

## 30 dB WR-42 Waveguide Broadwall Coupler with UG Cover Flange and 2.92mm Female Coupled Port from 17.6 GHz to 26.7 GHz in Copper

The FMW42CP005-30 is a WR-42 Directional Broadwall waveguide coupler with 2.92mm female coupled port that operates in the frequency range of 17.6 to 26.7 GHz. This Waveguide component has a maximum VSWR of 1.5:1. 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, 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. 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	17.6		26.7	GHz
<b>Coupler</b>				
Nominal Coupling Level		30		dB
Directivity	30			dB
Insertion Loss			0.2	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.5:1	
Coupling Flatness			±0.7	dB
Input Power (CW)			150	Watts
Input Power Peak			50	kWatts

### Mechanical Specifications

<b>Size</b>	
Length	7.28 in [184.91 mm]
Width	0.88 in [22.35 mm]
Height	0.88 in [22.35 mm]
Weight	0.28 lbs [127.01 g]
Flange Type	UG Cover
Flange Material and Plating	Copper, Gold
RF Connector Type	2.92mm Female
Coupler Body Material and Plating	Copper, Gold

### Environmental Specifications

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

### Plotted and Other Data

Notes:



### Features:

- Three Port Broadwall Waveguide Coupler
- 30±0.7 dB Nominal Coupling Level
- Integrated 2.92mm Female Connector coupled port
- 17.6 GHz to 26.7 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 150W (CW)

### Applications:

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

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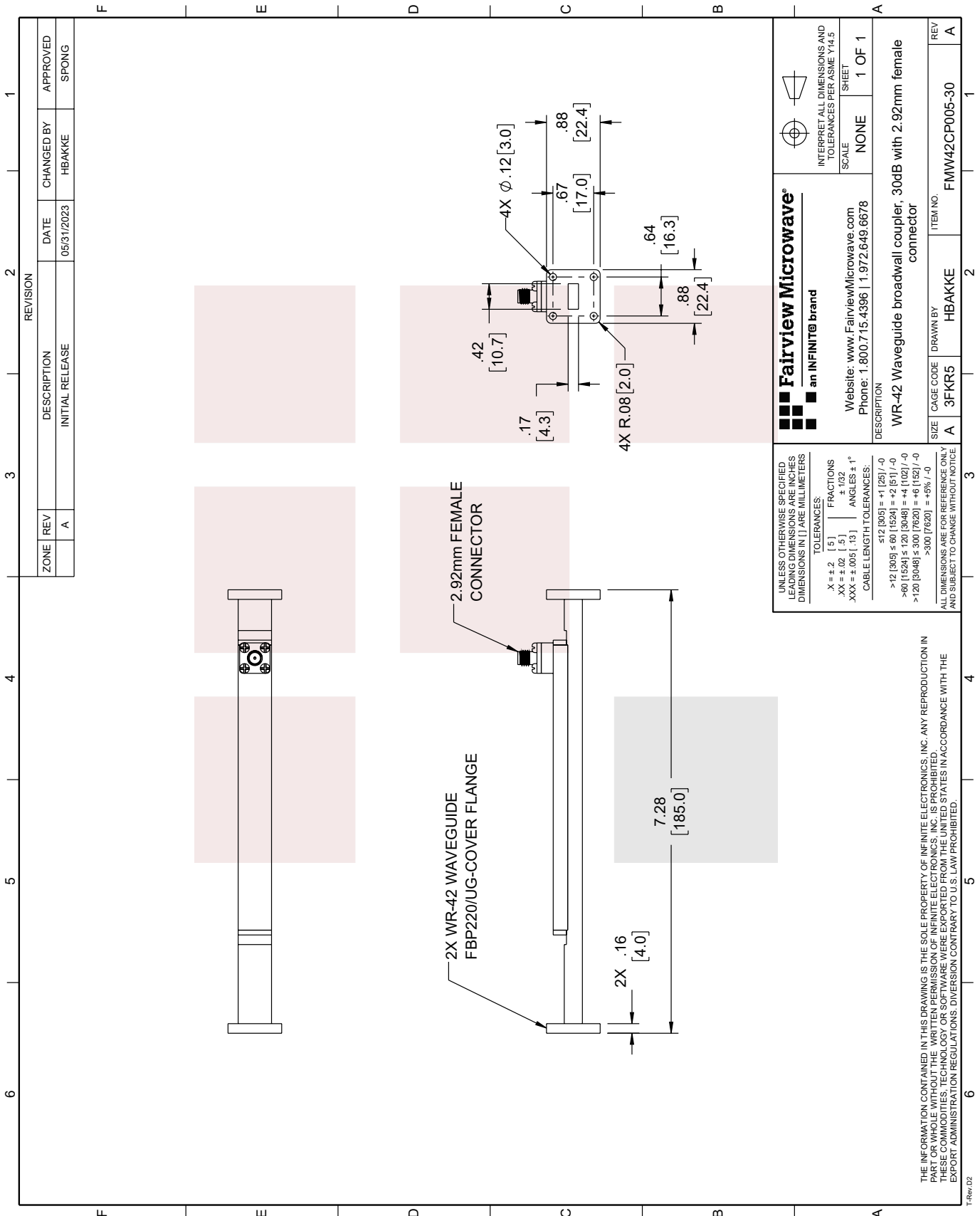
30 dB WR-42 Waveguide Broadwall Coupler with UG Cover Flange and 2.92mm Female Coupled Port from 17.6 GHz to 26.7 GHz in Copper from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [30 dB WR-42 Waveguide Broadwall Coupler with UG Cover Flange and 2.92mm Female Coupled Port from 17.6 GHz to 26.7 GHz in Copper FMW42CP005-30](#)

URL: <https://www.fairviewmicrowave.com/30db-wr42-waveguide-broadwall-coupler-ug-26.7mhz-fmw42cp005-30-p.aspx>

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ZONE		REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
A			INITIAL RELEASE	05/31/2023	HBAKKE	SPONG

REVISION	
1	

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
SCALE: NONE  
SHEET: 1 OF 1

DESCRIPTION:  
WR-42 Waveguide broadband coupler, 30dB with 2.92mm female connector

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	HBAKKE	FMW42CP005-30

REV A

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

TOLERANCES:  
 .X ± .2 [ .5 ] FRACTIONS  
 .XX ± .02 [ .5 ] ± .132 ANGLES ± 1°  
 .XXX ± .005 [ .13 ]

CABLE LENGTH TOLERANCES:  
 ≤12 [305] = +1 [25] / -0  
 >12 [305] ≤ 60 [1524] = +2 [51] / -0  
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = +6 [152] / -0  
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

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