



## Ka Band Cassegrain Antenna, 33 to 40 GHz, 50 dBi, 48" Dish

### Description:

**Model SAY-3334035006-250-S1** is a Cassegrain antenna that offers a nominal gain of 50 dBi and a half power beamwidth of 0.6 degrees across the frequency range of 33 to 40 GHz. The main reflector is fabricated with fiber glass to offer a light weight and rugged mechanical structure. The corrugated horn is used to provide the best feed efficiency and the most uniform illumination. The input port is a 0.250" diameter circular waveguide with a UG-599/U flange. The antenna can support both linear and circular polarized waveforms and is designed and manufactured for indoor applications. By adding a mode transition, SAGE Millimeter model **SWT-28250-SB**, the input port becomes a standard WR-28 waveguide that can only support linear polarized waveforms.



### Features:

- Telescope to aid the alignment
- Rugged Configuration and Low Profile
- Low Loss and High Gain
- High Return Loss
- Linear and Circular Polarization

### Applications:

- 5G Systems
- Communication Systems
- Radar Systems
- EW Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz		40 GHz
Gain		50 dBi	
3 dB Beamwidth		0.6°	
Polarization	Linear and Circular		
Sidelobes		-20 dB	
Return Loss		15 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

Item	Specification
RF Connector	0.250" Diameter Circular Waveguide with UG-599/U Flange
RF Connector Material	Brass
RF Connector Finish	Gold Plated
Reflector Material	Fiberglass
Reflector Finish	Copper Metallization
Weight	35 lbs.
Reflector Diameter	48"
Outline	AY-CA50-48-250

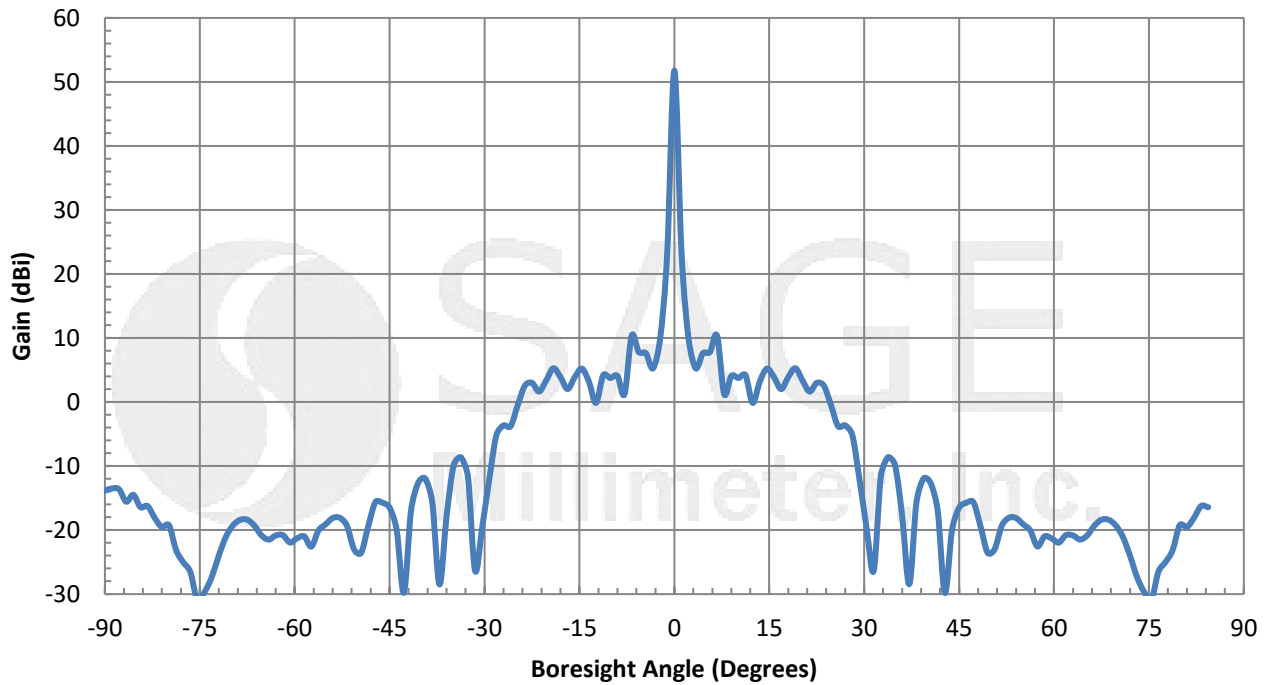


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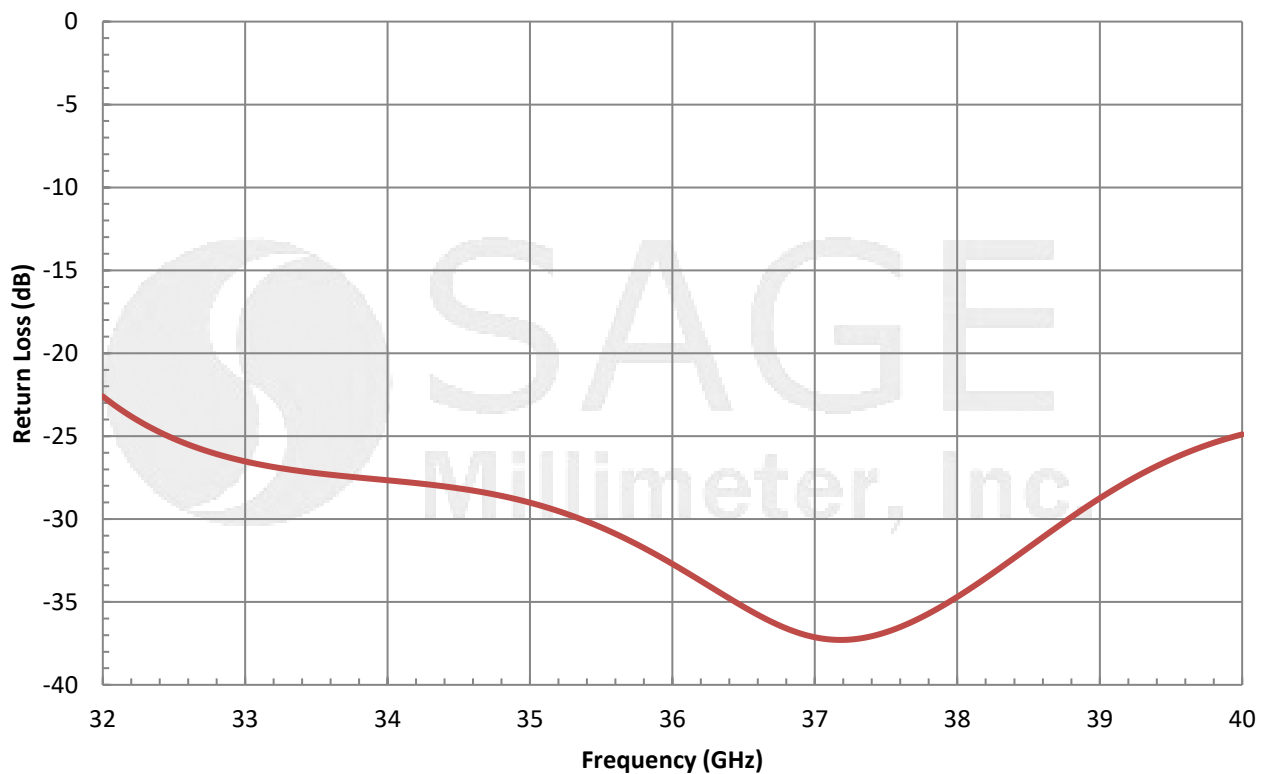


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### Simulated Antenna Pattern @ 36 GHz



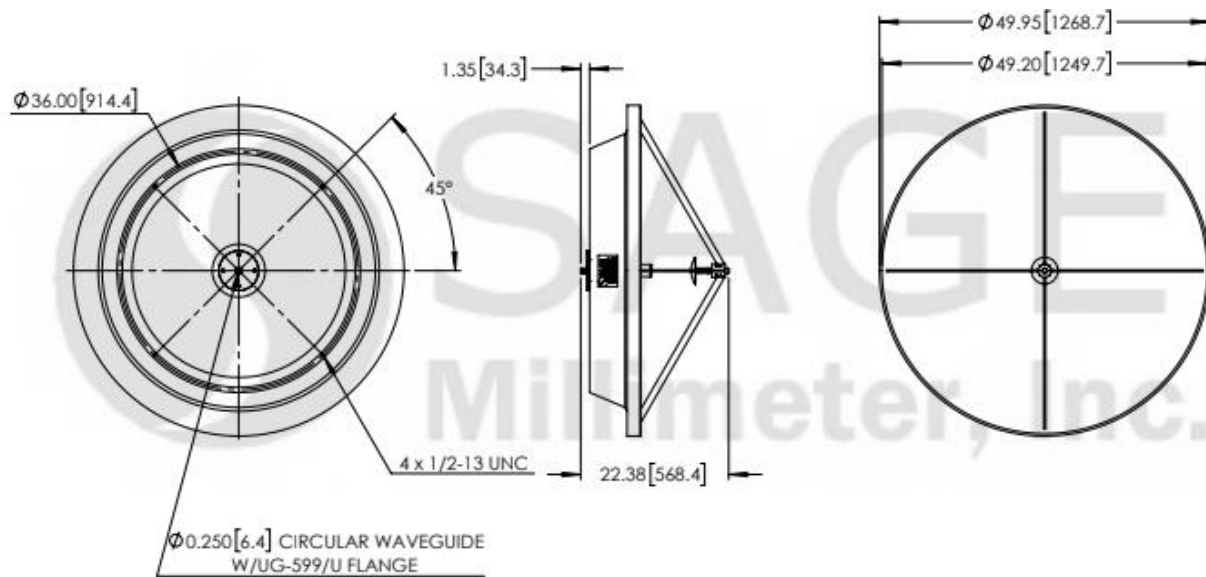
### Typical Return Loss vs. Frequency





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



**Note:**

- All data presented is simulated. Actual data may vary, slightly.
- The aiming scope is provided to assist the antenna's directional alignment.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

**Caution:**

- Any mechanical impact will damage the antenna.
- Any foreign objects in the waveguide will degrade the performance of the antenna or damage the antenna.

