

**20 dB WR-90 Directional Waveguide Broadwall Coupler With UG-39/U Square Cover Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz**

The FMWCP1018 is a WR-90 Directional Broadwall 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 broad wall configuration that result in a mid-band nominal coupling value of 10, 20, or 30 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. Fairview Microwave offers a complete family of waveguide Crossguide and Broadwall couplers that are in-stock and ship same day.



**Features:**

- Broadwall 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

**Applications:**

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

**Electrical Specifications\***

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
Directivity		40		dB
Insertion Loss		0.15		dB
Main Line VSWR		1.05:1		
Nominal Coupling Level		20		dB

\* Values at 25°C, sea level

**Mechanical Specifications**

**Size**

Length 16.68 in [423.67 mm]  
Height 2.742 in [69.65 mm]

**Configuration**

Design Directional E-Plane Broadwall  
Size WR-90

**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

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

RoHS Compliant Yes  
REACH Compliant 12/17/2015

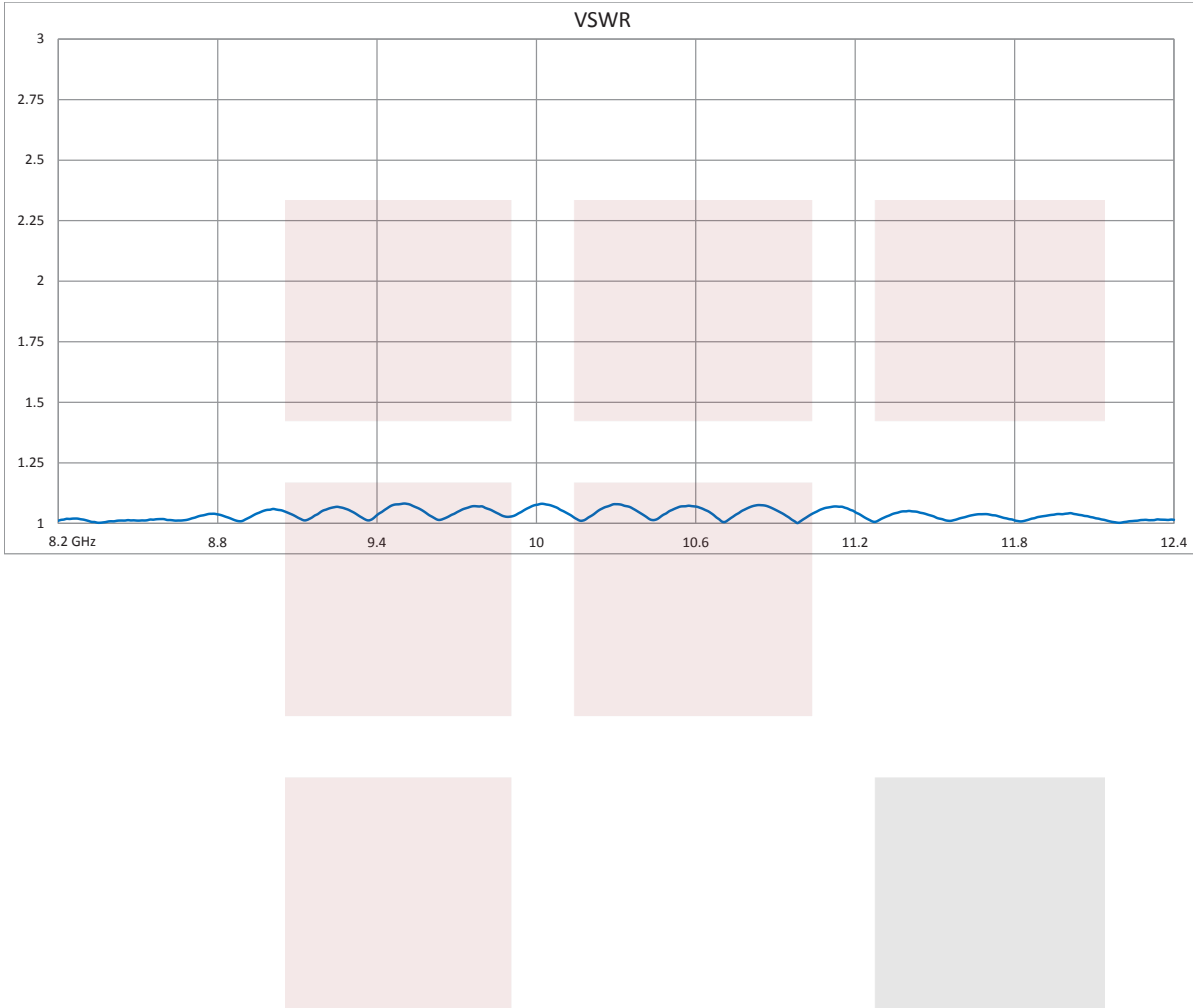
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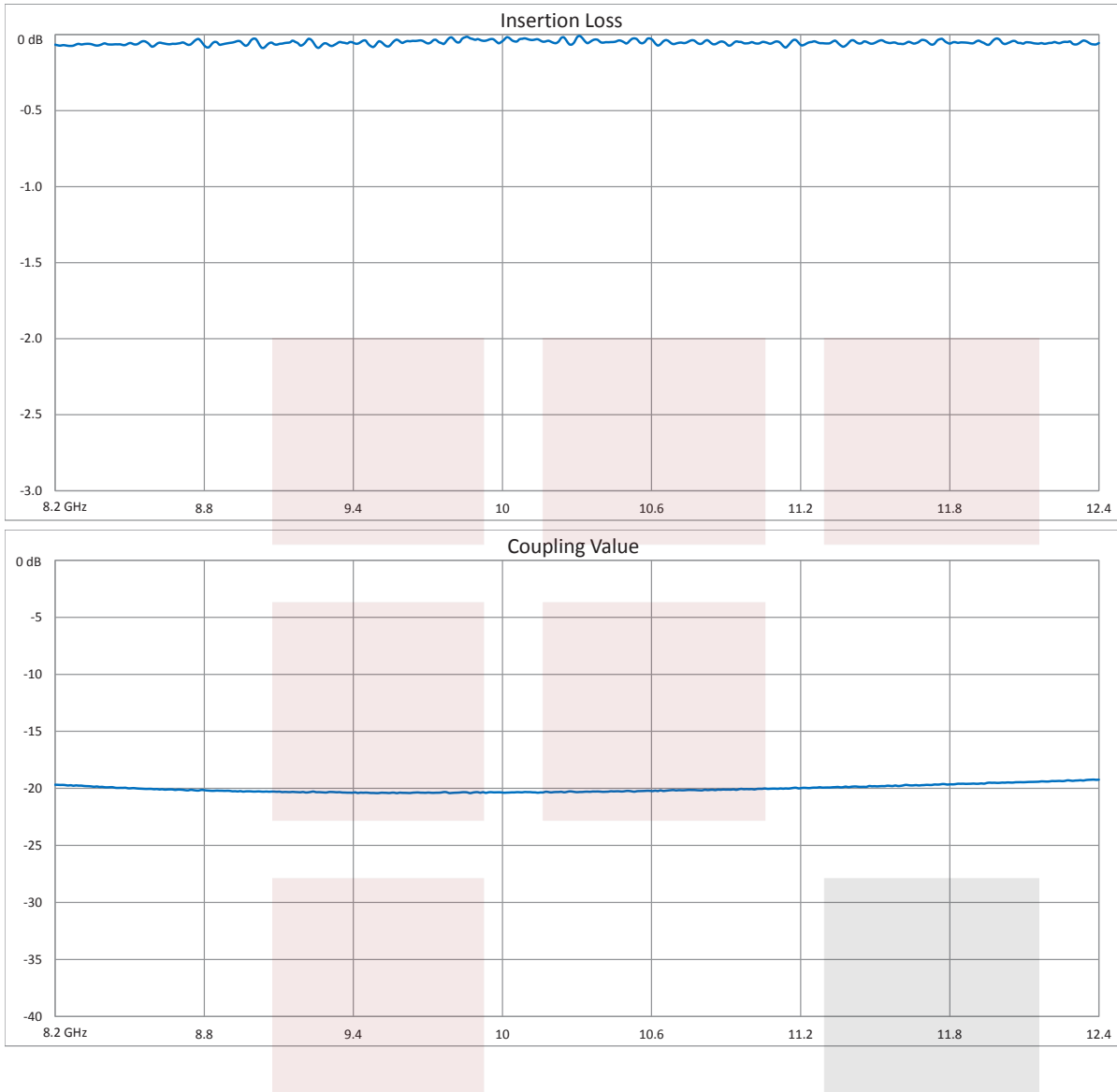
**Plotted and Other Data**

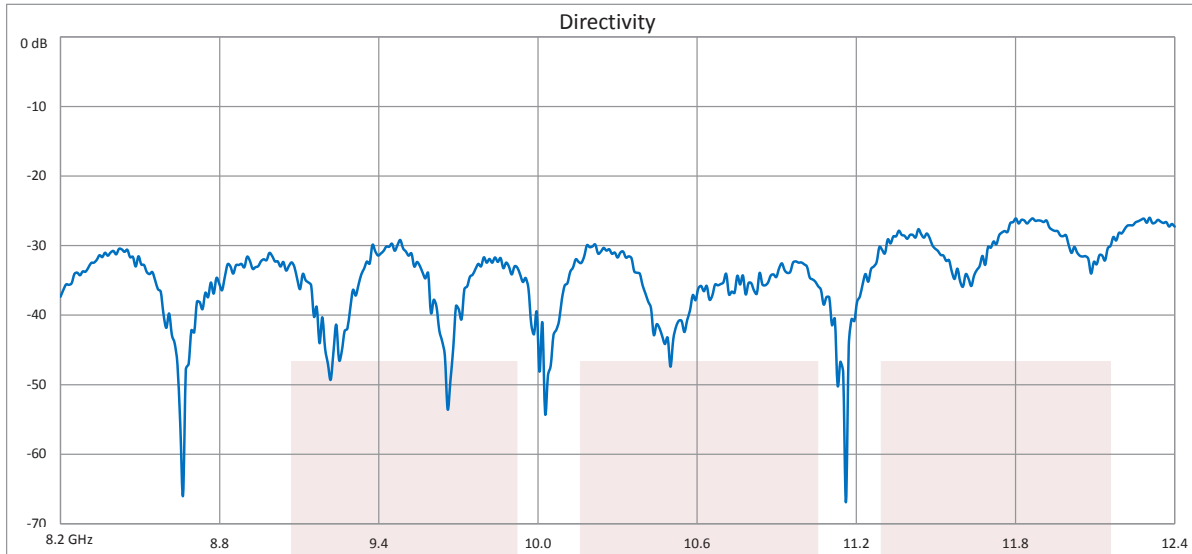
Notes:

- Values at 25 °C, sea level

**Typical Performance Data**





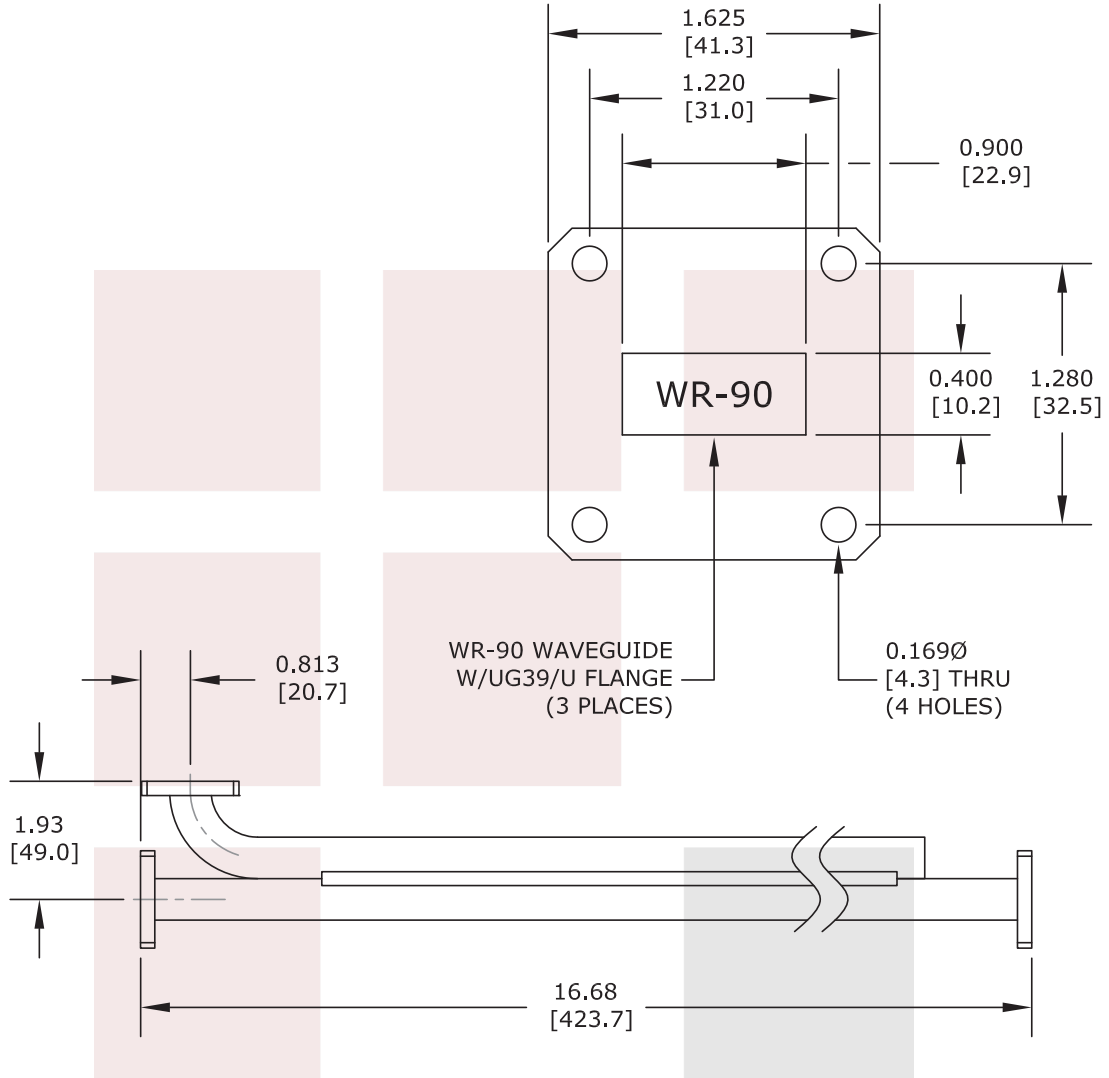


20 dB WR-90 Directional Waveguide Broadwall Coupler With UG-39/U Square Cover Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-90 Directional Waveguide Broadwall Coupler With UG-39/U Square Cover Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz FMWCP1018](https://www.fairviewmicrowave.com/20-db-wr-90-directional-waveguide-broadwall-coupler-ug39-square-e-fmw-cp1018-p.aspx)

URL: <https://www.fairviewmicrowave.com/20-db-wr-90-directional-waveguide-broadwall-coupler-ug39-square-e-fmw-cp1018-p.aspx>

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UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES.

DECIMALS	ANGLES
.X ±.030	±1/2 DEG.
.XX ±.015	FRACTIONS
.XXX ±.005	±1/32

\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

<b>FAIRVIEW MICROWAVE INC.</b>		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].			
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		DWG NO <b>FMWCP1018</b>		CAGE CODE <b>3FKR5</b>	
TITLE 20 dB WR-90 Directional Waveguide Broadwall Coupler With UG-39/U Square Cover Flange and E-Plane Coupled Port from 8.2 GHz to 12.4 GHz		CAD FILE 041516	SHEET	SCALE N/A	SIZE A 2233