

C10-1900WG

WR-19 High Directivity Waveguide Coupler, 10dB, 40-60GHz

DEVICE OVERVIEW

General Description

The C10-1900WG is a WR19 10dB waveguide coupler featuring high directivity over a 40-60GHz 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.



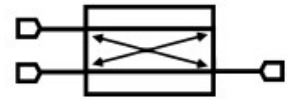
Features

- 10dB Coupling
- Low Loss
- High Directivity
- WR-19 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
C10-1900WG	WR-19 High Directivity Waveguide Coupler, 10dB, 40-60GHz	WR-19		Released	EAR99

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Revision History

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

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Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
Port 1	Input	WR-19-UG-383/U	-	-
Port 2	Coupled	WR-19-UG-383/U	-10dB coupled output port	-
Port 3	Output	WR-19-UG-383/U	-	-

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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
Dimensions	-	124.46 x 33.02 x 33.78 mm

Electrical Specifications

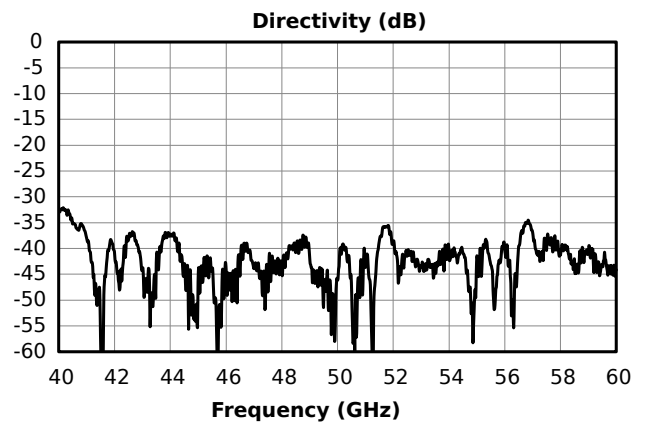
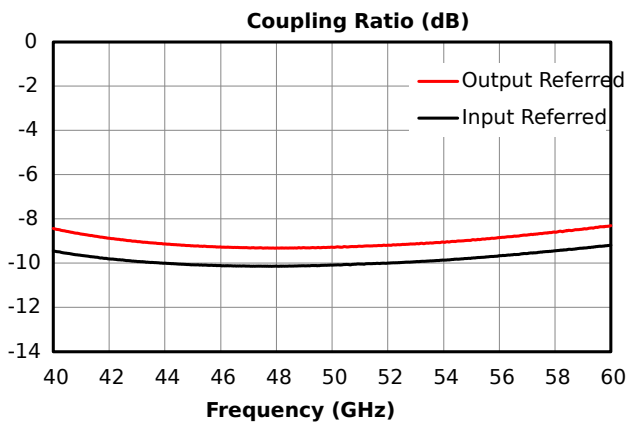
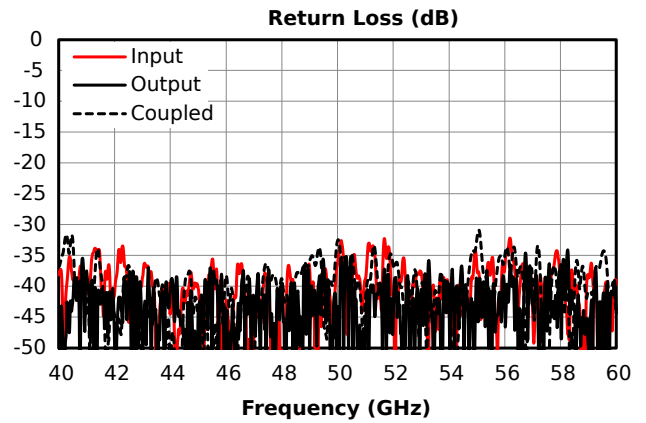
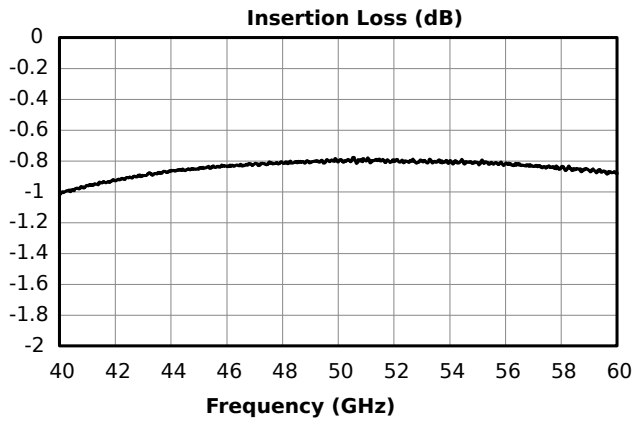
Min and Max limits are guaranteed at Ta = 25°C

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Amplitude Flatness	-	40	60	-	1	-	dB
Directivity	-	40	60	25	42.2	-	dB
Direct Line Insertion Loss	-	40	60	1.2	0.83	-	dB
Mean Coupling	Output Referred	40	60	-	9	-	dB
Mean Coupling (Input Referred)	-	40	60	-	10	-	dB
Return Loss	-	40	60	20	52	-	dB

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Typical Performance Plots



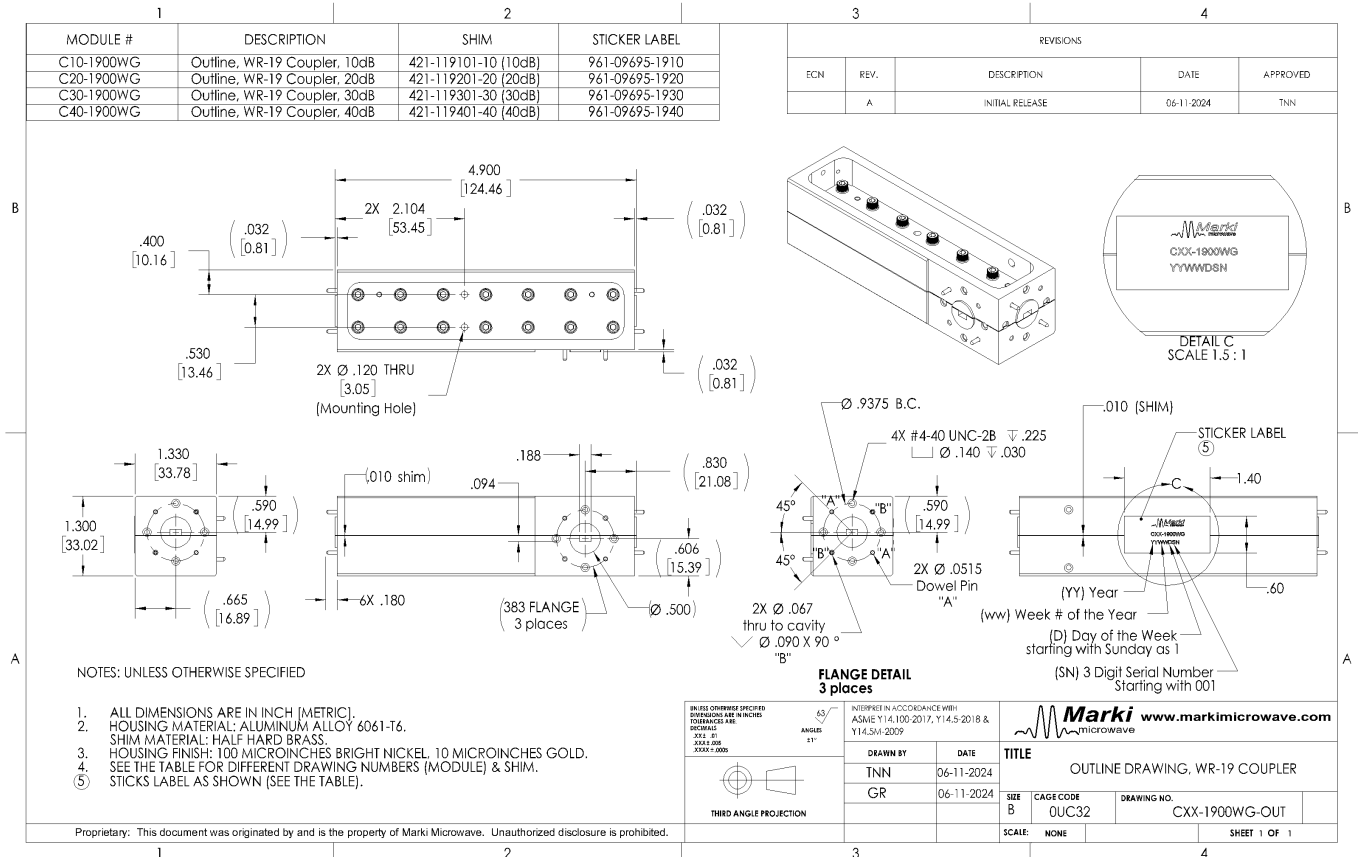
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Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#)



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