

WR-22 Directional Waveguide Coupler 10 dB With UG-383/U Flange and E-Plane Coupled Port From 33 GHz to 50 GHz Q Band

The SMW22EC001-10 is a millimeter-wave directional waveguide coupler that operates in the frequency range of 33 to 50 GHz (Q Band). This Q band component offers a nominal coupling level of 10 dB, mean coupling accuracy of +/- 1, coupling flatness of 1 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 E plane coupler uses integrated WR-22 waveguide ports with UG 383/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	33		50	GHz
Directivity		30		dB
Insertion Loss			1.2	dB
Input VSWR			1.2:1	
Secondary Line VSWR			1.2:1	
Nominal Coupling Level		10		dB
Mean Coupling Accuracy			±1	dB
Coupling Flatness			±1	dB

* Values at 25°C, sea level

Mechanical Specifications

Size

Length 8 in [203.2 mm]
Width/Dia. 1.125 in [28.58 mm]
Height 1.7625 in [44.77 mm]

Waveguide

Size WR-22
Material Brass Copper
Plating Gold
Color Gold

Flange 1

Interface UG-383/U
Material Brass Copper
Plating Gold
Color Gold

Flange 2

Interface UG-383/U
Material Brass Copper
Plating Gold
Color Gold



Features:

- 10 dB Nominal Coupling Level
- E-Plane Waveguide Coupler
- 33 GHz to 50 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-383/U
Material	Brass Copper
Plating	Gold
Color	Gold

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

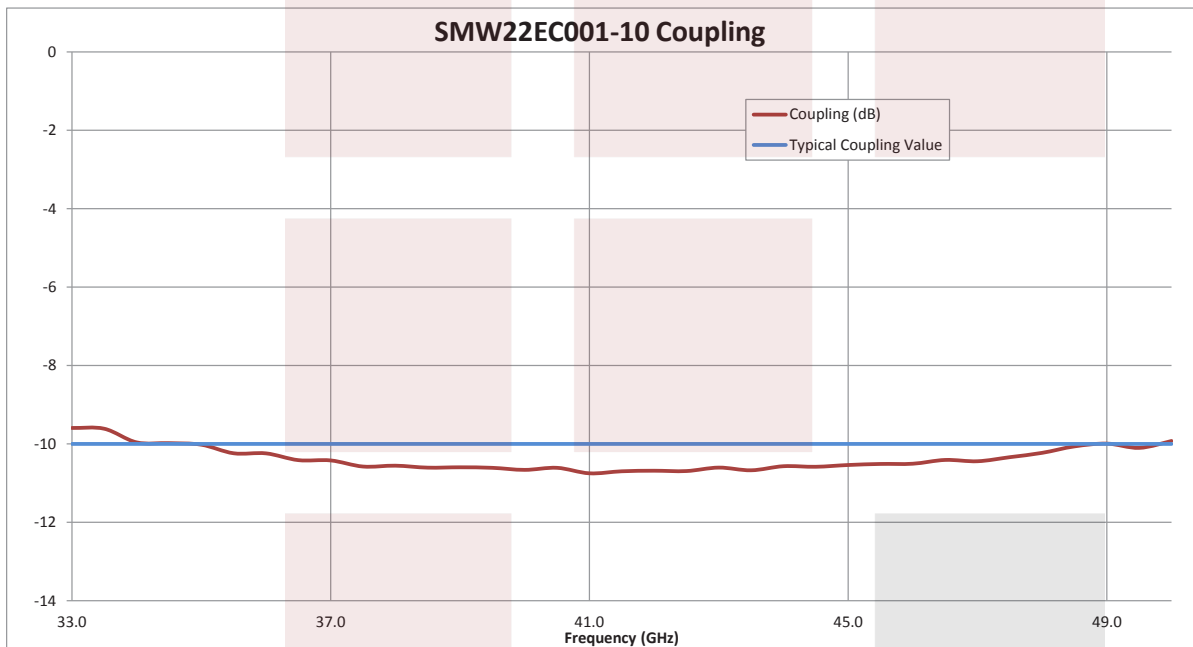
RoHS Compliant	Yes
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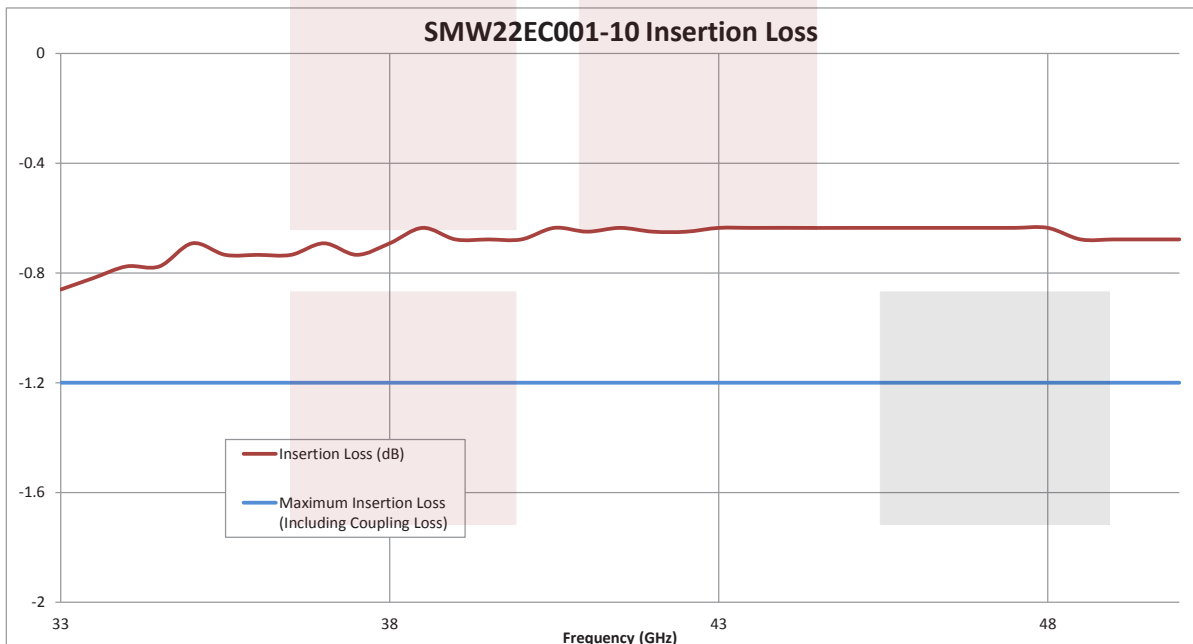
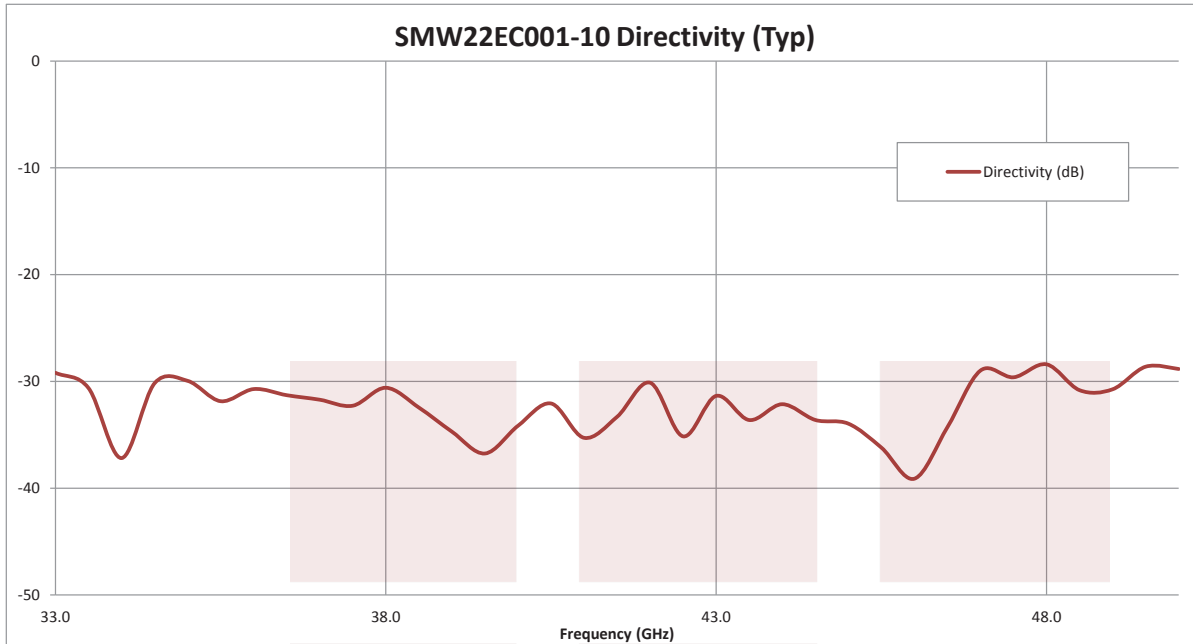
Plotted and Other Data

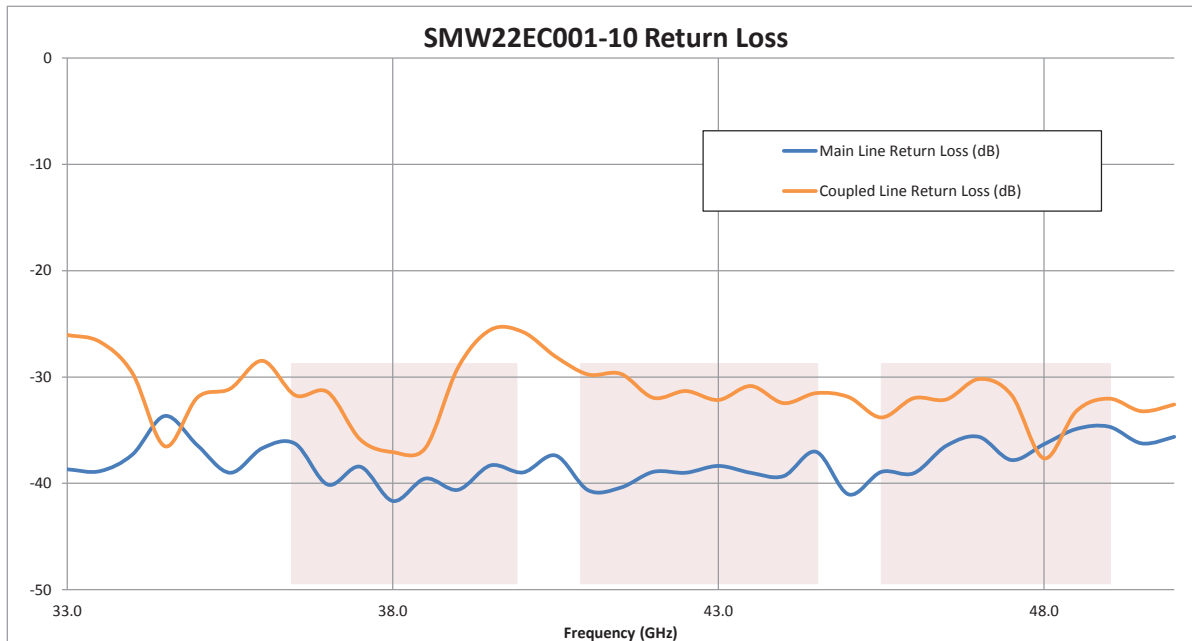
Notes:

- Values at 25 °C, sea level

Typical Performance Data





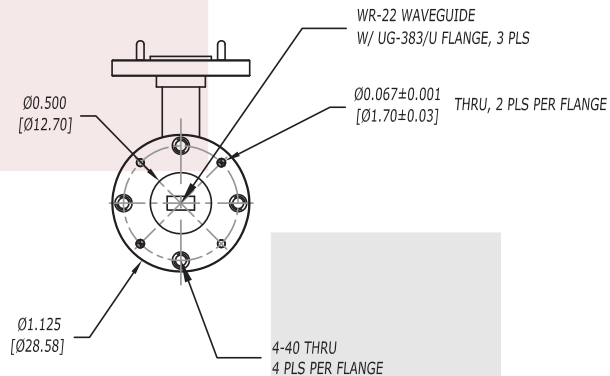
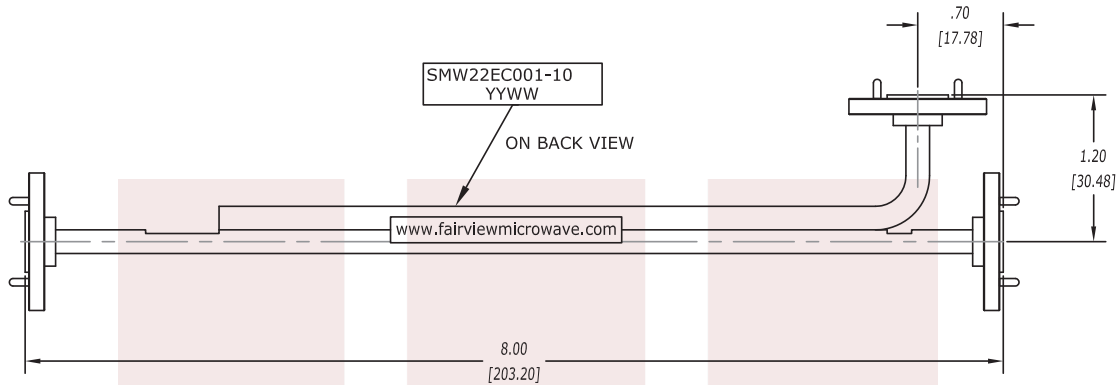


WR-22 Directional Waveguide Coupler 10 dB With UG-383/U Flange and E-Plane Coupled Port From 33 GHz to 50 GHz Q Band from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-22 Directional Waveguide Coupler 10 dB With UG-383/U Flange and E-Plane Coupled Port From 33 GHz to 50 GHz Q Band SMW22EC001-10](#)

URL: <http://www.fairviewmicrowave.com/wr-22-directional-waveguide-coupler-10db-ug-383-e-bend-smw22ec001-10-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.

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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 WR-22 Directional Waveguide Coupler 10 dB With UG-383/U Flange and E-Plane Coupled Port From 33 GHz to 50 GHz Q Band	DWG NO SMW22EC001-10	CAGE CODE 3FKR5			
CAD FILE 041715	SHEET	SCALE N/A	SIZE A	2233	