SAL-3333732212-28-S1

Rev 1.1

Ka-Band Lens Corrected Antenna

Description:

Model SAL-3333732212-28-S1 is a Ka-band lens corrected antenna that operates from 33 to 37 GHz. At a center frequency of 35 GHz, the antenna delivers 22 dBi nominal gain, 10.0 degrees typical half power beamwidth on the E-plane, and 12.0 degrees typical half power beamwidth on the H-plane. The antenna employs a low loss lens to offer excellent aperture efficiency and low sidelobe levels. The lens corrected antenna is equipped with a WR-28 waveguide and UG-599/U flange as its input port. It supports linear polarized waveforms.

Features:

- Center Fed
- Low Side Lobes
- Low Cross Polarization

Applications:

- Radar Systems
- Communication Systems
- Sensor Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz	35 GHz	37 GHz
Gain		22 dB	
3 dB Beamwidth, E-Plane		10˚	
3 dB Beamwidth, H-Plane		12˚	
Sidelobes, E-Plane		-15 dB	
Sidelobes, H-Plane		-22 dB	
Polarization		Linear	
Return Loss		-25 dB	
Specification Temperature		+25°C	
Operating Temperature	-45°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-28 Rectangular Waveguide with UG-599/U-M Flange
Lens Diameter	2.10”
Dimensions	2.38” (Ø) x 2.60” (L)
Material	Aluminum
Finish	Chem Film
Weight	2.0 Oz
Outline	AL-RA22

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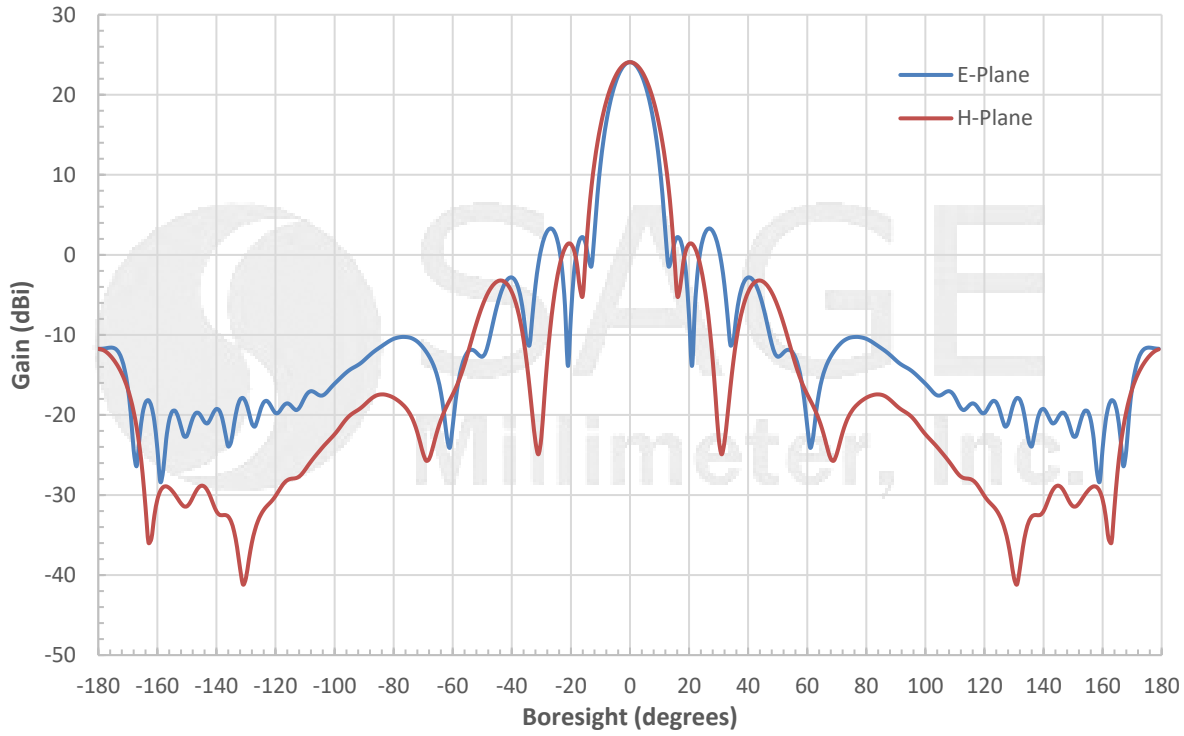
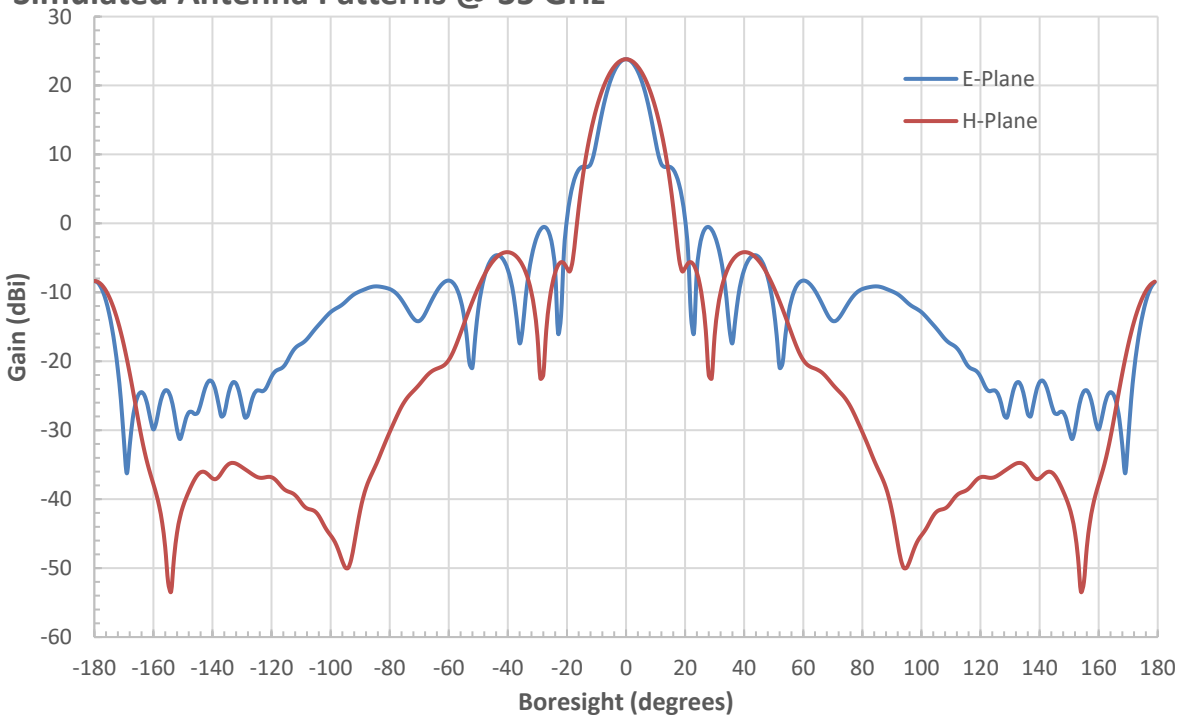
Ka-Band Lens Corrected Antenna

Simulated Antenna Patterns @ 33 GHz



Simulated Antenna Patterns @ 35 GHz



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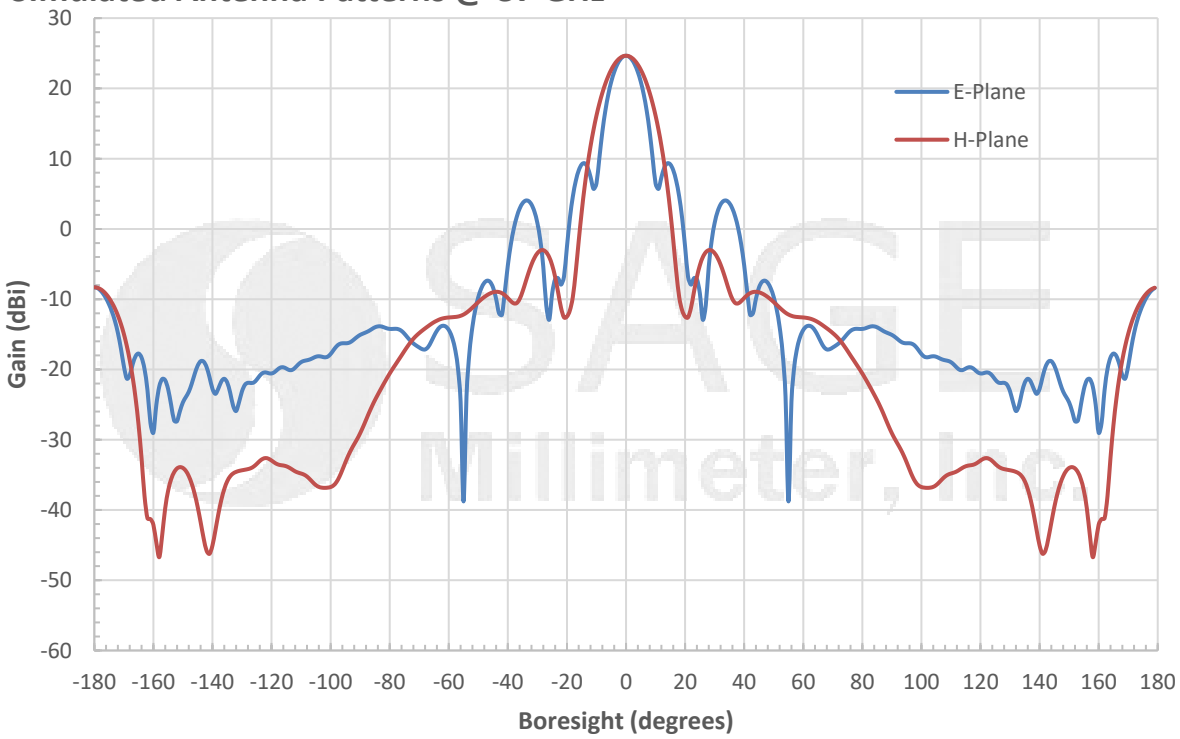
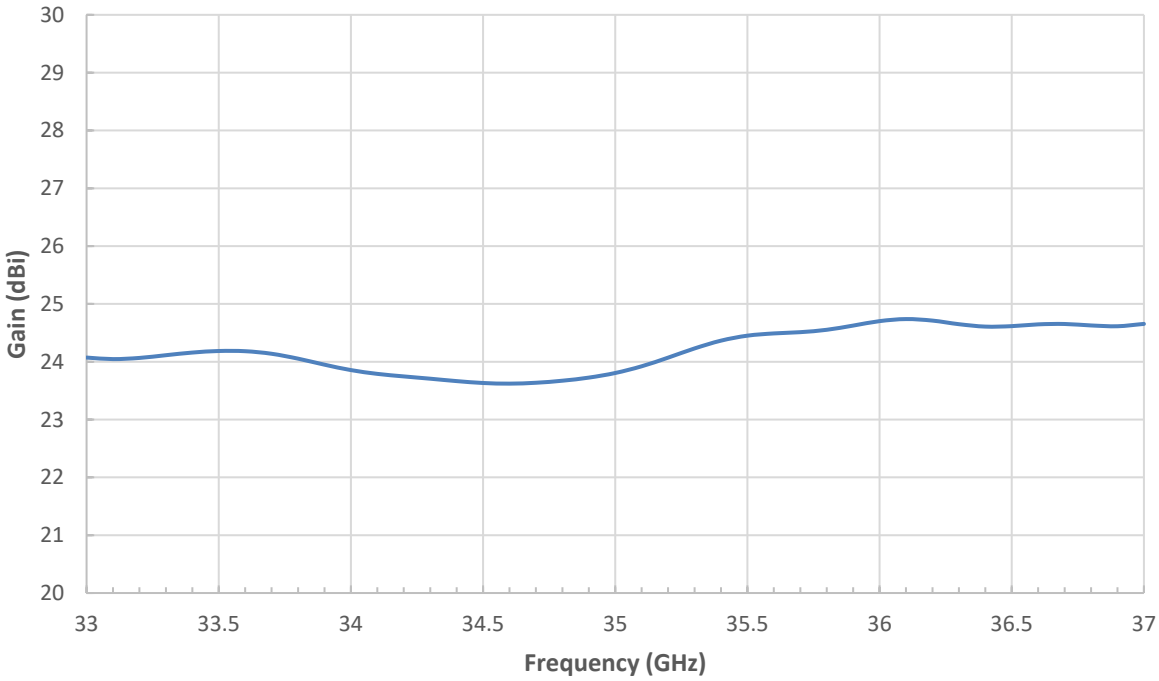
Ka-Band Lens Corrected Antenna

SImulated Antenna Patterns @ 37 GHz



Simulated Gain vs. Frequency



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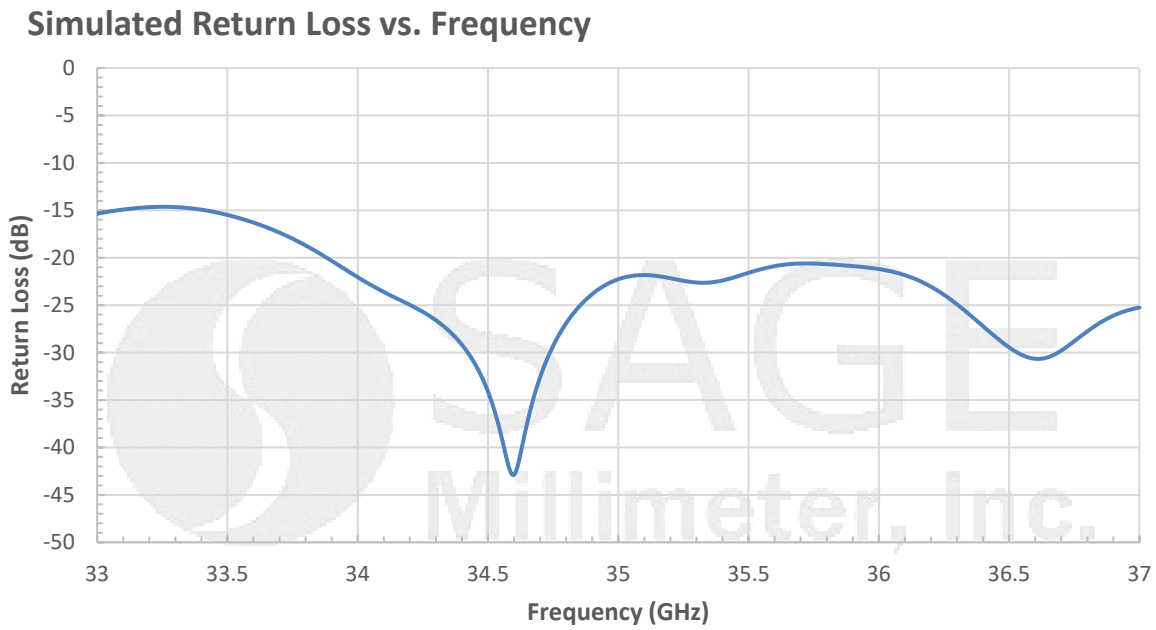
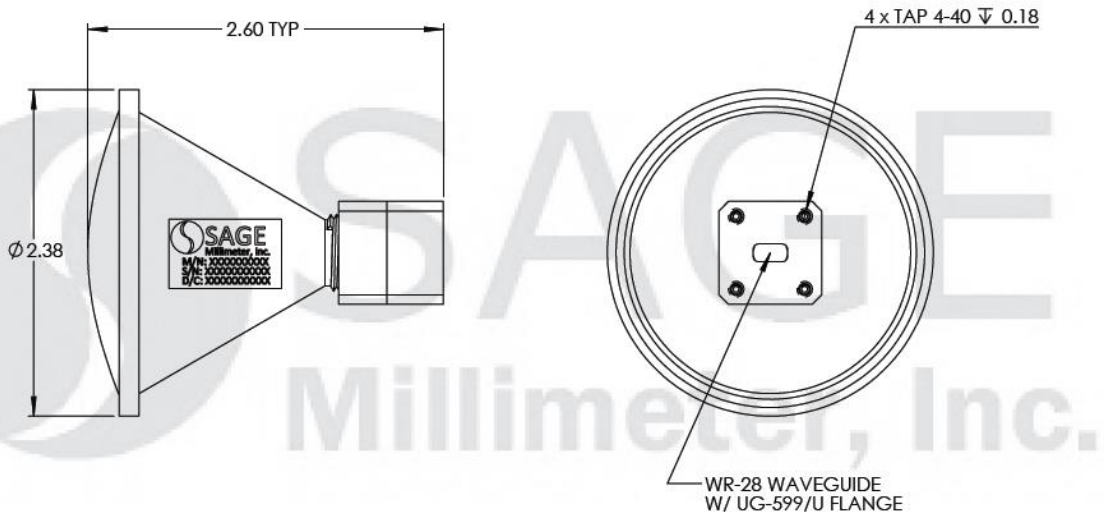
Ka-Band Lens Corrected Antenna



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



Note:

- All data presented are simulated. Actual data may vary unit to unit, slightly.
- Eravant reserves the right to change the information presented without notice.

Caution:

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

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