



## E Band Gaussian Optics Antenna, 74 to 80 GHz, 32 dBi Gain, 3"

### Description:

**Model SAG-7438033203-12-S1** is a 3" E-band Gaussian antenna that operates from 73.5 to 79.5 GHz. The Gaussian antenna delivers a 32 dBi nominal gain and 3.0 degree half power beamwidth. The antenna supports linear polarized waveforms and employs a corrugated feed horn to offer excellent aperture efficiency, high cross polarization rejections, and low sidelobe levels. This model is equipped with a standard WR-12 waveguide and UG-387/U flange as its input port. By removing the mode transition, SAGE Millimeter model number SWT-12125-SB, the input port becomes a 0.125" diameter circular waveguide, which can support both linear and circular polarized waveforms.



### Features:

- Center Fed
- Low Sidelobes
- Low Cross Polarization

### Applications:

- Radar Systems
- Communication Systems
- Plasma Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	73.5 GHz	76.5 GHz	79.5 GHz
Gain		32 dBi	
3 dB Beamwidth		3.0°	
Sidelobes		-20 dB	
Polarization		Linear	
Return Loss		21 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

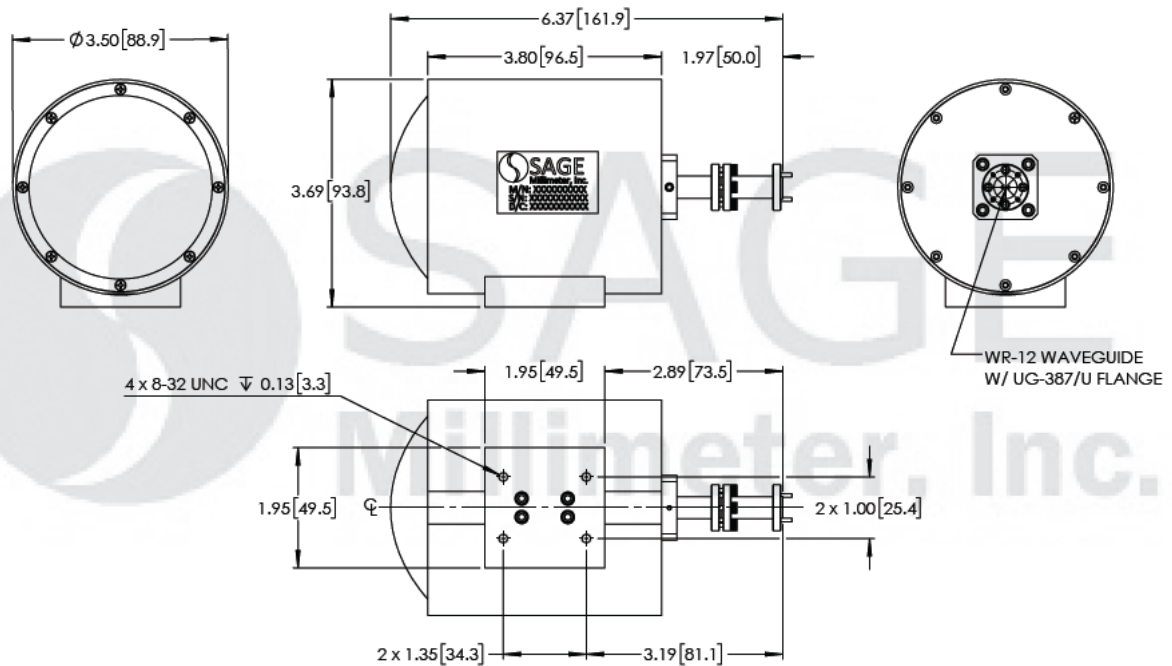
Item	Specification
Antenna Port	WR-12 Waveguide with UG-387/U Flange
Material	Aluminum
Finish	Black Anodized
Weight	1.4 lb
Lens Diameter	3.0"
Dimensions	3.69" (H) x 6.37" (L)
Outline	AG-RE34





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



**Note:**

- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- The operation frequency of the antenna can be extended to a wider range with small performance degradation at the edges of the band.

**Caution:**

- Foreign objects in the waveguide will affect device performance and may damage the antenna.

