

30 dB WR-229 Waveguide Loop Coupler, CPR229F Flange, N Female Coupled Port, 3.22 GHz to 4.9 GHz in Aluminum



**FMWCP1104N-30**

**Features**

- Three Port Broadwall Waveguide Coupler
- 30±0.7 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 3.22 GHz to 4.9 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 2kW (CW)

**Applications**

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

**Description**

The FMWCP1104N-30 is a WR-229 Directional Loop waveguide coupler with N female coupled port that operates in the frequency range of 3.22 to 4.9 GHz. This Waveguide component has a maximum VSWR of 1.4:1. These designs are made of painted aluminum and incorporate a Loop 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, Loop and Broadwall couplers that are in-stock and ship same day.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	3.22		4.9	GHz
<b>Coupler</b>				
Nominal Coupling Level		30		dB
Coupling Accuracy		±0.7		dB
Directivity	15			dB
Insertion Loss			0.2	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.4:1	
Input Power (CW)			2	kWatts
Input Power, Peak			500	kWatts

**Mechanical Specifications**

**Size**

- Length 6.299213 in [160 mm]
- Width 3.874016 in [98.4 mm]
- Height 2.751969 in [69.9 mm]
- Weight 1.76 lbs [798.32 g]

**Interface**

- Waveguide Size WR-229
- Flange Type CPR-229F
- Flange Material and Plating Aluminum, Chromate Conversion
- RF Connector Type N Female

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Coupler Body Material and Plating

Aluminum, Chromate Conversion

### Environmental Specifications

#### Temperature

Operating Range

-40 to +70 deg C

Storage Range

-55 to +85 deg C

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

### Plotted and Other Data

Notes:

30 dB WR-229 Waveguide Loop Coupler, CPR229F Flange, N Female Coupled Port, 3.22 GHz to 4.9 GHz in Aluminum 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.

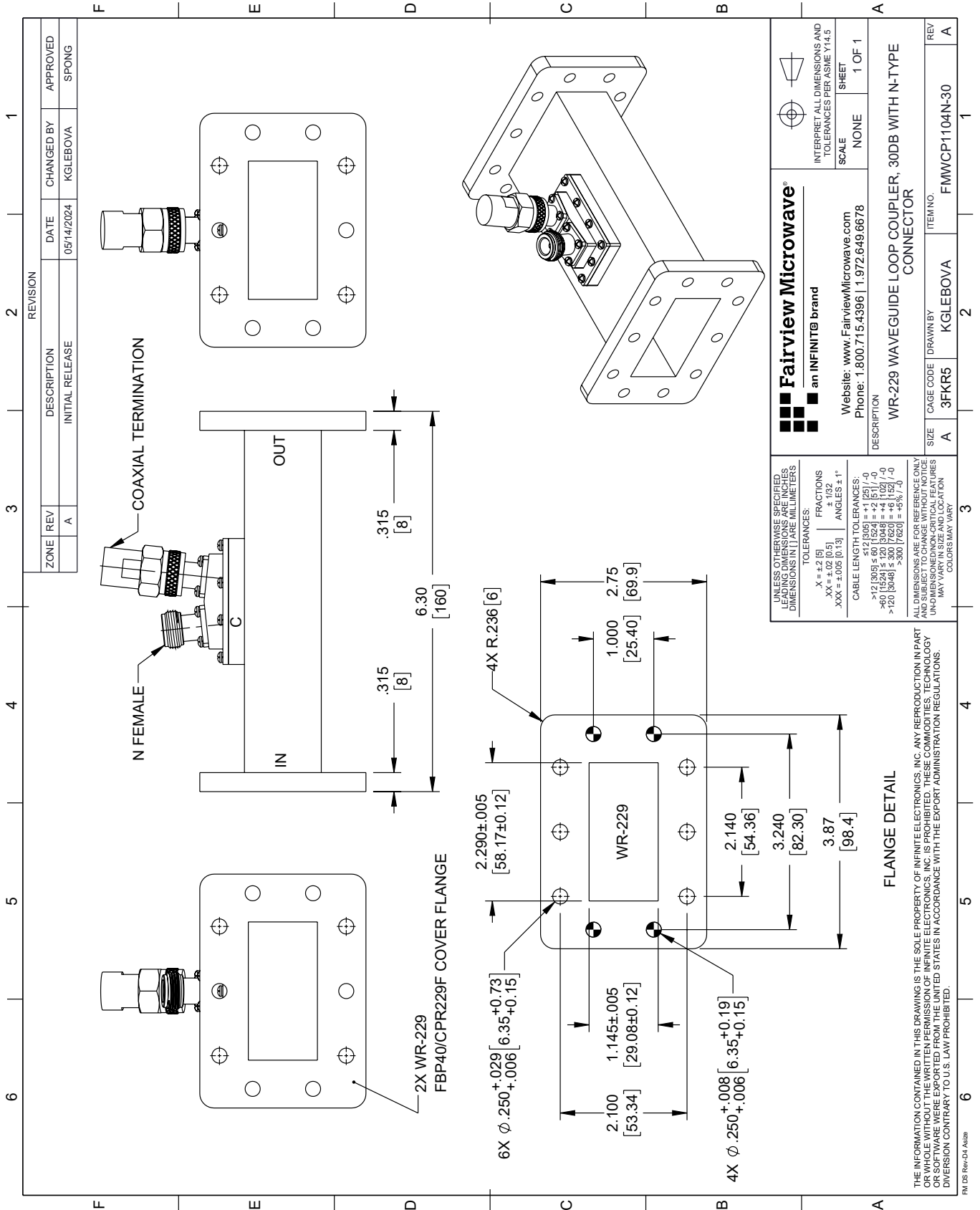
For additional information on this product, please click the following link: [30 dB WR-229 Waveguide Loop Coupler, CPR229F Flange, N Female Coupled Port, 3.22 GHz to 4.9 GHz in Aluminum FMWCP1104N-30](#)

URL: <https://www.fairviewmicrowave.com/30db-wr229-waveguide-coupler-cpr-229f-4.9ghz-fmwcp1104n-30-p.aspx>

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# FMWCP1104N-30 CAD Drawing

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ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	05/14/2024	KGLEBOVA	SPONG

**Fairview Microwave®**  
 an INFINIT® brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
 Phone: 1.800.715.4396 | 1.972.649.6678

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

TOLERANCES:  
 .X = ±.2 [5] FRACTIONS ±.132  
 .XX = ±.02 [0.5] ANGLES ± 1°  
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = +.1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = +.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = +.6 [152] / -0  
 >300 [7620] = +.8 [203] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: WR-229 WAVEGUIDE LOOP COUPLER, 30DB WITH N-TYPE CONNECTOR

REV	ITEM NO.	FAIRVIEW MICROWAVE
A	FMWCP1104N-30	