

WR-10 Directional Waveguide Coupler 20 dB With UG 387/U-Mod Flange and H-Plane Coupled Port From 75 GHz to 110 GHz W Band

The SMW10HC001-20 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 75 to 110 GHz (W Band). This W band component offers a nominal coupling level of 20 dB, mean coupling accuracy of ± 1.5 , coupling flatness of 1.5 dB, and has a maximum VSWR level of 1.2:1. The design is made of gold plated 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 H plane coupler uses integrated WR-10 waveguide ports with UG 387/U flanges. Fairview 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	75		110	GHz
Directivity		30		dB
Insertion Loss			1.1	dB
Input VSWR			1.2:1	
Secondary Line VSWR			1.2:1	
Nominal Coupling Level		20		dB
Mean Coupling Accuracy			± 1.5	dB
Coupling Flatness			± 1.5	dB

* Values at 25°C, sea level

Mechanical Specifications

Size

Length	3.5 in [88.9 mm]
Width/Dia.	1 in [25.4 mm]
Height	0.82 in [20.83 mm]

Waveguide

Size	WR-10
Material	Brass Copper
Plating	Gold
Color	Gold

Flange 1

Interface	UG 387/U-Mod
Material	Brass Copper
Plating	Gold
Color	Gold

Flange 2

Interface	UG 387/U-Mod
Material	Brass Copper
Plating	Gold
Color	Gold



Features:

- 20 dB Nominal Coupling Level
- H-Plane Waveguide Coupler
- 75 GHz to 110 GHz Frequency Range
- Body and Flanges made of Brass Copper
- Gold Plated Waveguide
- 1.2:1 VSWR

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Flange 3

Interface	UG 387/U-Mod
Material	Brass Copper
Plating	Gold
Color	Gold

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant	Yes
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Plotted and Other Data

Notes:

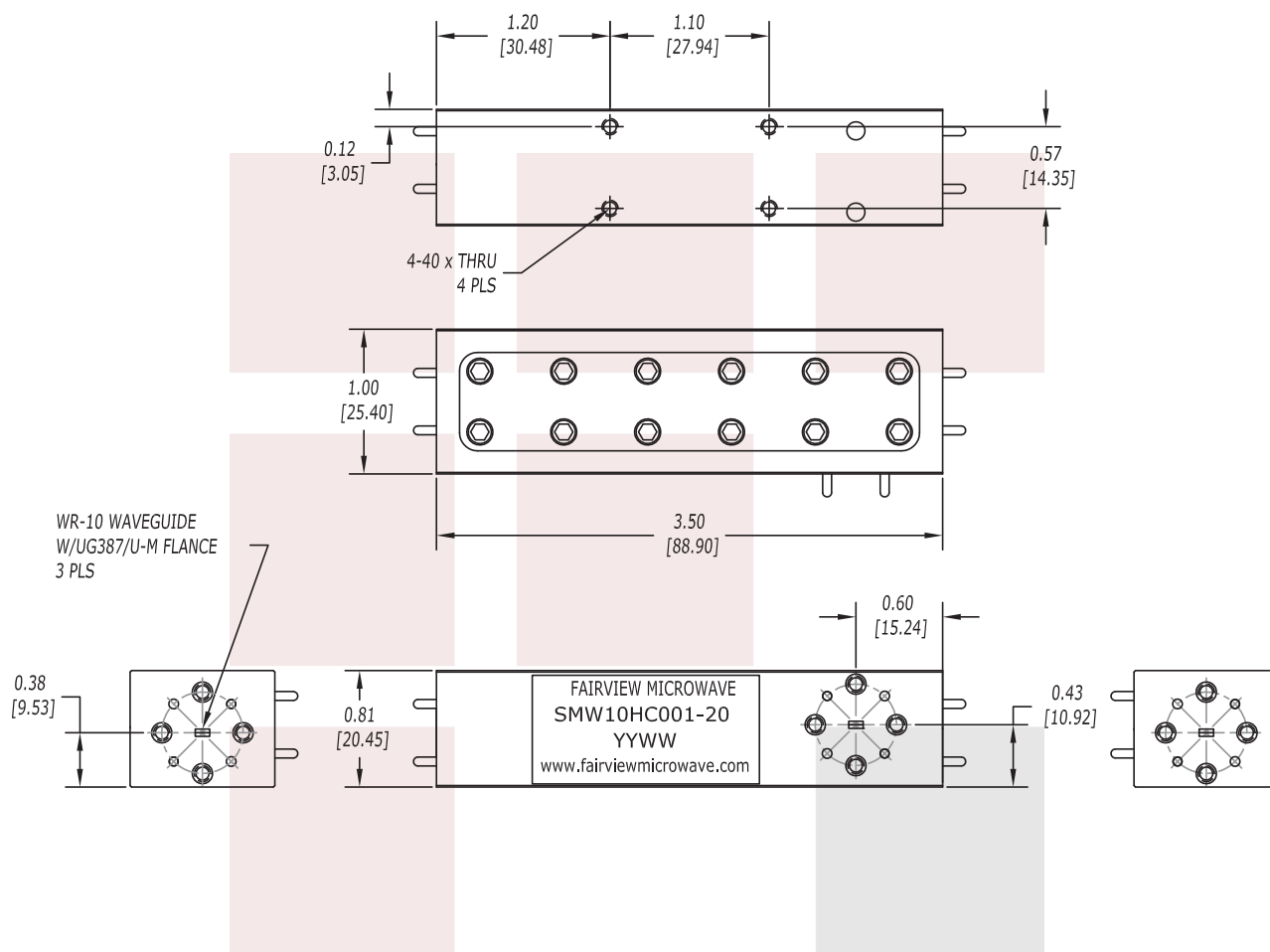
- Values at 25 °C, sea level

WR-10 Directional Waveguide Coupler 20 dB With UG 387/U-Mod Flange and H-Plane Coupled Port From 75 GHz to 110 GHz W Band 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 Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-10 Directional Waveguide Coupler 20 dB With UG 387/U-Mod Flange and H-Plane Coupled Port From 75 GHz to 110 GHz W Band SMW10HC001-20](http://www.fairviewmicrowave.com/wr-10-directional-waveguide-coupler-20db-ug-387-mod-h-plane-smw10hc001-20-p.aspx)

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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN: inches
TOLERANCES ARE: [mm]
.XX ± .02 [±.51]
.XX ± .005 [±.13]

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE
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DWG NO	SMW10HC001-20		CAGE CODE	3FKR5	
CAD FILE	063015	SHEET	SCALE	N/A	SIZE A 2233