SNW-7638130818-12-C1-WPC

E Band Waveguide Junction Circulator, 76 to 81 GHz

SNW-7638130818-12-C1-WPC is an E band waveguide junction circulator that covers the frequency range of 76 to 81 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 0.8 dB and an isolation of 18 dB typically, which offers the broadest bandwidth in the class. The compact dimension guarantees the compact system integration. The RF ports are WR-12 waveguides with UG-387/U flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	76 GHz		81 GHz
Insertion Loss		0.8 dB	
Isolation		18 dB	
Return Loss		15 dB	
Forward Power Handling			3 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Ports	WR-12 Waveguide with UG-387/U Flange
Body Material	Aluminum
Body Finish	Silver Plated
Cover Finish	Black Anodized
Weight	0.8 Oz
Size	1.0” (L) x 1.0” (W) x 0.85” (H)
Outline	NW-CE-SX1

ECCN

EAR99

FEATURES

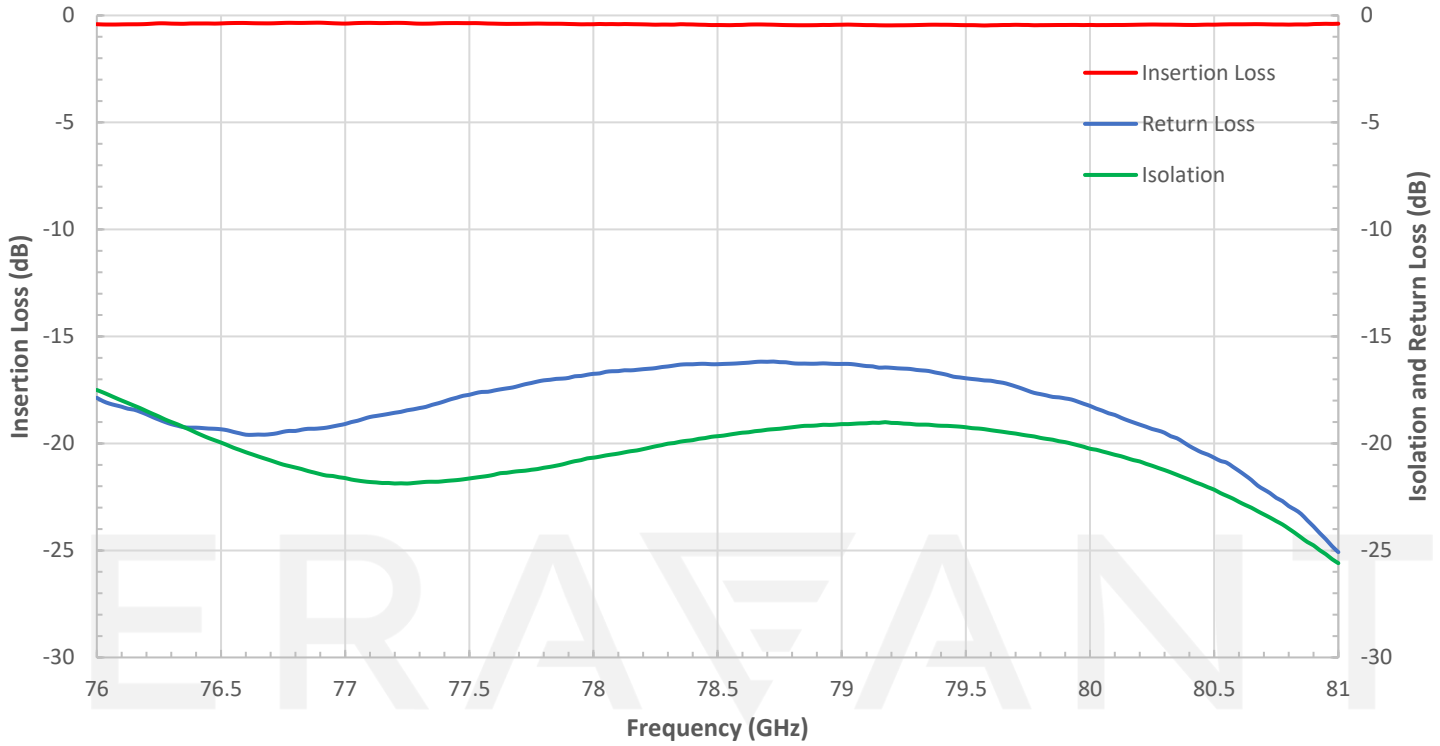
- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

APPLICATIONS

- Automotive Radar
- Module Integration
- Port Isolation

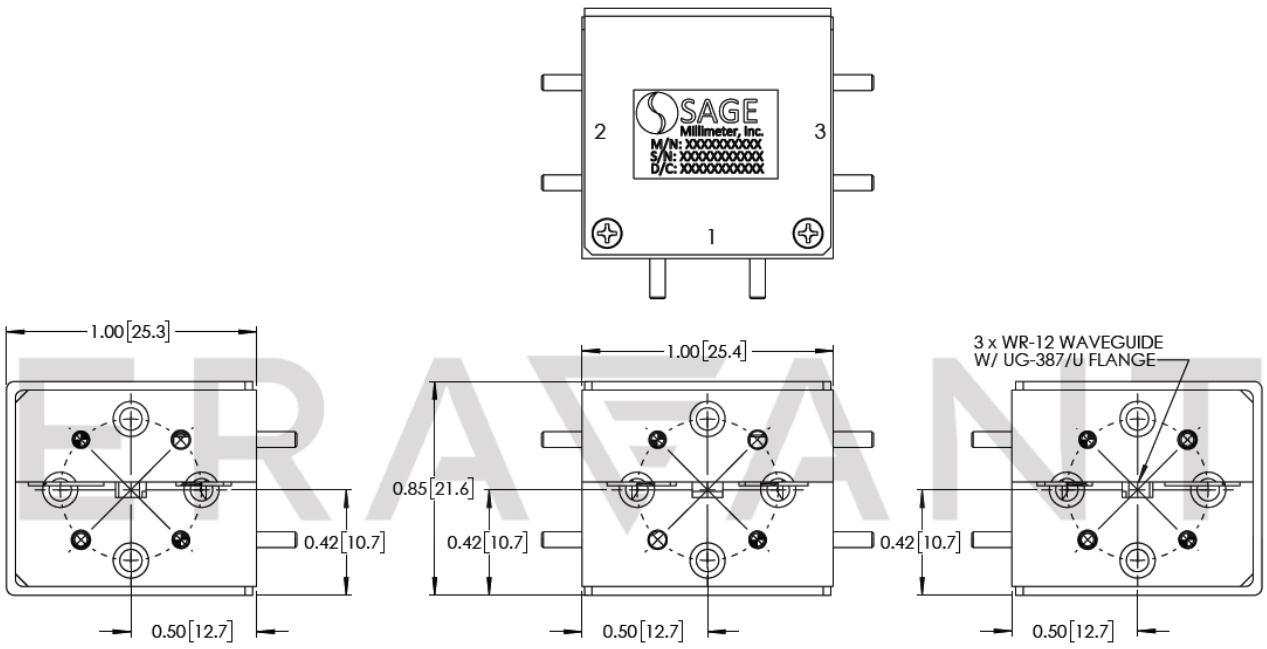
SUPPLEMENTAL DETAILS

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 [millimeters])



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit.
- All testing is performed under +25 °C room temperature.
- Eravant 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.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.

MAKING MILLIMETERWAVE ACCESSIBLE