

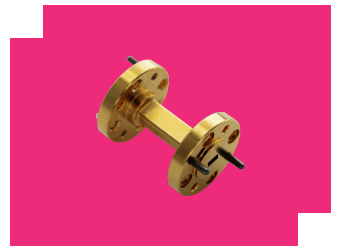
WS-1200100WG

WR-12 Straight Waveguide, 60GHz to 90GHz, 1 in

DEVICE OVERVIEW

General Description

WR-12 Straight Waveguide 1". 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

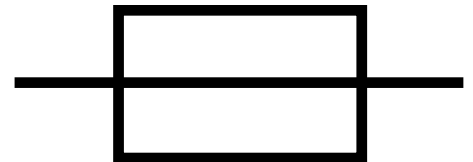
- 60 to 90GHz operation
- EIA WR-12 rectangular waveguide
- UG-387/U input and output flanges
- Copper construction
- Brass flanges
- Gold plated
- Very low loss

Applications

- 5G
- Radar
- Satellite Communications
- Digital Communications

Functional Block

Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
WS-1200200WG	WR-12 Straight Waveguide 2". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1200400WG	WR-12 Straight Waveguide 6". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1200300WG	WR-12 Straight Waveguide 3". Custom lengths available upon request.	-	REACH RoHS	Released	EAR99
WS-1200100WG	WR-12 Straight Waveguide, 60GHz to 90GHz, 1 in	WR-12	REACH RoHS	Released	EAR99

WS-1200100WG

WR-12 Straight Waveguide, 60GHz to
90GHz, 1 in

Table Of Contents

■ Device Overview

- General Description
- Features
- Applications
- Functional Block Diagram

■ Port Configuration and Functions

- Port Functions

■ Specifications

- Package Information
- Electrical Specifications

■ Mechanical Data

- Outline Drawing

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.	-

Specifications

Package Information

Parameter	Details	Rating
Dimensions	-	WR-12

Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Frequency Range	-	-	-	60	-	90	GHz
Insertion Loss ¹	-	60	90	-	0.13	-	dB
VSWR	-	60	90	-	1.03	-	-

^[1] Typical insertion loss per inch.

WS-1200100WG

WR-12 Straight Waveguide, 60GHz to 90GHz, 1 in

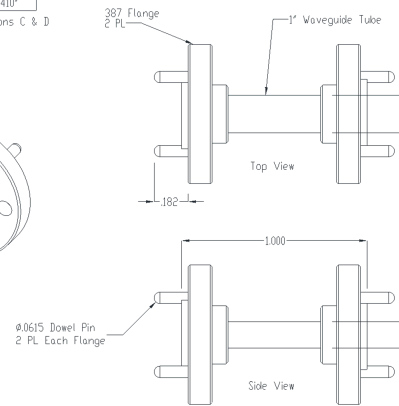
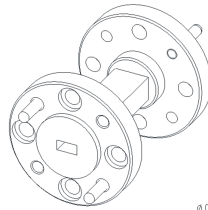
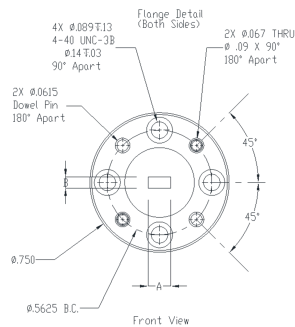
Mechanical Data

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



www.markimicrowave.com

WS-1200100WG

WR-12 Straight Waveguide, 60GHz to 90GHz, 1 in

DISCLAIMER

MARKI MICROWAVE, INC., ("MARKI") PROVIDES TECHNICAL SPECIFICATIONS AND DATA (INCLUDING DATASHEETS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, AND OTHER INFORMATION AND RESOURCES "AS IS" AND WITH ALL FAULTS. MARKI DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

These resources are intended for developers skilled in the art designing with Marki products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards and other requirements. Marki makes no guarantee regarding the suitability of its products for any particular purpose, nor does Marki assume any liability whatsoever arising out of your use or application of any Marki product. Marki grants you permission to use these resources only for development of an application that uses Marki products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Marki intellectual property or to any third-party intellectual property. Marki reserves the right to make changes to the product(s) or information contained herein without notice.

MARKI MICROWAVE and T3 MIXER are trademarks or registered trademarks of Marki Microwave, Inc. All other trademarks used are the property of their respective owners.

© 2024, Marki Microwave, Inc