

## W Band Waveguide Junction Isolator, 101 to 109 GHz

### Description:

**Model SNW-1041141018-10-I1-2** is an W band waveguide junction isolator that covers the frequency range of 101 to 109 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 with UG-387/U-M anti-cocking flange.



### Features:

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

### Applications:

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

### Electrical Specifications:

| Parameter                 | Minimum | Typical | Maximum  |
|---------------------------|---------|---------|----------|
| Frequency                 | 101 GHz |         | 109 GHz  |
| Insertion Loss            |         | 1.0 dB  |          |
| Isolation                 |         | 18 dB   |          |
| Return Loss               |         | 15 dB   |          |
| Forward Power Handling    |         |         | 3 W (CW) |
| Reverse Power Handling    |         |         | 3 W (CW) |
| Specification Temperature |         | +25 °C  |          |
| Operating Temperature     | -40 °C  |         | +85 °C   |

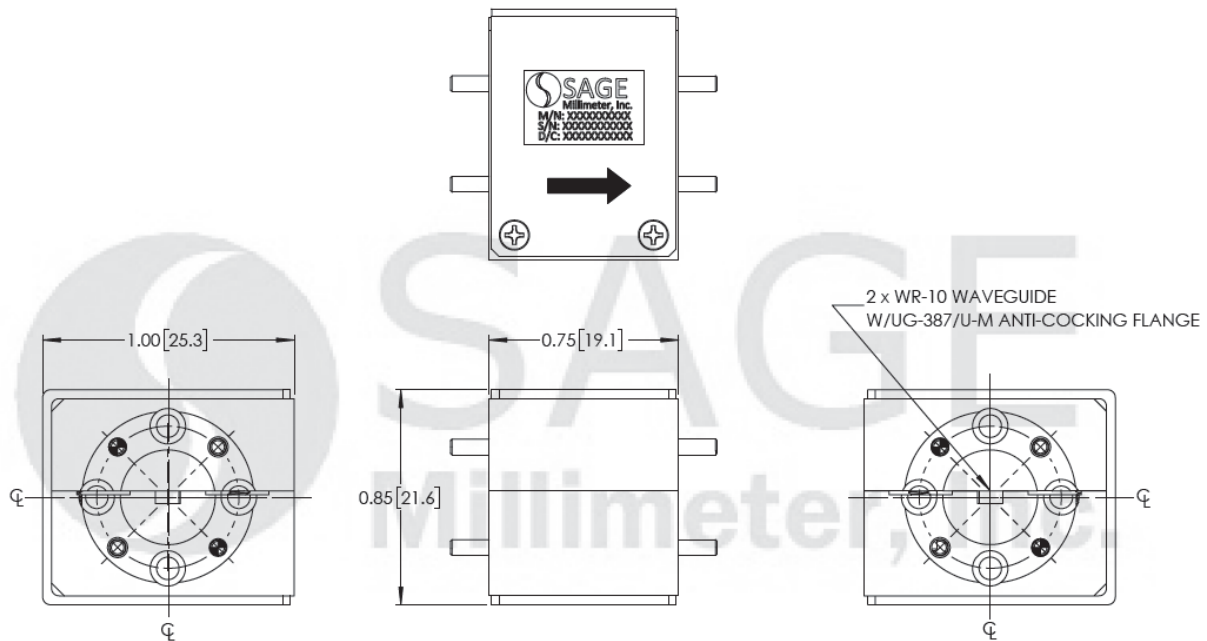
### Mechanical Specifications:

| 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             | 0.75" (L) X 0.85" (W) 1.00" (H)                     |
| Outline          | NW-IW-A   |



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



**Note:**

- 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.

