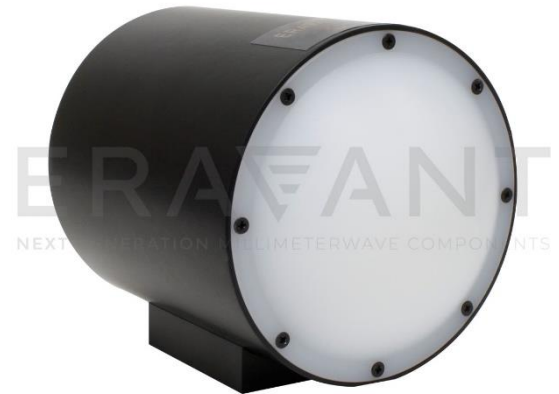


SAG-9031444401-08-S1

F-Band Gaussian Optics Antenna, 90 to 140 GHz, 6" Lens

SAG-9031444401-08-S1 is a 6.0" (Ø) G-band Gaussian antenna that operates from 90 to 140 GHz. The Gaussian antenna delivers a 44 dBi nominal gain and 1° half power beamwidth. The antenna supports linear and circular polarized waveforms and employs a corrugated feed horn to offer excellent aperture efficiency, high cross polarization rejection, and low sidelobe levels. This model is equipped with a WR-08 rectangular waveguide and UG-387/U-M anti-cocking flange as its input port. By removing a mode transition, Eravant model number **SWT-08094-SB**, the input port becomes a 0.094" diameter circular waveguide, which can support linearly and circularly polarized waveforms.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	90 GHz		140 GHz
Gain		44 dBi	
3 dB Beamwidth		1.0°	
Sidelobes		-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-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Lens Diameter	6.0"
Lens Material	HDPE
Body Material	Aluminum
Finish	Black Anodized
Outline	AG-RF44-A

ECCN

EAR99

FEATURES

- Center Fed
- Low Sidelobes
- Low Cross Polarization

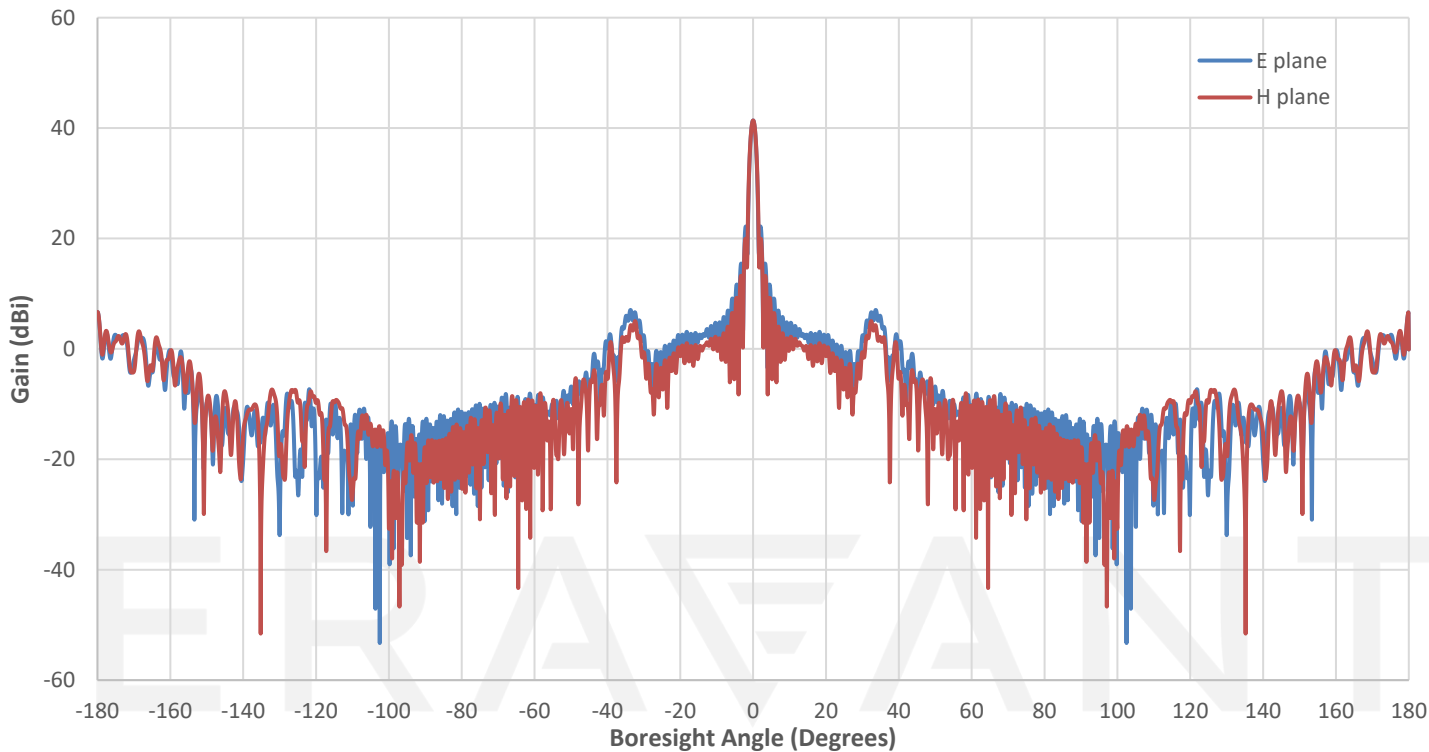
APPLICATIONS

- Radar Systems
- Communication Systems
- Plasma Systems

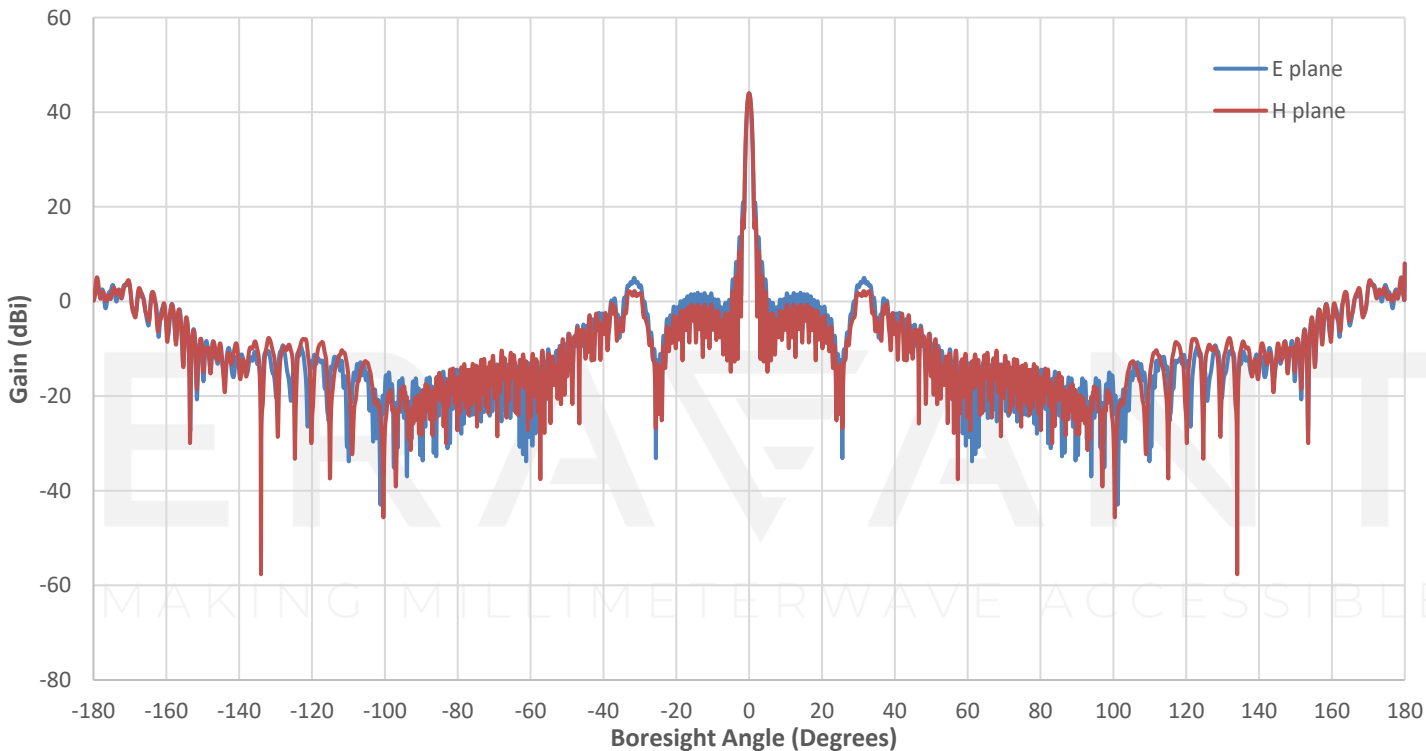
SUPPLEMENTAL DETAILS



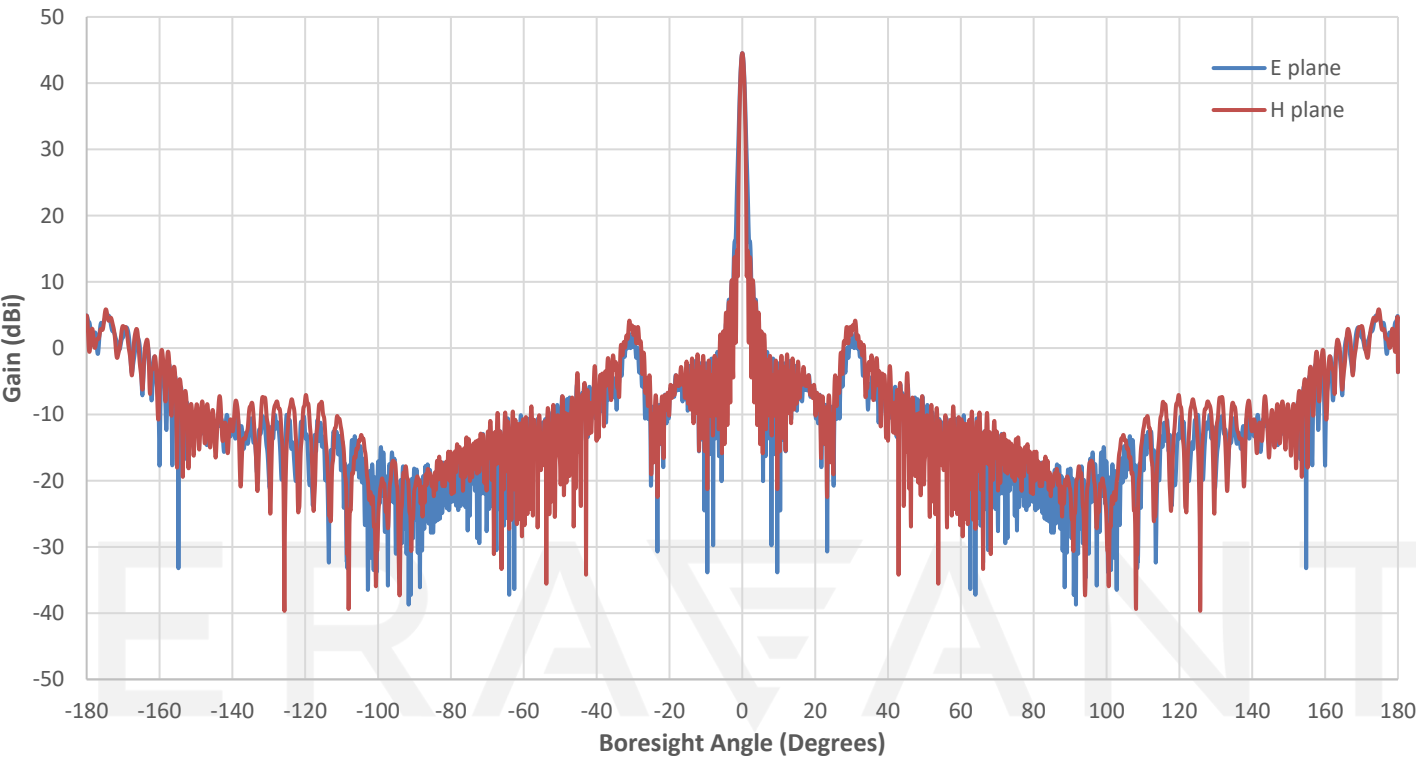
Simulated Pattern at 90 GHz



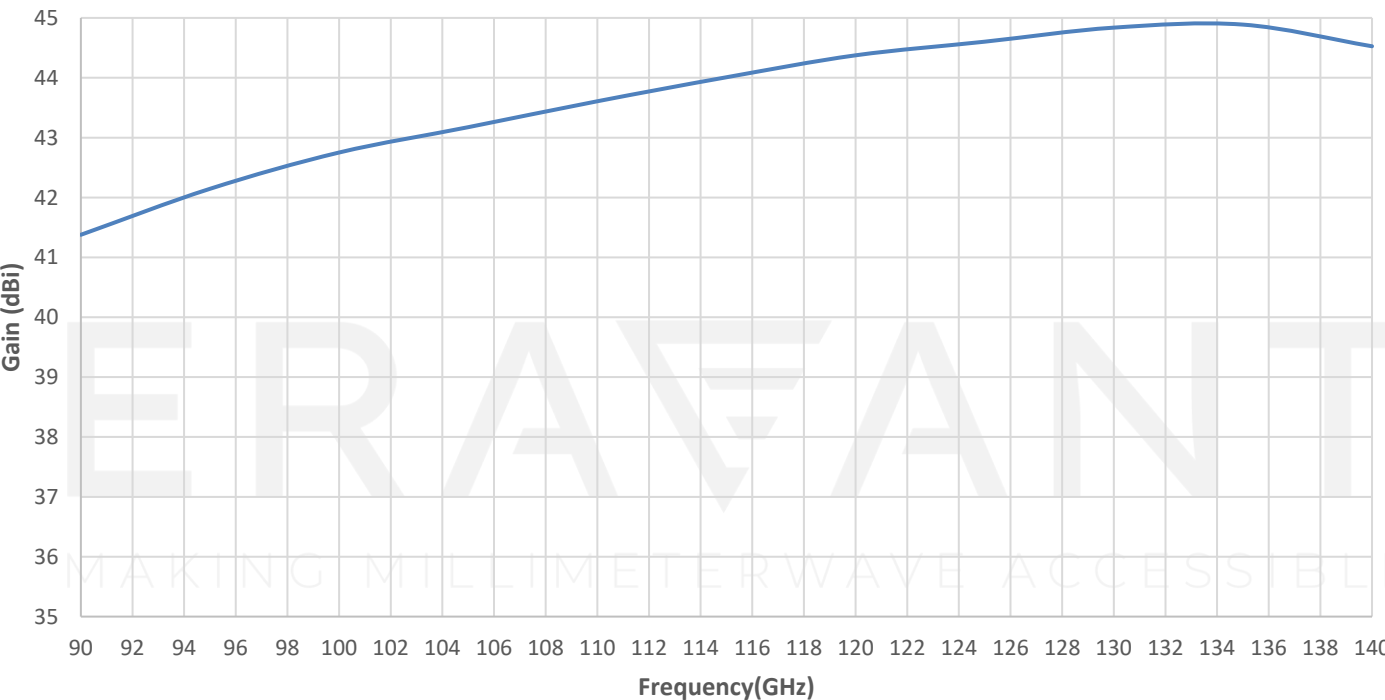
Simulated Pattern at 115 GHz



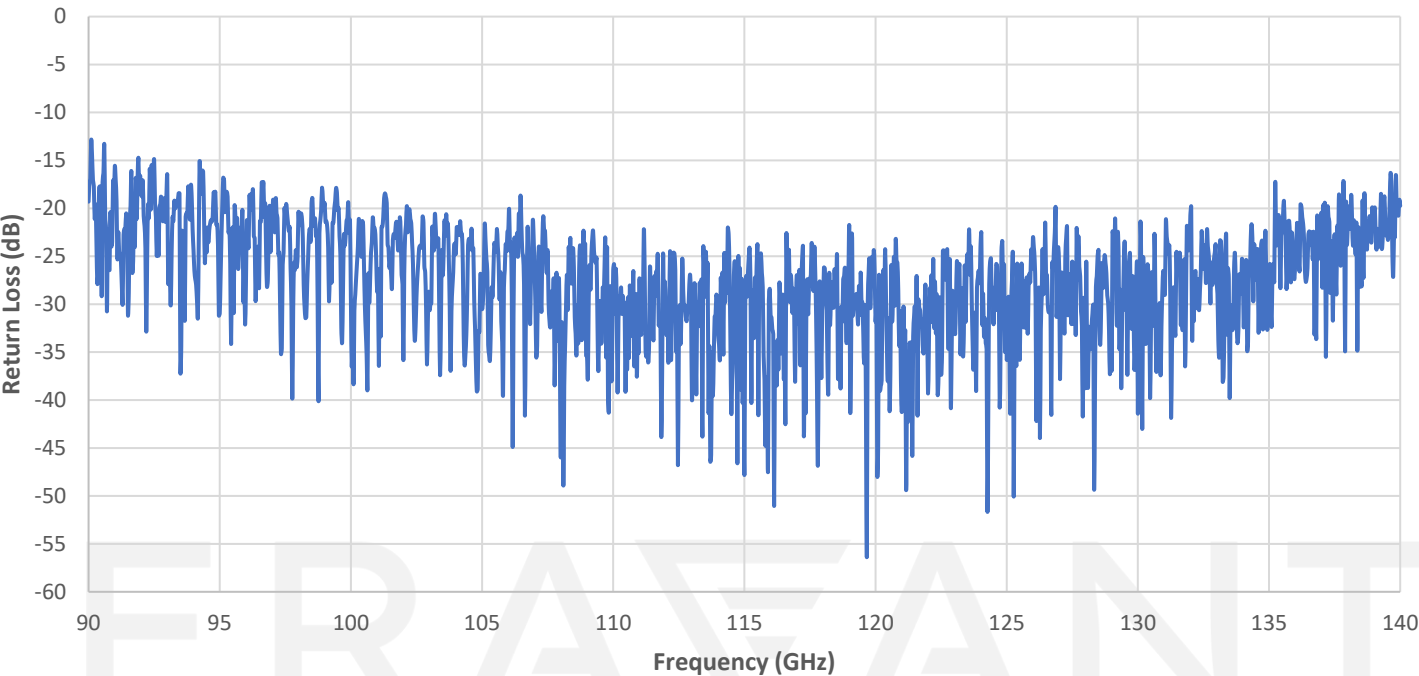
Simulated Pattern at 140 GHz



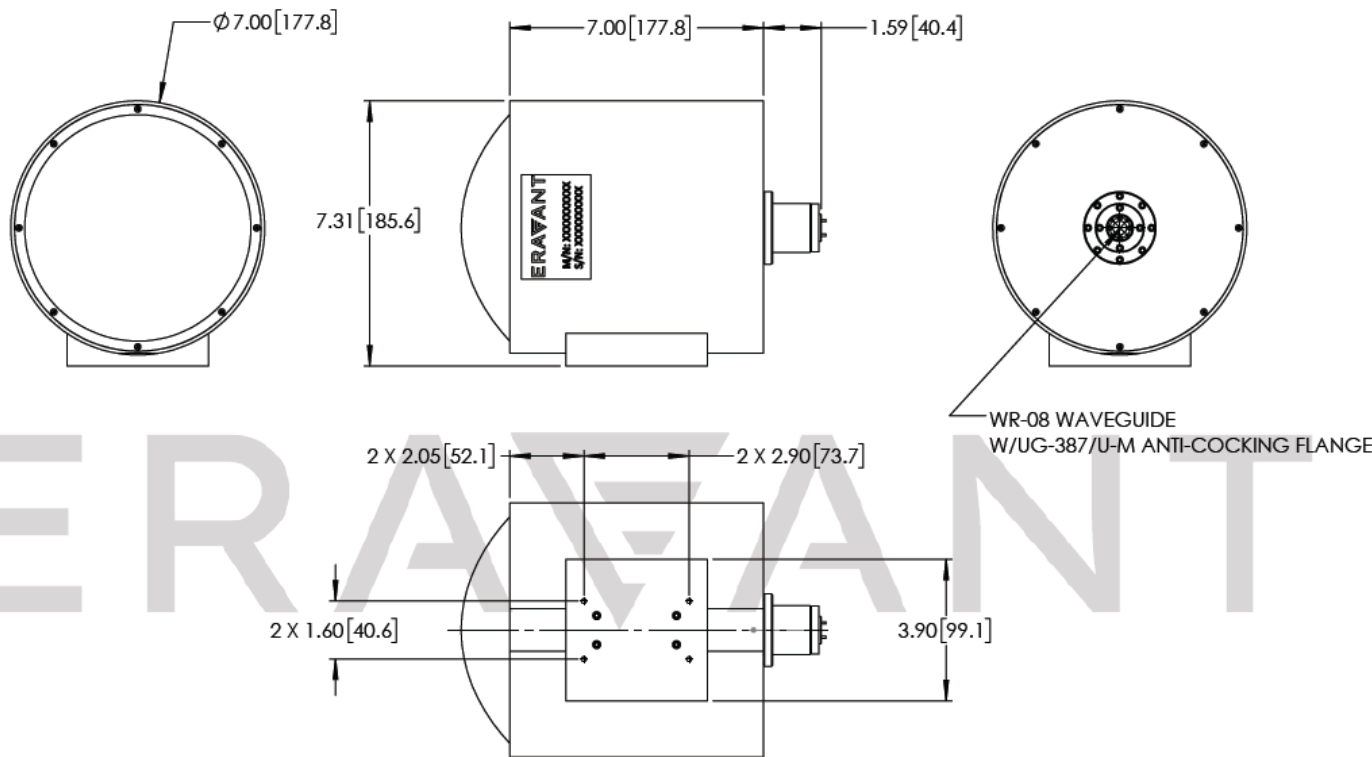
Simulated Gain vs Frequency



Measured Return Loss vs Frequency



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



NOTE:

- Eravant reserves the right to change the information presented without notice.

CAUTION:

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

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