

40 dB WRD-180 Double Ridge Waveguide Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 GHz in Brass

The FMWRD180CP01-40 is a WRD-180 Directional Broadwall double ridge waveguide coupler with 2.92mm female coupled port that operates in the frequency range of 18 to 40 GHz. This Waveguide component has a maximum VSWR of 1.6:1. These designs are made of painted copper alloy and incorporate a broad wall 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 and Broadwall couplers that are in-stock and ship same day.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	18		40	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		40		dB
Directivity	18			dB
Insertion Loss			0.5	dB
Main Line VSWR			1.25:1	
Secondary Line VSWR			1.6:1	
Coupling Flatness			±2	dB
Input Power (CW)			250	Watts
Input Power Peak			1	kWatts

Mechanical Specifications

Size	
Length	7.87 in [199.9 mm]
Width	0.88 in [22.35 mm]
Height	0.88 in [22.35 mm]
Weight	1.14 lbs [517.1 g]

Interface

Waveguide Size	WRD-180
Flange Type	Cover
RF Connector Type	2.92mm Female
Coupler Body Material and Plating	Brass, Gray

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

- Three Port Broadwall Waveguide Coupler
- 40±2 dB Nominal Coupling Level
- Integrated 2.92mm Female Connector coupled port
- 18 GHz to 40 GHz Frequency Range
- Main Line VSWR < 1.25:1
- Max Power 250W (CW)

Applications:

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

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40 dB WRD-180 Double Ridge Waveguide Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 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: [40 dB WRD-180 Double Ridge Waveguide Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 GHz in Brass FMWRD180CP01-40](https://www.fairviewmicrowave.com/40db-wrd180-waveguide-broadwall-coupler-40ghz-fmwr180cp01-40-p.aspx)

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