

## 40 dB WR-75 Waveguide Crossguide Coupler With Square Cover Flange And None Coupled Port, 10 GHz to 15 GHz

The FMWCP1053 is a WR-75 crossguide waveguide coupler that operates in the frequency range of 10 to 15 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-75 waveguide coupler uses standard square cover flanges. Fairview offers a complete family of waveguide Crossguide and Top wall couplers that are in-stock and ship same day.

### Electrical Specifications\*

| Description            | Min | Typ    | Max | Units |
|------------------------|-----|--------|-----|-------|
| Frequency Range        | 10  |        | 15  | GHz   |
| Directivity            |     | 15     |     | dB    |
| Insertion Loss         |     | 0.1    |     | dB    |
| Main Line VSWR         |     | 1.05:1 |     |       |
| Nominal Coupling Level |     | 40     |     | dB    |

\* Values at 25°C, sea level

### Mechanical Specifications

#### Size

|            |                       |
|------------|-----------------------|
| Length     | 2.75 in [69.85 mm]    |
| Width/Dia. | 2.75 in [69.85 mm]    |
| Weight     | 0.9002 lbs [408.32 g] |

#### Configuration

|                                |                      |
|--------------------------------|----------------------|
| Design                         | None Crossguide      |
| Size                           | WR-75                |
| Waveguide Material and Plating | Copper Alloy, Silver |

#### Input Flange

|             |              |
|-------------|--------------|
| Flange Type | Square Cover |
| Material    | Copper Alloy |
| Plating     | Silver       |

#### Output Flange

|             |              |
|-------------|--------------|
| Flange Type | Square Cover |
| Material    | Copper Alloy |
| Plating     | Silver       |

#### Coupled Flange(s)

|             |              |
|-------------|--------------|
| Flange Type | Square Cover |
| Material    | Copper Alloy |
| Plating     | Silver       |

### Compliance Certifications (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

|                 |            |
|-----------------|------------|
| RoHS Compliant  | Yes        |
| REACH Compliant | 12/17/2015 |



### Features:

- Crossguide Waveguide Coupler
- 40 dB Nominal Coupling Level
- 10 GHz to 15 GHz Frequency Range
- Body and Flanges made of Copper Alloy
- Low VSWR

### Applications:

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

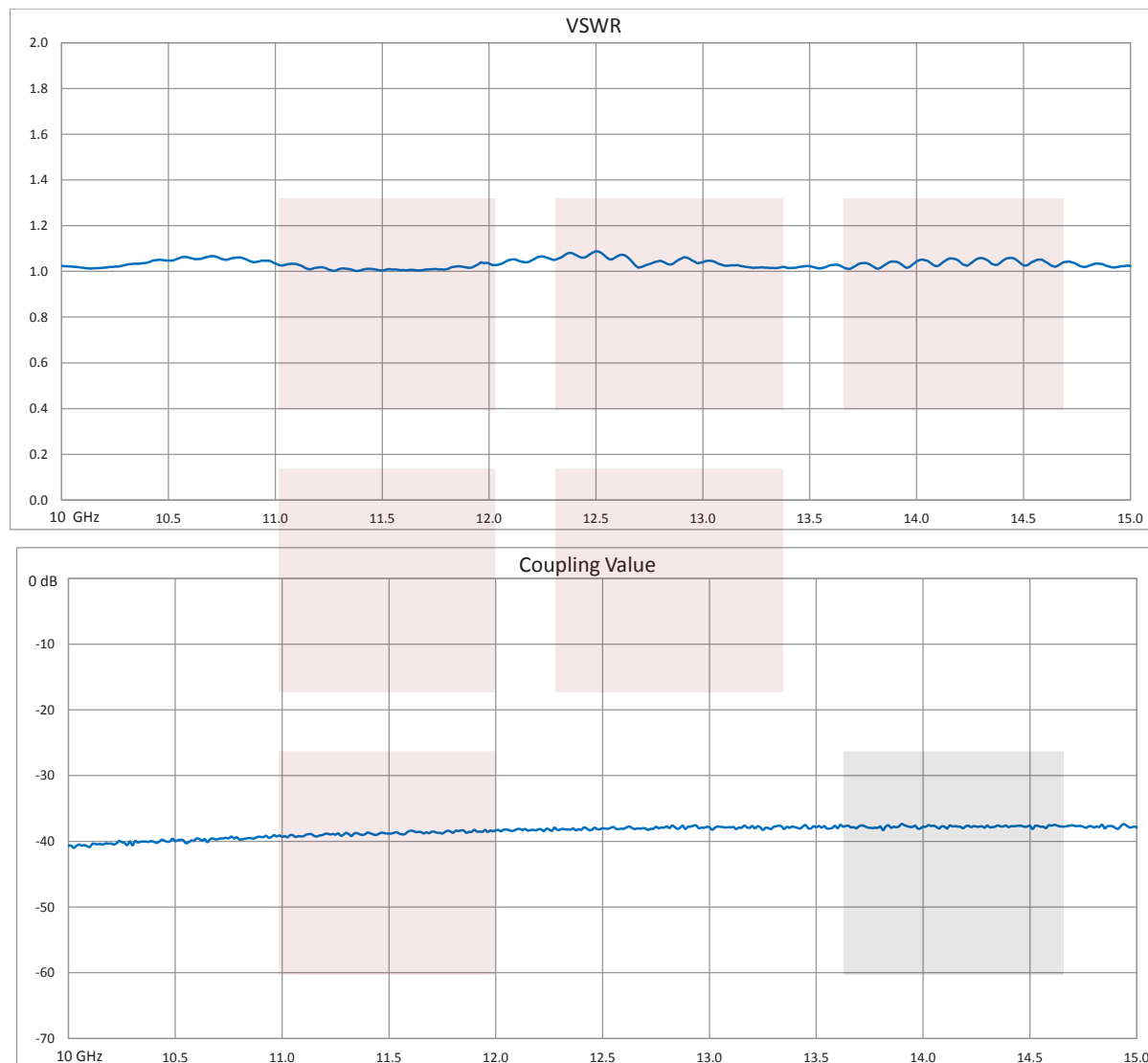
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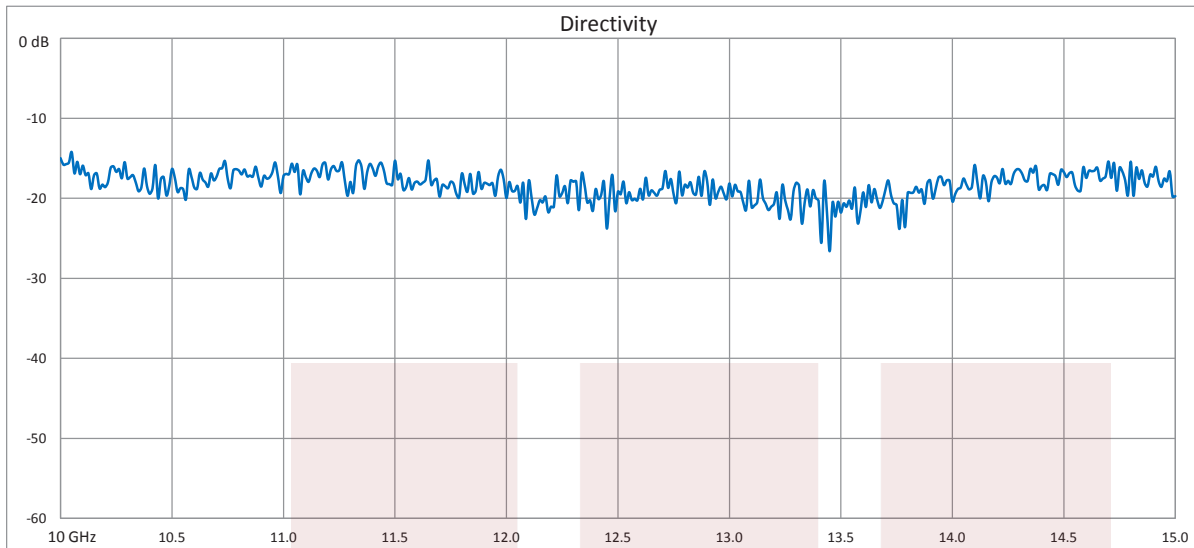
## Plotted and Other Data

Notes:

- Values at 25 °C, sea level

## Typical Performance Data



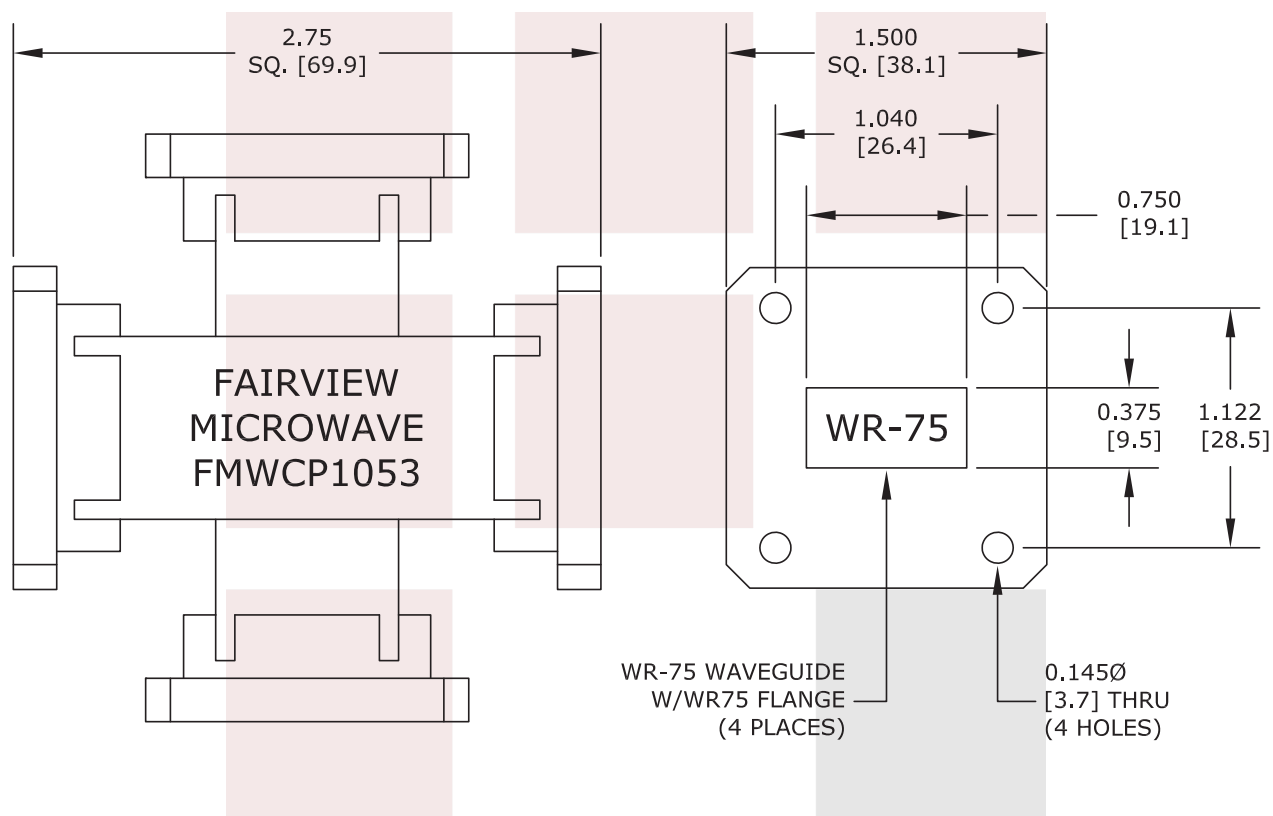


40 dB WR-75 Waveguide Crossguide Coupler With Square Cover Flange And None Coupled Port, 10 GHz to 15 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [40 dB WR-75 Waveguide Crossguide Coupler With Square Cover Flange And None Coupled Port, 10 GHz to 15 GHz FMWCP1053](#)

URL: <http://www.fairviewmicrowave.com/wr-75-40-db-waveguide-crossguide-coupler-square-none-fmwcp1053-p.aspx>

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|--------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|------|
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| TITLE<br>40 dB WR-75 Waveguide Crossguide Coupler With Square Cover Flange And None Coupled Port, 10 GHz to 15 GHz | DWG NO<br>FMWCP1053 |                                                                                                                                                                                     | CAGE CODE<br>3FKR5 |           |      |
|                                                                                                                    | CAD FILE<br>021816  | SHEET                                                                                                                                                                               | SCALE<br>N/A       | SIZE<br>A | 2233 |