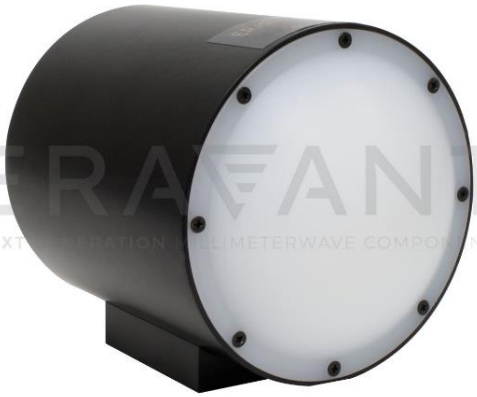
SAG-1141743502-06-S1

D-Band Gaussian Optics Antenna, 110 to 170 GHz, 3” Lens



SAG-1141743502-06-S1 is a 3.0” (Ø) D-band Gaussian antenna that operates from 110 to 170 GHz. The Gaussian antenna delivers a 35 dBi nominal gain and 2.0-degree half power beamwidth. The antenna supports linear 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 standard WR-06 waveguide and UG-387/U-M anti-cocking flange as its input port. By removing the mode transition, Eravant model number SWT-06082-SB, the input port becomes a 0.082” diameter circular waveguide, which can support both linear and circular polarized waveforms.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	110 GHz		170 GHz
Gain		35 dBi	
3 dB Beamwidth		2.0˚	
Sidelobes		-25 dB	
Return Loss		12 dB	
Polarization		Linear	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-06 Waveguide W/ UG-387/U-M Anti-Cocking Flange
Lens Diameter	3”
Lens Material	HDPE
Body Material	Aluminum
Body Finish	Black Anodized
Outline	AG-RD35-A

ECCN

EAR99

FEATURES

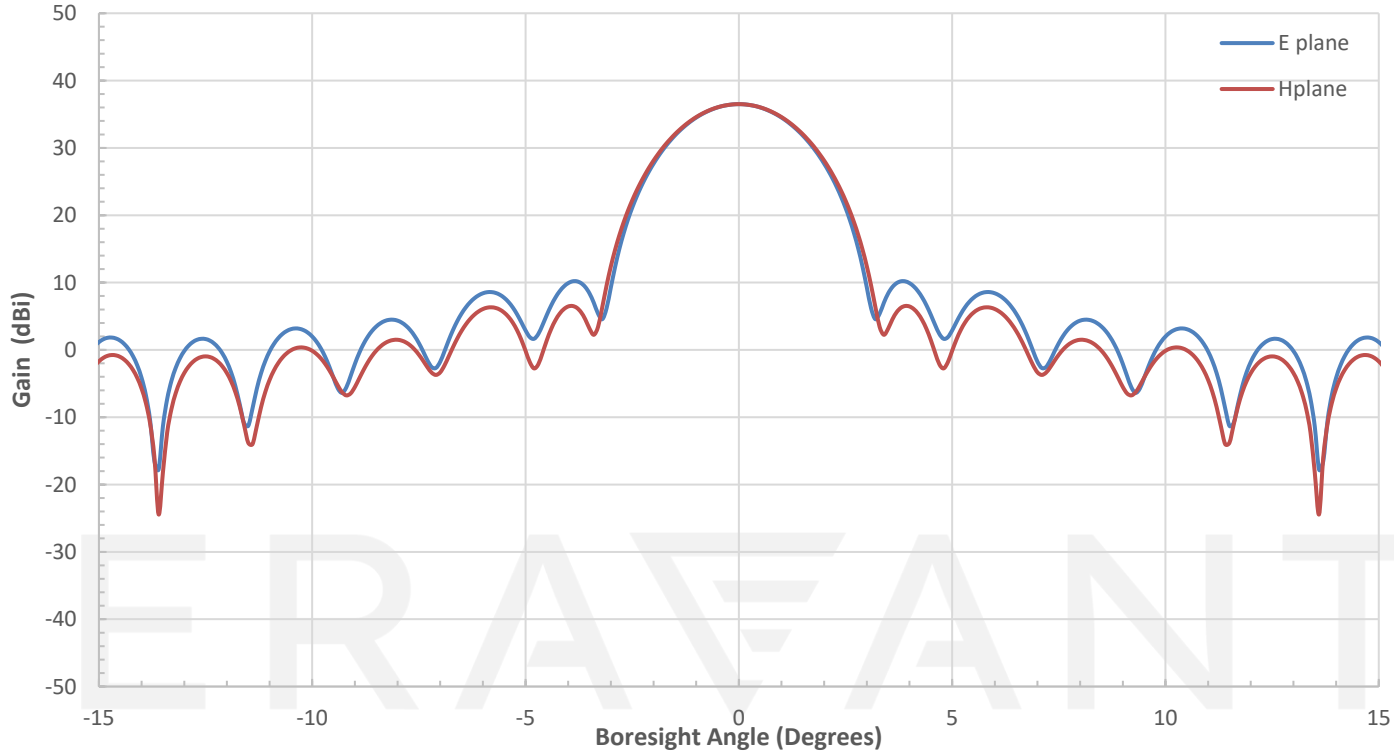
- Center Fed
- Low Sidelobes
- Low Cross Polarization

APPLICATIONS

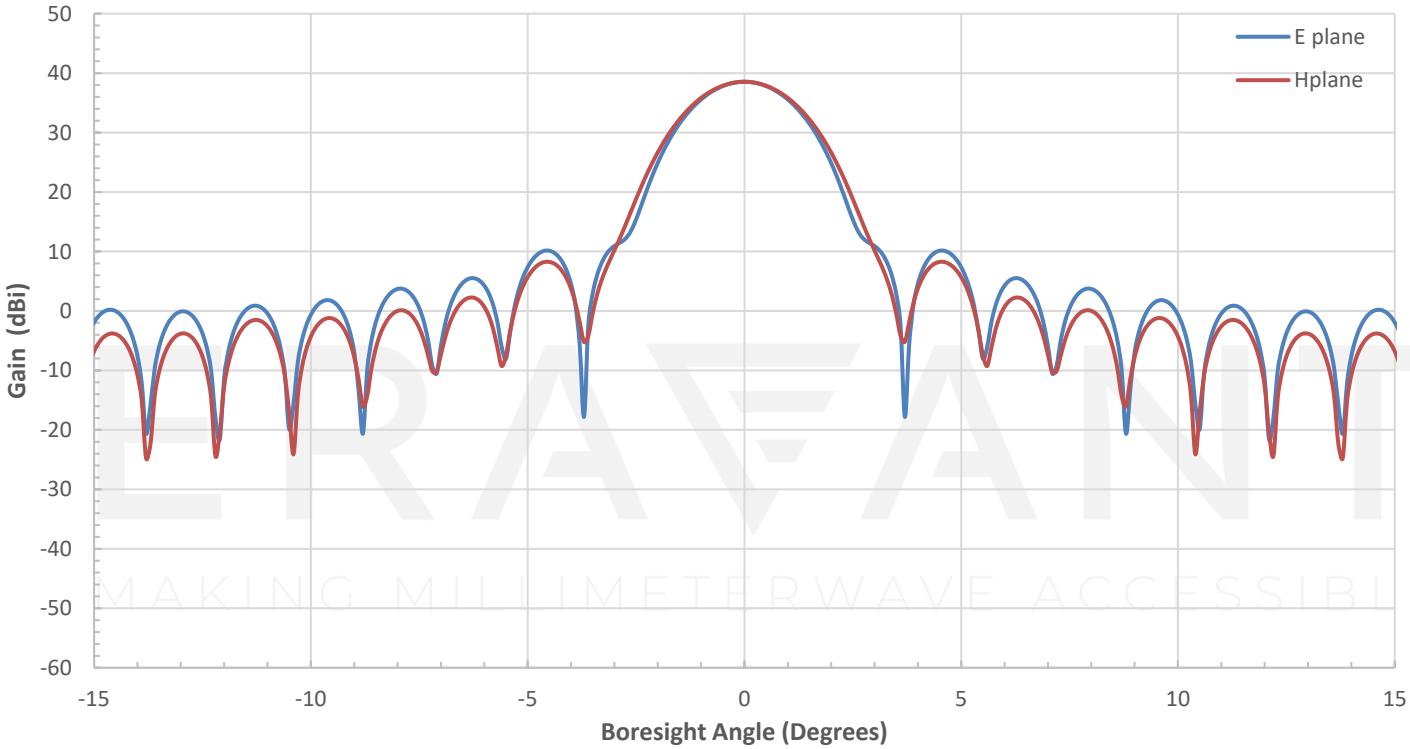
- 6G R&D Test Lab
- 6G Communication Systems

SUPPLEMENTAL DETAILS

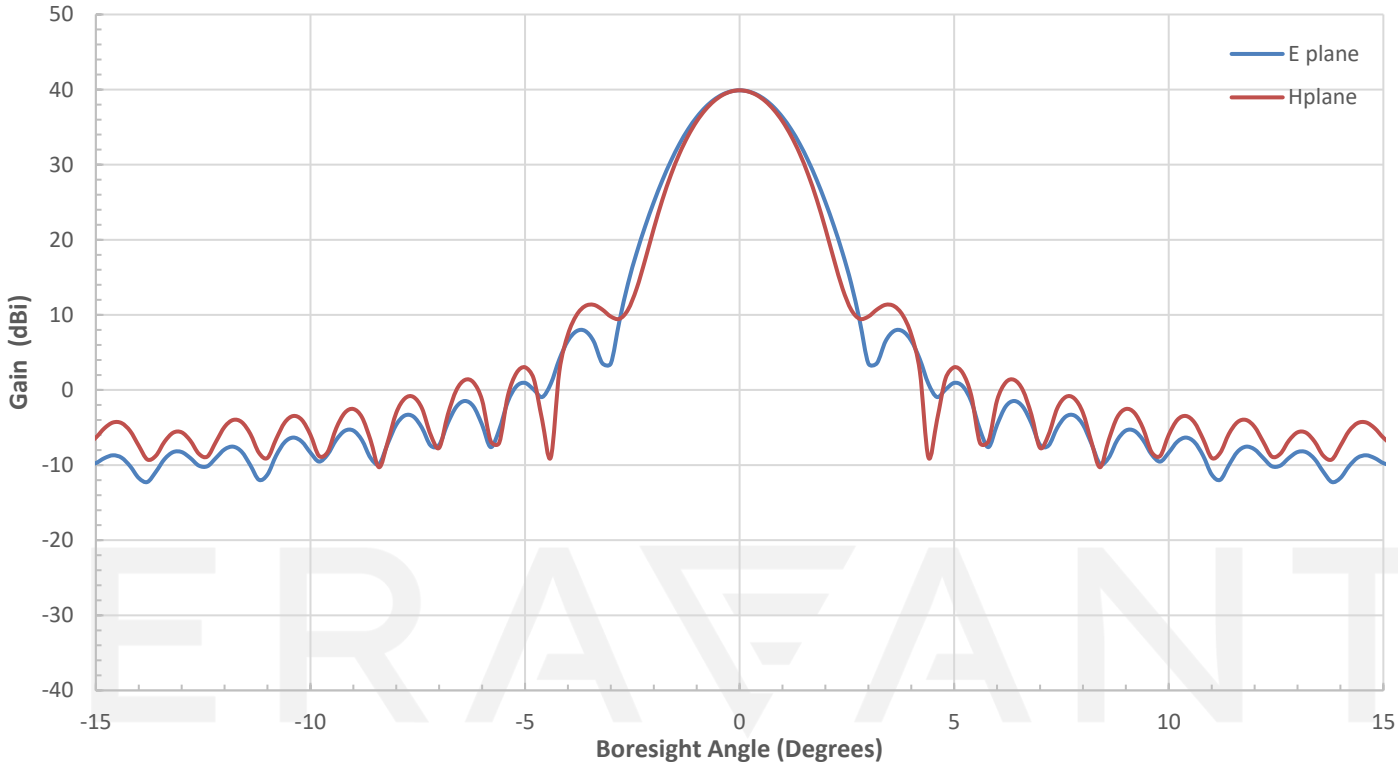
Simulated Patterns at 110 GHz



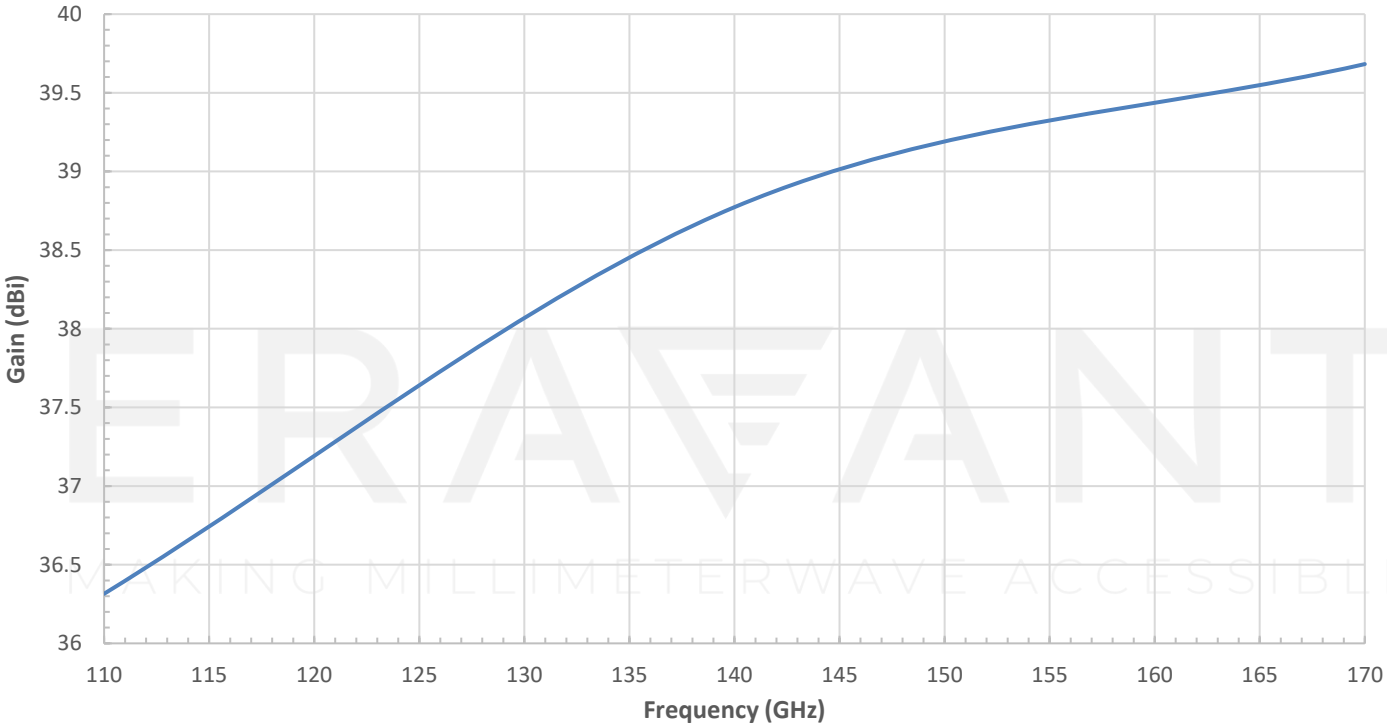
Simulated Patterns at 140 GHz



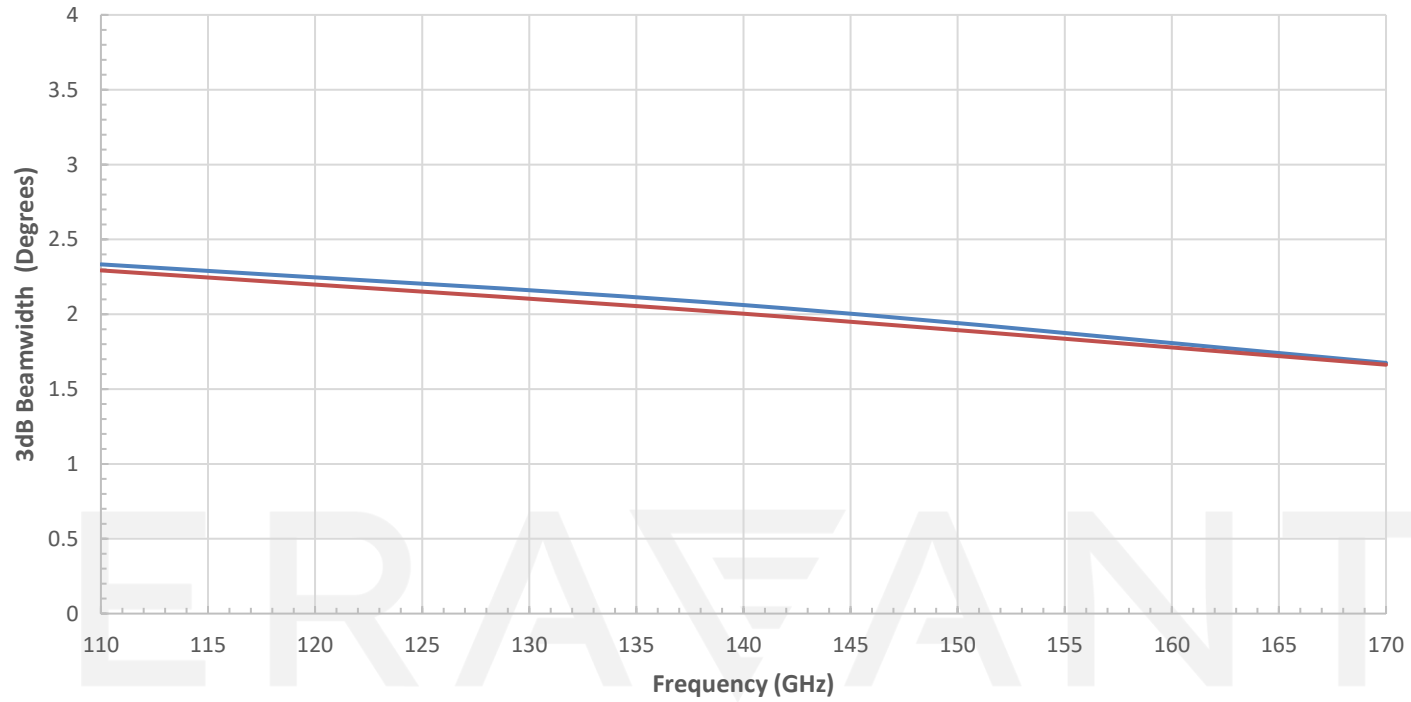
Simulated Patterns at 170 GHz



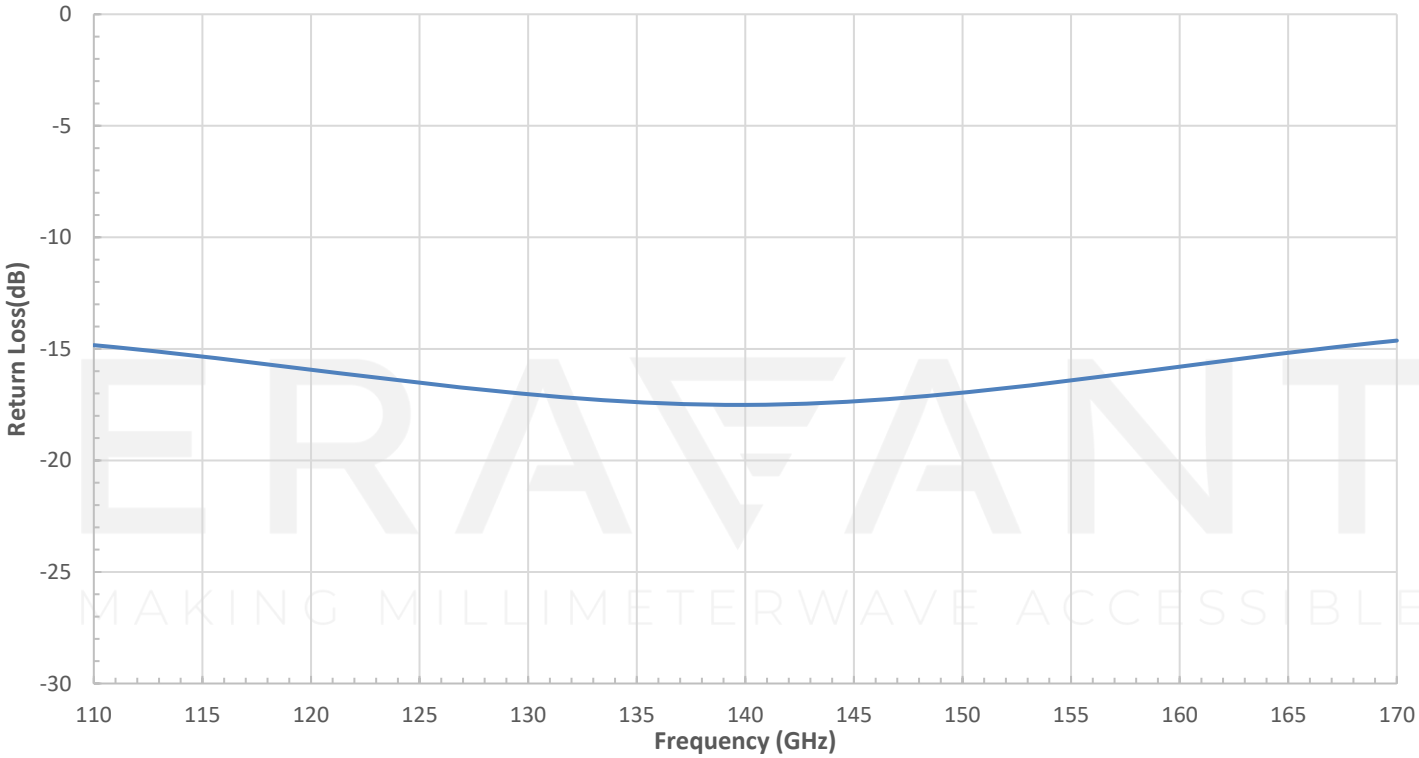
Simulated Gain vs Frequency



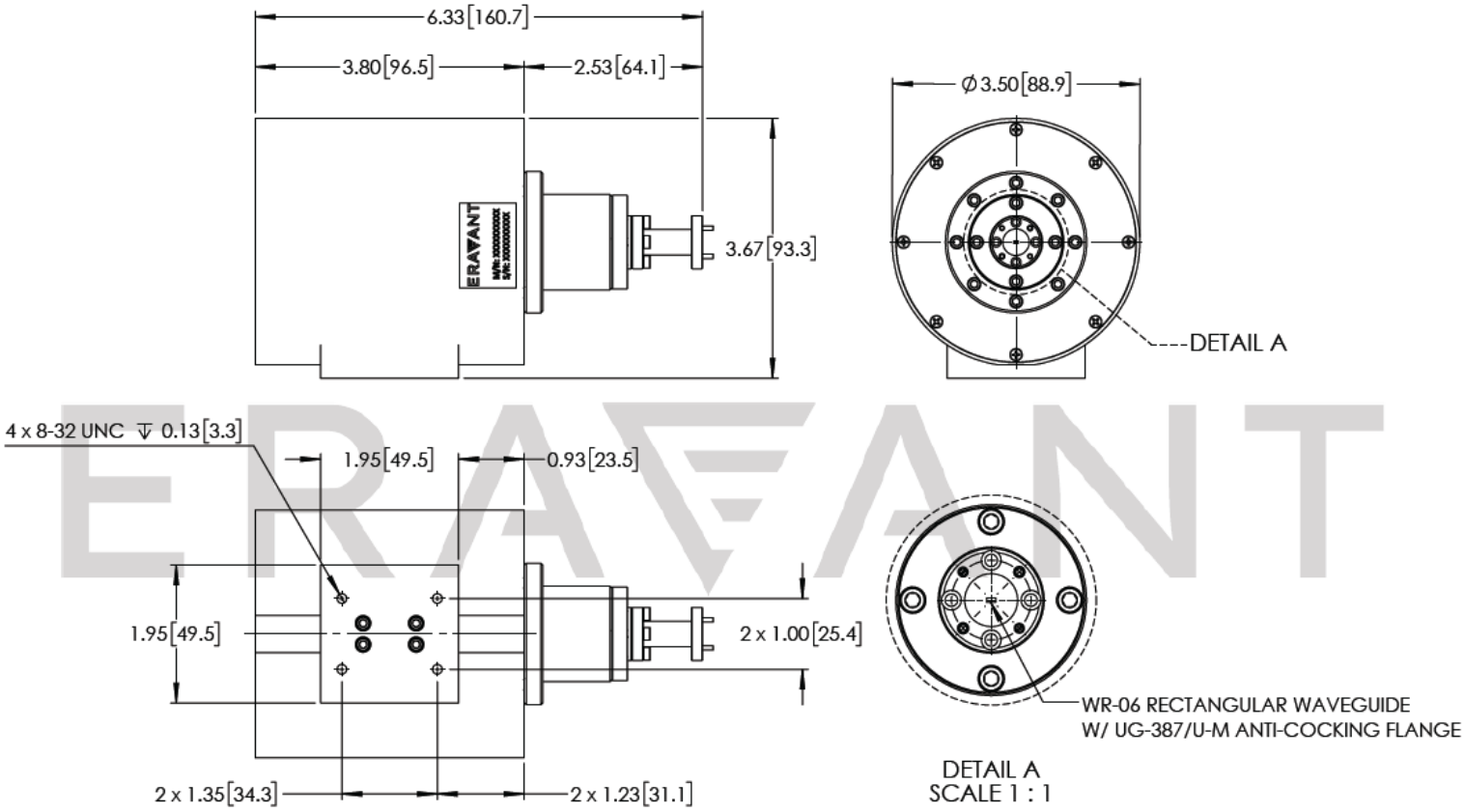
Simulated 3 dB Beamwidth vs Frequency



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.