

30 dB WR-112 Waveguide Loop Coupler, UG Cover Flange, N Female Coupled Port, 6.57 GHz to 9.99 GHz in Aluminum



FMWCP1101N-30

Features

- Three Port Broadwall Waveguide Coupler
- 30±0.7 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 6.57 GHz to 9.99 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 1.5kW (CW)

Applications

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

Description

The FMWCP1101N-30 is a WR-112 Directional Loop waveguide coupler with N female coupled port that operates in the frequency range of 6.57 to 9.99 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	6.57		9.99	GHz
Coupler				
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)			1.5	kWatts
Input Power, Peak			200	kWatts

Mechanical Specifications

Size

Length	4.72 in [119.89 mm]
Width	1.88 in [47.75 mm]
Height	1.88 in [47.75 mm]
Weight	1.8 lbs [816.47 g]

Interface

Waveguide Size	WR-112
Flange Type	UG Cover
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-112 Waveguide Loop Coupler, UG Cover Flange, N Female Coupled Port, 6.57 GHz to 9.99 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.

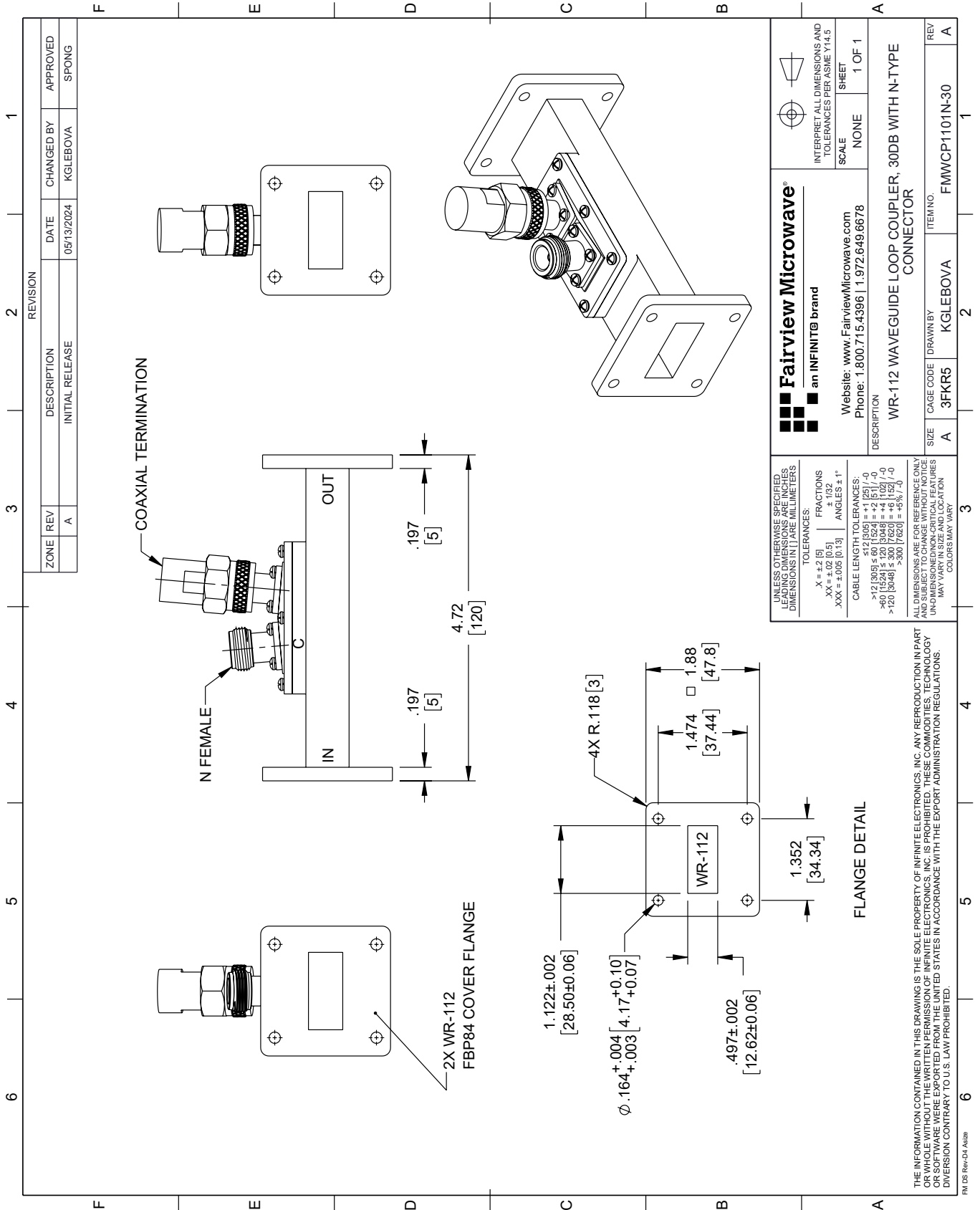
For additional information on this product, please click the following link: [30 dB WR-112 Waveguide Loop Coupler, UG Cover Flange, N Female Coupled Port, 6.57 GHz to 9.99 GHz in Aluminum FMWCP1101N-30](#)

URL: <https://www.fairviewmicrowave.com/30db-wr112-waveguide-coupler-ug-9.99ghz-fmwcp1101n-30-p.aspx>

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FMWCP1101N-30 CAD Drawing

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REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION	INITIAL RELEASE	
	A			SPONG

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

TOLERANCES:

- X = ±.2 [5]
- .XX = ±.02 [0.5]
- .XXX = ±.005 [0.13]
- FRACTIONS ± 1/32
- ANGLES ± 1°

CABLE LENGTH TOLERANCES:

- <12 [305] ≤ 60 [1524] = ±.1 [25] / -0
- >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
- >120 [3048] ≤ 300 [7620] = ±.8 [20] / -0
- >300 [7620] = ±.8 [20] / -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-112 WAVEGUIDE LOOP COUPLER, 30DB WITH N-TYPE CONNECTOR

SIZE: A
CAGE CODE: 3FKR5
DRAWN BY: KGLEBOVA
ITEM NO.: FMWCP1101N-30

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FM DS Rev-D4 Alt2