

## 30 dB WR-90 Waveguide Broadwall Coupler with UG Cover Flange and N-Type Female Coupled Port from 8.2 GHz to 12.5 GHz in Copper

The FMW90CP001-30 is a WR-90 Directional Broadwall waveguide coupler with N female coupled port that operates in the frequency range of 8.2 to 12.5 GHz. This Waveguide component has a maximum VSWR of 1.25:1. 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	8.2		12.5	GHz
<b>Coupler</b>				
Nominal Coupling Level		30		dB
Directivity	30			dB
Insertion Loss			0.15	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.25:1	
Coupling Flatness			±0.7	dB
Input Power (CW)			300	Watts
Input Power Peak			200	kWatts

### Mechanical Specifications

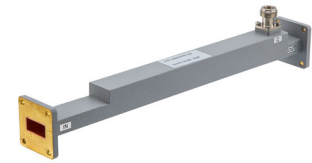
<b>Size</b>	
Length	11.81 in [299.97 mm]
Width	1.63 in [41.4 mm]
Height	1.63 in [41.4 mm]
Weight	1.13 lbs [512.56 g]
Flange Type	UG Cover
Flange Material and Plating	Copper, Passivated
RF Connector Type	N Female
Coupler Body Material and Plating	Copper, Passivated

### 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 N Female Connector coupled port
- 8.2 GHz to 12.5 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 300W (CW)

### Applications:

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

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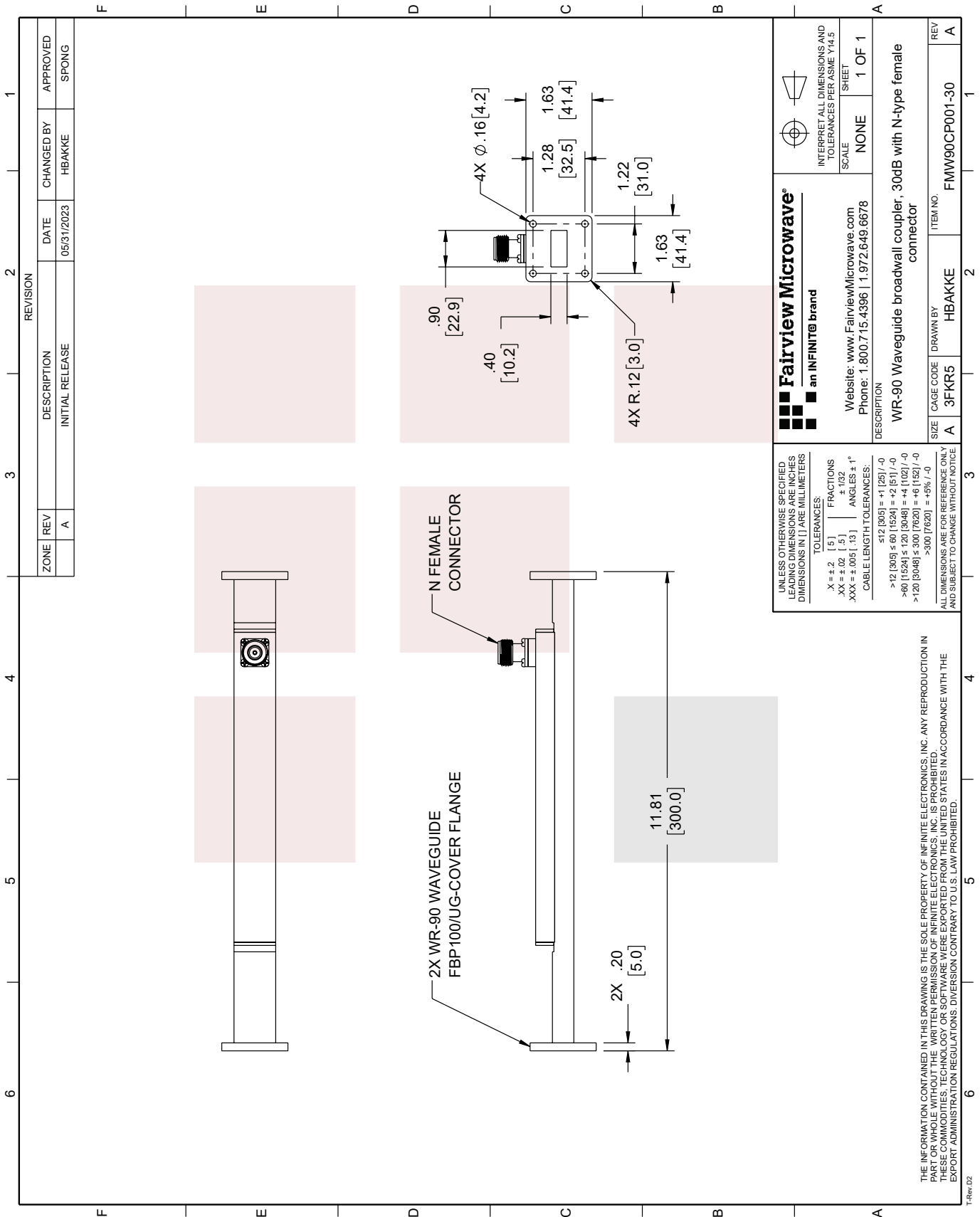
30 dB WR-90 Waveguide Broadwall Coupler with UG Cover Flange and N-Type Female Coupled Port from 8.2 GHz to 12.5 GHz in Copper from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [30 dB WR-90 Waveguide Broadwall Coupler with UG Cover Flange and N-Type Female Coupled Port from 8.2 GHz to 12.5 GHz in Copper FMW90CP001-30](#)

URL: <https://www.fairviewmicrowave.com/30db-wr90-waveguide-broadwall-coupler-ug-12.5mhz-fmw90cp001-30-p.aspx>

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ZONE		REVISION		DATE		APPROVED	
A	1	INITIAL RELEASE	05/31/2023	HBAKKE	SPONG		

<p><b>Fairview Microwave</b> an INFINIT<sup>®</sup> brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>	
<p>DESCRIPTION: WR-90 Waveguide broadband coupler, 30dB with N-type female connector</p>			
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: HBAKKE	ITEM NO.: FMW90CP001-30

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

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [.5]  
 .XXX = ±.005 [.13]

FRACTIONS: ±.132  
 ANGLES: ± 1°

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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