

40 dB WRD-650 Double Ridge Waveguide Loop Coupler, N Female Coupled Port, 6.5 GHz to 18 GHz in Aluminum

The FMWRD650CP04-40 is a WRD-650 Directional Loop double ridge waveguide coupler with N female coupled port that operates in the frequency range of 6.5 to 18 GHz. This Waveguide component has a maximum VSWR of 1.8:1. These designs are made of painted aluminum and incorporate a Loop 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, Loop and Broadwall couplers that are in-stock and ship same day.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	6.5		18	GHz
Impedance		50		Ohms

Coupler

Nominal Coupling Level		40		dB
Directivity	10			dB
Insertion Loss			0.3	dB
Main Line VSWR			1.15:1	
Secondary Line VSWR			1.8:1	
Coupling Flatness			±2.5	dB
Input Power (CW)			400	Watts
Input Power Peak			3	kWatts

Mechanical Specifications

Size

Length	3.94 in [100.08 mm]
Width	1.38 in [35.05 mm]
Height	1.38 in [35.05 mm]
Weight	0.48 lbs [217.72 g]

Interface

Waveguide Size	WRD-650
Flange Type	Cover
RF Connector Type	N Female
Coupler Body Material and Plating	Aluminum, Gray

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

- Three Port Loop Waveguide Coupler
- 40±2.5 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 6.5 GHz to 18 GHz Frequency Range
- Main Line VSWR < 1.15:1
- Max Power 400W (CW)

Applications:

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

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40 dB WRD-650 Double Ridge Waveguide Loop Coupler, N Female Coupled Port, 6.5 GHz to 18 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: [40 dB WRD-650 Double Ridge Waveguide Loop Coupler, N Female Coupled Port, 6.5 GHz to 18 GHz in Aluminum FMWRD650CP04-40](https://www.fairviewmicrowave.com/40db-wrd650-waveguide-broadwall-coupler-18ghz-fmwr650cp04-40-p.aspx)

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