

3 dB WR-12 Waveguide Broadwall Coupler with UG-387/U Round Cover Flange and H-Plane Coupled Port from 60 GHz to 90 GHz in Brass Copper



FMW12CP011-3

Features

- 3 dB Nominal Coupling Level
- H-Plane Waveguide Coupler
- 60 GHz to 90 GHz Frequency Range
- Body and Flanges made of Brass/Copper and Plated Gold
- 1.15:1 VSWR Max

Applications

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

Description

The FMW12CP011-3 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 60 GHz to 90 GHz (H Band). This H Band component offers a nominal coupling level of 3 dB, mean coupling accuracy of ± 1.5 , coupling flatness of 1.5 dB, and has a maximum VSWR level of 1.15:1. The design is made of brass/copper and plated gold and incorporates a multi-hole configuration that results in minimum directivity of 30 dB. Common applications for this millimeter wave component involve test setups where power reflection measurements are required that might involve power sampling and frequency monitoring with minimal signal loss to the main transmission path. This H plane coupler uses integrated WR-12 waveguide ports with UG-387/U flanges. Pasternack offers a complete family of waveguide millimeter wave directional couplers that are in-stock for same day shipment.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	60		90	GHz
Coupler				
Nominal Coupling Level		3		dB
Coupling Accuracy		± 1.5		dB
Directivity	30			dB
Insertion Loss			1	dB
Main Line VSWR			1.15:1	
Secondary Line VSWR			1.25:1	
Coupling Flatness		1.5		dB
Input Power (CW)			15	Watts
Input Power, Peak			1	kWatts

Mechanical Specifications

Size

Length	3.07 in [77.98 mm]
Width	0.82 in [20.83 mm]
Height	0.79 in [20.07 mm]
Weight	0.51 lbs [231.33 g]

Interface

Waveguide Size	WR-12
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Flange Type	Round Cover
Flange Designation	UG-387/U
Flange Material and Plating	Brass Copper, Gold
Coupler Body Material and Plating	Brass Copper, Gold

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:

3 dB WR-12 Waveguide Broadwall Coupler with UG-387/U Round Cover Flange and H-Plane Coupled Port from 60 GHz to 90 GHz in Brass Copper 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: [3 dB WR-12 Waveguide Broadwall Coupler with UG-387/U Round Cover Flange and H-Plane Coupled Port from 60 GHz to 90 GHz in Brass Copper FMW12CP011-3](#)

URL: <https://www.fairviewmicrowave.com/3db-wr12-waveguide-broadwall-coupler-ug387-round-h-90ghz-fmw12cp011-3-p.aspx>

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