SNW-9239831018-10-I1

W-Band Waveguide Junction Isolator, 92 to 98 GHz

SNW-9239831018-10-I1 is a W-Band waveguide junction isolator that covers the frequency range of 92 to 98 GHz. Compared with a Faraday isolator, the waveguide junction isolator offers an insertion loss of 1.0 dB typical and a much shorter insertion length for system integration. As a tradeoff, the waveguide junction isolator only offers a nominal isolation of 18 dB. The input and output ports are WR-10 waveguides and UG-387/U-M anti-cocking flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	92 GHz		98 GHz
Insertion Loss		1.0 dB	1.2 dB
Isolation	16 dB	18 dB	
Return Loss		16 dB	
Forward Power Handling			3 W (CW)
Reverse Power Handling			1 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

Mechanical Specifications:

Item	Specification
RF Ports	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Body Material	Aluminum
Body Finish	Gold Plated
Cover Finish	Black Anodized
Weight	0.7 Oz
Insertion Length	0.75”
Size	075” (L) x 0.85” (W) x 1.00” (H)
Outline	NW-IW-A

ECCN

EAR99

FEATURES

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

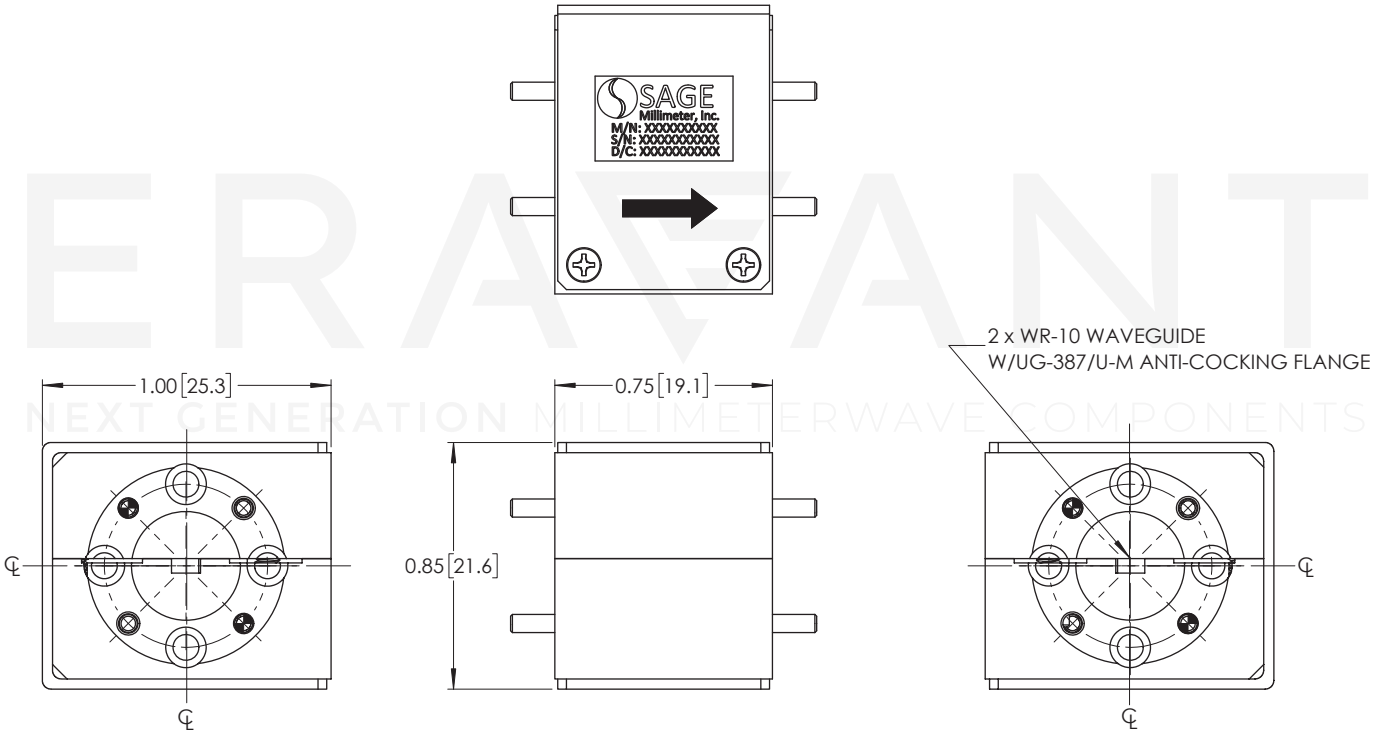
APPLICATIONS

- 5G Systems
- Last Mile Communication System
- Port Isolation
- Module Integration

SUPPLEMENTAL DETAILS

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.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

Typical Respose vs. Frequency