



Q Band Cassegrain Antenna, 38 to 40 GHz, 47 dBi, 36" Dish

Description:

Model SAY-3834034706-219-S1 is a Cassegrain antenna that offers a nominal gain of 47 dBi and a half power beamwidth of 6 degrees typically across the frequency range of 38 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 0.219" diameter circular waveguide with a UG-383/U-M compatible 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 number SWT-22219-SB, the input port becomes a standard WR-22 waveguide, which can only support linear polarized waveforms.



Features:

- Rugged Configuration and Low Profile
- Low Loss and High Gain
- High Return Loss

Applications:

- Communication Systems
- Radar Systems
- EW Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	38 GHz		40 GHz
Gain		47 dBi	
3 dB Beamwidth		6°	
Sidelobes		-15 dB	
Return Loss		14 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*The antenna will cover a broader frequency range with some performance degradations

Mechanical Specifications:

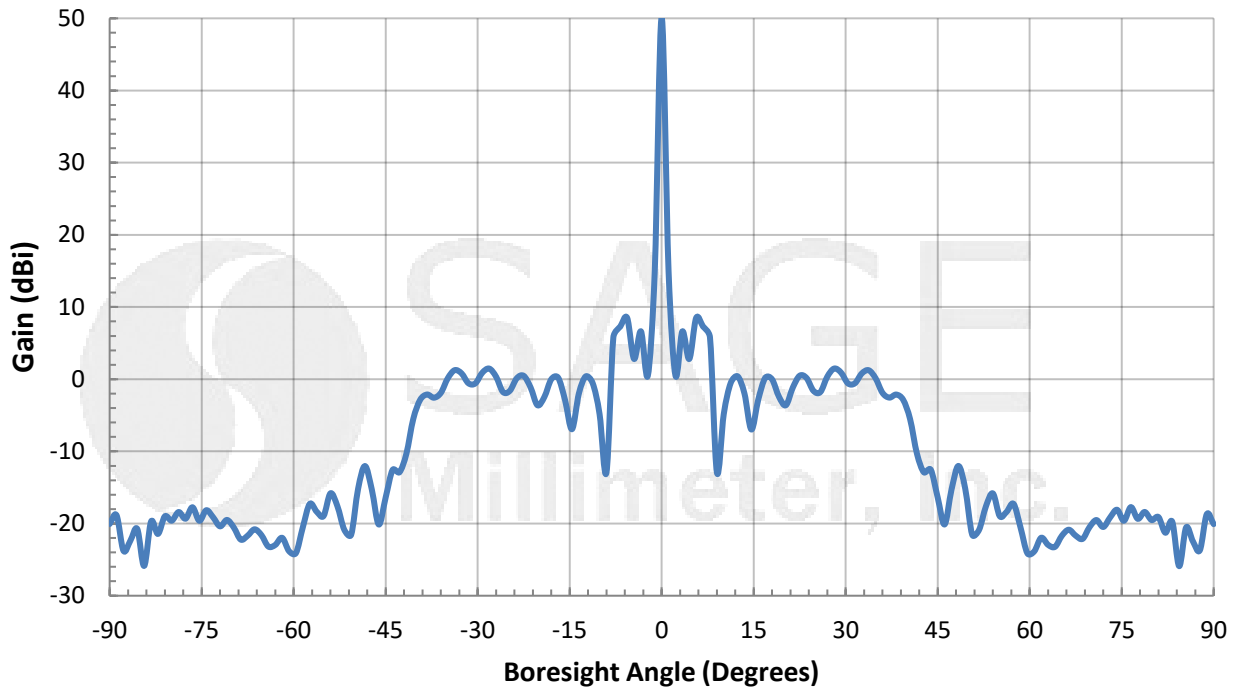
Item	Specification
RF Connector	0.219" Diameter Circular Waveguide with a UG-383/U-M Compatible Flange
RF Connector Material	Brass
RF Connector Finish	Gold Plated
Reflector Material	Fiber Glass
Reflector Finish	Polyamide Epoxy Paint
Weight	35 Lbs.
Reflector Diameter	36"
Outline	AY-CA47-36-219-383M



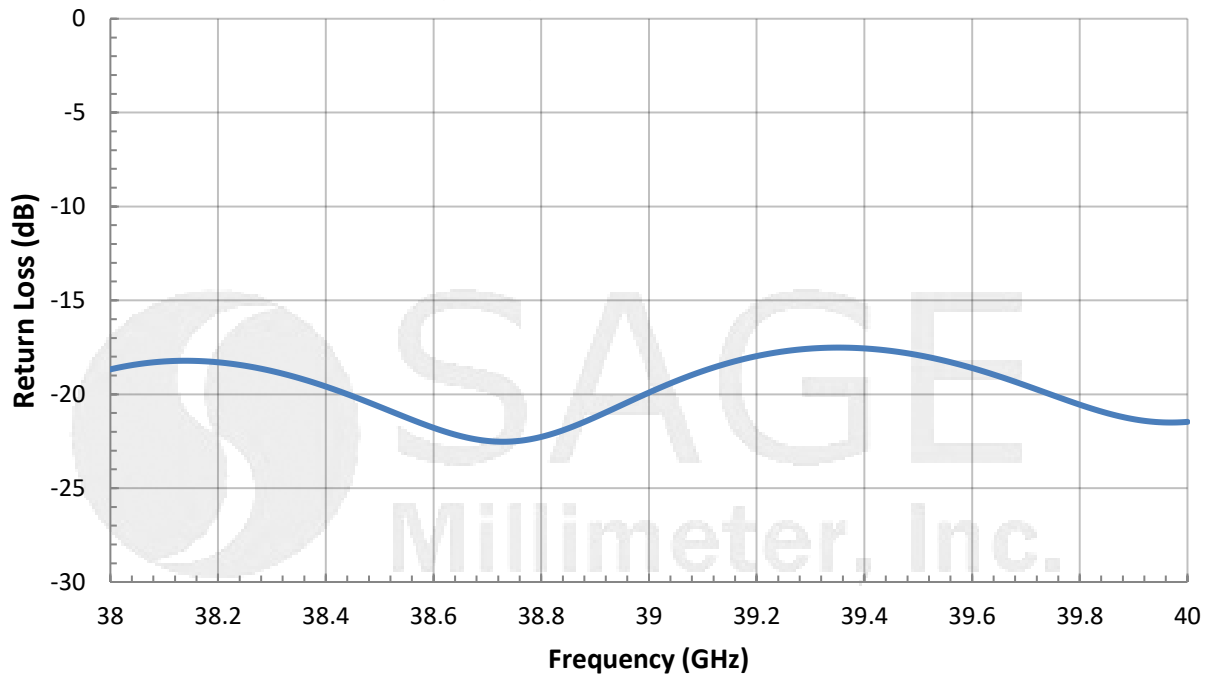


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Simulated Antenna Pattern @ 39 GHz



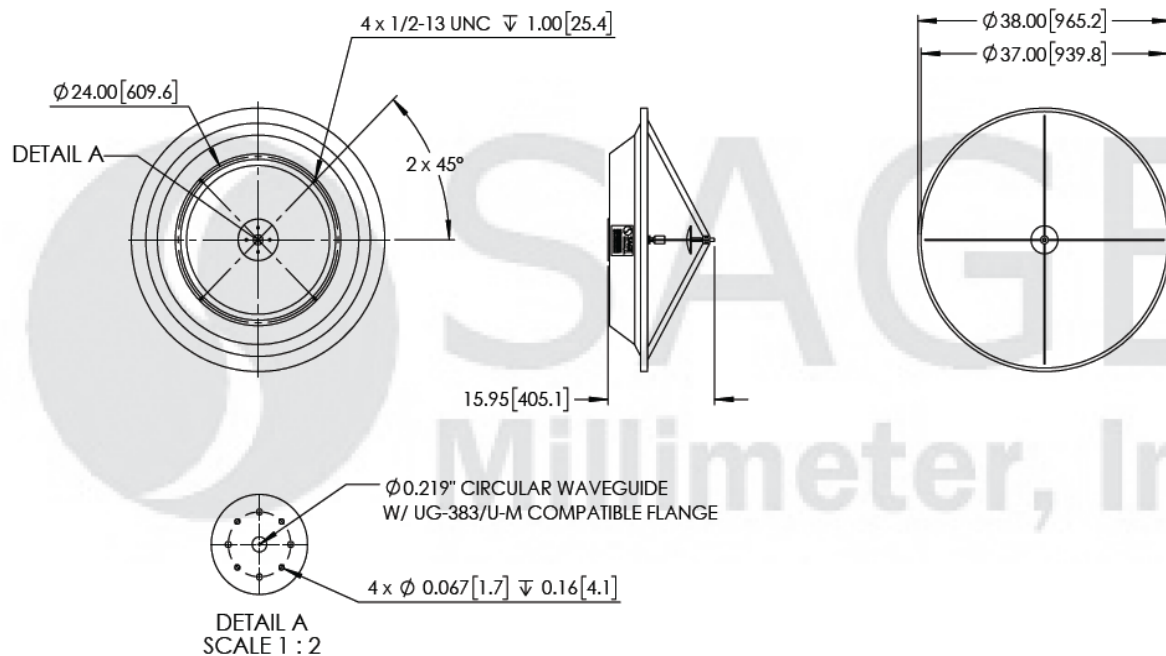
Simulated Return Loss vs. Frequency





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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.
- 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.

