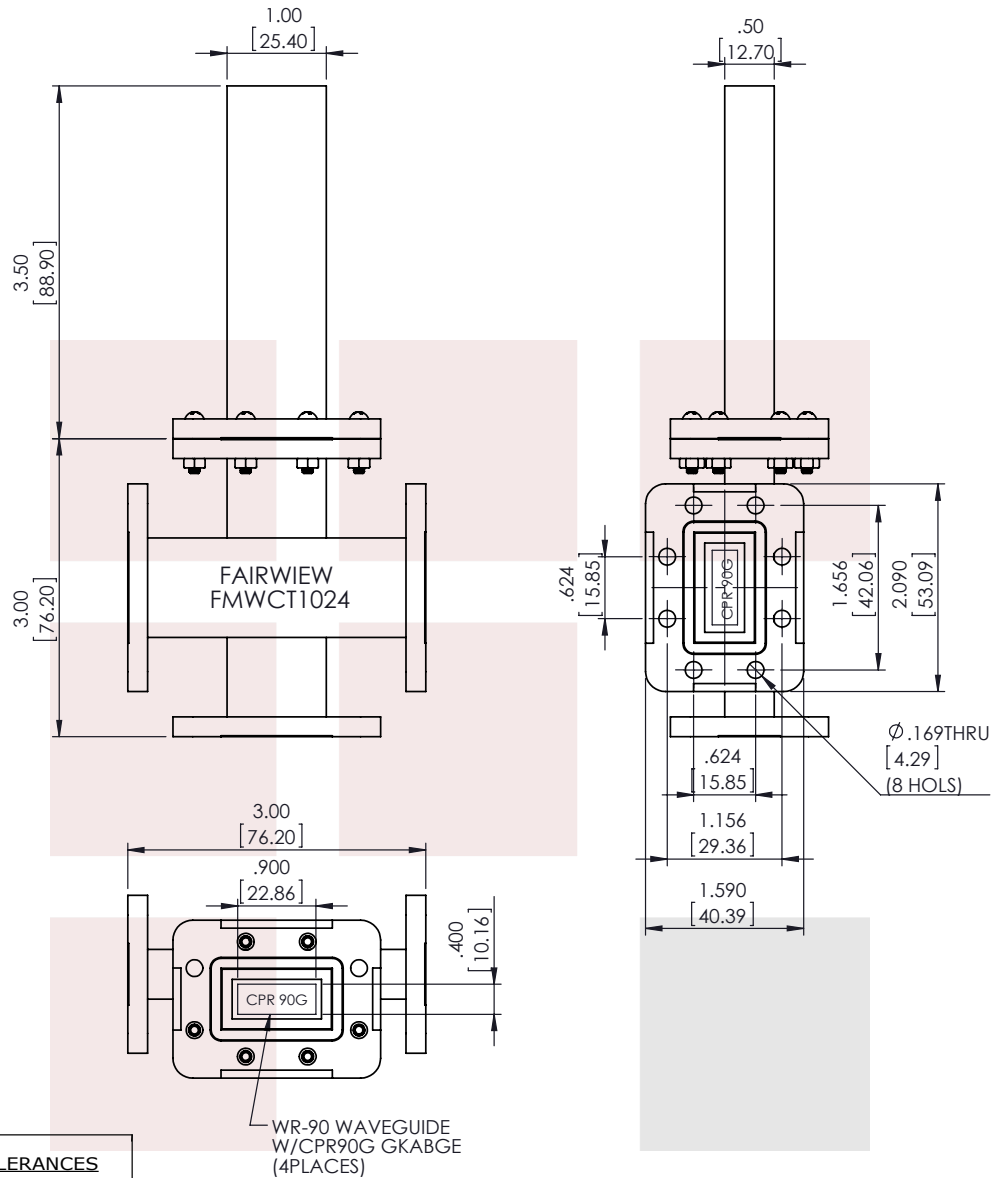


20 dB WR-90 Waveguide Crossguide 3 Port Coupler with CPR-90G Flange from 8.2 GHz to 12.4 GHz in Bronze from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-90 Waveguide Crossguide 3 Port Coupler with CPR-90G Flange from 8.2 GHz to 12.4 GHz in Bronze FMWCT1024](#)

URL: <https://www.fairviewmicrowave.com/20-db-wr-90-waveguide-crossguide-coupler-cpr-90g-3-port-fmwct1024-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.



| STANDARD TOLERANCES |        |
|---------------------|--------|
| .X                  | ±0.2   |
| .XX                 | ±0.01  |
| .XXX                | ±0.005 |

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

|   |  |   |  |                    |
|---|--|---|--|--------------------|
| <b>FAIRVIEW MICROWAVE INC.</b><br>ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM                                     |  | NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |  |                    |
| TITLE<br>20 dB WR-90 Waveguide Crossguide 3 Port Coupler with CPR-90G Flange from 8.2 GHz to 12.4 GHz in Bronze |  | DWG NO<br>FMWCT1024   |  | CAGE CODE<br>3FKR5 |
| CAD FILE 042617   |  | SHEET   |  | SCALE N/A          |
|   |  | SIZE A  |  | 0157               |