

# V Band Waveguide Junction Circulator, 54 to 56 GHz

### **Description:**

**Model SNW-5435630718-15-C1** is a V band waveguide junction circulator that covers the frequency range of 54 to 56 GHz. The waveguide junction circulator is designed and manufactured to provide a low insertion loss of 0.7 dB nominal, a typical isolation of 18 dB, and a much shorter insertion length for system integration. The RF ports of the circulator are all equipped with standard WR-15 waveguide with UG-385/U flanges.



### **Features:**

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

## **Applications:**

- Module Integration
  - Port Isolation

### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	54 GHz		56 GHz
Insertion Loss		0.7 dB	
Isolation		18 dB	
Return Loss		17 dB	
Forward Power Handling			3 W (CW)
Reverse Power Handling			1 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

## **Mechanical Specifications:**

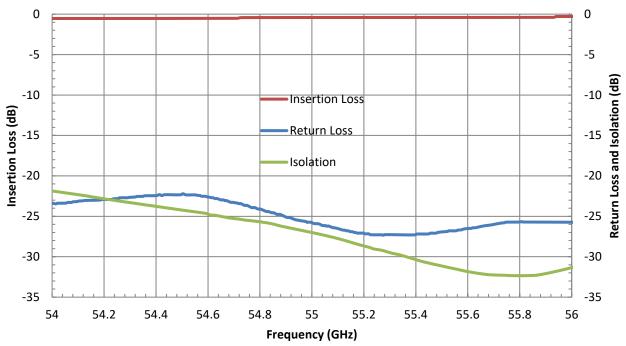
Item	Specification
RF Ports	WR-15 Waveguide with UG-385/U Flange
Body Material	Aluminum
Body Finish	Gold Plated
Cover Finish	Black Anodized
Weight	0.8 Oz
Size	1.0" (L) X 1.0" (W) X 0.85" (H)
Outline	NW-CV



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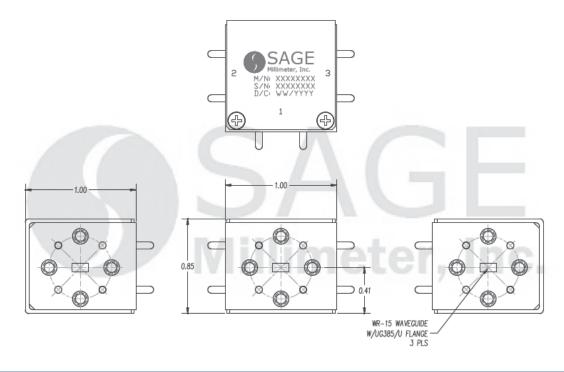
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# **Typical Performance vs. Frequency**



Note: The insertion loss, isolation and return loss between other ports, such as port 2 to port 3, are similar to the above plots.

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





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#### 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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