

## Waveguide Crossguide Coupler, W Band, 15 dB

### **Description:**

Model SWX-10411415-10-4B is a four-port, split block crossguide coupler that is offered for power sampling where directivity is of concern. Compared to a multi-hole directional coupler, crossguide couplers offer lower insertion loss and a smaller form factor and insertion length. This model operates between 100 to 105 GHz with a 15 dB typical coupling level, 0.8 dB nominal insertion loss, and 15 dB typical directivity. The input, output, and coupled ports are all WR-10 waveguides with UG-387/U-M anti-cocking flanges.



### **Features:**

- Low Insertion Loss
- Moderate Directivity
- Four Port Configuration

## **Applications:**

- Test Labs
- Test Instrumentation
- Sub-assemblies

## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	100 GHz		105 GHz
Coupling Level		15.0 dB	
Insertion Loss		0.8 dB	
Directivity		15.0 dB	
Input/Output VSWR		1.1:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

# **Mechanical Specifications:**

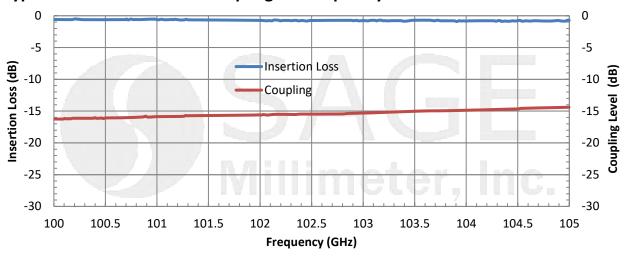
Item	Specifications	
Input	WR-10 waveguide with UG-387/U-M Anti-Cocking flange	
Output	WR-10 waveguide with UG-387/U-M Anti-Cocking flange	
Coupled	WR-10 waveguide with UG-387/U-M Anti-Cocking flange	
Size	1.00" (L) x 1.00" (W) x 0.81" (H)	
Material	Aluminum	
Finish	Gold Plated	
Weight	0.8 Oz	
Outline	WX-BW-4-A	



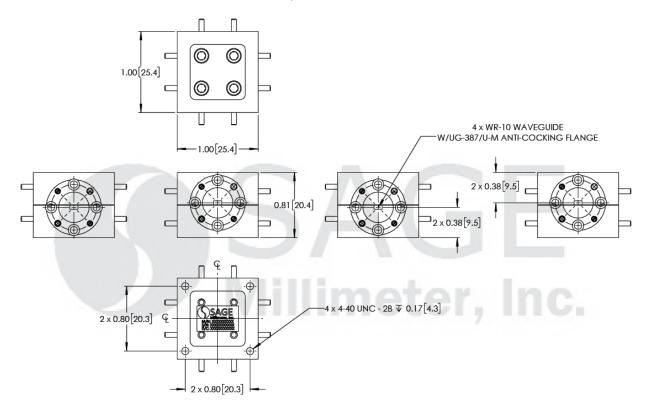
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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## **Typical Insertion Loss and Coupling vs. Frequency**



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



### Note:

- All data was presented using a limited sample lot. Actual data may vary unit to unit.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

### **Caution:**

Any foreign objects in the waveguide will degrade performance and/or damage the device.



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