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C10-2200WG

WR-22 High Directivity Waveguide Coupler, 10 dB 33-50 GHz

DEVICE OVERVIEW

General Description

The C10-2200WG is a WR22 10dB waveguide coupler featuring high directivity over a 33-50GHz operational bandwidth. These waveguide components are built with high precision and then gold plated for high corrosion resistance. They have very low loss and excellent VSWR. Manufactured to rigid specifications, these transmission line components provide minimum detrimental effects on overall system VSWR.



[Download s-parameters here](#)

Features

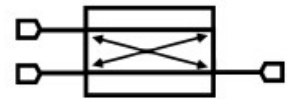
- 10dB Coupling
- Low Loss
- High Directivity
- WR-22 Waveguide
- UG-383/U Input and Output Flanges

Applications

- mmWave Applications
- High Power Applications

Functional Block

Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
C10-2200WG	WR-22 High Directivity Waveguide Coupler, 10 dB 33-50 GHz	WR-22	RoHS	Released	EAR99

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Revision History

Revision Code	Revision Date	Comment
-	2024-07-15	Initial Release

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
Port 1	Input	WR-22-UG-383/U	-	-
Port 2	Coupled	WR-22-UG-383/U	-10dB coupled output port	-
Port 3	Output	WR-22-UG-383/U	-	-

Specifications

Absolute Maximum Ratings

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may be inoperable or have a reduced lifetime.

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	85	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-40	°C
Minimum Storage Temperature	-55	°C

Package Information

Parameter	Details	Rating
ESD	This device is not sensitive to ESD.	N/A

Electrical Specifications

Min and Max limits are guaranteed at Ta = 25°C

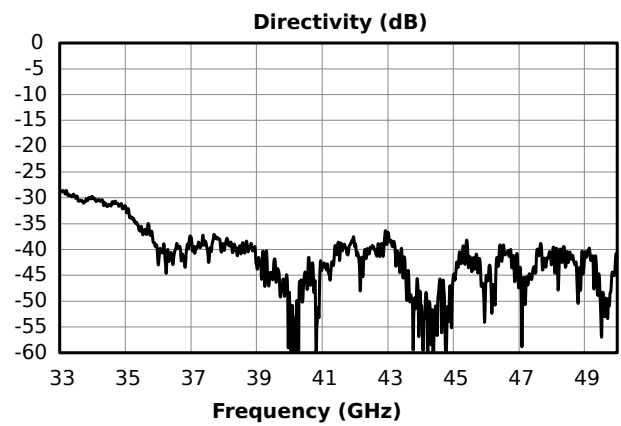
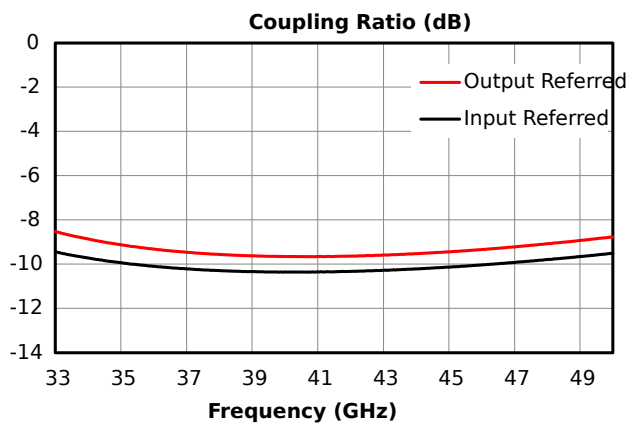
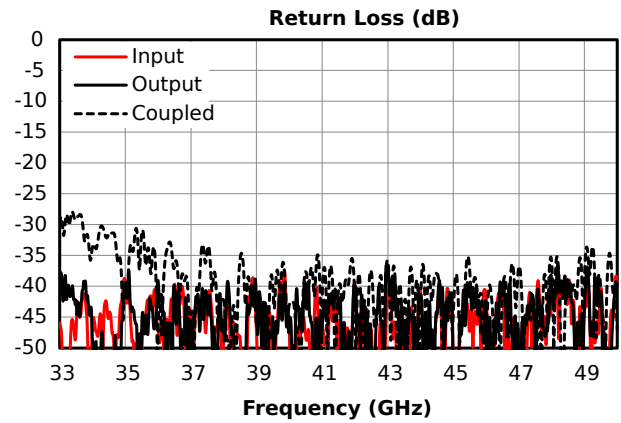
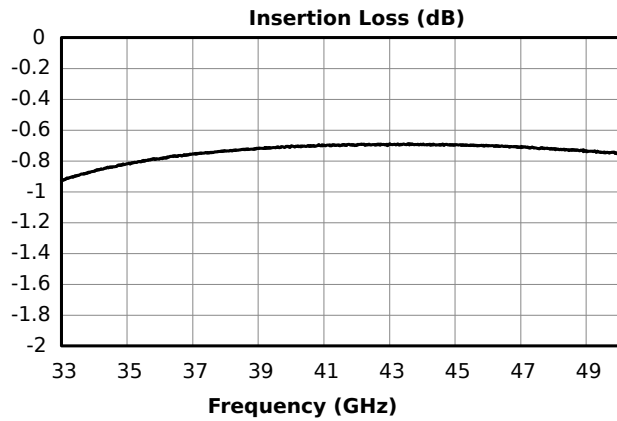
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Direct Line Insertion Loss	-	33	50	-	0.75	-	dB
Amplitude Flatness ¹	-	33	50	-	1	-	dB
Directivity	-	33	50	-	40	-	dB
Return Loss	-	33	50	-	45	-	dB
Mean Coupling (Input Referred)	-	33	50	-	10	-	dB
Mean Coupling (Output Referred)	-	34	50	-	9	-	dB

^[1] Deviation from Average Coupling

C10-2200WG

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Coupler, 10 dB 33-50 GHz

Typical Performance Plots



C10-2200WG

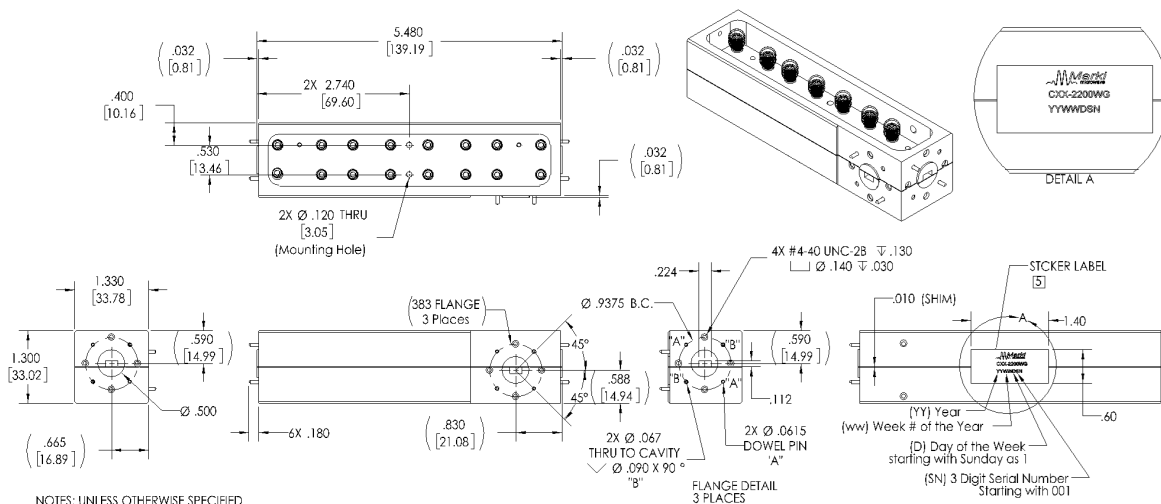
WR-22 High Directivity Waveguide
Coupler, 10 dB 33-50 GHz

Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#)

MODULE #	DESCRIPTION	SHIM	STICKER LABEL
C10-2200WG	Outline, WR-22 Coupler, 10dB	421-119801-10 (10dB)	961-09695-2210
C20-2200WG	Outline, WR-22 Coupler, 20dB	421-119901-20 (20dB)	961-09695-2220
C30-2200WG	Outline, WR-22 Coupler, 30dB	421-120001-30 (30dB)	961-09695-2230
C40-2200WG	Outline, WR-22 Coupler, 40dB	421-120101-40 (40dB)	961-09695-2240



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