



## U Band Cassegrain Antenna, 43 to 50 GHz, 51 dBi, 48" Dish, Outdoor

### Description:

**Model SAY-4335035104-188-S1-WR** is a Cassegrain antenna that offers a nominal gain of 51 dBi and a half power beamwidth of 0.4 degrees across the frequency range of 43 to 50 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 corrugated horn is covered with an all weather radome. The RF port is a 0.188" diameter circular waveguide with a UG-383/U-M grooved flange so that the antenna is designed and fabricated watertight for outdoor applications. The antenna can support both linear and circular polarized waveforms.



### Features:

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

### Applications:

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

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	43 GHz		50 GHz
Gain		51 dBi	
3 dB Beamwidth		0.4°	
Polarization	Linear and Circular		
Sidelobes		-18 dB	
Return Loss		21 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

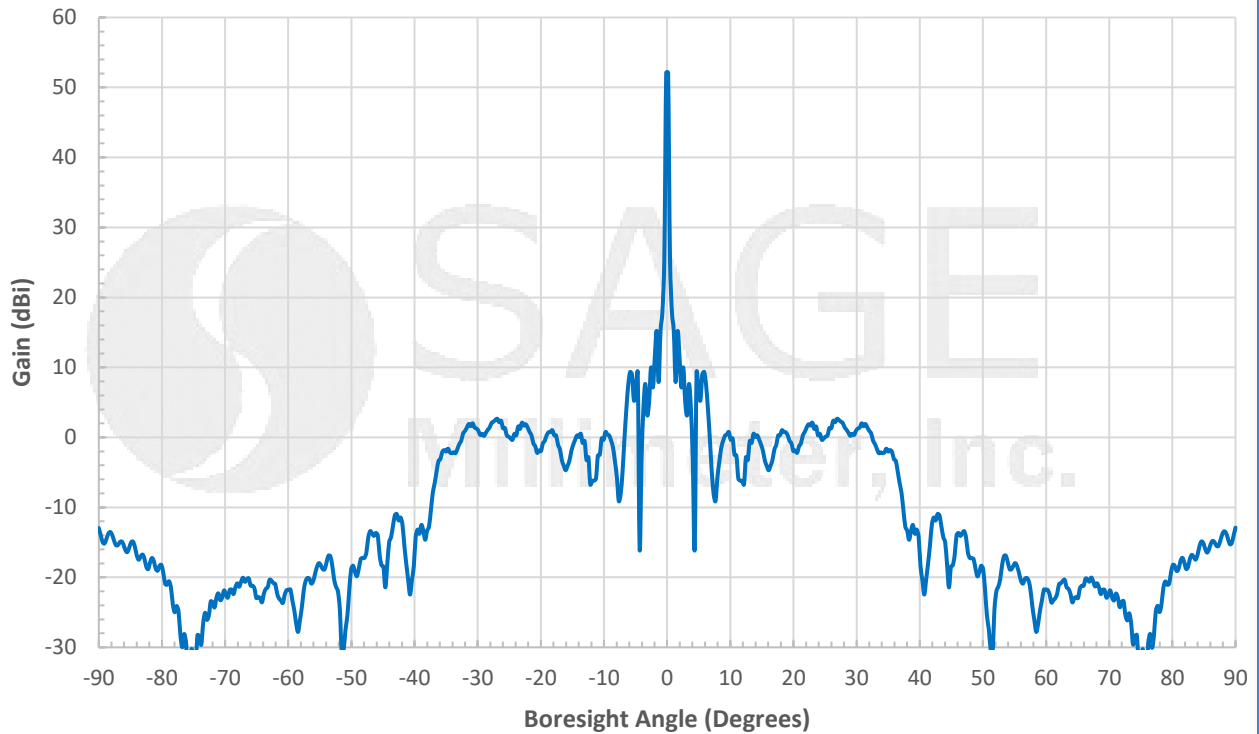
Item	Specification
RF Connector	0.188" Diameter Circular Waveguide with UG-383/U-M Grooved Flange
RF Connector Material	Brass
RF Connector Finish	Gold Plated
Reflector Material	Fiberglass
Reflector Finish	Copper Metallization
Weight	46 lbs.
Reflector Diameter	48"
Outline	AY-CU53-48-188-WR



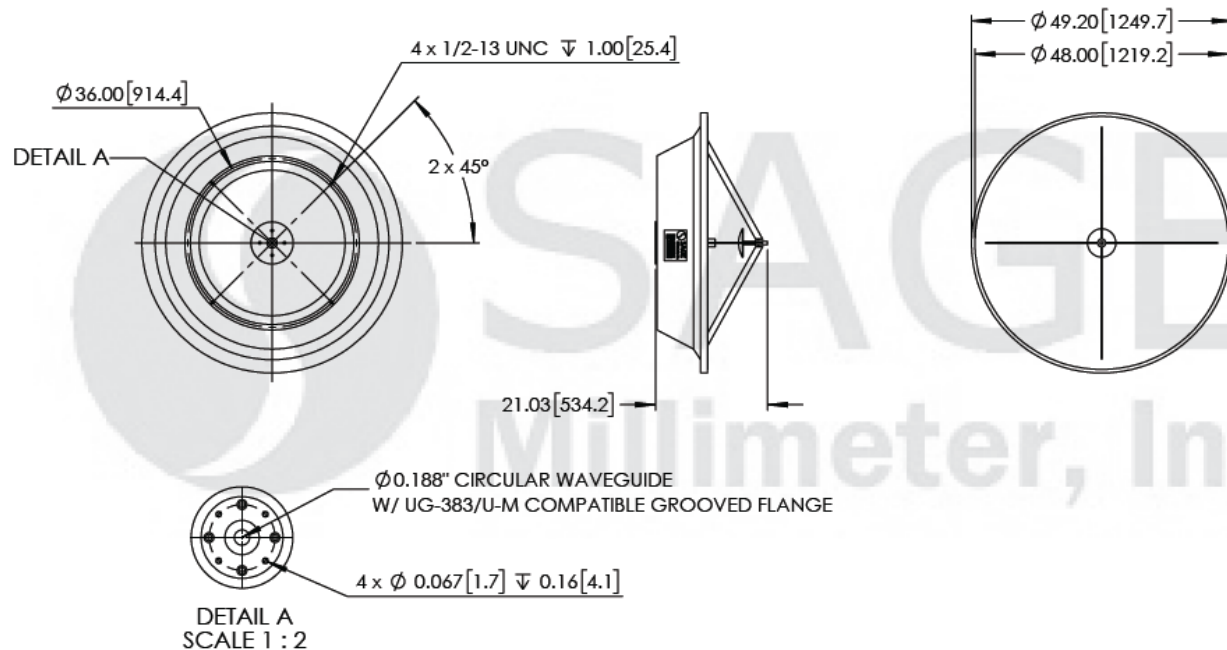


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### Simulated Antenna Pattern @ 46.5 GHz



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



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### 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.

