

# W Band Waveguide Junction Isolator, 99 to 101 GHz

### **Description:**

Model SNW-9931041018-10-I1 is a W band waveguide junction isolator that covers the frequency range of 99 to 101 GHz. Compared with a Faraday isolator, the waveguide junction isolator offers a lower insertion loss of 1.0 dB nominal and a much shorter insertion length for system integration. As a tradeoff, the waveguide junction isolator only offers a typical isolation of 18 dB. The input and output ports are WR-10 waveguides with UG-387/U-M flanges.



#### **Features:**

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

## **Applications:**

- Port Isolation
- Module Integration

### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	99 GHz		101 GHz
Insertion Loss		1.0 dB	
Isolation	14 dB	18 dB	
Return Loss		15 dB	
Forward Power Handling		2 W (CW)	3 W (CW)
Reverse Power Handling		0.5 W (CW)	1 W (CW)
Specification Temperature	A A	+25 °C	1 20
Operating Temperature	-45 °C		+85 °C

# **Mechanical Specifications:**

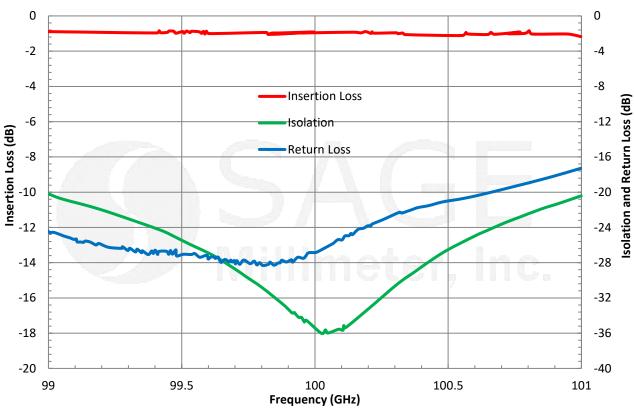
Item	Specification	
RF Ports	WR-10 Waveguide with UG-387/U-M Flange	
Body Material	Aluminum	
Body Finish	Gold Plated	
Cover Finish	Black Anodized	
Weight	0.8 Oz	
Insertion Length	0.75"	
Outline	NW-IW	



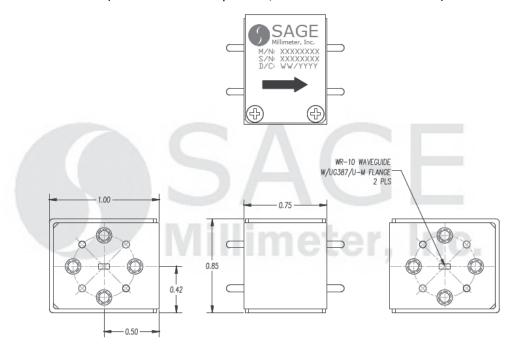
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

# W Band Waveguide Junction Isolator, 99 to 101 GHz

# Typical Insertion Loss, Isolation and Return Loss vs. Frequency



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



RoHS

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



# W Band Waveguide Junction Isolator, 99 to 101 GHz

### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- All testing was performed under +25°C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

#### **Caution:**

- Exceeding absolute maximum ratings will damage the device.
- This device is magnetic sensitive. Keep the device at least 6" away from magnetic fields.
- Any foreign objects in the waveguide will degrade the performance and/or damage the device.







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