

50 dB WR-137 Waveguide Dual Directional Crossguide Coupler with CPR-137F and SMA Female Coupling Ports from 5.38 GHz to 8.17 GHz, Aluminum



FMWCP1092S-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
- 5.38 GHz to 8.17 GHz Frequency Range
- Low VSWR < 1.25:1

Applications

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

Description

The FMWCP1092S-50 is a 50 dB WR-137 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 Aluminum with CPR-137F flanges. The FMWCP1092S-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	5.38		8.17	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)			1	kWatts
Input Power, Peak			400	kWatts

Mechanical Specifications

Size

Length	5.91 in [150.11 mm]
Width	6.1 in [154.94 mm]
Height	1.94 in [49.28 mm]
Weight	1 lbs [453.59 g]

Interface

Waveguide Size	WR-137
Flange Type	CPR-137F
Flange Material and Plating	Aluminum, Chromate Conversion
RF Connector Type	SMA Female

50 dB WR-137 Waveguide Dual Directional Crossguide Coupler with CPR-137F and SMA Female Coupling Ports from 5.38 GHz to 8.17 GHz, Aluminum



FMWCP1092S-50

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:

50 dB WR-137 Waveguide Dual Directional Crossguide Coupler with CPR-137F and SMA Female Coupling Ports from 5.38 GHz to 8.17 GHz, 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: [50 dB WR-137 Waveguide Dual Directional Crossguide Coupler with CPR-137F and SMA Female Coupling Ports from 5.38 GHz to 8.17 GHz, Aluminum FMWCP1092S-50](#)

URL: <https://www.fairviewmicrowave.com/50db-wr137-waveguide-dual-crossguide-coupler-cpr-137f-8.17ghz-fm-wcp1092s-50-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMWCP1092S-50 CAD Drawing

50 dB WR-137 Waveguide Dual Directional Crossguide Coupler with CPR-137F and SMA Female Coupling Ports from 5.38 GHz to 8.17 GHz, Aluminum

