

**30 dB WR-62 Waveguide Crossguide Coupler with UG-419/U Square Cover Flange and SMA Female Coupled Port from 12.4 GHz to 18 GHz in Bronze**

The FMWCT1057 is a 30 dB WR-62 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-419/U Square Cover flanges. The FMWCT1057 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 FMWCT1013. For the four port version of this coupler (no termination, no coax adapter) please see the FMWCP1048.



**Features:**

- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 30 dB Nominal Coupling Level
- SMA Female Coax Adapter
- 12.4 GHz to 18 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR

**Electrical Specifications**

| Description                       | Min  | Typ    | Max | Units |
|-----------------------------------|------|--------|-----|-------|
| Frequency Range                   | 12.4 |        | 18  | GHz   |
| Impedance                         |      | 50     |     | Ohms  |
| <b>Coupler</b>                    |      |        |     |       |
| Nominal Coupling Level            |      | 30     |     | dB    |
| Directivity                       |      | 10     |     | dB    |
| Insertion Loss                    |      | 0.1    |     | dB    |
| Main Line VSWR                    |      | 1.05:1 |     |       |
| <b>Termination</b>                |      |        |     |       |
| Input Power (CW)                  |      |        | 1.5 | Watts |
| <b>Waveguide to Coax Adapters</b> |      |        |     |       |
| VSWR                              |      | 1.25:1 |     |       |

**Applications:**

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

**Mechanical Specifications**

**Interface**

|                                       |              |
|---------------------------------------|--------------|
| Waveguide Size                        | WR-62        |
| Flange Type                           | Square Cover |
| Flange Designation                    | UG-419/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**

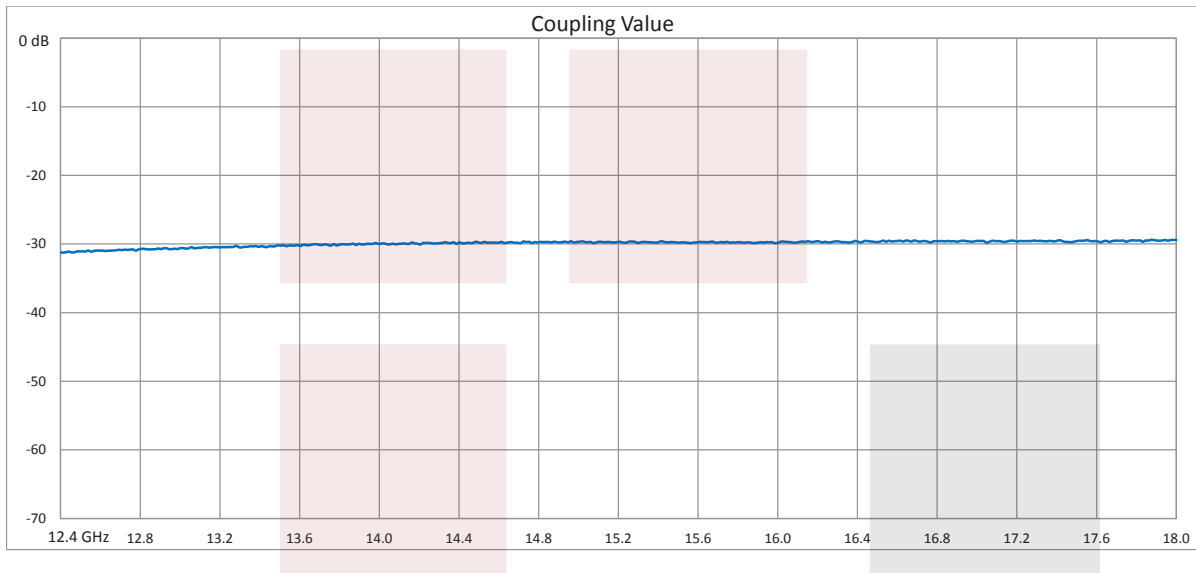
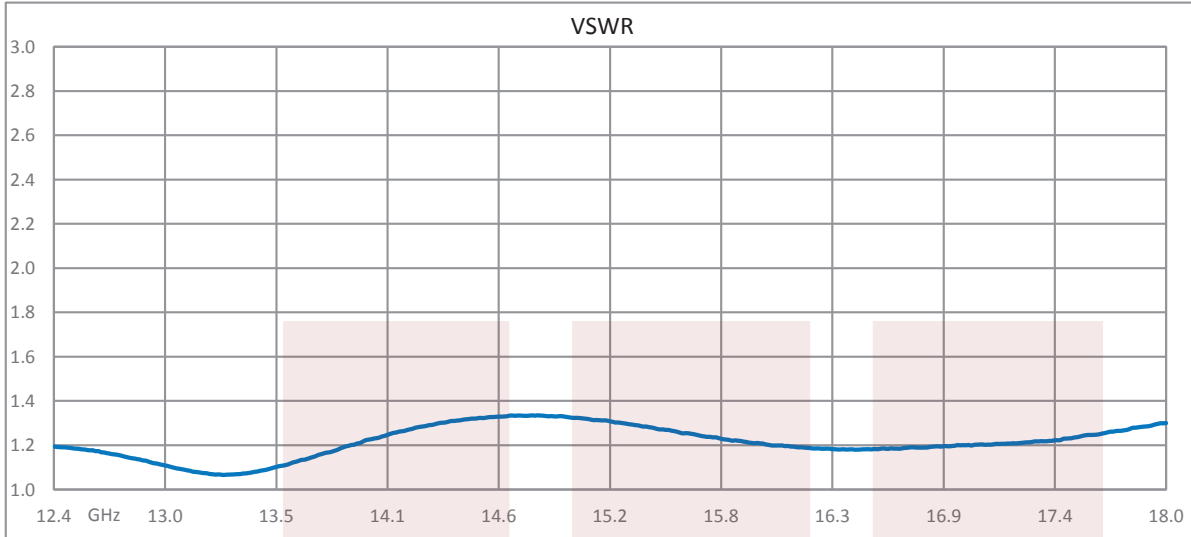
**Compliance Certifications** (see [product page](#) for current document)

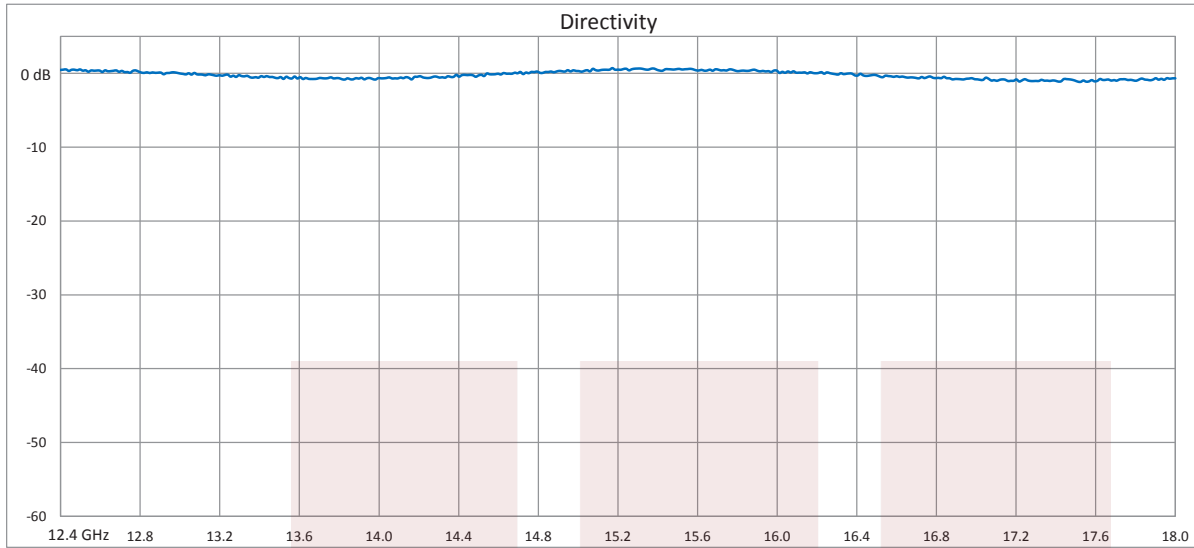
**Plotted and Other Data**

Notes:

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**Typical Performance Data**



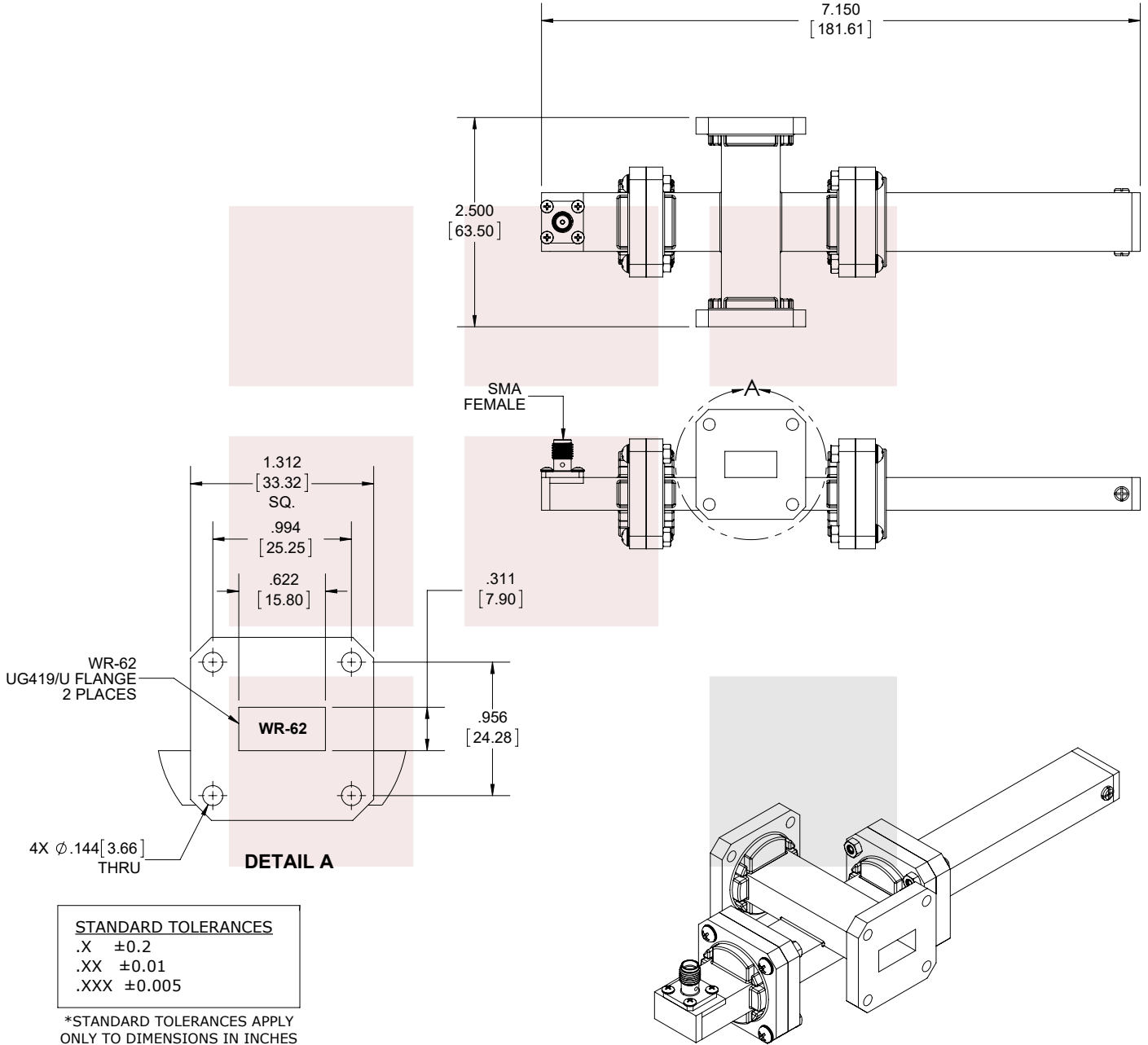


30 dB WR-62 Waveguide Crossguide Coupler with UG-419/U Square Cover Flange and SMA Female Coupled Port from 12.4 GHz to 18 GHz in Bronze from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [30 dB WR-62 Waveguide Crossguide Coupler with UG-419/U Square Cover Flange and SMA Female Coupled Port from 12.4 GHz to 18 GHz in Bronze FMWCT1057](https://www.fairviewmicrowave.com/30db-wr62-waveguide-crossguide-coupler-ug419-square-sma-18ghz-fmw-ct1057-p.aspx)

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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

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- NOTES:  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

TITLE  
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|                            |                 |                           |           |      |
|----------------------------|-----------------|---------------------------|-----------|------|
| DWG NO<br><b>FMWCT1057</b> |                 | CAGE CODE<br><b>3FKR5</b> |           |      |
| CAD FILE<br>062617         | SHEET<br>1 OF 1 | SCALE<br>N/A              | SIZE<br>A | 9999 |