

SAY-3735135602-219-S1-WR

Q/V-Band Cassegrain Antenna, 58 dBi, 96" (2.4 m) Dish

SAY-3735135602-219-S1-WR is a high performance Cassegrain antenna for Q/V-band satellite communication ground station applications. The antenna is designed to operate in the popular Q/V-band frequency spectrum with a frequency range from 37.5 to 52.4 GHz. The antenna offers a nominal gain of 58 dBi, a half power beamwidth of 0.2 degrees, and sidelobes 15 dB below the main lobe.

The antenna features a 2.4 m (96") diameter reflector with honeycomb structure with carbon fiber skin, a corrugated feedhorn. The antenna port is a circular waveguide, so it can support both linear and circular polarizations. The antenna is designed for outdoor operation and incorporates multiple weather-protection features. The main reflector is finished with a weather-resistant polyamide epoxy paint coating. The feedhorn is protected by a sealed radome cap, and the entire feed network is sealed using O-rings to prevent moisture ingress. The sub-reflector and external aluminum enclosures are treated with a corrosion-resistant chem-film surface finish. In addition, the feed components and sub-reflector are painted to further enhance long-term environmental durability.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	37.5 GHz		52.4 GHz
Gain		58 dBi	
3 dB Beamwidth		0.2°	
Sidelobes		-15 dB	
Return Loss		15 dB	
Polarization	Linear and Circular		
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

ECCN

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FEATURES

- Full Coverage of Q/V-Band
- Weather Resistant
- High Antenna Efficiency
- Linear and Circular Polarization

APPLICATIONS

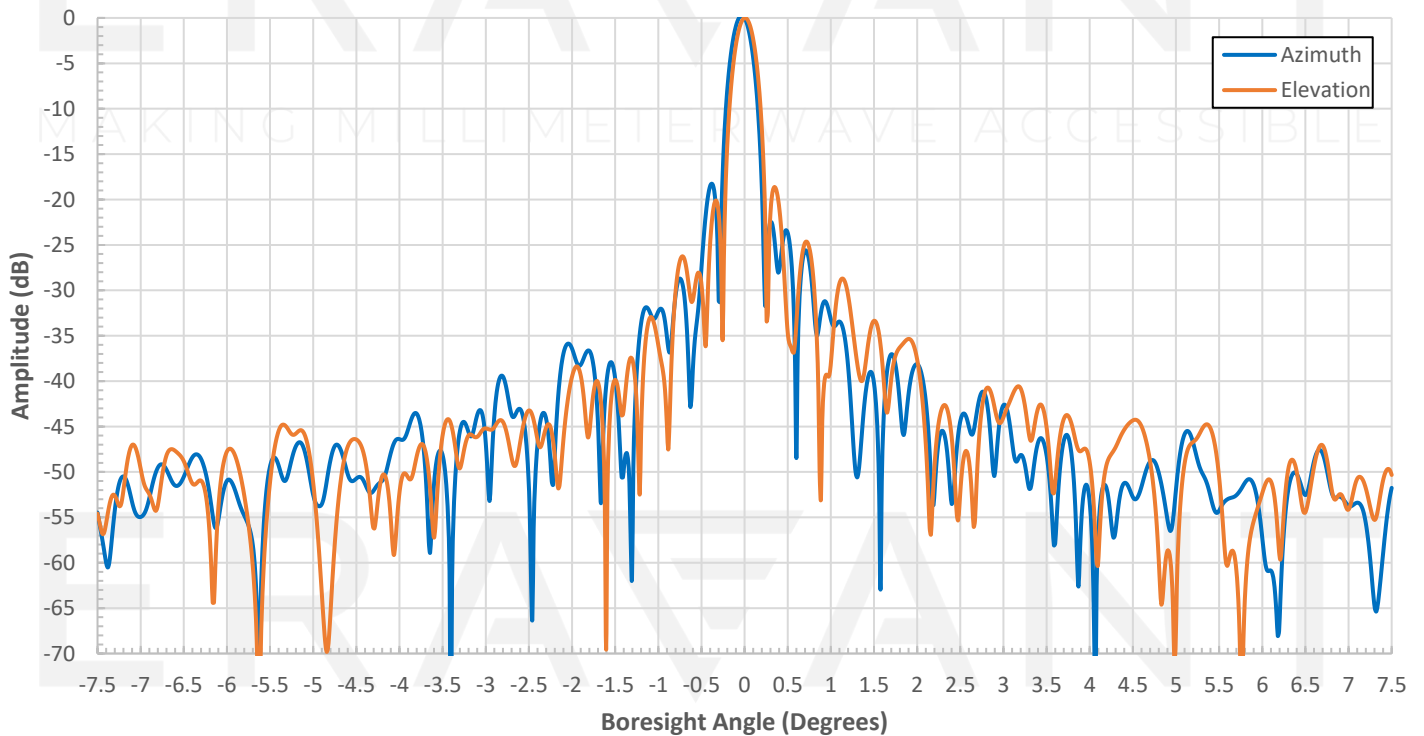
- Q/V-Band Satellite Communication Ground Station

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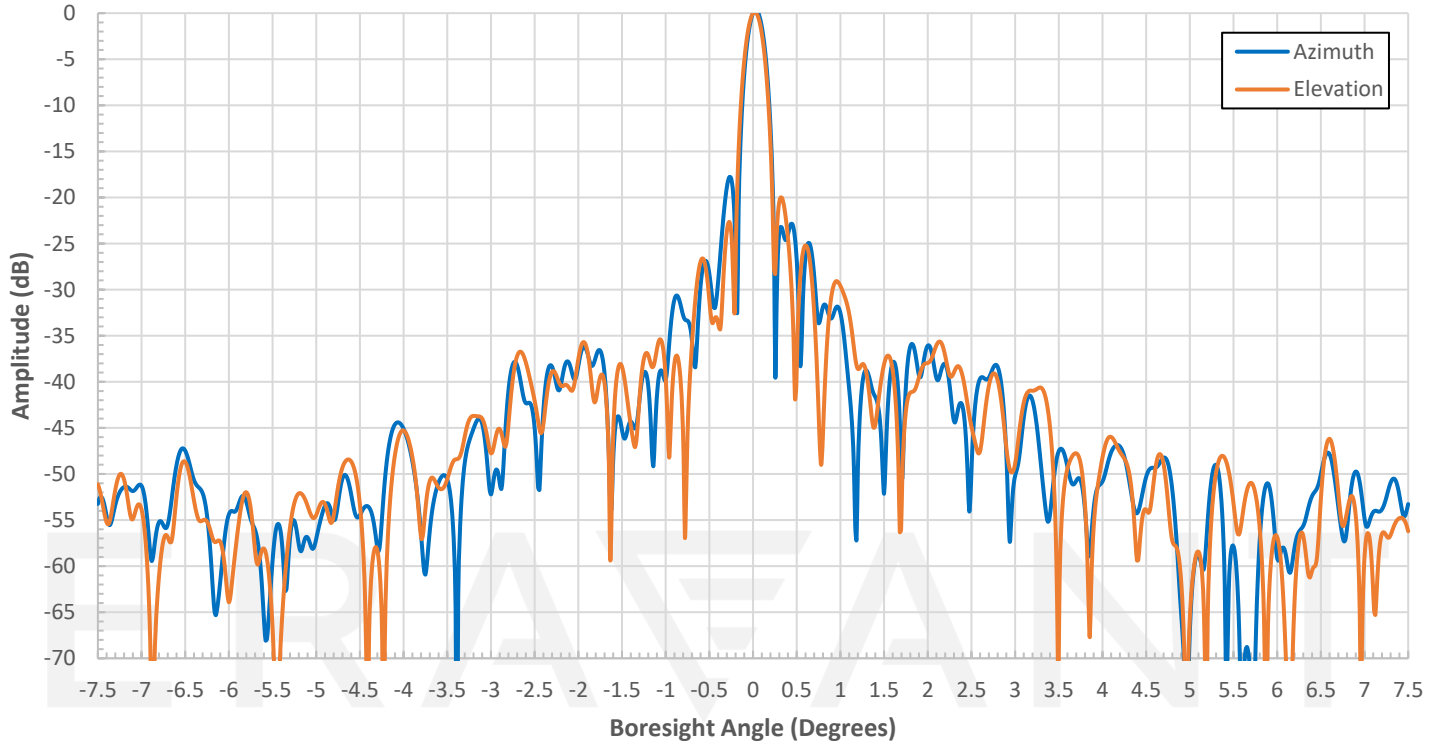
Mechanical Specifications:

Item	Specification
Aperture Size	Ø 96" (2.4 m)
Antenna Port	Ø 0.219" Circular Waveguide with UG-383/U-M Grooved Anti-Cocking Flange
Enclosure Material	Aluminum
Enclosure Surface Finish	White Polyurethane enamel paint
Radome Material	PTFE
Reflector Material	Honeycomb structure with Carbon fiber skin
Reflector Surface Finish	White Polyamide Epoxy Paint
Weight	Approx. 110 lbs.
Outline	AY-CQ58-96-219-A-WR

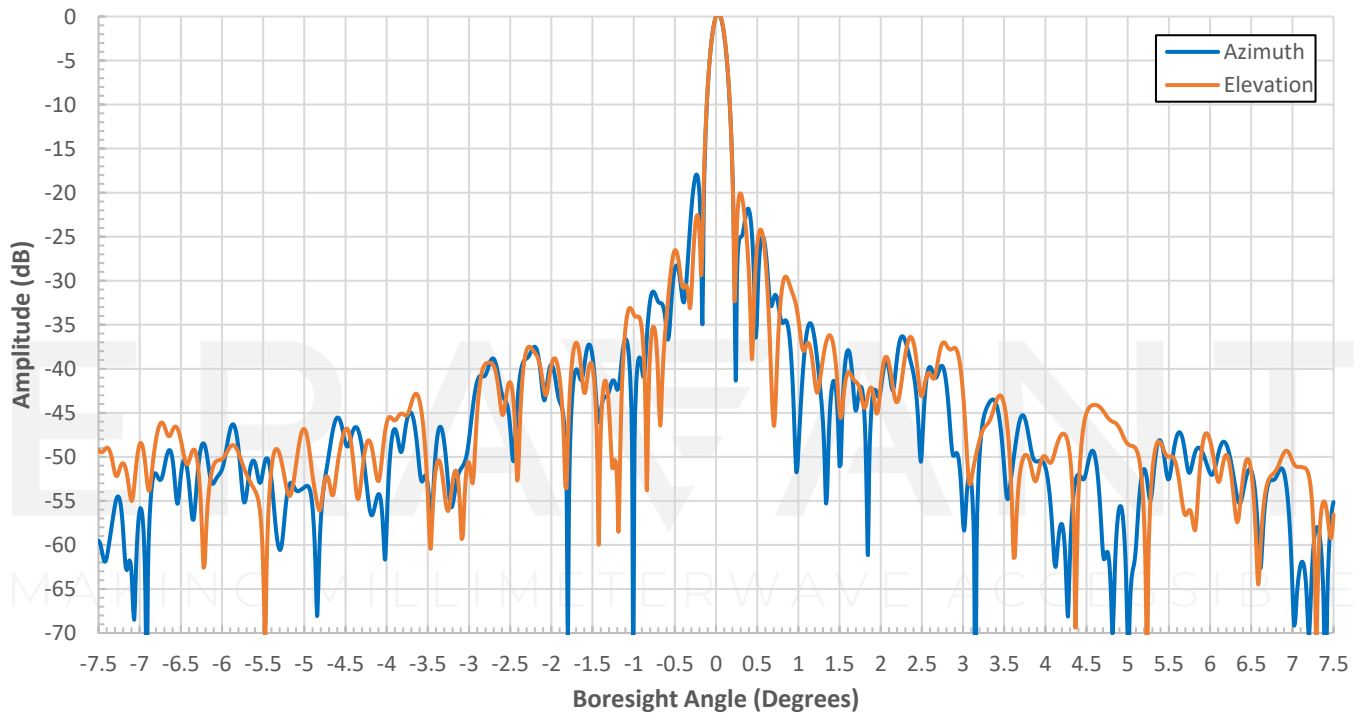
Measured Patterns at 37 GHz



Measured Patterns at 45.4 GHz

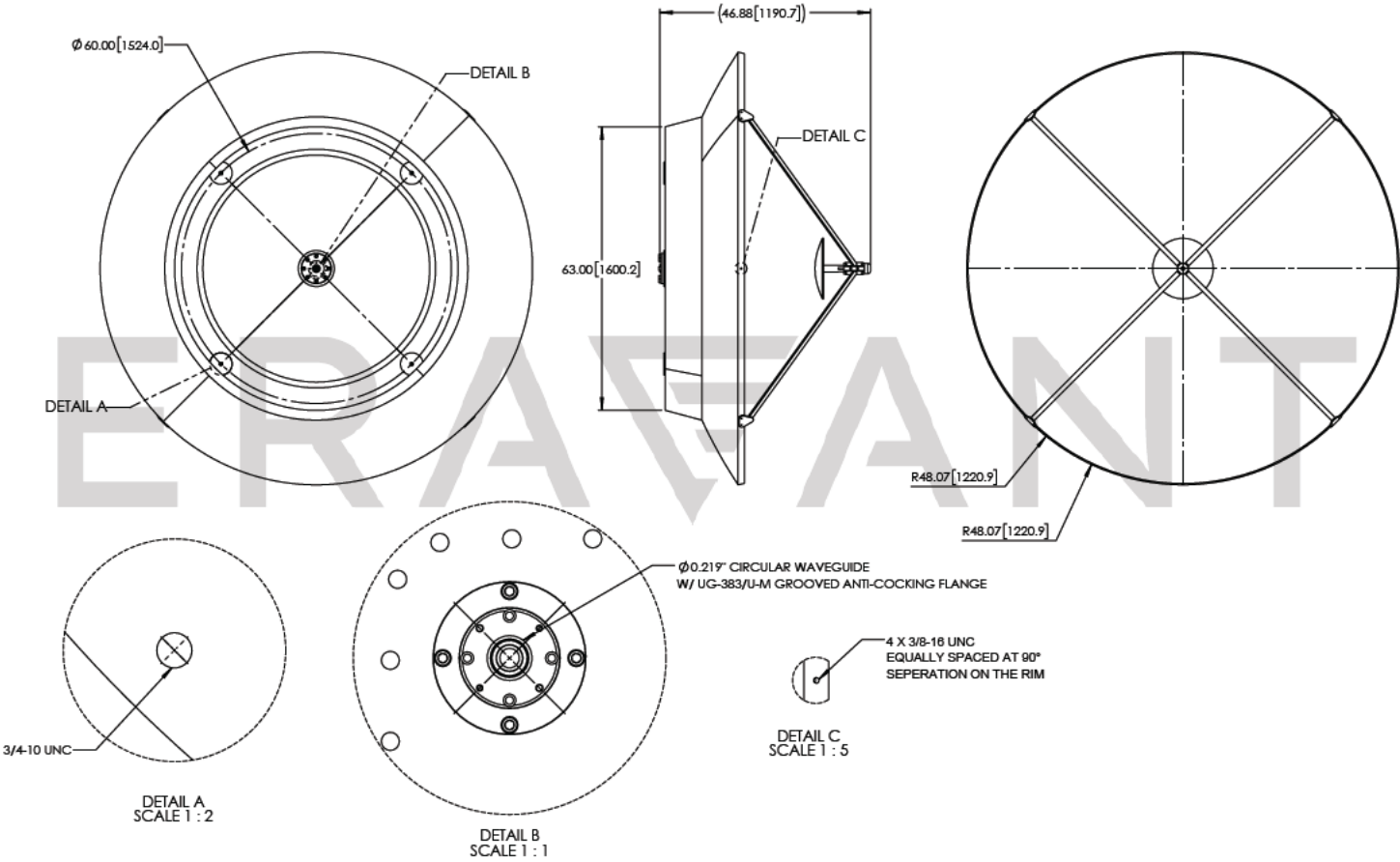


Measured Patterns at 51.5 GHz



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



NOTE:

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

CAUTION:

- Any foreign objects in the waveguide or antenna will cause performance degradation and may damage or destroy the unit.

MAKING MILLIMETERWAVE ACCESSIBLE