

20 dB WR-15 Waveguide Broadwall Coupler with UG-385/U Round Cover Flange and E-Plane Coupled Port from 50 GHz to 75 GHz in Brass Copper

The FMWCP1080-20 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 50 to 75 GHz (V Band). This V band component offers a nominal coupling level of 20 dB, mean coupling accuracy of +/- 1, coupling flatness of 1.5 dB, and has a maximum VSWR level of 1.1:1. The design is made of gold brass copper and incorporates a multi-hole configuration that results in typical directivity of 40 dB. Common applications for this millimeter wave component involve test setups where power reflection measurements are required that might involve power sampling and frequency monitoring with minimal signal loss to the main transmission path. This E plane coupler uses integrated WR-15 waveguide ports with UG 385/U flanges. Fairview offers a complete family of waveguide millimeter wave directional couplers that are in-stock for same day shipment.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	50		75	GHz
Coupler				
Nominal Coupling Level		20		dB
Coupling Accuracy			±1	dB
Directivity		40		dB
Insertion Loss			1	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.15:1	
Coupling Flatness			±1.5	dB

Mechanical Specifications

Size

Length	6 in [152.4 mm]
Width	0.75 in [19.05 mm]
Height	1.375 in [34.93 mm]
Weight	0.31 lbs [140.61 g]

Interface

Waveguide Size	WR-15
Flange Type	Round Cover
Flange Designation	UG-385/U
Flange Material and Plating	Brass Copper, Gold
Coupler Body Material and Plating	Brass Copper, Gold

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

- 20 dB Nominal Coupling Level
- E-Plane Waveguide Coupler
- 50 GHz to 75 GHz Frequency Range
- Body and Flanges made of Brass Copper
- Gold Waveguide
- 1.1:1 VSWR

Applications:

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

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

20 dB WR-15 Waveguide Broadwall Coupler with UG-385/U Round Cover Flange and E-Plane Coupled Port from 50 GHz to 75 GHz in Brass Copper 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

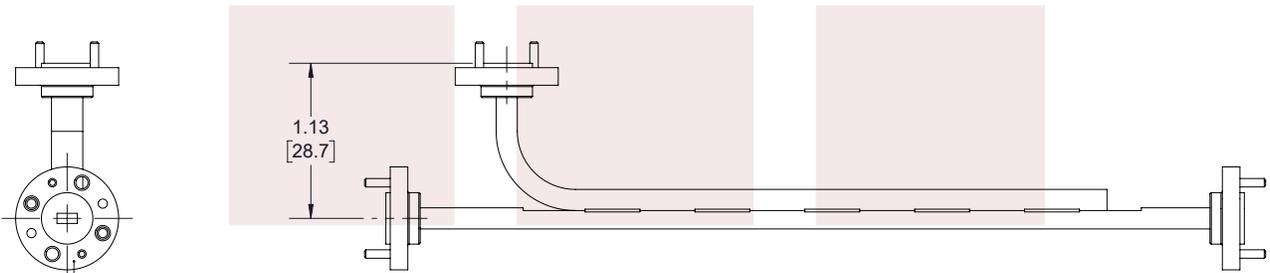
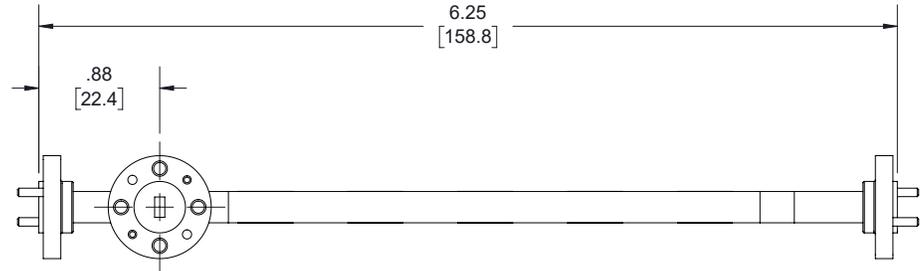
For additional information on this product, please click the following link: [20 dB WR-15 Waveguide Broadwall Coupler with UG-385/U Round Cover Flange and E-Plane Coupled Port from 50 GHz to 75 GHz in Brass Copper FMWCP1080-20](#)

URL: <https://www.fairviewmicrowave.com/20db-wr15-waveguide-broadwall-coupler-ug385-round-e-75ghz-fmwcp1080-20-p.aspx>

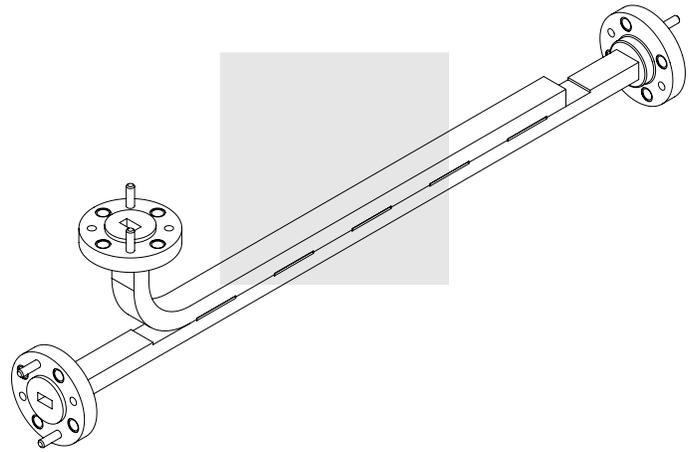
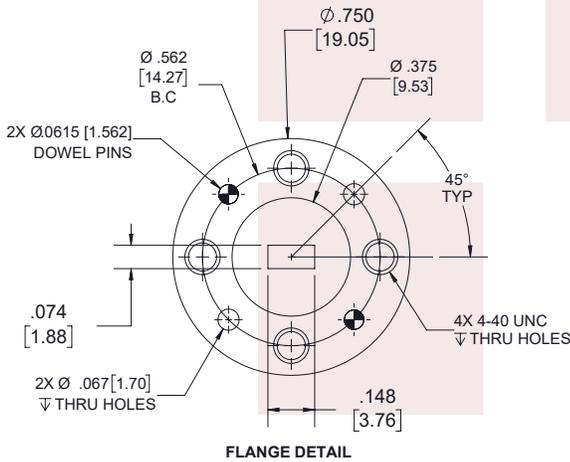
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to 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.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	7/9/2020	S.PONG



WR-15 WAVEGUIDE
UG-385/U ROUND COVER FLANGE
TYP



LABEL:

FAIRVIEW MICROWAVE
FMWCP1080-20
D/C: YYWW

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

TITLE
20 dB WR-15 Waveguide Broadwall Coupler with UG-385/U Round Cover Flange and E-Plane Coupled Port from 50 GHz to 75 GHz in Brass Copper

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [.51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.

SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMWCP1080-20	REV A
-----------	--------------------	--------------------	--------------------------	----------

T-Rev.D