

50 dB WR-112 Waveguide Dual Directional Crossguide Coupler with UG-51/U and SMA Female Coupling Ports from 6.57 GHz to 9.99 GHz in Brass



FMWCP1093S-50

Features

- Four Port Dual Directional Crossguide Waveguide Coupler
- Bi-Directional
- 50±1.5 dB Nominal Coupling Level
- Integrated SMA Female Connector for the coupled ports
- 6.57 GHz to 9.99 GHz Frequency Range
- Low VSWR < 1.25:1

Applications

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

Description

The FMWCP1093S-50 is a 50 dB WR-112 four port dual directional crossguide Coupler withh integrated SMA 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 Brass with UG-51/U flanges. The FMWCP1093S-50 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	6.57		9.99	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		50		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)			800	Watts
Input Power, Peak			300	kWatts

Mechanical Specifications

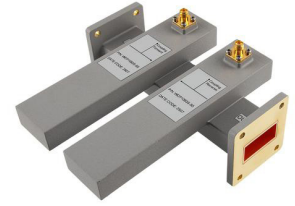
Size

Length	5.51 in [139.95 mm]
Width	5.51 in [139.95 mm]
Height	1.88 in [47.75 mm]
Weight	1 lbs [453.59 g]

Interface

Waveguide Size	WR-112
Flange Type	UG-51/U
Flange Material and Plating	Brass Copper, Passivated Stainless Steel
RF Connector Type	SMA Female

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Coupler with UG-51/U and SMA Female Coupling
Ports from 6.57 GHz to 9.99 GHz in Brass



FMWCP1093S-50

Coupler Body Material and Plating	Brass Copper, Passivated Stainless Steel
Coupler Body Plating Specification	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:

50 dB WR-112 Waveguide Dual Directional Crossguide Coupler with UG-51/U and SMA Female Coupling Ports from 6.57 GHz to 9.99 GHz in Brass 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: [50 dB WR-112 Waveguide Dual Directional Crossguide Coupler with UG-51/U and SMA Female Coupling Ports from 6.57 GHz to 9.99 GHz in Brass FMWCP1093S-50](#)

URL: <https://www.fairviewmicrowave.com/50db-wr112-waveguide-dual-crossguide-coupler-ug-51-u-9.99ghz-fm-wcp1093s-50-p.aspx>

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FMWCP1093S-50 CAD Drawing

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