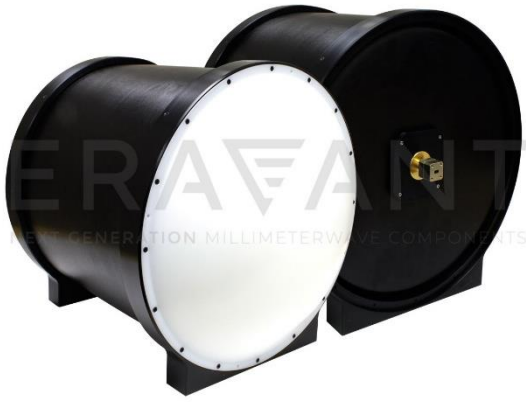
SAG-8831044801-10-S1

W-Band Gaussian Optics Antenna, 88 to 100 GHz, 12” Lens



SAG-8831044801-10-S1 is a 12” W-band Gaussian antenna that operates from 88 to 100 GHz. The Gaussian antenna delivers a 48 dBi nominal gain and 0.8 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-10 waveguide and UG-387/U-M flange as its input port. By removing the mode transition, SAGE Millimeter model number SWT-10094-SB, the input port becomes a 0.094” diameter circular waveguide, which can support both linear and circular polarized waveforms.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	88 GHz	94 GHz	100 GHz
Gain		48 dBi	
3 dB Beamwidth		0.8˚	
Side Lobes		-25 dB	
Polarization	Linear		
Return Loss		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-10 Waveguide with UG-387/U-M Flange
Lens Diameter	12.0”
Dimensions	13.00” (Ø) x 17.29” (L)
Material	Aluminum
Finish	Black Anodized
Weight	19.5 lb
Outline	AG-RW48

ECCN

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FEATURES

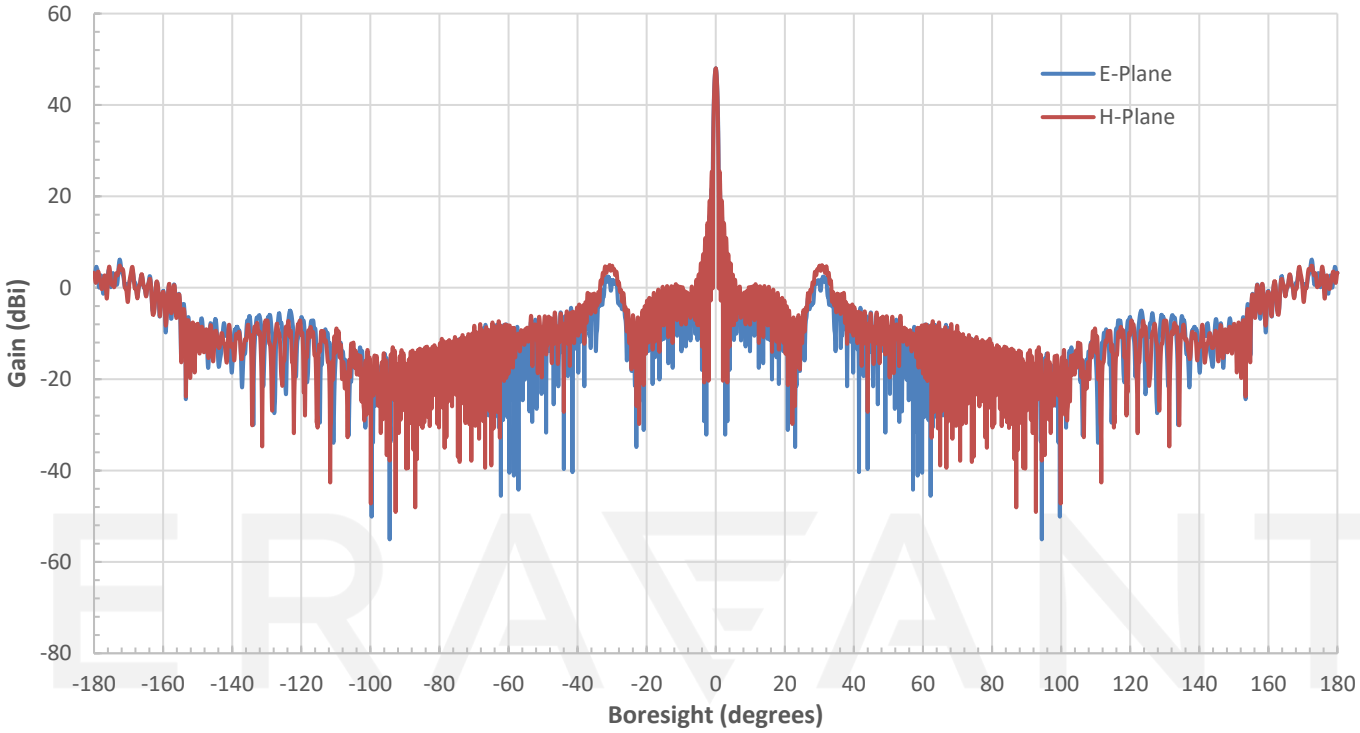
- Center Fed
- Low Sidelobes
- Low Cross Polarization

APPLICATIONS

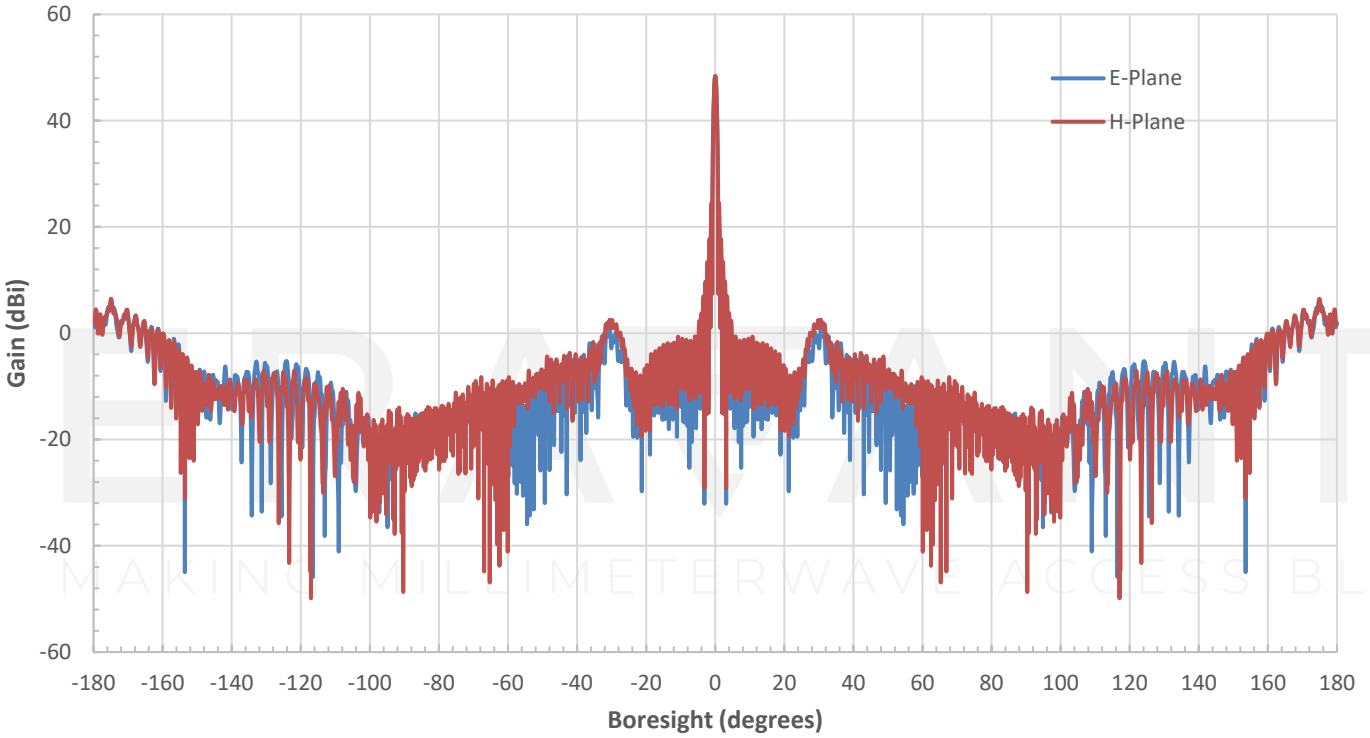
- Radar Systems
- Communication Systems
- Plasma Systems

SUPPLEMENTAL DETAILS

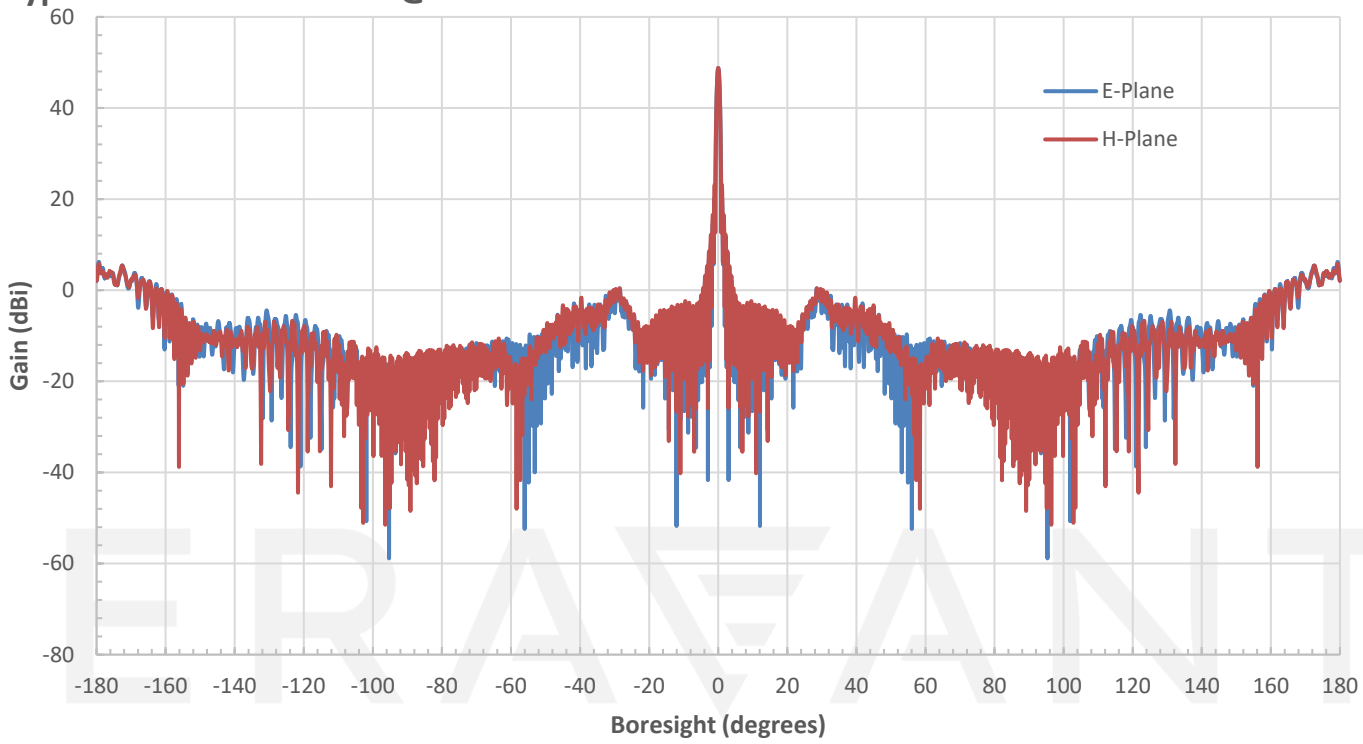
Typical Antenna Patterns @ 88 GHz



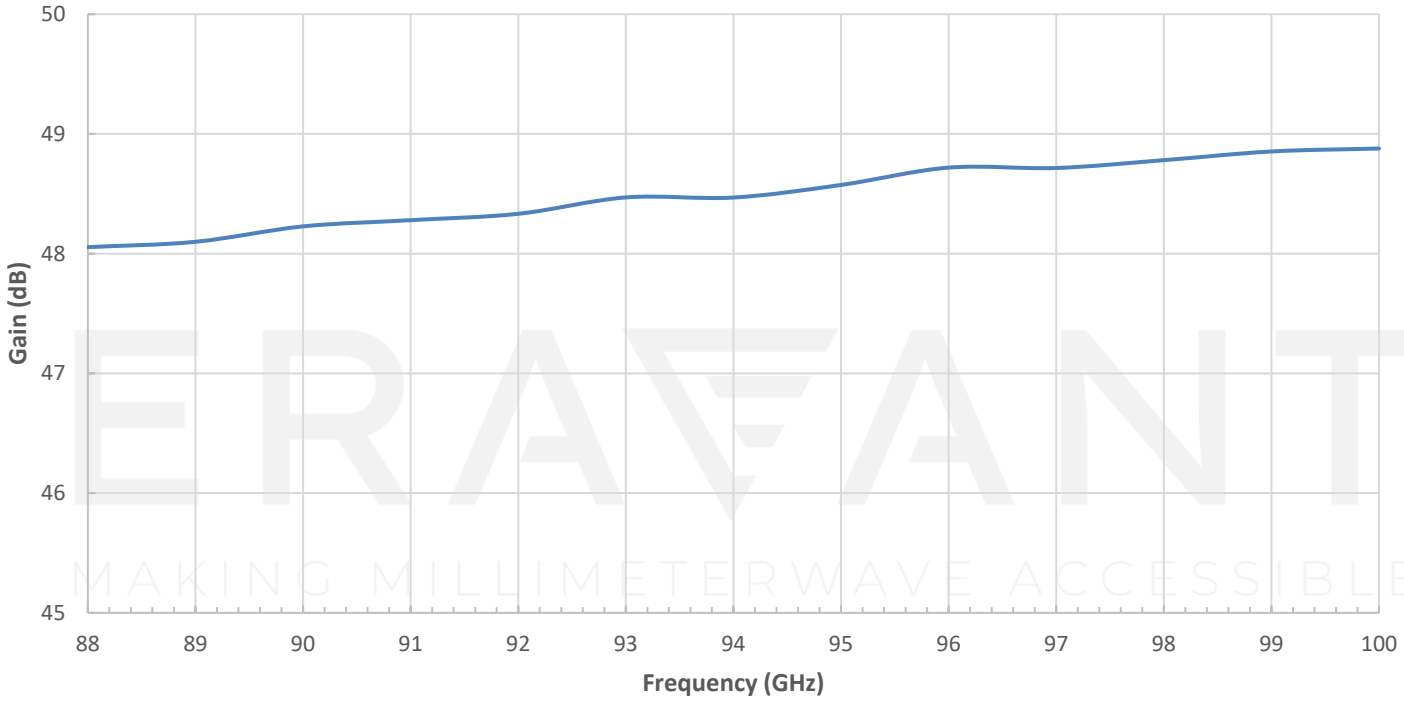
Typical Antenna Patterns @ 94 GHz



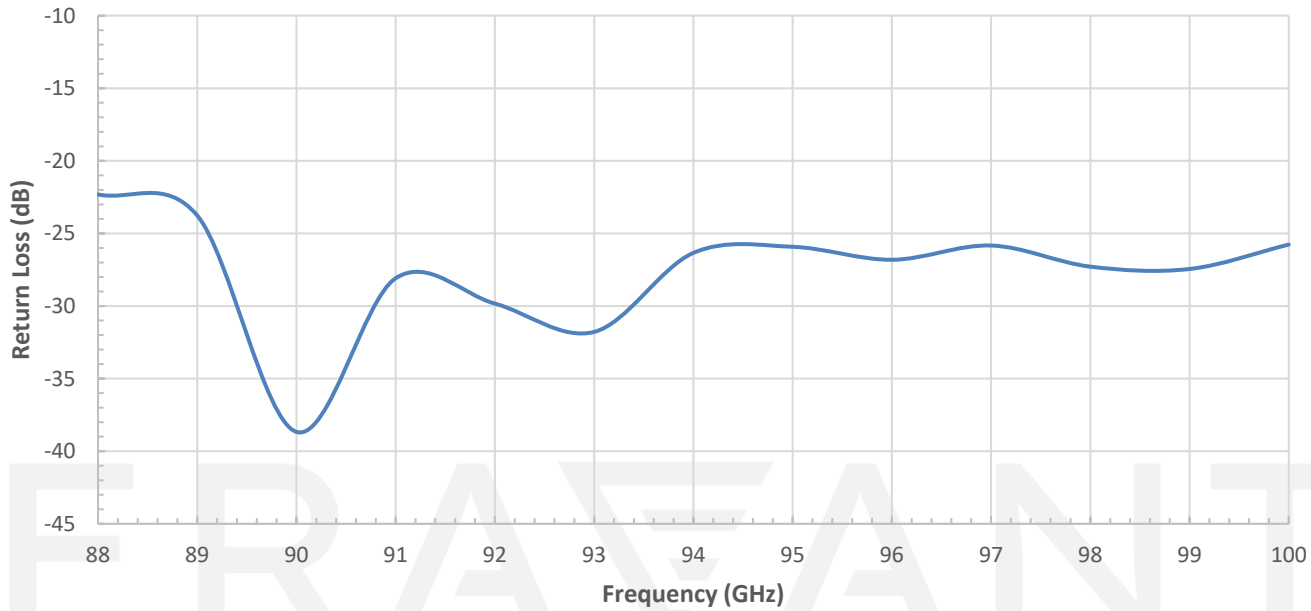
Typical Antenna Patterns @ 100 GHz



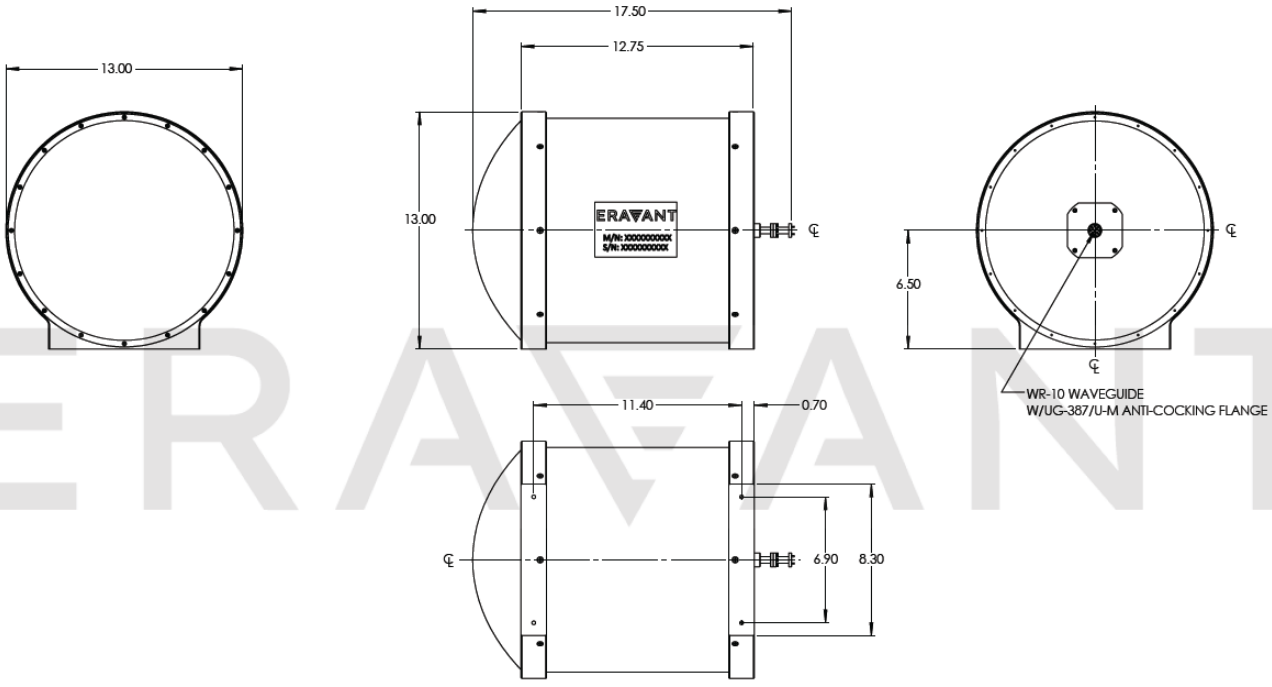
Simulated Gain vs. Frequency



Simulated Return Loss vs. Frequency



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:

- Any foreign objects in the waveguide or antenna will cause performance degradation and possible device damage.

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