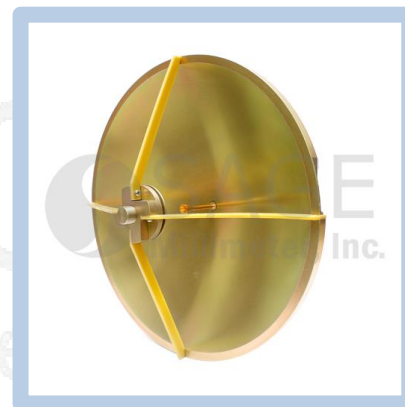




E Band Cassegrain Antenna, 71 to 86 GHz, 9” Dish

Descriptions:

Model SAY-7138634212-110-X1 is an E Band Cassegrain antenna that offers a nominal gain of 42 dBi and a half power beamwidth of 1.2 degrees typically across the frequency range of 71 to 86 GHz. The main reflector is fabricated with aluminum 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 0.110” circular waveguide with a UG-387/U-M flange. The antenna can support linear and circular polarized waveforms and is designed and manufactured for indoor and outdoor applications. By adding the mode transition, SAGE Millimeter model **SWT-12110-SB**, the input port becomes a WR-12 rectangular waveguide that 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*	71 GHz		86 GHz
Gain		42 dBi	
3 dB Beamwidth		1.2°	
Sidelobes		-17 dB	
Return Loss		15 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+50 °C

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

Mechanical Specifications:

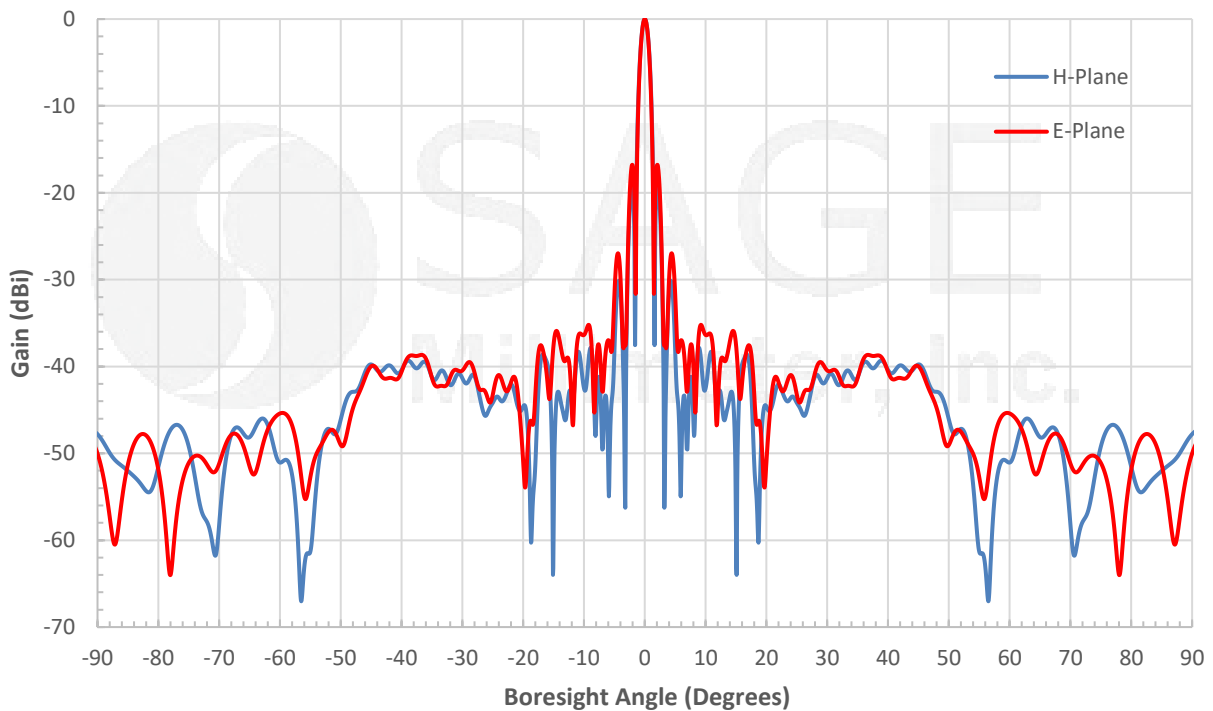
Parameter	Specification
Connector	0.110” Dia Circular Waveguide with UG-387/U-M Flange
Reflector Material	Aluminum
Finish	Chem Film
Weight	22 oz
Reflector Diameter	9.0”
Outline	AY-CE42-09-110-BX1



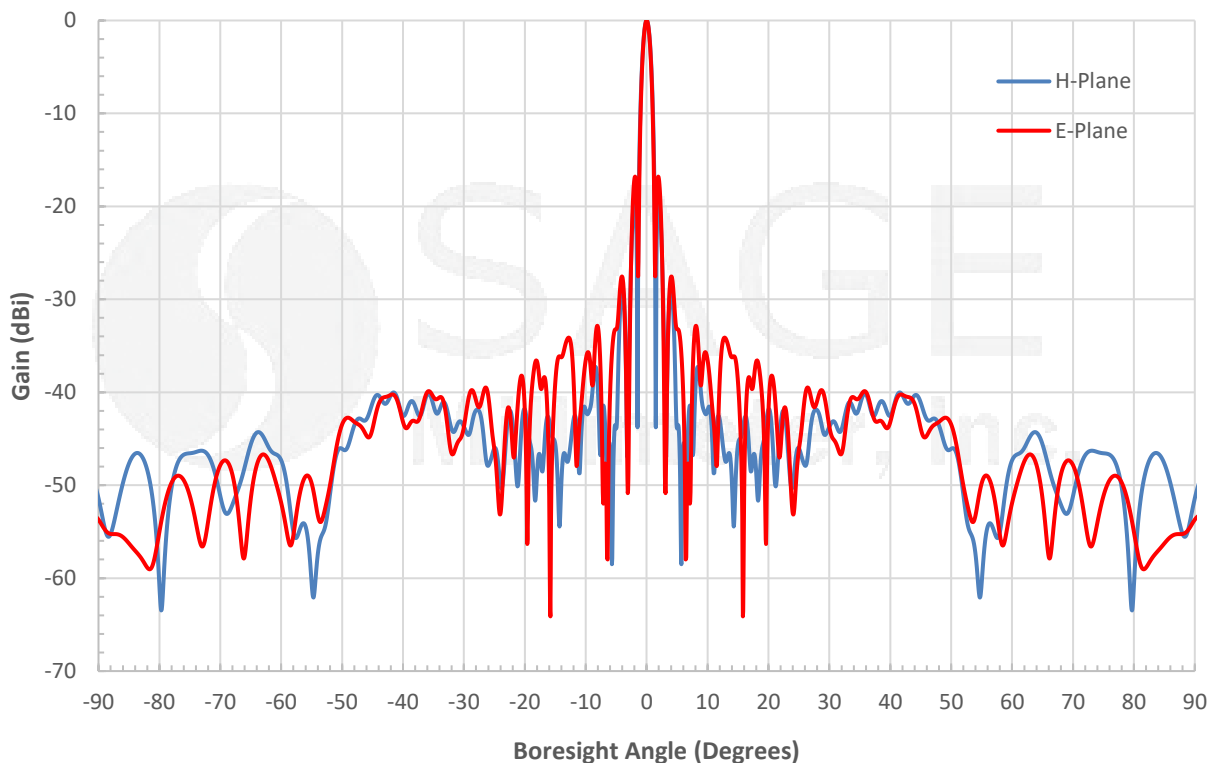


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Simulated Antenna Pattern @ 71 GHz



Simulated Antenna Pattern @ 76 GHz

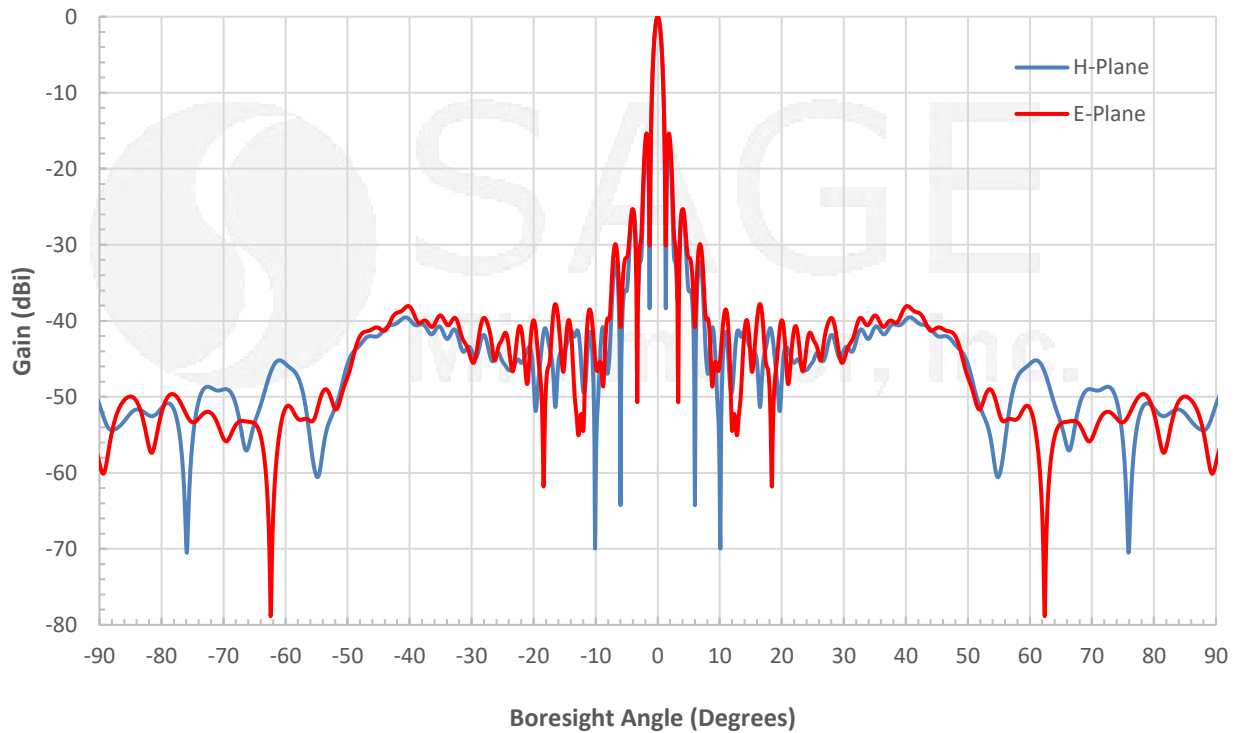


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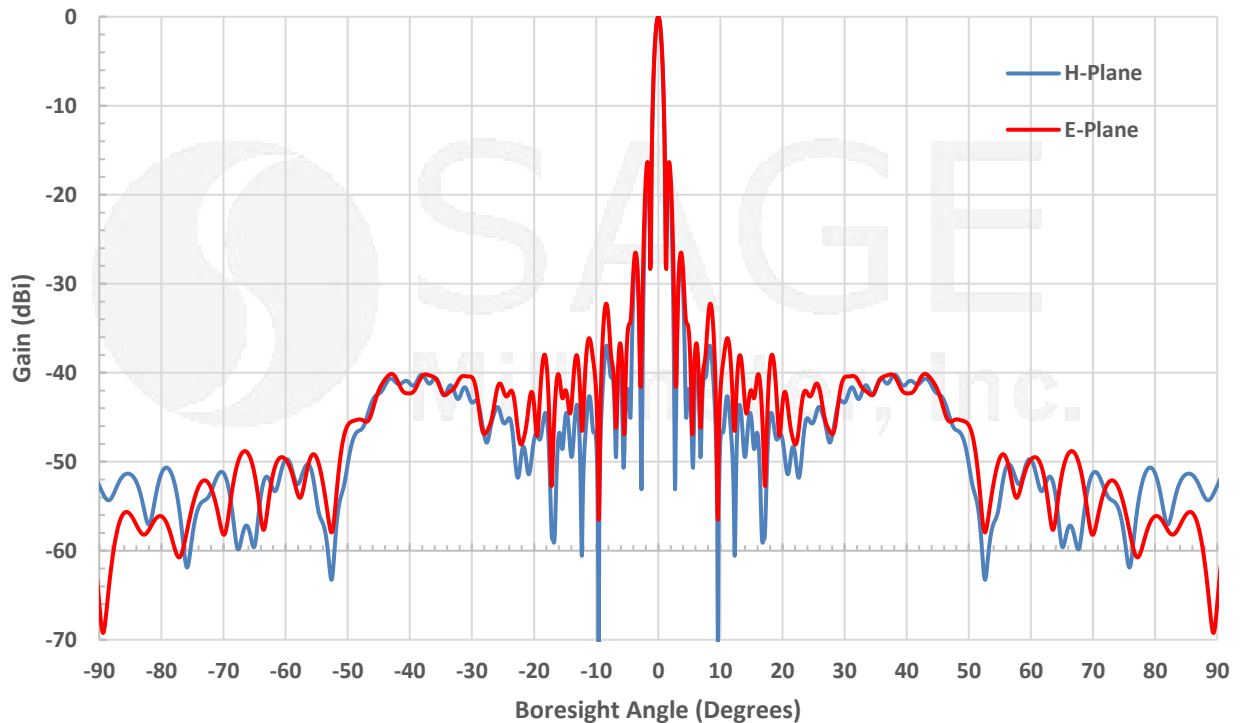


E Band Cassegrain Antenna, 71 to 86 GHz, 9" Dish

Simulated Antenna Pattern @ 80 GHz



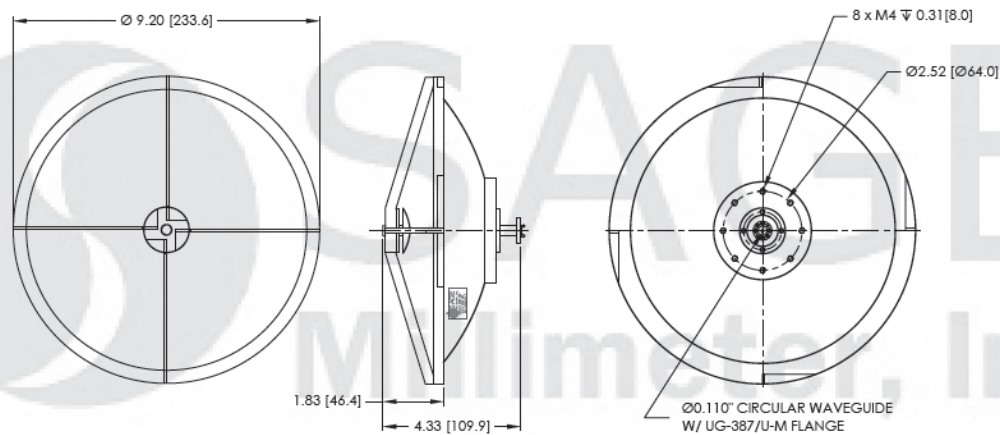
Simulated Antenna Pattern @ 86 GHz





E Band Cassegrain Antenna, 71 to 86 GHz, 9" Dish

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



Note:

- All data presented is simulated. Actual data may vary, slightly.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

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

