

## D-Band Waveguide Junction Isolator, 138 to 142 GHz

**SNW-1441441018-06-IO** is a D-Band waveguide junction isolator that covers the frequency range of 138 to 142 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-06 waveguides with UG-387/U-M anti-cocking flange.



### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	138 GHz		142 GHz
Insertion Loss		1.0 dB	1.5 dB
Isolation		18 dB	
Return Loss		16 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-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Body Material	Aluminum
Body Finish	Gold Plated
Cover Finish	Black Anodized
Weight	0.7 Oz
Size	0.75" (L) x 0.85" (W) x 1.00" (H)
Outline	NW-ID-A

### ECCN

EAR99

### FEATURES

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

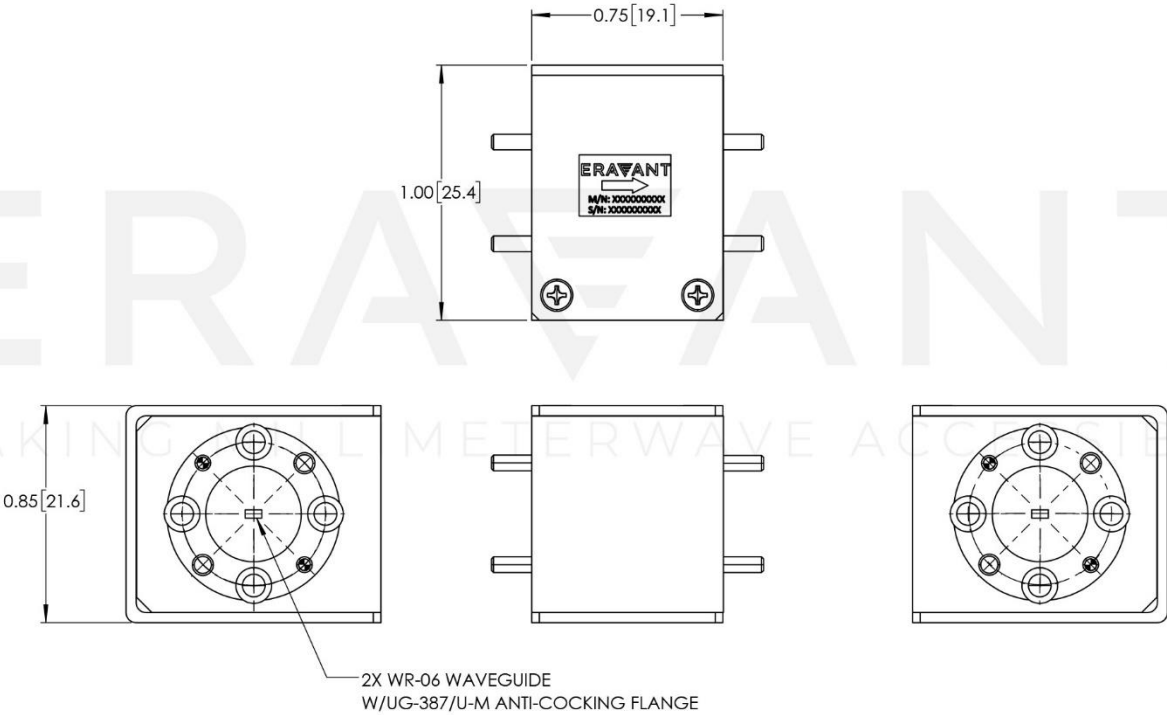
### APPLICATIONS

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

### SUPPLEMENTAL DETAILS



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



**NOTE:**

- All data presented is collected from a sample lot. Actual data may vary from unit to unit, slightly.
- All testing was performed under +25 °C case 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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.