

**20 dB WR-137 Waveguide Crossguide Coupler with UG-344/U Round Cover Flange and SMA Female Coupled Port from 5.85 GHz to 8.2 GHz in Bronze**

The FMWCT1100 is a 20 dB WR-137 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 UG-344/U Round Cover flanges. The FMWCT1100 is part of a family of cross guide couplers offered by Fairview 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 FMWCT1036. For the four port version of this coupler (no termination, no coax adapter) please see the FMWCP1071.



**Electrical Specifications**

| Description                       | Min  | Typ    | Max | Units |
|-----------------------------------|------|--------|-----|-------|
| Frequency Range                   | 5.85 |        | 8.2 | GHz   |
| Impedance                         |      | 50     |     | Ohms  |
| <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>                |      |        |     |       |
| Input Power (CW)                  |      |        | 6   | Watts |
| <b>Waveguide to Coax Adapters</b> |      |        |     |       |
| VSWR                              |      | 1.25:1 |     |       |

**Mechanical Specifications**

**Interface**

|                                       |             |
|---------------------------------------|-------------|
| Waveguide Size                        | WR-137      |
| Flange Type                           | Round Cover |
| Flange Designation                    | UG-344/U    |
| Flange Material and Plating           | Brass       |
| RF Connector Type                     | SMA 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:

**Features:**

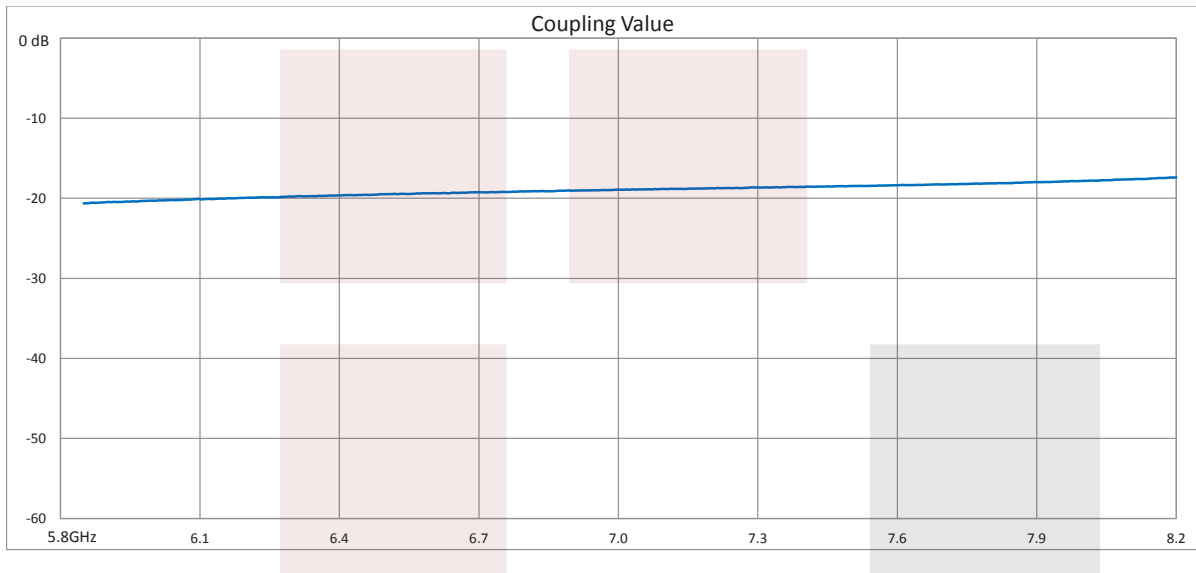
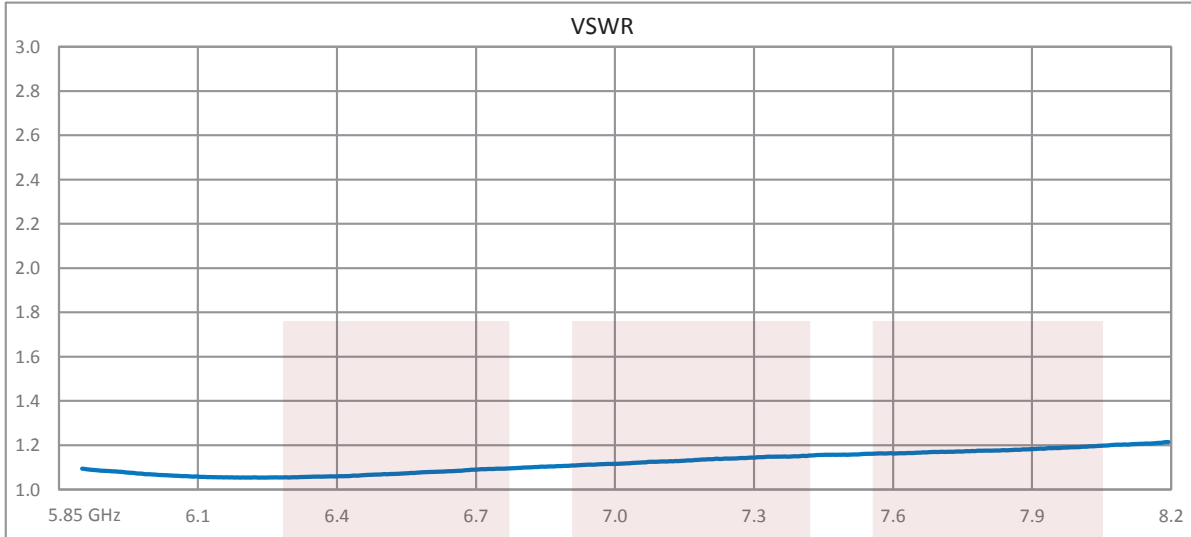
- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 20 dB Nominal Coupling Level
- SMA Female Coax Adapter
- 5.85 GHz to 8.2 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR

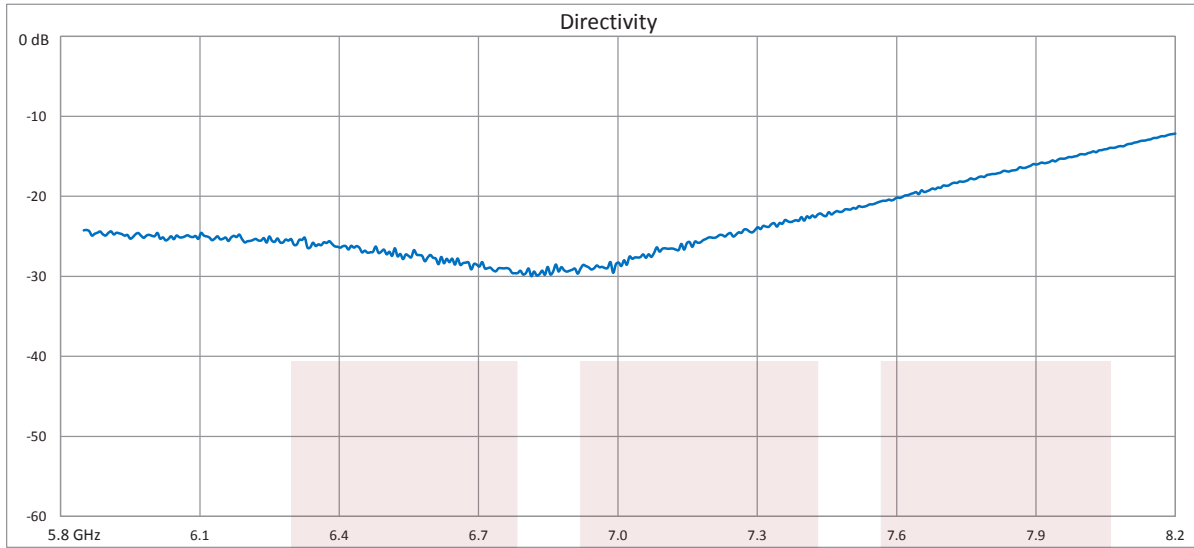
**Applications:**

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

Fairview Microwave  
 1130 Junction Dr. #100  
 Allen, TX 75013  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Typical Performance Data**



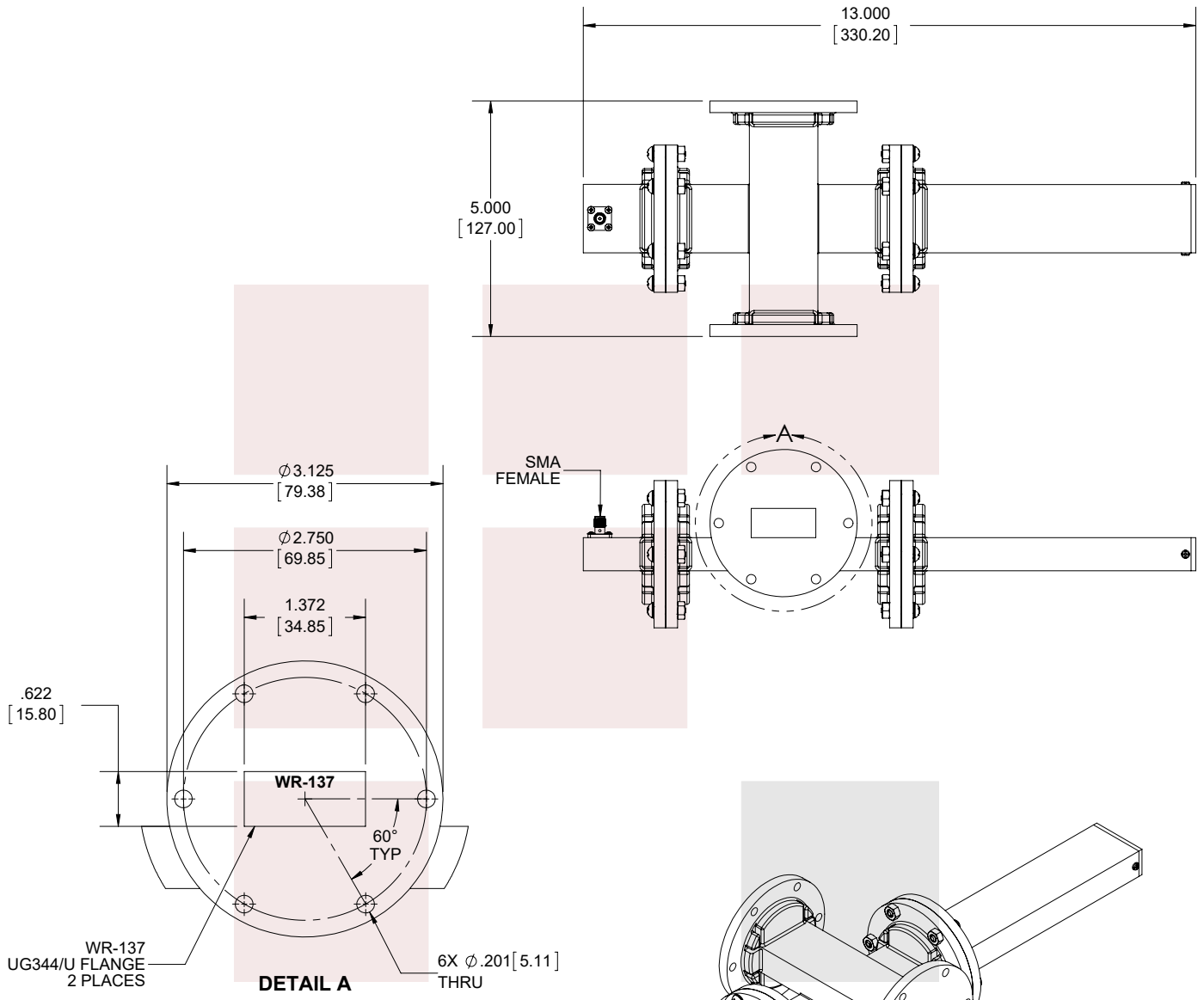


20 dB WR-137 Waveguide Crossguide Coupler with UG-344/U Round Cover Flange and SMA Female Coupled Port from 5.85 GHz to 8.2 GHz in Bronze from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-137 Waveguide Crossguide Coupler with UG-344/U Round Cover Flange and SMA Female Coupled Port from 5.85 GHz to 8.2 GHz in Bronze FMWCT1100](https://www.fairviewmicrowave.com/20db-wr137-waveguide-crossguide-coupler-ug344-round-sma-8.2ghz-fmw-ct1100-p.aspx)

URL: <https://www.fairviewmicrowave.com/20db-wr137-waveguide-crossguide-coupler-ug344-round-sma-8.2ghz-fmw-ct1100-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-137 Waveguide Crossguide Coupler with UG-344/U Round Cover Flange and SMA Female Coupled Port from 5.85 GHz to 8.2 GHz in Bronze |        | DWG NO<br><b>FMWCT1100</b>  |        | CAGE CODE<br><b>3FKR5</b> |      |
| CAD FILE   | 062817 | SHEET   | 1 OF 1 | SCALE                     | N/A  |
|  |        | SIZE  | A      |                           | 9999 |