

**20 dB WR-90 Waveguide Crossguide Coupler With UG-39/U Square Cover Flange And None Coupled Port, 8.2 GHz to 12.4 GHz**

The FMWCP1055 is a WR-90 crossguide waveguide coupler that operates in the frequency range of 8.2 to 12.4 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-90 waveguide coupler uses standard UG-39/U square cover 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
- 20 dB Nominal Coupling Level
- 8.2 GHz to 12.4 GHz Frequency Range
- Body and Flanges made of Copper Alloy
- Low VSWR

**Electrical Specifications\***

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
Directivity		20		dB
Insertion Loss		0.1		dB
Main Line VSWR		1.05:1		
Nominal Coupling Level		20		dB

\* Values at 25°C, sea level

**Applications:**

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

**Mechanical Specifications**

**Size**

Length 3 in [76.2 mm]  
 Width/Dia. 3 in [76.2 mm]  
 Weight 0.97 lbs [439.98 g]

**Configuration**

Design None Crossguide  
 Size WR-90  
 Waveguide Material and Plating Copper Alloy, Silver

**Input Flange**

Flange Type Square Cover  
 Flange Designation UG-39/U  
 Material Copper Alloy  
 Plating Silver

**Output Flange**

Flange Type Square Cover  
 Flange Designation UG-39/U  
 Material Copper Alloy  
 Plating Silver

**Coupled Flange(s)**

Flange Type Square Cover  
 Flange Designation UG-39/U  
 Material Copper Alloy  
 Plating Silver

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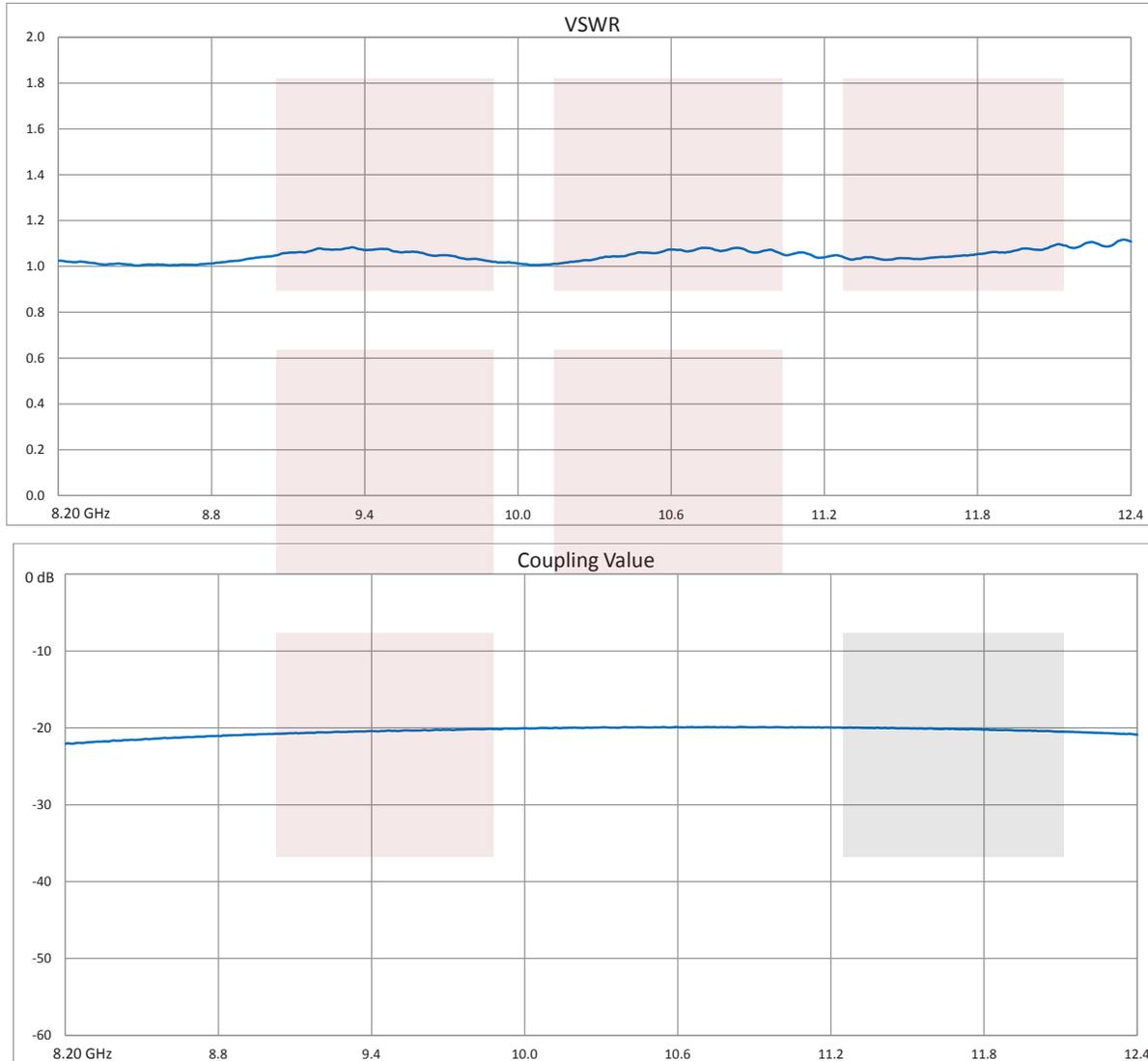
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

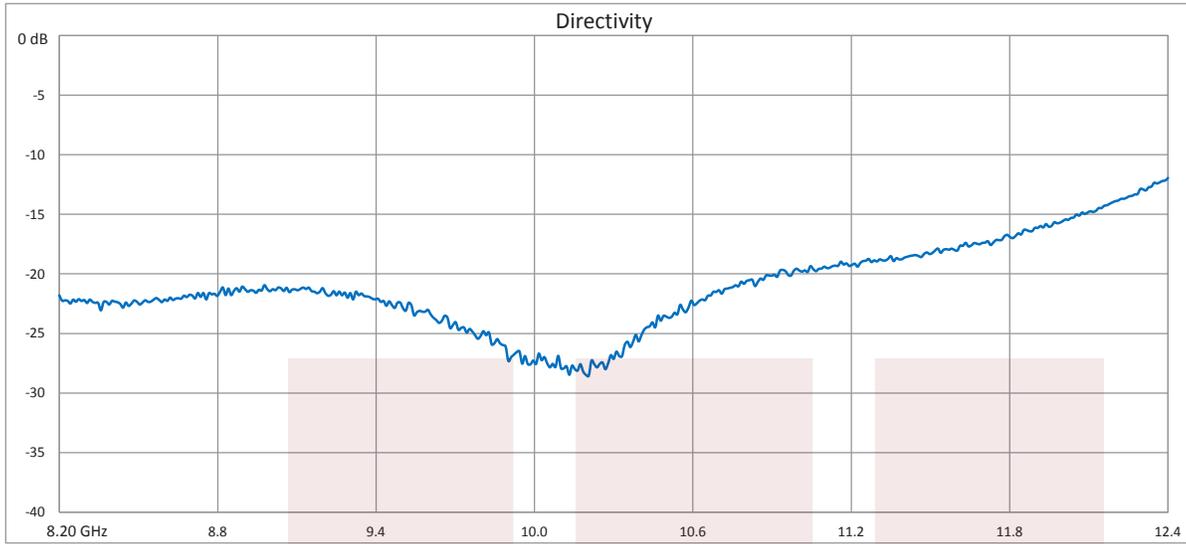
RoHS Compliant Yes  
 REACH Compliant 12/17/2015

**Plotted and Other Data**

- Notes:  
 • Values at 25 °C, sea level

**Typical Performance Data**



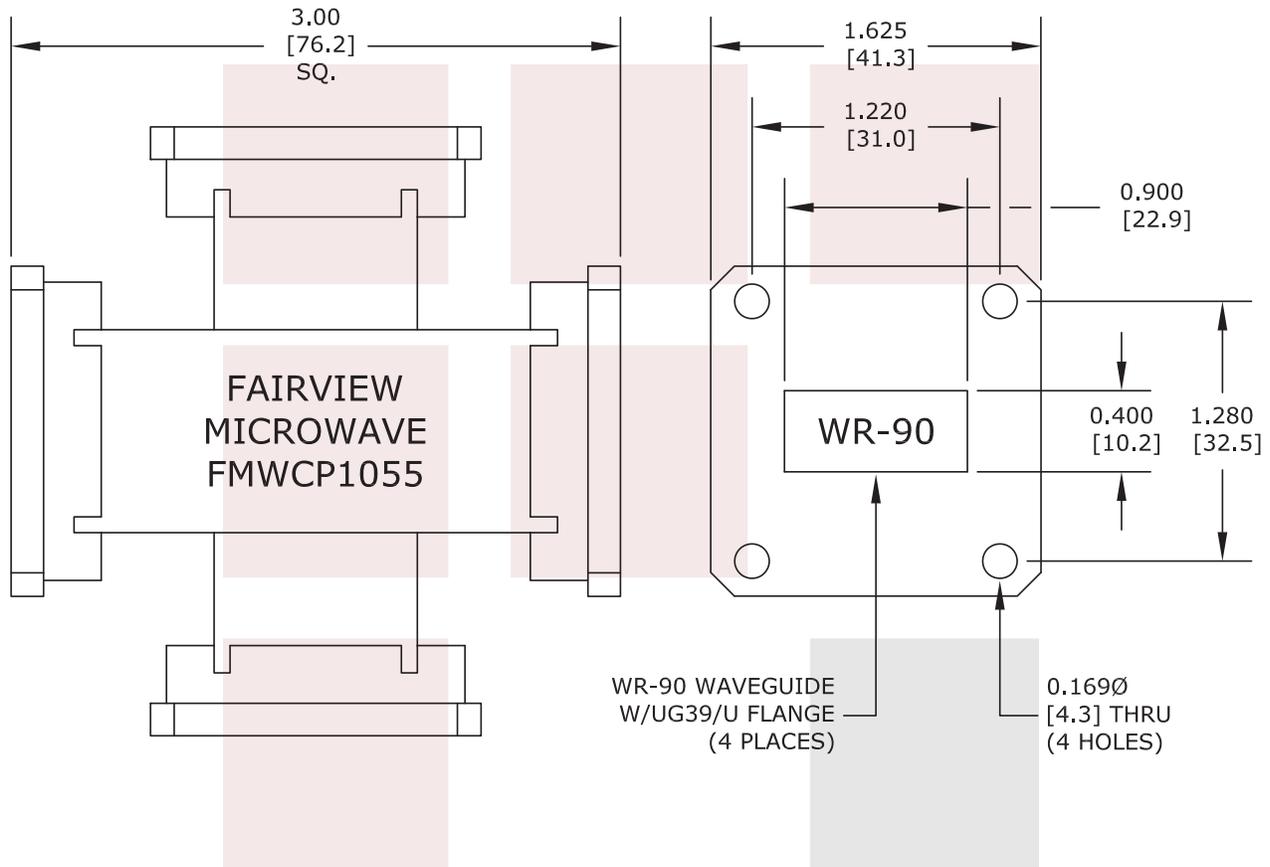


20 dB WR-90 Waveguide Crossguide Coupler With UG-39/U Square Cover Flange And None Coupled Port, 8.2 GHz to 12.4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-90 Waveguide Crossguide Coupler With UG-39/U Square Cover Flange And None Coupled Port, 8.2 GHz to 12.4 GHz FMWCP1055](http://www.fairviewmicrowave.com/wr-90-20-db-waveguide-crossguide-coupler-ug39-square-none-fmwcp1055-p.aspx)

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TITLE 20 dB WR-90 Waveguide Crossguide Coupler With UG-39/U Square Cover Flange And None Coupled Port, 8.2 GHz to 12.4 GHz		DWG NO FMWCP1055		CAGE CODE 3FKR5	
CAD FILE	021816	SHEET	SCALE	N/A	SIZE A 2233