

10 dB WR-42 Waveguide Broadwall Coupler with UG-595/U Square Cover Flange and E-Plane Coupled Port from 18 GHz to 26.5 GHz in Brass Copper

The FM-W42CP002-10 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 18 to 26.5 GHz (K Band). This K band component offers a nominal coupling level of 10 dB, mean coupling accuracy of ± 0.8 , coupling flatness of 1 dB, and has a maximum VSWR level of 1.2:1. The design is made of gold brass copper and incorporates a multi-hole configuration that results in typical 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 E plane coupler uses integrated WR-42 waveguide ports with UG 595/U flanges. Fairview Microwave 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	18		26.5	GHz
Coupler				
Nominal Coupling Level		10		dB
Coupling Accuracy			± 0.8	dB
Directivity		30		dB
Insertion Loss			1	dB
Main Line VSWR			1.2:1	
Secondary Line VSWR			1.2:1	
Coupling Flatness			± 1	dB

Mechanical Specifications

Size	
Length	11 in [279.4 mm]
Width	0.88 in [22.35 mm]
Height	1.94 in [49.28 mm]
Weight	0.456 lbs [206.84 g]

Interface	
Waveguide Size	WR-42
Flange Type	Square Cover
Flange Designation	UG-595/U
Flange Material and Plating	Brass Copper, Gold
Coupler Body Material and Plating	Brass Copper, Gold

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

- 10 dB Nominal Coupling Level
- E-Plane Waveguide Coupler
- 18 GHz to 26.5 GHz Frequency Range
- Body and Flanges made of Brass Copper
- Gold Waveguide
- 1.2:1 VSWR

Applications:

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

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10 dB WR-42 Waveguide Broadwall Coupler with UG-595/U Square Cover Flange and E-Plane Coupled Port from 18 GHz to 26.5 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: [10 dB WR-42 Waveguide Broadwall Coupler with UG-595/U Square Cover Flange and E-Plane Coupled Port from 18 GHz to 26.5 GHz in Brass Copper SMW42EC002-10](https://www.fairviewmicrowave.com/10db-wr42-waveguide-broadwall-coupler-ug595-square-e-26.5ghz-smw42ec002-10-p.aspx)

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