

# Ka-Band Waveguide Junction Isolator, 34 to 36 GHz

### **Description:**

**Model SNW-3433630320-28-I1** is a Ka band waveguide junction isolator that covers the frequency range of 34 to 36 GHz. Compared with a Faraday isolator, the waveguide junction isolator offers a lower insertion loss of 0.3 dB typical and a much shorter insertion length for system integration. As a tradeoff, the waveguide junction isolator only offers a typical isolation of 20 dB. The input and output ports are WR-28 waveguides with UG-599/U flanges.



#### **Features:**

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

## **Applications:**

- Port Isolation
- Module Integration

### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	34 GHz		36 GHz
Insertion Loss		0.3 dB	0.4 dB
Isolation	18 dB	20 dB	
Return Loss		15 dB	
Forward Power Handling		2 W (CW)	
Reverse Power Handling	/A	0.5 W (CW)	
Specification Temperature	_ / N	+25 °C	11 (2)
Operating Temperature	-45 °C	The state of the s	+85 °C

## **Mechanical Specifications:**

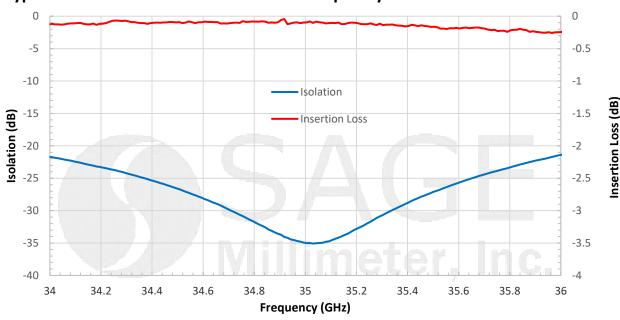
Item	Specification	
Input Port	WR-28 Waveguide with UG-599/U Flange	
Output Port	WR-28 Waveguide with UG-599/U Flange	
Case Material	Aluminum	
Finish	Chem Film	
Weight	0.8 Oz	
Insertion Length	0.4"	
Outline	NW-IA2	



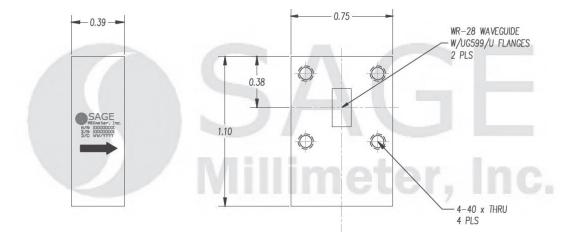
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### Typical Insertion Loss and Isolation vs. Frequency



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



#### 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.



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