

20 dB WR-51 Directional Waveguide Broadwall Coupler With Square Cover Flange and E-Plane Coupled Port from 15 GHz to 22 GHz

The FMWCP1009 is a WR-51 Directional Broadwall waveguide coupler that operates in the frequency range of 15 to 22 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.



Electrical Specifications*

Description	Min	Typ	Max	Units
Frequency Range	15		22	GHz
Directivity		35		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 12 in [304.8 mm]
Height 2.776 in [70.51 mm]

Configuration

Design Directional E-Plane Broadwall
Size WR-51

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 for current document)

RoHS Compliant Yes
REACH Compliant 12/17/2015

Features:

- Broadwall Waveguide Coupler
- 20 dB Nominal Coupling Level
- 15 GHz to 22 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

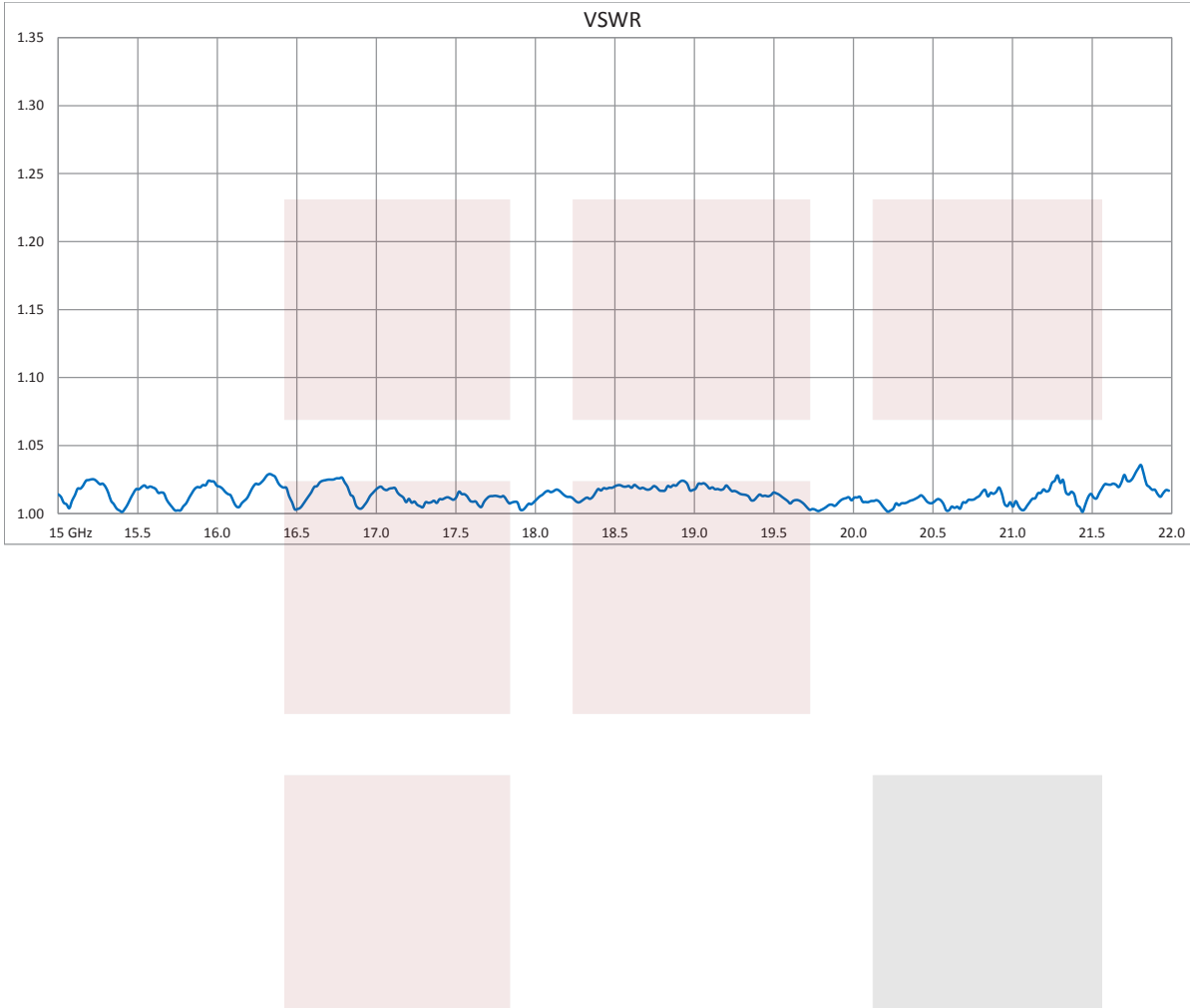
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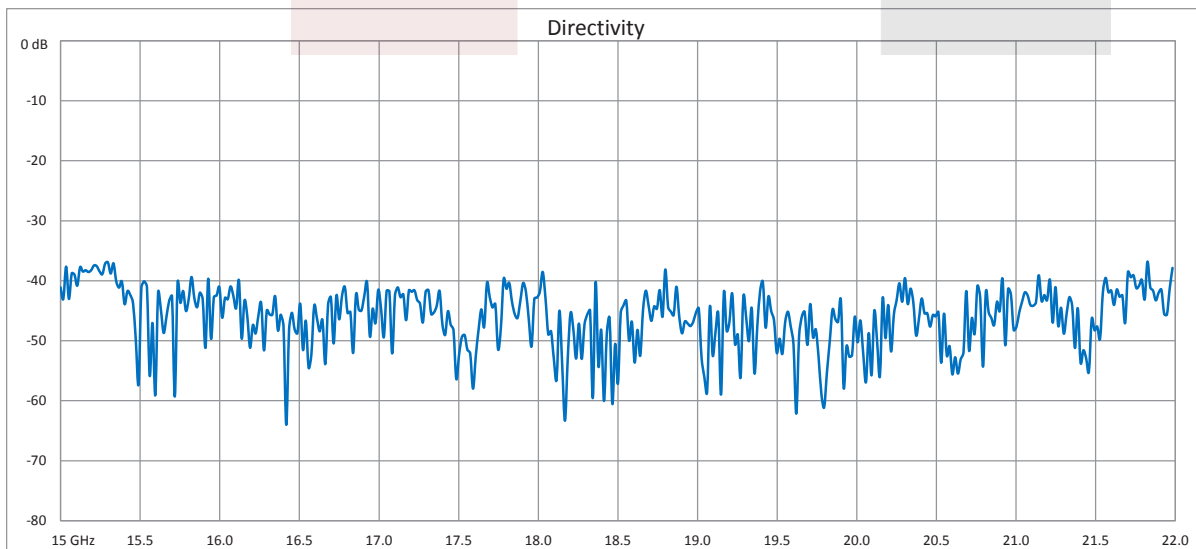
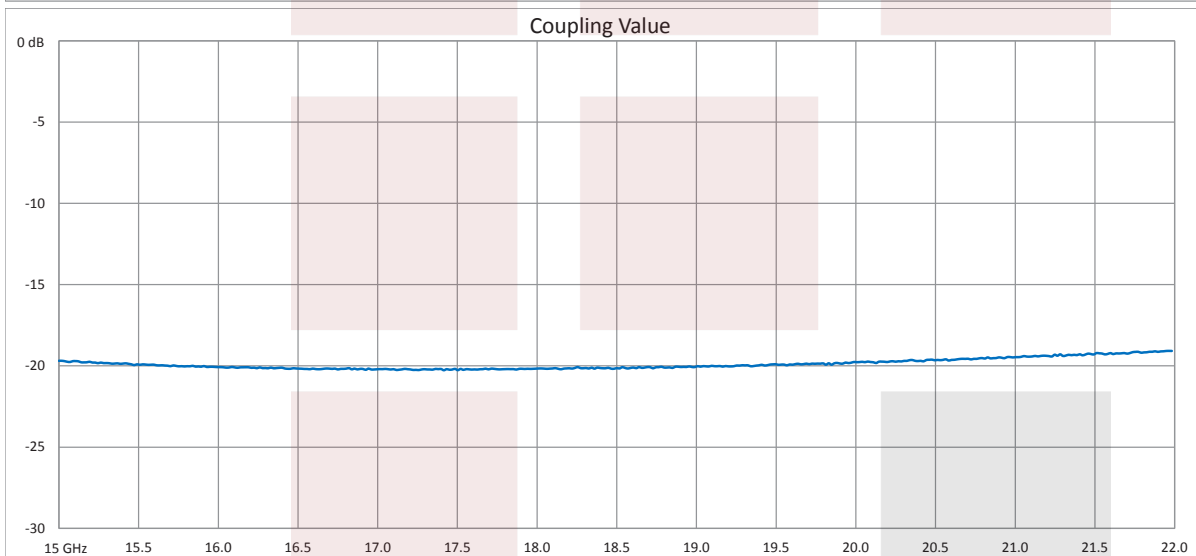
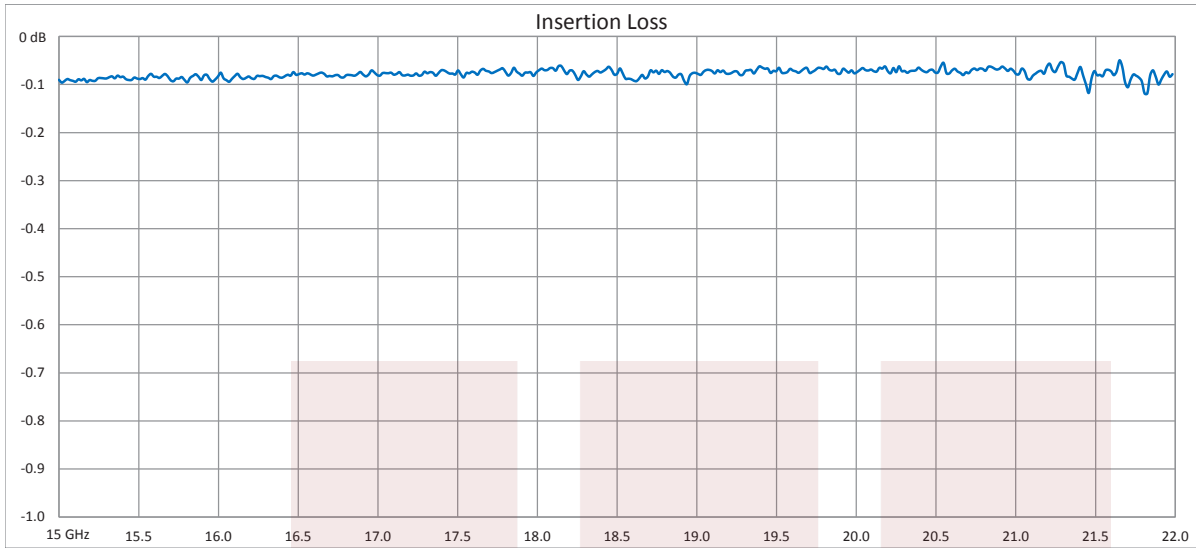
Plotted and Other Data

Notes:

- Values at 25 °C, sea level

Typical Performance Data





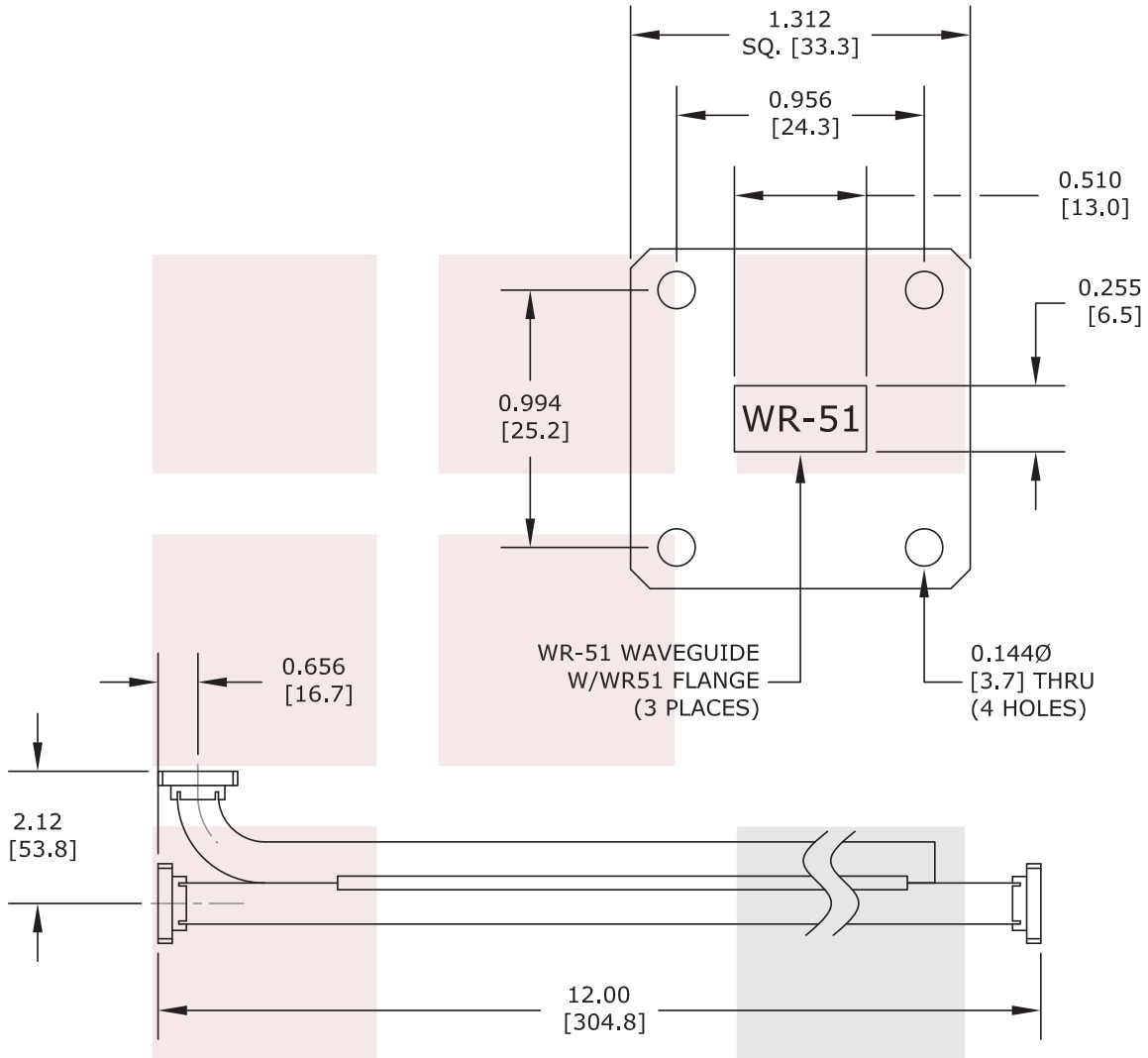
20 dB WR-51 Directional Waveguide Broadwall Coupler With Square Cover Flange and E-Plane Coupled Port from 15 GHz to 22 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-51 Directional Waveguide Broadwall Coupler With Square Cover Flange and E-Plane Coupled Port from 15 GHz to 22 GHz FMWCP1009](#)

URL: <https://www.fairviewmicrowave.com/20-db-wr-51-directional-waveguide-broadwall-coupler-square-e-fmwcp1009-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.

FAIRVIEW MICROWAVE INC.		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 FMWCP1009		CAGE CODE 3FKR5	
TITLE 20 dB WR-51 Directional Waveguide Broadwall Coupler With Square Cover Flange and E-Plane Coupled Port from 15 GHz to 22 GHz		CAD FILE 051016	SHEET	SCALE N/A	SIZE A 2233