



## Ka-Band Lens Corrected Antenna, 26.5 to 40 GHz, 22 dBi Gain

### Description:

**Model SAL-2734032220-28-S1-RL** is a Ka-band lens corrected antenna that operates from 26.5 to 40.0 GHz. At a center frequency of 33.25 GHz, the antenna delivers 22 dBi nominal gain, 20.0 degrees typical half power beamwidth on the E-plane, and 8.0 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 standard WR-28 waveguide and UG-599/U flange as its input port. It supports linear polarized waveforms.



### Features:

- Center Fed
- Low Sidelobes
- Low Cross Polarization

### Applications:

- Radar Systems
- Communication Systems
- Sensor Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz	33.25 GHz	40 GHz
Gain		22 dBi	
3 dB Beamwidth, E-Plane		20.0°	
3 dB Beamwidth, H-Plane		8.0°	
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-23 dB	
Polarization		Linear	
Return Loss		-10 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

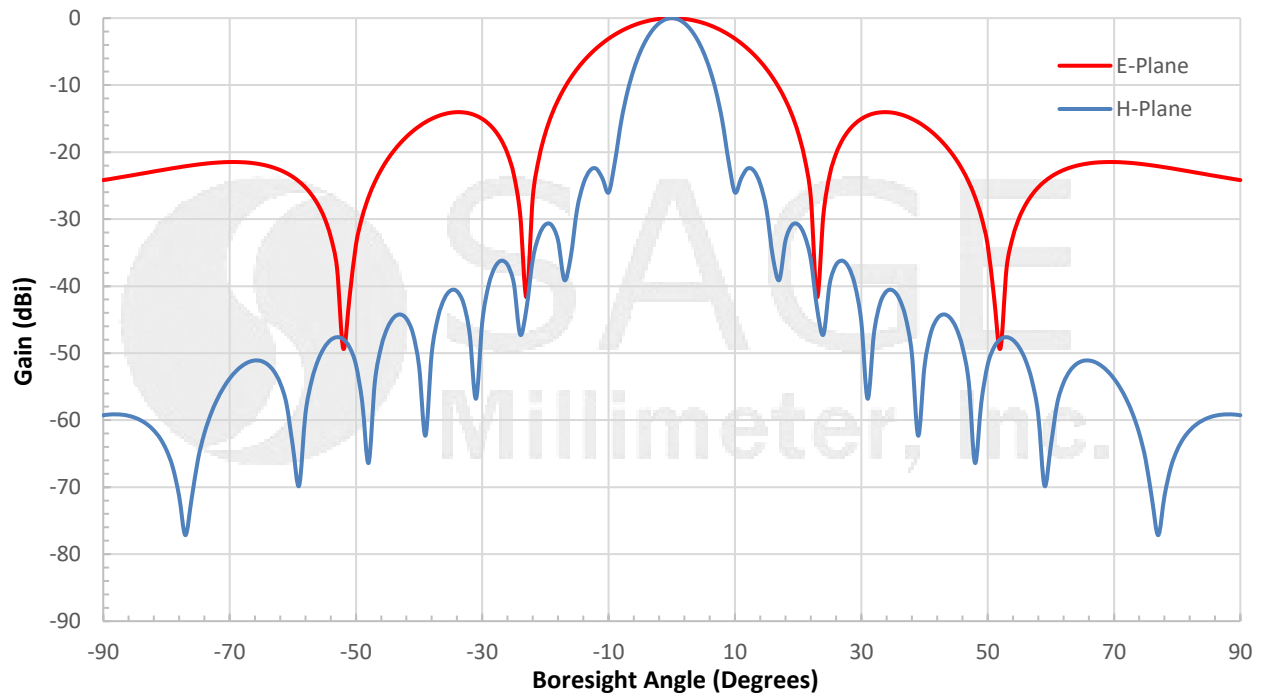
Parameter	Connector
Antenna Port	WR-28 Waveguide with UG-599/U Flange
Dimensions	1.35" (H) x 3.80" (W) x 4.35" (L)
Horn Material	Aluminum
Finish	Gold Chem Film
Weight	5.0 Oz
Outline	AL-RA22-RL



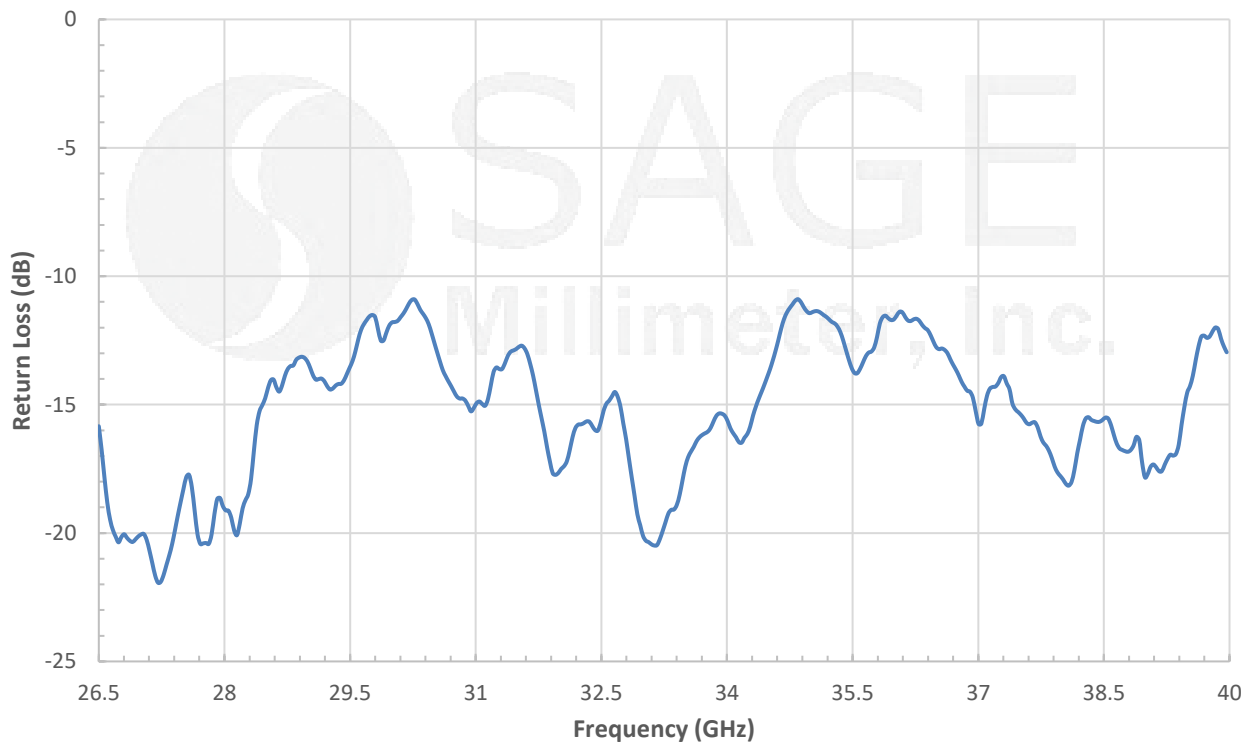


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### Simulated Antenna Pattern @ 32.5 GHz



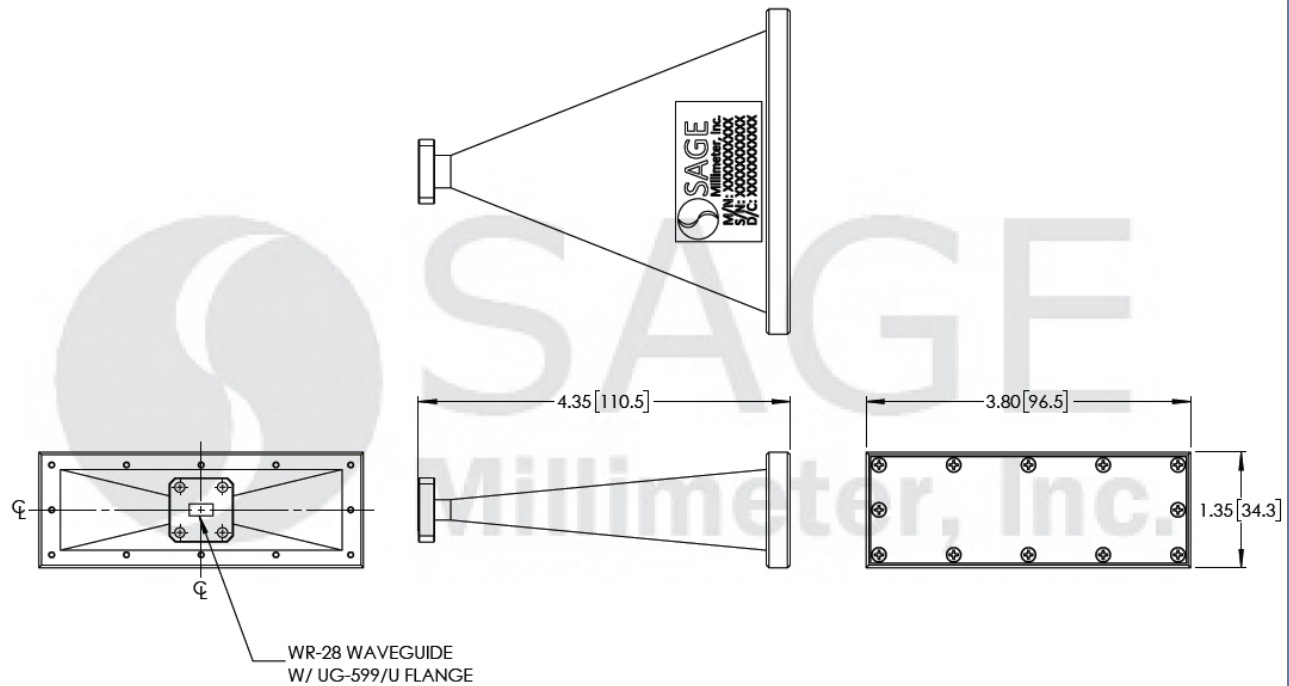
### Measured Return Loss vs. Frequency





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



**Note:**

- Return Loss Data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25°C room temperature.
- Antenna Pattern data presented is simulated. Actual data may vary, slightly.
- SAGE Millimeter, Inc. 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.

