SAY-3735135602-219-S1-WR

Q-Band Cassegrain Antenna, 56 dBi, 96” Dish, Weather Resistant

SAY-3735135602-219-S1-WR is a weather resistant Q-Band Cassegrain antenna that offers a nominal gain of 56 dBi and a half power beamwidth of 0.2 degrees. The main reflector is fabricated with fiber glass to offer a light weight and rugged mechanical structure and has a polyamide epoxy paint for protection in all enviroments. The corrugated horn is used to provide the best feed efficiency and the most uniform illumination. The input port is a Ø0.219” circular waveguide with UG-383/U-M grooved anti-cocking flange that is equipped with an O-ring to seal the connection between the RF ports. The anntenna can support both linear and circular polarized waveforms. By adding a mode transition, Eravant model **SWT-22219-SB**, the input port becomes a standard WR-22 waveguide that can only support linear polarized waveforms.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	37 GHz		51 GHz
Gain		56 dBi	
3 dB Beamwidth		0.2°	
Sidelobe Levels		-15 dB	
Return Loss		15 dB	
Polarization		Linear and Circular	
Specification Temperature		+25° C	
Operating Temperature	-40° C		+85° C

Mechanical Specifications:

Item	Specification
Antenna Port	0.219” Circular Waveguide with UG-383/U-M Grooved Anti-Cocking Flange
Material	Aluminum and Brass
Surface Finish	Chem Film and Gold Plated
Reflector Material	Fiberglass
Reflector Finish	Silver Plating
Reflector Diameter	96”
Outline	AY-CQ53-96-219-A-G-WR

ECCN

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FEATURES

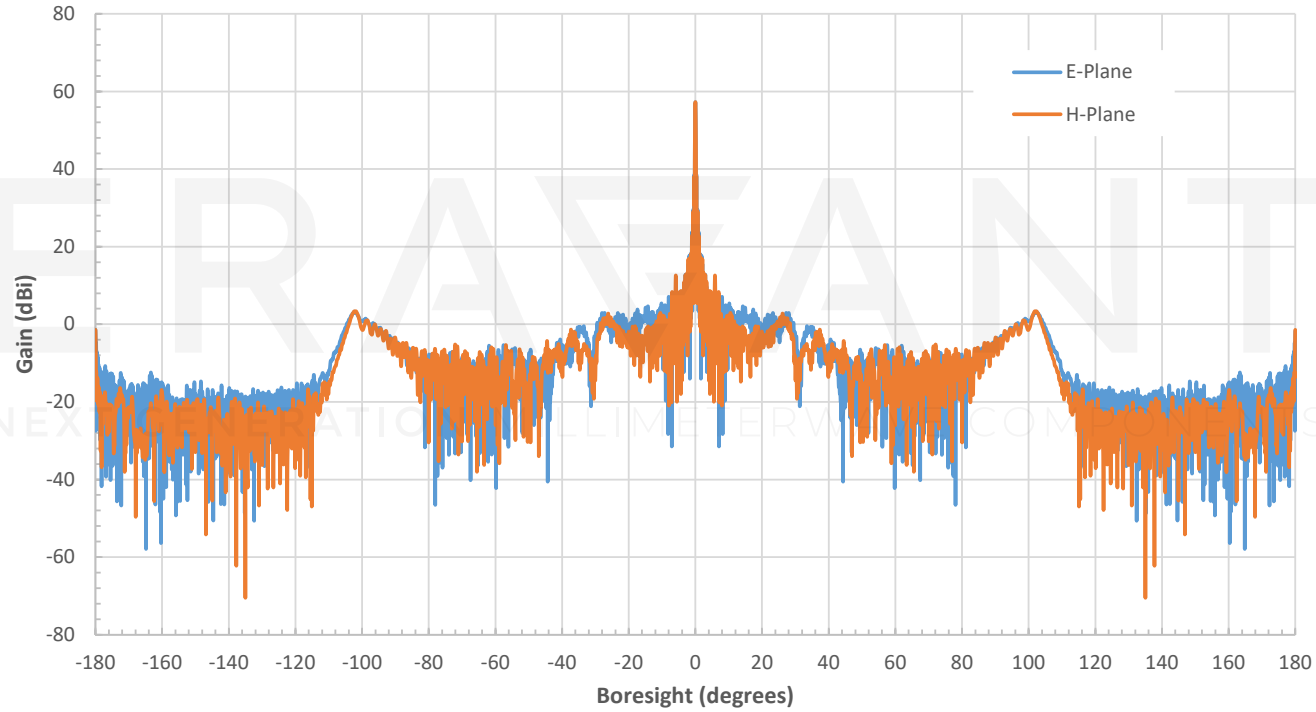
- Rugged Configuration and Low Profile
- Weather Resistant
- Low Loss and High Gain
- Linear and Circular Polarization

APPLICATIONS

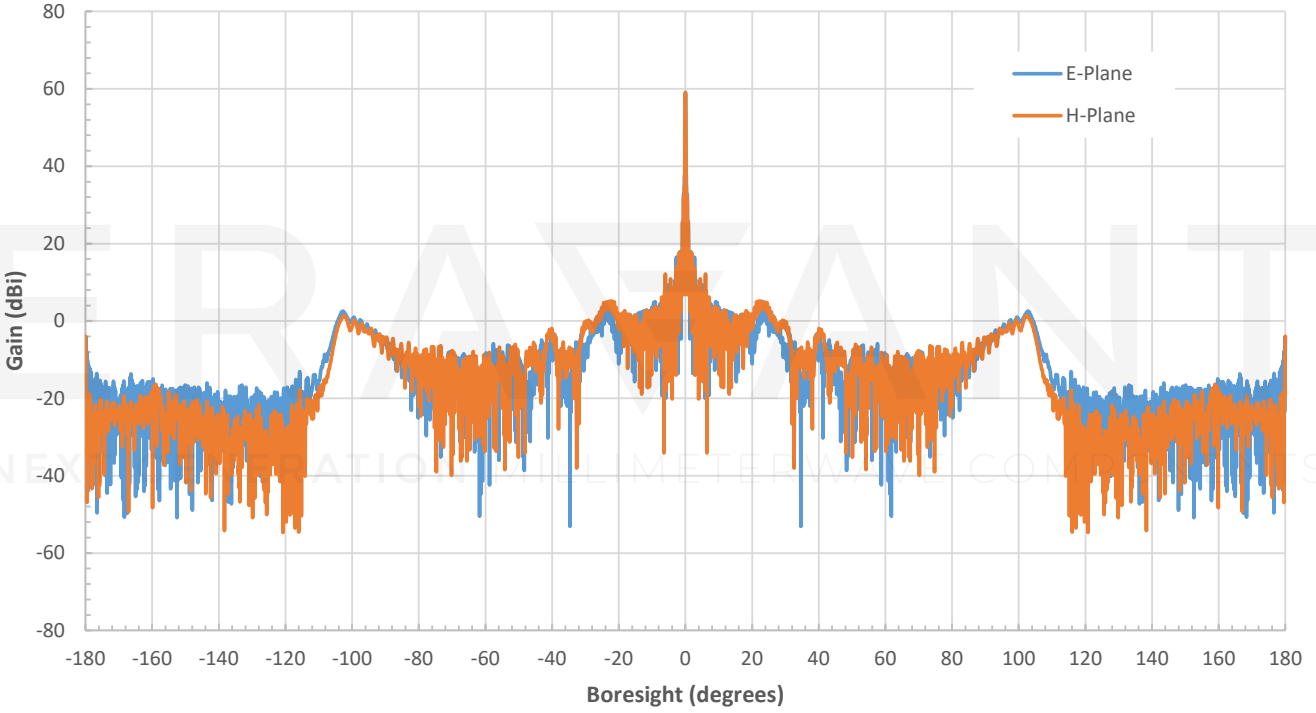
- 5G Systems
- Communication Systems
- Radar Systems
- EW Systems

SUPPLEMENTAL DETAILS

Simumated Antenna Patterns @ 39.5 GHz

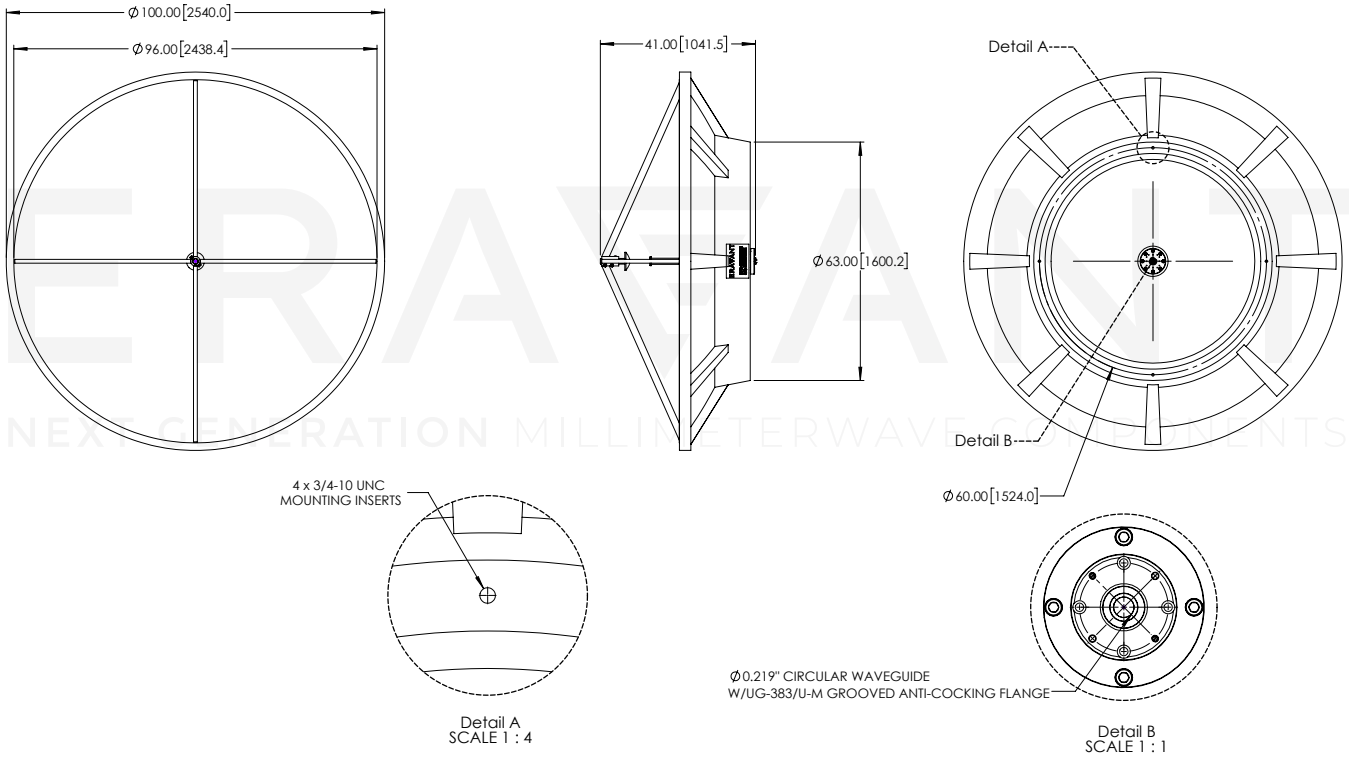


Simulated Antenna Patterns @ 48.5 GHz



Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.