



U Band Waveguide Junction Circulator, 43.5 to 45.5 GHz

Description:

Model SNW-4434630520-19-C1 is a U band waveguide junction circulator that covers the frequency range of 43.5 to 45.5 GHz. The circulator is a key component in any radar and communication system where the duplexing functions are required. The waveguide junction circulator is manufactured to offer the highest performance. The circulator is designed and manufactured to provide a low insertion loss of 0.5 dB and an isolation of 20 dB typically, which offers the broadest the bandwidth in the class. The ports are WR-19 waveguides with UG-383/U-M flanges. Various configurations and frequency ranges are offered under different model numbers.



Features:

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

Applications:

- Port Isolation
- Module Integration

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	43.5 GHz		45.5 GHz
Insertion Loss		0.5 dB	
Isolation	18 dB	20 dB	
Return Loss		17 dB	
Power Handling		5 W (CW)	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

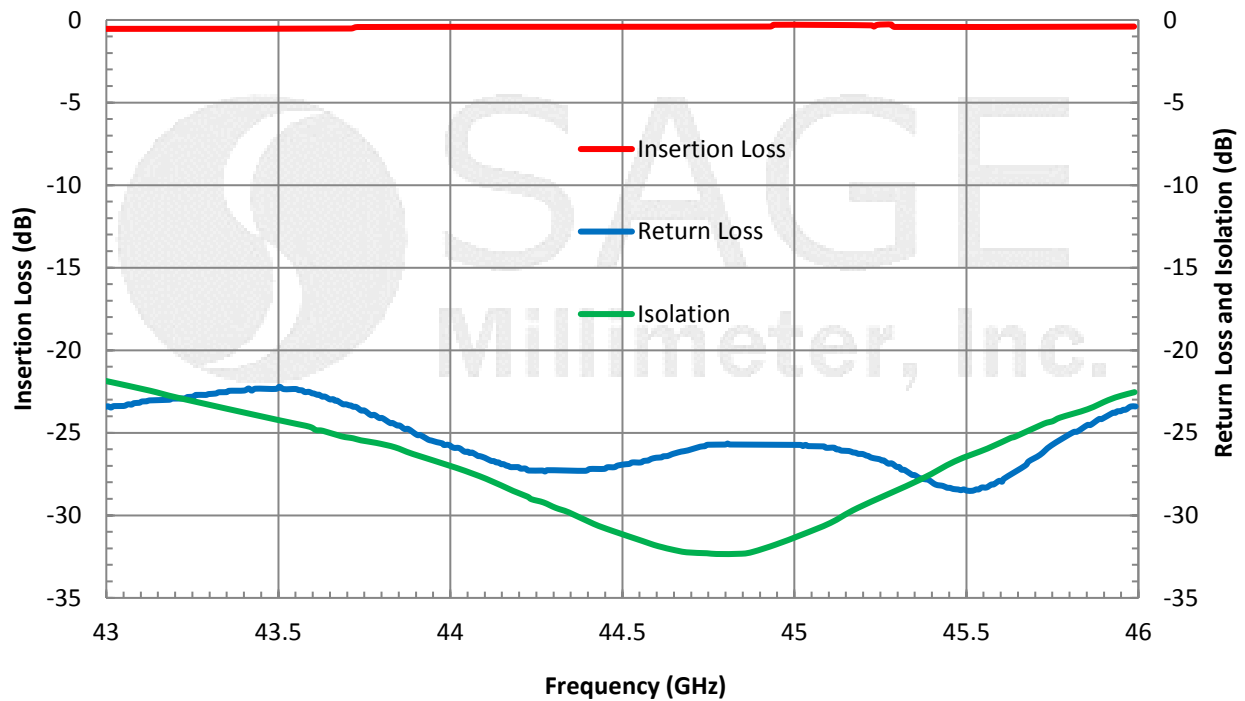
Item	Specification
RF Ports	WR-19 Waveguide with UG-383/U-M Flange
Material	Aluminum
Finish	Silver Plated
Weight	0.2 Oz
Insertion Length	0.50"
Outline	NW-CU-SH1





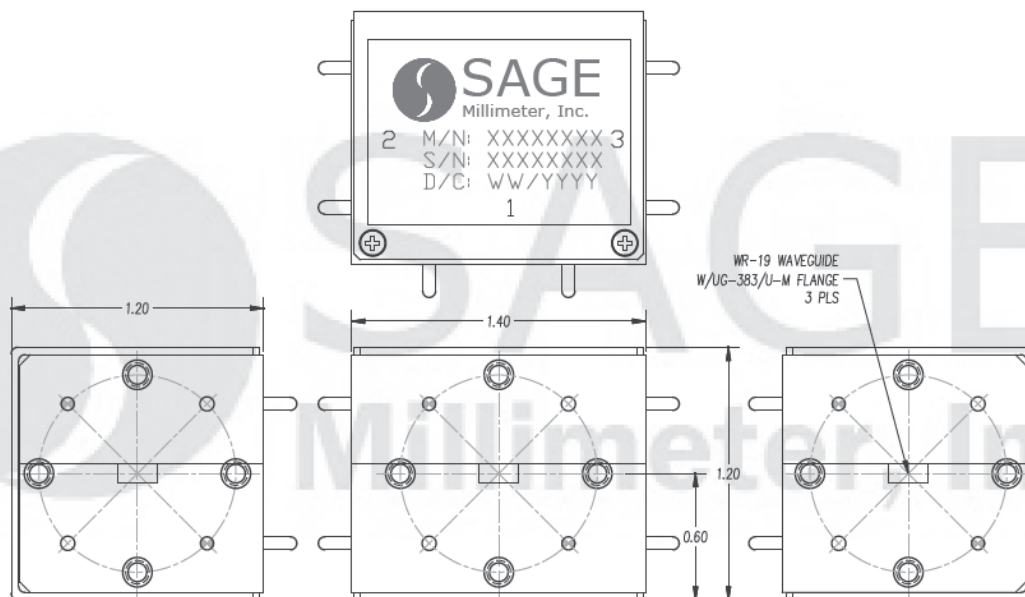
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Typical Performance vs. Frequency



Note: The insertion loss, isolation and return loss between other ports, such as port 2 to port 3, port 3 to port 1 are similar to above given 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.

