

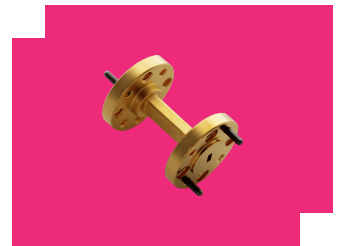
WS-1000100WG

WR-10 Straight Waveguide, 75GHz to 110GHz, 1 in

DEVICE OVERVIEW

General Description

WR-10 Straight Waveguide 2". Custom lengths available upon request. Marki Microwave straight waveguides 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

- 75 to 110GHz operation
- EIA WR-10 rectangular waveguide
- UG-387/U input and output flanges
- Copper construction
- Brass flanges
- Gold plated
- Very low loss

Applications

- 5G
- Radar
- Satellite Communications
- Digital Communications

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
WS-1000300WG	WR-10 Straight Waveguide 3". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1000400WG	WR-10 Straight Waveguide 6". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1000200WG	WR-10 Straight Waveguide 2". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1000100WG	WR-10 Straight Waveguide, 75GHz to 110GHz, 1 in	WR-10	REACH RoHS	Released	EAR99

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Revision History

Revision Code	Revision Date	Comment
-	2023-10-09	Initial Datasheet Release

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
Port 1	RF Input / Output	-	RF input / output port.	-
Port 2	RF Input / Output	-	RF input / output port.	-

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Specifications

Package Information

Parameter	Details	Rating
Dimensions	-	WR-10

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Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Frequency Range	-	-	-	75	-	110	GHz
Insertion Loss ¹	-	75	110	-	0.13	-	dB
VSWR	-	75	110	-	1.03	-	-

^[1] Typical insertion loss per inch.

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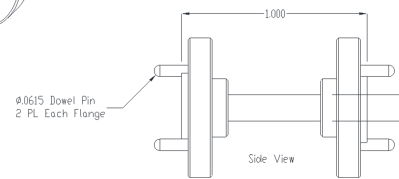
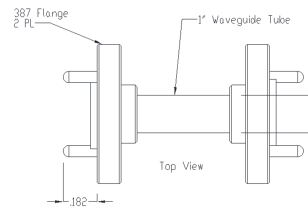
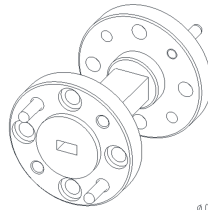
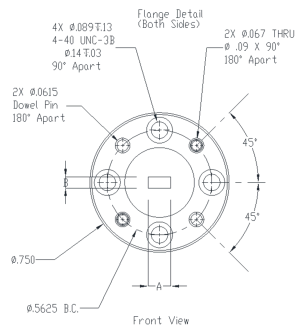
Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)

SIZE	DRAWING #	WAVEGUIDE MATERIAL	DIM. A	DIM. B	DIM. C	DIM. D
WR-05	WS-0500100WG	SILVER	0.0510"	0.0255"	0.1310"	0.1055"
WR-06	WS-0600100WG	SILVER	0.0650"	0.0325"	0.1450"	0.1125"
WR-08	WS-0800100WG	SILVER	0.0800"	0.0400"	0.1600"	0.1200"
WR-10	WS-1000100WG	COPPER	0.1000"	0.0500"	0.1800"	0.1300"
WR-12	WS-1200100WG	COPPER	0.1220"	0.0610"	0.2020"	0.1410"

*Note: XX Drawing Number Determined By Waveguide Interior Dimensions A & B And Exterior Dimensions C & D



NOTES: UNLESS OTHERWISE SPECIFIED

1. Flange Material: Half Hard Brass
2. Finish: 100 microinches bright nickel, 10 microinches gold



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