

SAL-2434033005-315-S1-599-1

Lens Corrected Antenna, 30 dBi Gain, Rexolite Lens, UG-599/U Flange

SAL-2434033005-315-S1-599-1 is a lens corrected antenna that operates from 24 to 40 GHz. The antenna delivers 30 dBi nominal gain, 4.5 degrees E-plane, and 5.5 degrees H-plane half power beamwidth, respectively. The antenna employs a low loss lens to offer excellent aperture efficiency and low sidelobe levels. The lens corrected antenna is equipped with a 0.315" diameter circular waveguide and UG-599/U flange as its input port. It supports both linear and circular polarized waveforms.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range*	24 GHz	32 GHz	40 GHz
Gain		30 dBi	
3 dB Beamwidth, E-Plane		4.5°	
3 dB Beamwidth, H-Plane		5.5°	
Sidelobes, E-Plane		-12 dB	
Sidelobes, H-Plane		-18 dB	
Polarization	Linear and Circular		
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	0.315" Diameter Circular Waveguide with UG-599/U Flange
Lens Diameter	7.0"
Lens Material	Rexolite
Horn Material	Aluminum
Finish	Gold Chem Film
Weight	2.3 lbs.
Outline	AL-C330-315-599-1

ECCN

EAR99

FEATURES

- Center Fed
- Low Sidelobes
- Low Cross Polarization

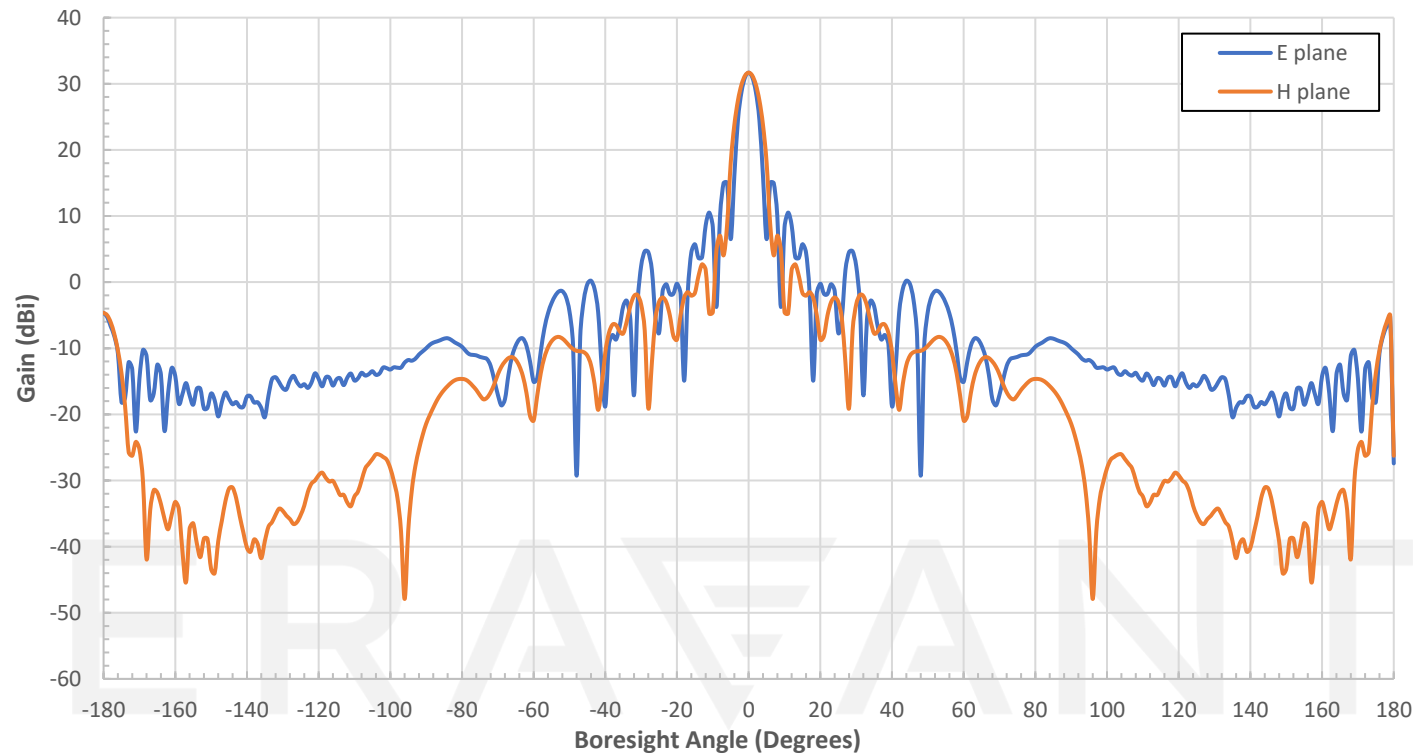
APPLICATIONS

- 5G Systems
- Radar Systems
- Communication Systems
- Sensor Systems

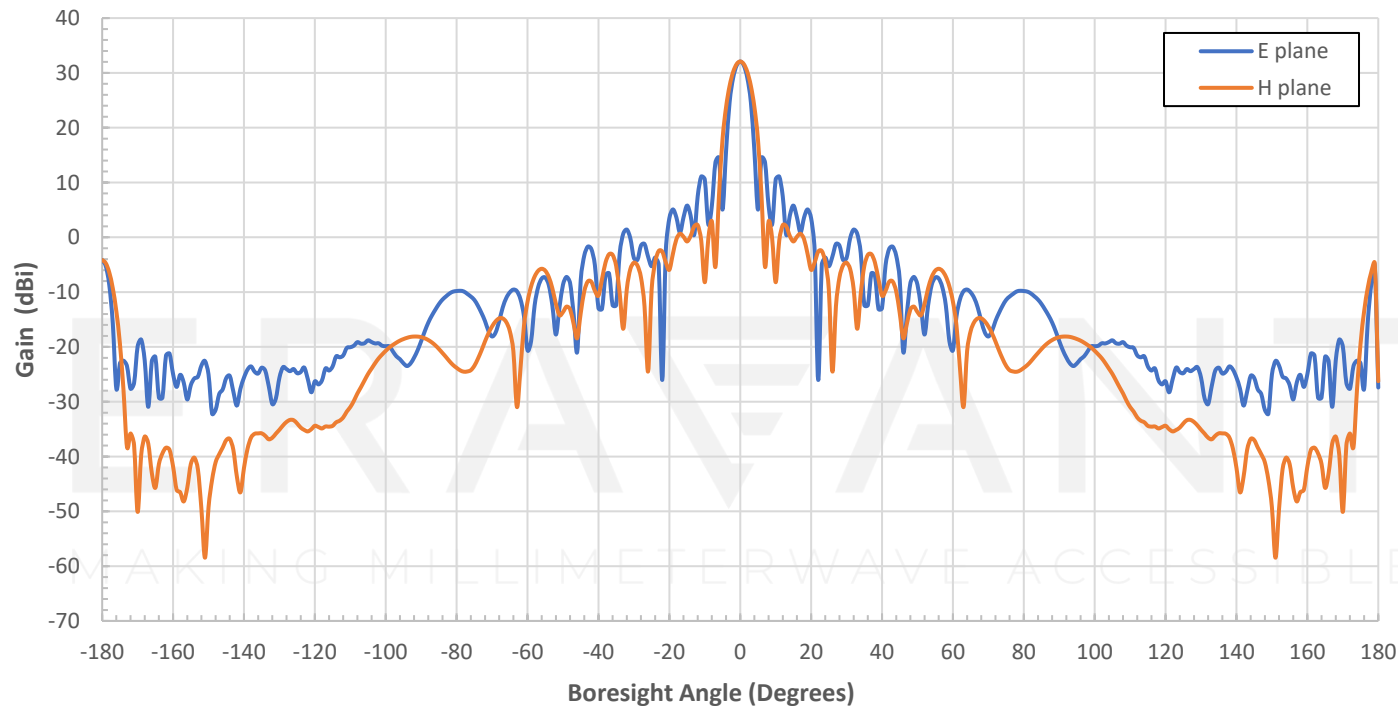
SUPPLEMENTAL DETAILS



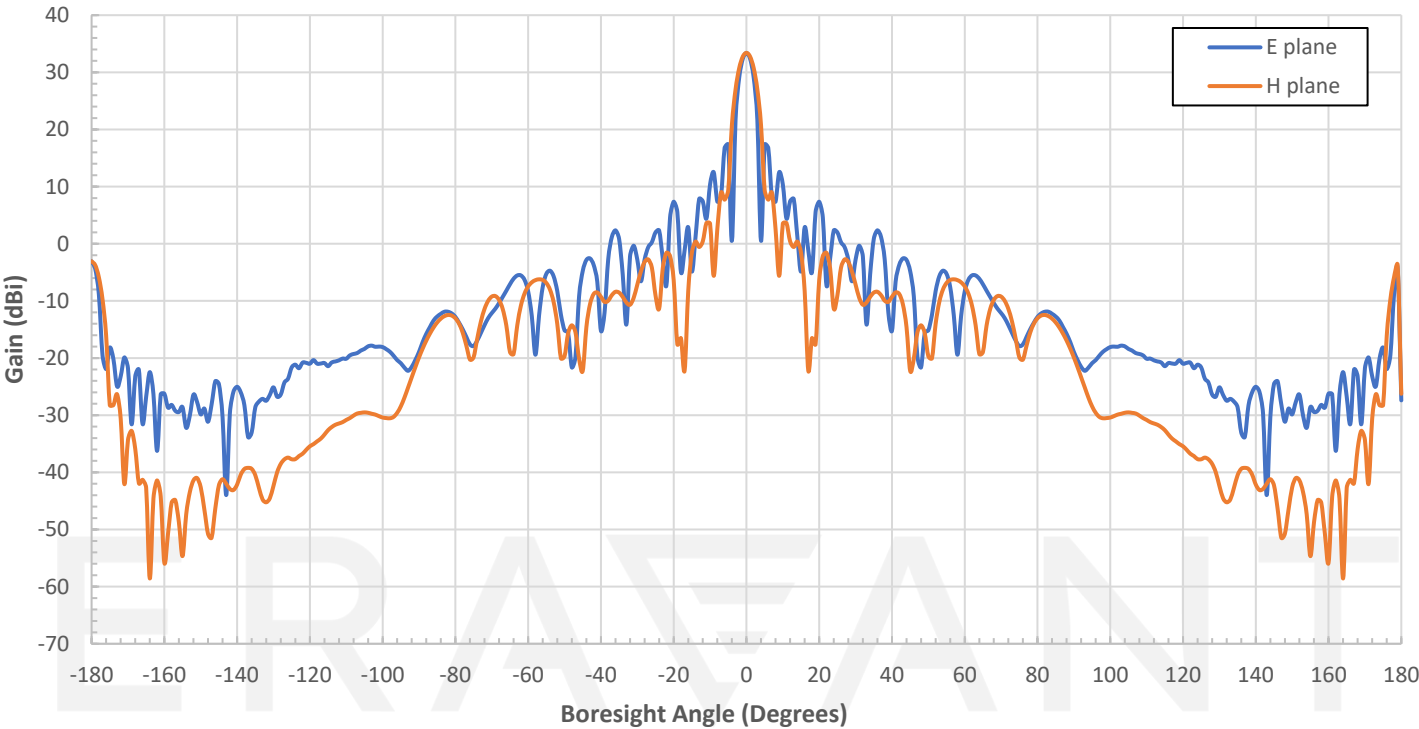
Simulated Patterns at 24 GHz



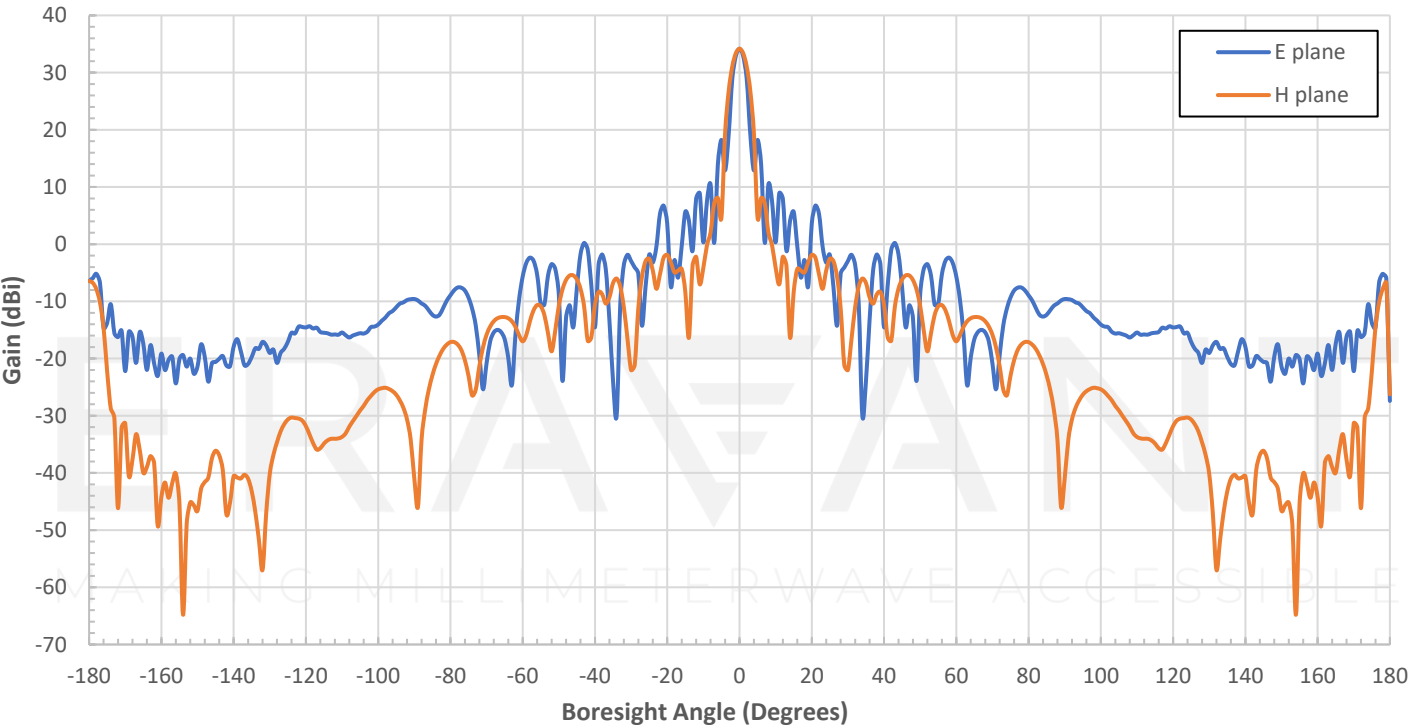
Simulated Patterns at 25 GHz



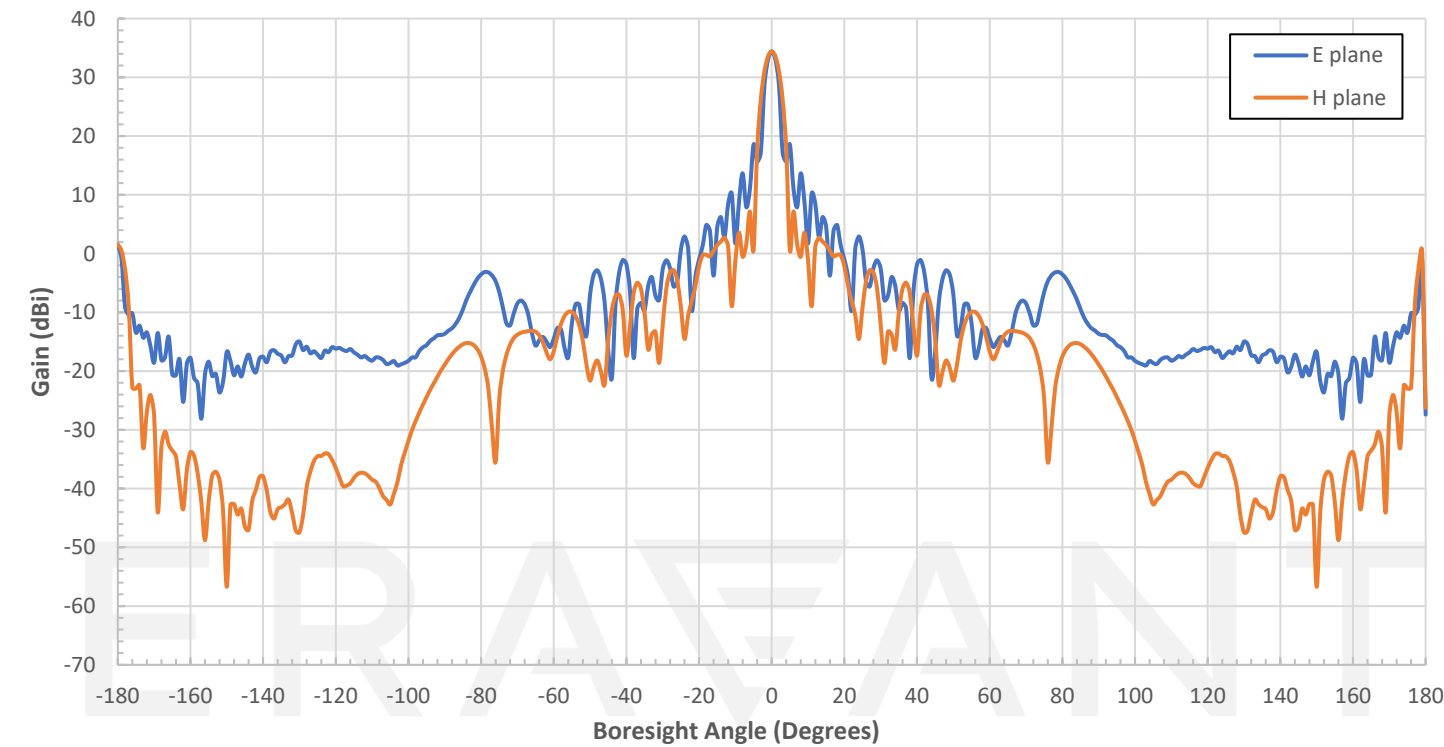
Simulated Patterns at 29 GHz



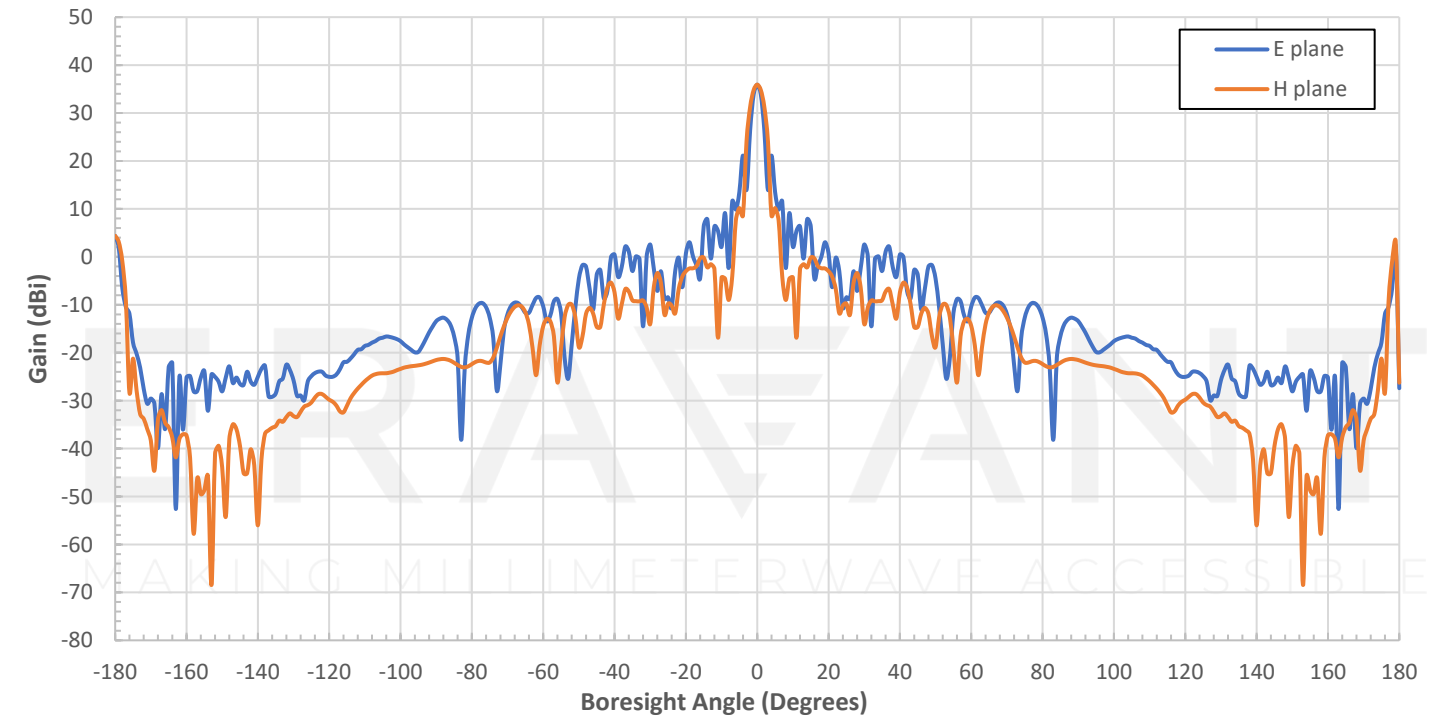
Simulated Patterns at 32 GHz



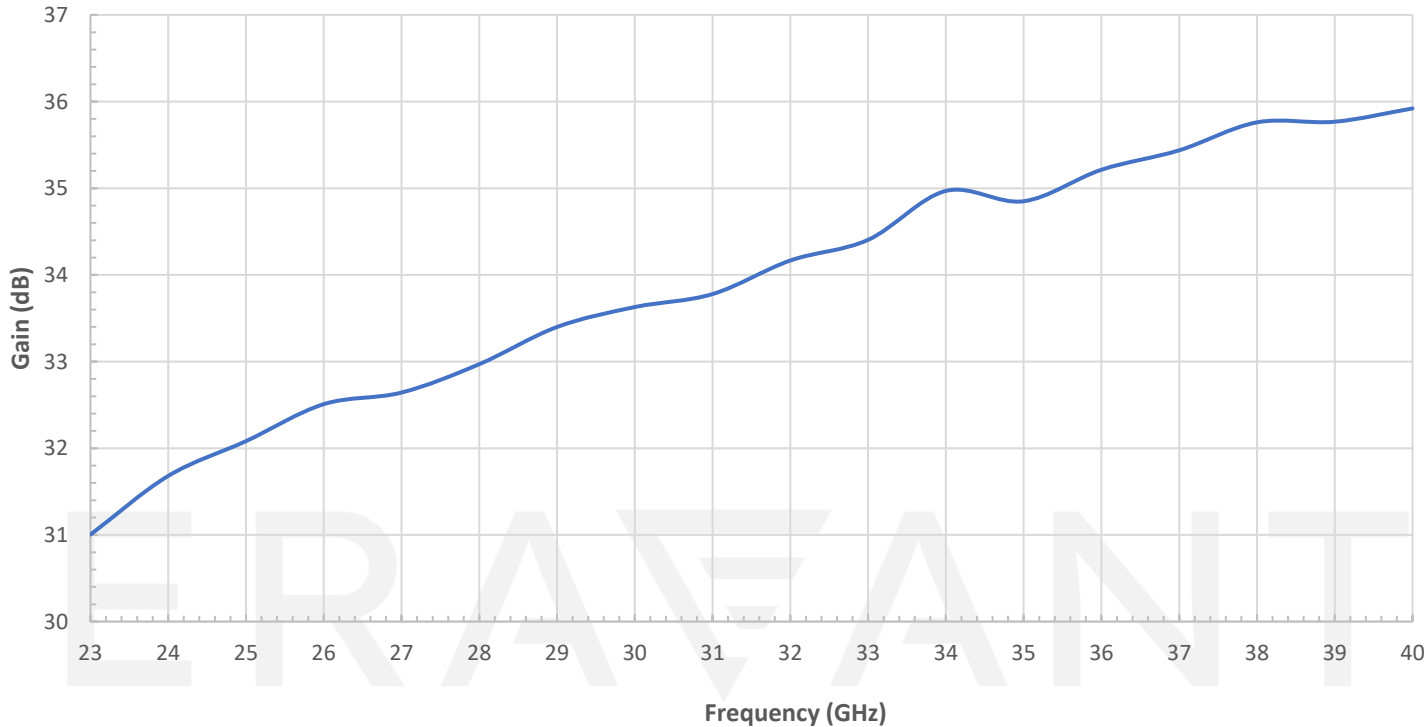
Simulated Patterns at 33 GHz



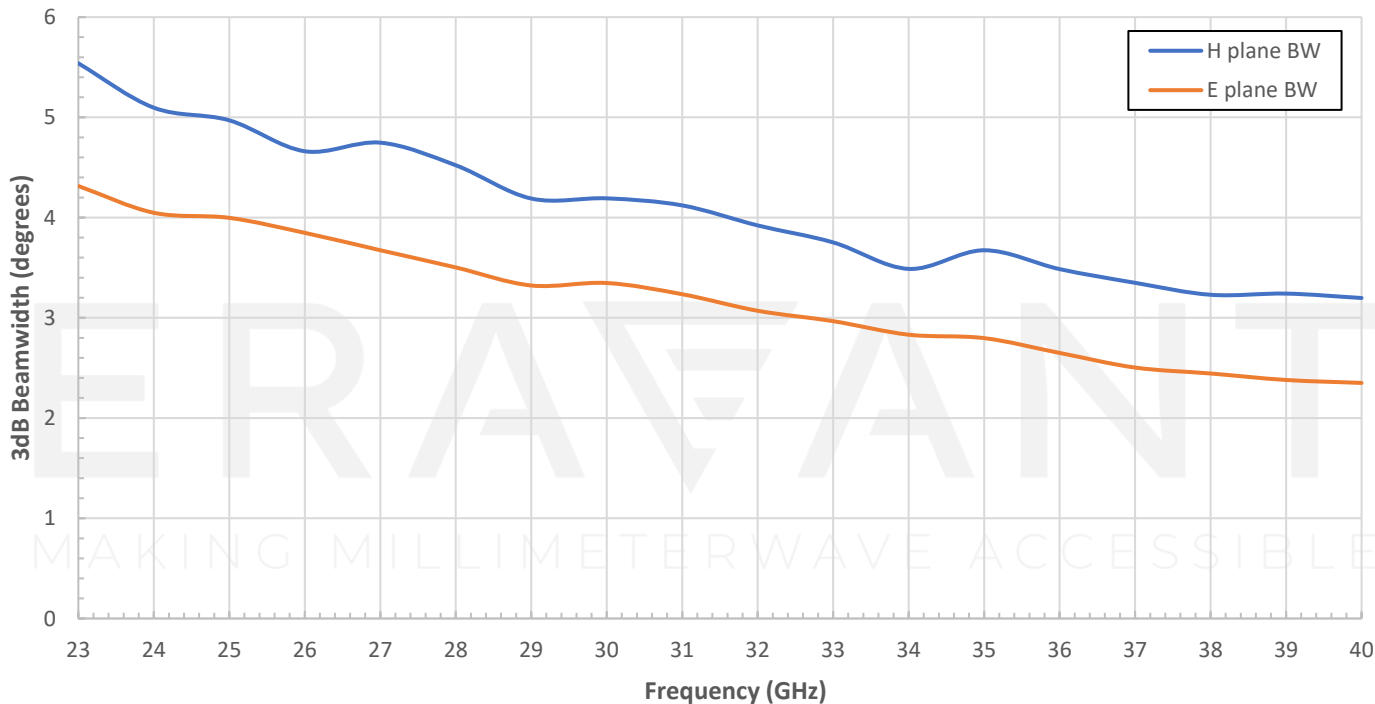
Simulated Patterns at 40 GHz



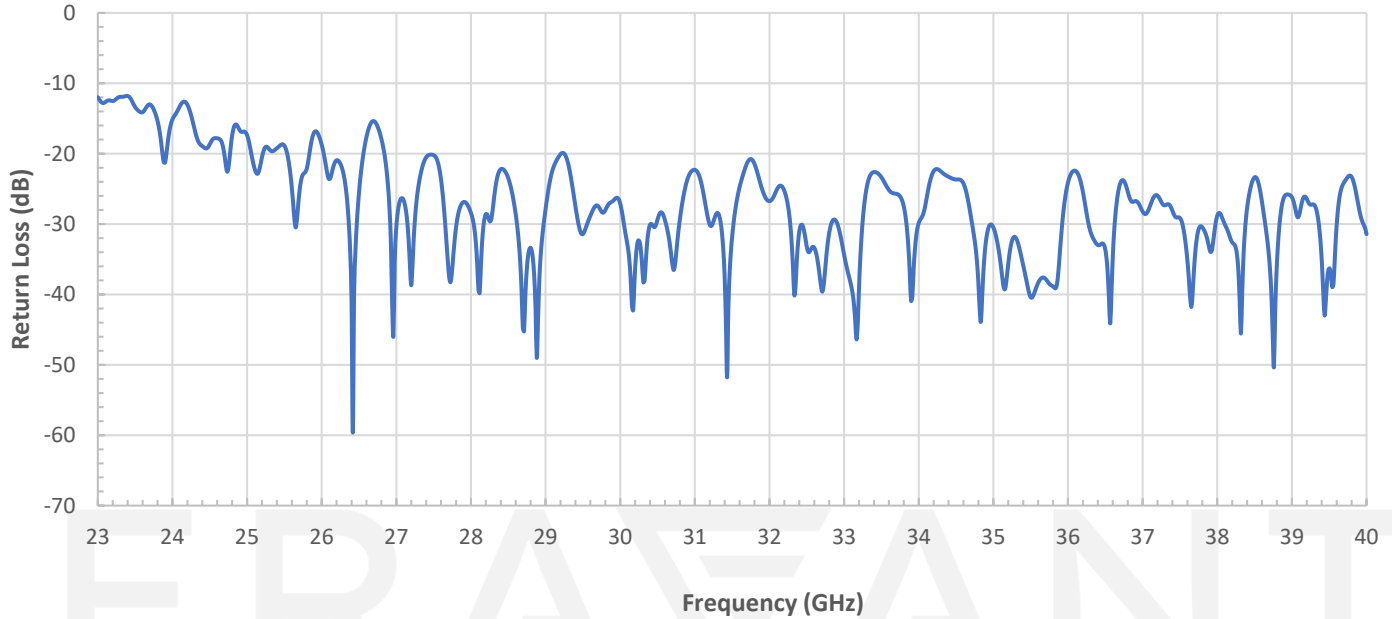
Simulated Gain vs Frequency



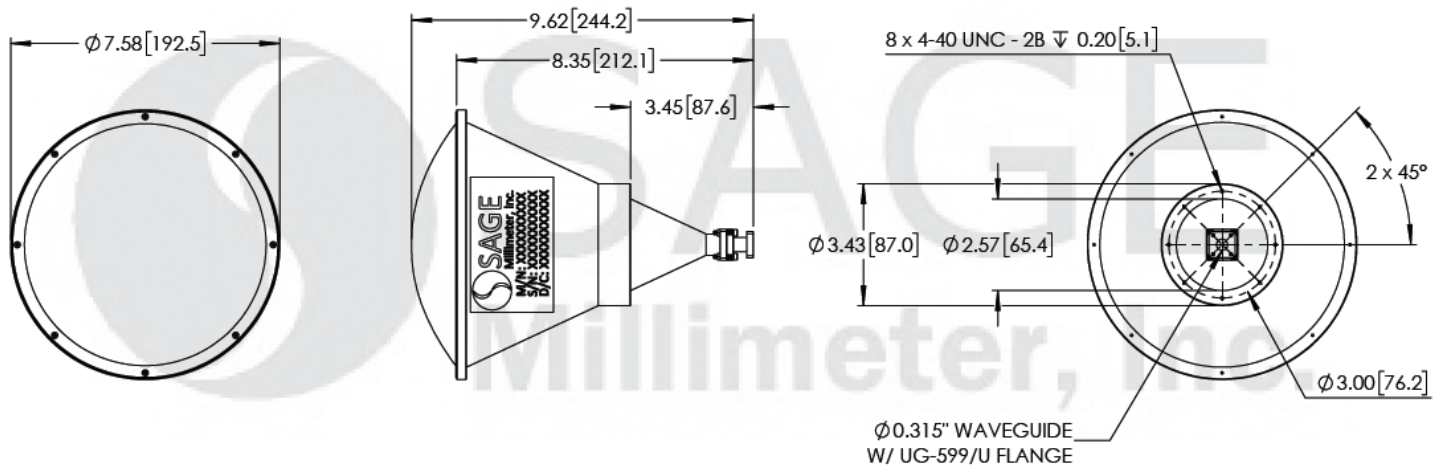
Simulated 3dB beamwidth vs Frequency



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.