

## 20 dB WR-28 Waveguide Broadwall Coupler with UG-599/U Square Cover Flange and E-Plane Coupled Port from 26.5 GHz to 40 GHz in Brass Copper

The FMW28CP010-20 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 26.5 to 40 GHz (Ka Band). This Ka band component offers a nominal coupling level of 20 dB, mean coupling accuracy of  $\pm 0.8$ , coupling flatness of 1 dB, and has a maximum VSWR level of 1.2:1. The design is made of gold plated brass copper and incorporates a multi-hole configuration that results in typical directivity of 30 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 lost to the main transmission path. This E plane coupler uses integrated WR-28 waveguide ports with UG 599-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	26.5		40	GHz
<b>Coupler</b>				
Nominal Coupling Level		20		dB
Coupling Accuracy			$\pm 0.8$	dB
Directivity		30		dB
Insertion Loss			0.6	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.2:1	
Coupling Flatness			$\pm 1$	dB

### Termination

### Mechanical Specifications

<b>Size</b>	
Length	7 in [177.8 mm]
Width	0.75 in [19.05 mm]
Height	1.55 in [39.37 mm]
Weight	0.176 lbs [79.83 g]

### Interface

Waveguide Size	WR-28
Flange Type	Square Cover
Flange Designation	UG-599/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
- 26.5 GHz to 40 GHz Frequency Range
- Body and Flanges made of Brass Copper
- Gold Plated Waveguide
- 1.2:1 VSWR

### Applications:

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

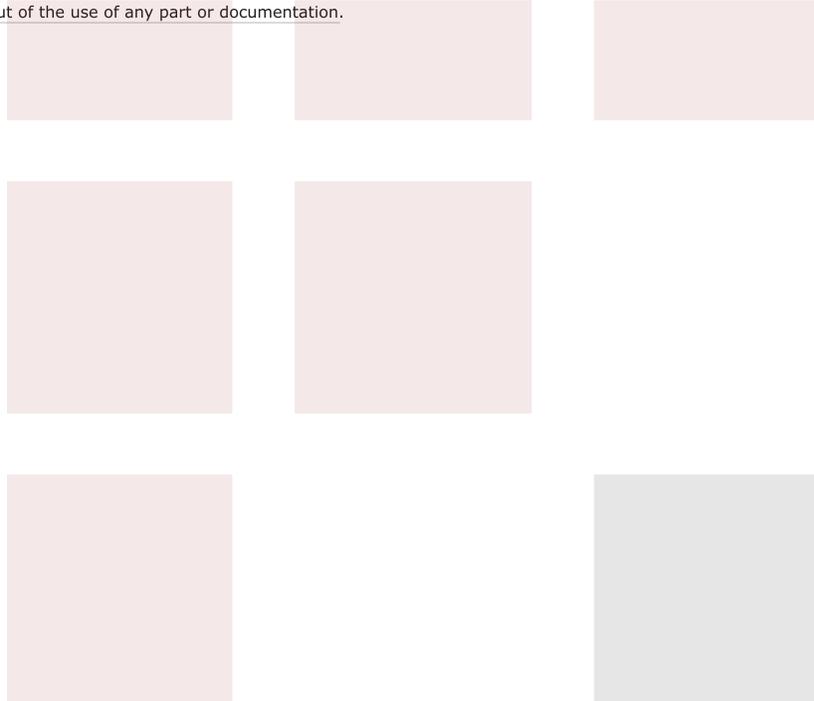
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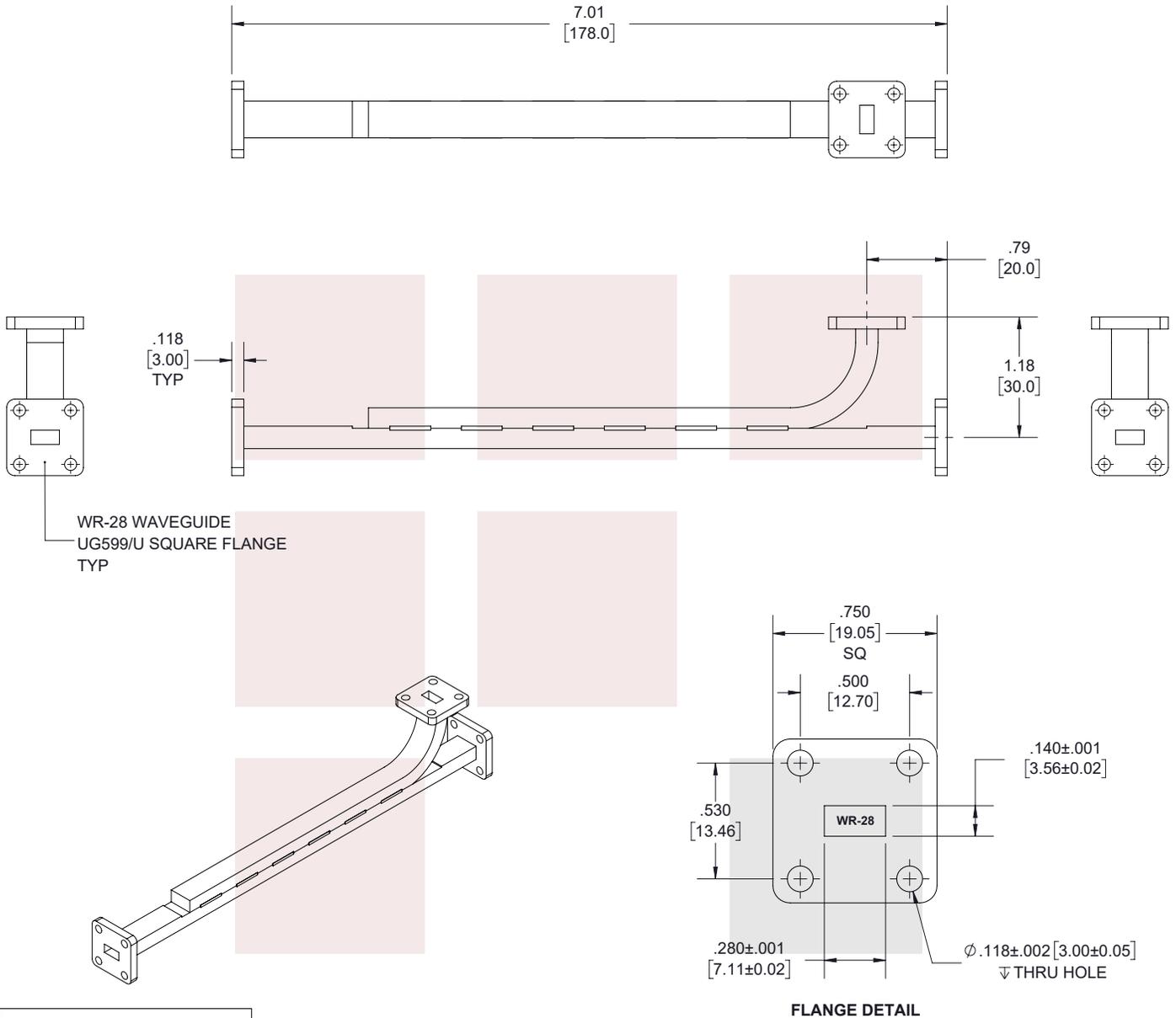
20 dB WR-28 Waveguide Broadwall Coupler with UG-599/U Square Cover Flange and E-Plane Coupled Port from 26.5 GHz to 40 GHz in Brass Copper from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB WR-28 Waveguide Broadwall Coupler with UG-599/U Square Cover Flange and E-Plane Coupled Port from 26.5 GHz to 40 GHz in Brass Copper FMW28CP010-20](#)

URL: <https://www.fairviewmicrowave.com/20db-wr28-waveguide-broadwall-coupler-ug599-square-e-40ghz-fmw28cp010-20-p.aspx>

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**STANDARD TOLERANCES**

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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].

TITLE 20 dB WR-28 Waveguide Broadwall Coupler with UG-599/U Square Cover Flange and E-Plane Coupled Port from 26.5 GHz to 40 GHz in Brass Copper	DWG NO <b>FMW22CP010-20</b>		CAGE CODE <b>3FKR5</b>			
	CAD FILE 07/05/19	SHEET 1 OF 1	SCALE N/A	SIZE A	7361	