

30 dB WR-159 Waveguide Dual Directional Crossguide Coupler with CPR-159F and N Female Coupling Ports from 4.64 GHz to 7.05 GHz in Aluminum



FMWCP1090N-30

Features

- Four Port Dual Directional Crossguide Waveguide Coupler
- Bi-Directional
- 30±1.5 dB Nominal Coupling Level
- Integrated N Female Connector for the coupled ports
- 4.64 GHz to 7.05 GHz Frequency Range
- Low VSWR < 1.25:1

Applications

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

Description

The FMWCP1090N-30 is a 30 dB WR-159 four port dual directional crossguide Coupler withh integrated N Female connectors for the coupled ports. This coupler can be mounted directly into the waveguide signal path, connected via coax to allow signal sampling /monitoring. The coupler has a typical VSWR of 1.1:1 and are made of Aluminum with CPR-159F flanges. The FMWCP1090N-30 is part of a family of cross guide couplers offered by Fairview Microwave with coupling values ranging from 20 to 50 dB.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	4.64		7.05	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		30		dB
Coupling Accuracy		±1.5		dB
Directivity	18			dB
Insertion Loss			0.1	dB
Main Line VSWR			1.1:1	
Secondary Line VSWR			1.25:1	
Input Power (CW)			1.2	kWatts
Input Power, Peak			500	kWatts

Mechanical Specifications

Size

Length	7.09 in [180.09 mm]
Width	5.91 in [150.11 mm]
Height	2.44 in [61.98 mm]
Weight	1 lbs [453.59 g]

Interface

Waveguide Size	WR-159
Flange Type	CPR-159F
Flange Material and Plating	Aluminum, Chromate Conversion
RF Connector Type	N Female

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Coupler Body Material and Plating
Coupler Body Plating Specification

Aluminum, Chromate Conversion
Anticorrosion grey paint

Environmental Specifications

Temperature

Operating Range
Storage Range

-40 to +70 deg C
-55 to +85 deg C

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

Plotted and Other Data

Notes:

30 dB WR-159 Waveguide Dual Directional Crossguide Coupler with CPR-159F and N Female Coupling Ports from 4.64 GHz to 7.05 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-159 Waveguide Dual Directional Crossguide Coupler with CPR-159F and N Female Coupling Ports from 4.64 GHz to 7.05 GHz in Aluminum FMWCP1090N-30](#)

URL: <https://www.fairviewmicrowave.com/30db-wr159-waveguide-dual-crossguide-coupler-cpr-159f-7.05ghz-fm-wcp1090n-30-p.aspx>

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FMWCP1090N-30 CAD Drawing

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