



## W Band Waveguide Junction Isolator, 78 to 86 GHz

### Description:

**Model SNW-7838631015-10-IH** is a W band waveguide junction isolator that covers the frequency range of 78 to 86 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 15 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	78 GHz		86 GHz
Insertion Loss		1.0 dB	
Isolation		15 dB	
Return Loss		14 dB	
Forward Power Handling		2 W (CW)	3 W (CW)
Reverse Power Handling		0.5 W (CW)	1 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-10 °C		+55 °C

### Mechanical Specifications:

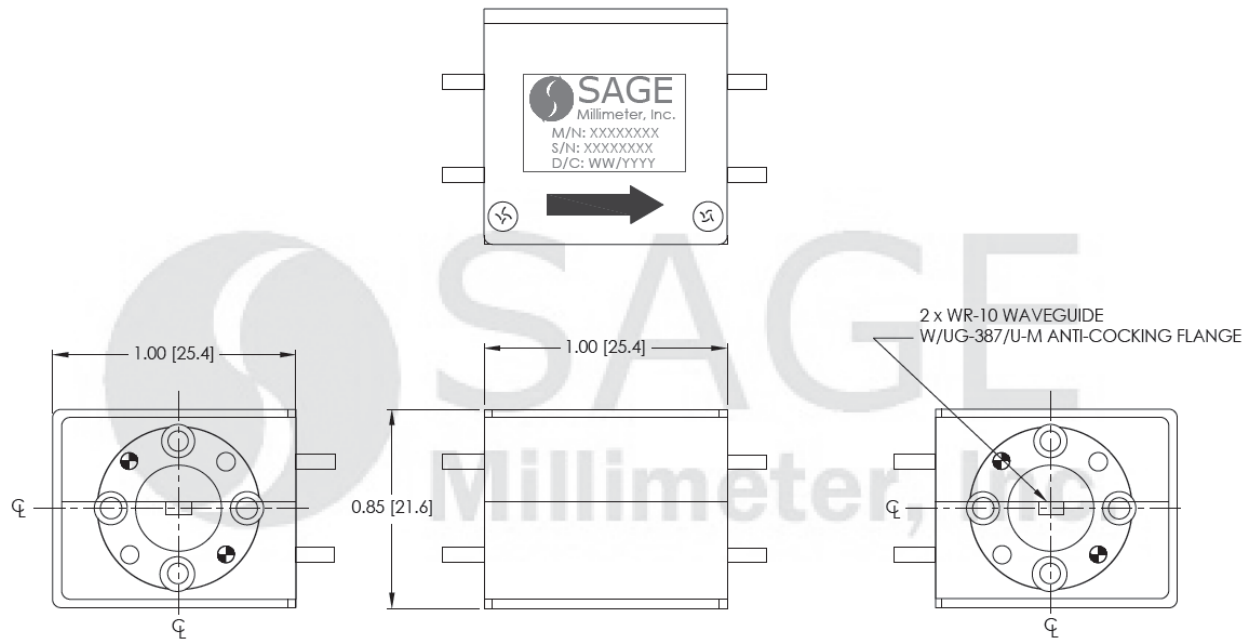
Item	Specification
RF Ports	WR-10 Waveguide with UG-387/U-M Flange
Body Material	Aluminum
Body Finish	Silver Plated
Cover Finish	Black Anodized
Weight	0.8 Oz
Insertion Length	0.75"
Outline	NW-IW-A-SH1





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



**Note:**

- 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.

