

## SAY-2734034508-28-S1-DP-WR

### Ka-Band Cassegrain Antenna, 45 dBi, 36" (0.9 m) Dish, Linear Polarized

**SAY-2734034508-28-S1-DP-WR** is a high performance, linear polarized, Cassegrain antenna assembly for Ka-band applications. The antenna is designed to operate in the Ka band region from 26.5 to 40 GHz.

The antenna features a 0.9 m (36") diameter, light weight, carbon fiber reflector, a corrugated feedhorn, and a 2-port backend feed network that consists of an integrated orthomode transducer (OMT) for the dual polarized application. The model supports linear polarizations at the H and V ports. The antenna is designed to operate in outdoor conditions and features weather resistant polyamide epoxy paint coating for the main reflector and the feed parts, a sealed radome cap for the feedhorn, O-ring sealing for the entire feed network.



#### ECCN

EAR99

#### FEATURES

- Full Coverage of Ka-Band
- Weather Resistant
- High Antenna Efficiency
- High Port Isolation
- Linear Polarization
- Light weight

#### APPLICATIONS

- Radar Communication Systems
- EW systems

### Electrical Specifications:

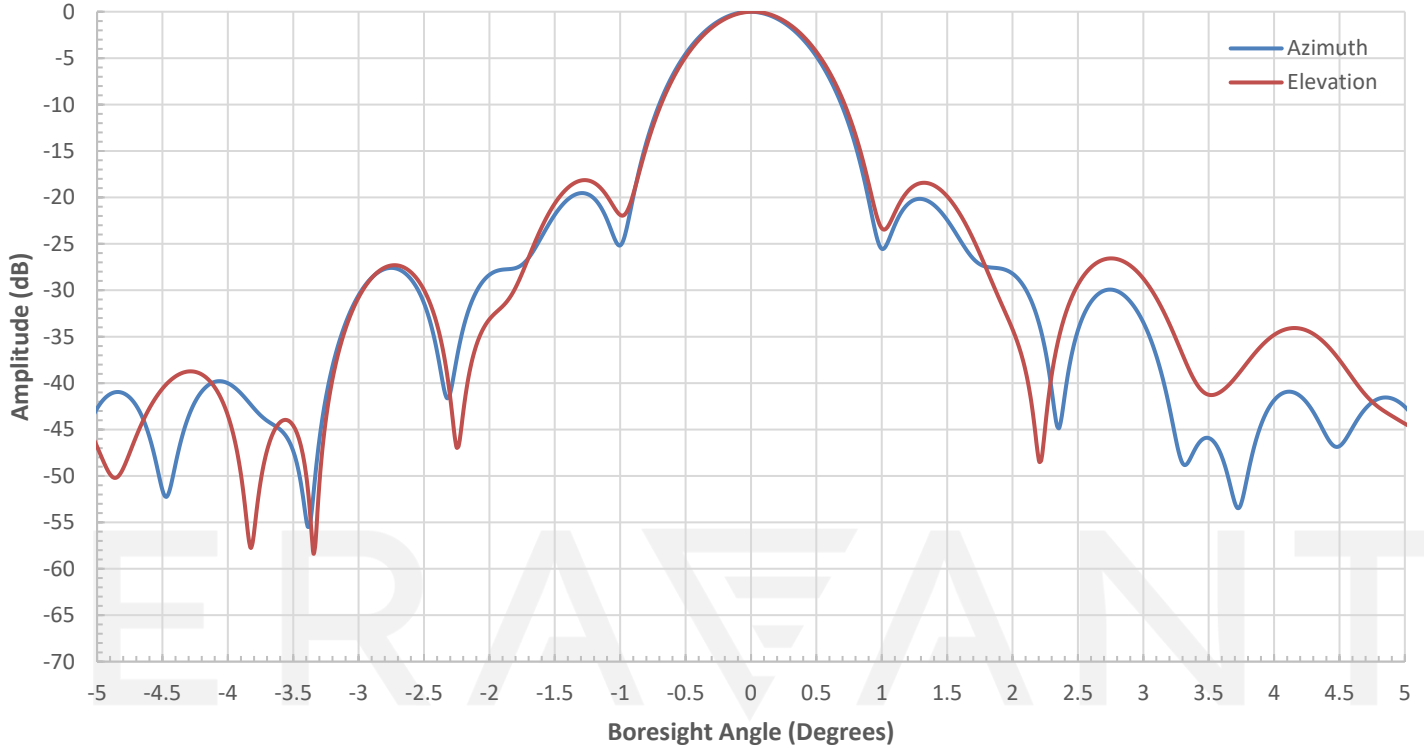
Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		45 dBi	
3 dB Beamwidth		0.8°	
Sidelobes		-17 dB	
Polarization	Linear Polarized		
Isolation		50 dB	
Return Loss		15 dB	
Power Handling			300 W
Specification Temperature	+25 °C		
Operating Temperature	-40 °C to +85 °C		

### Mechanical Specifications:

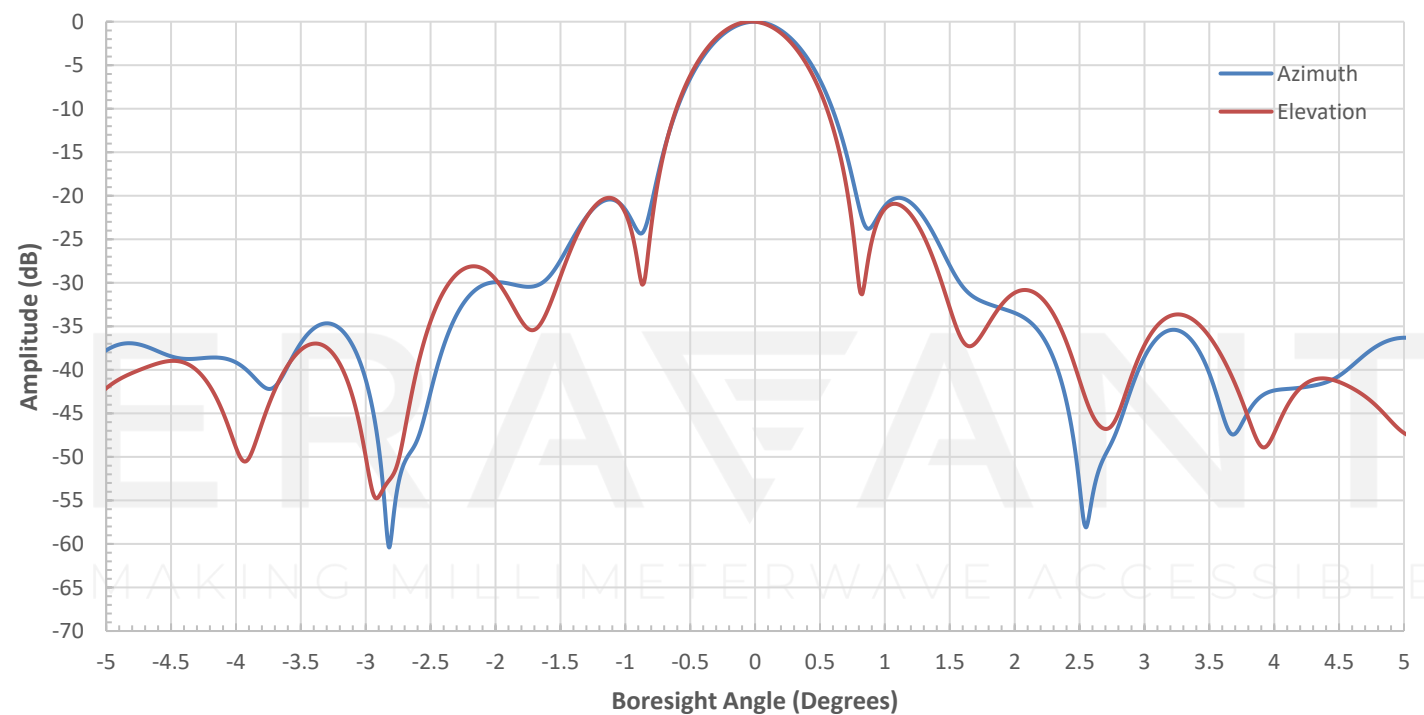
Item	Specification
Aperture Size	Ø 36" (0.9 m)
Antenna Ports	WR-28 Waveguide with UG-383/U-M Anti-Cocking Flanges (H and V Ports)
Enclosure Material	Aluminum
Enclosure and Feed Parts Finish	White Polyurethane Enamel Paint
Radome Material	PTFE
Reflector Material	Carbon Fiber Skin
Reflector Surface Finish	White Polyurethane Enamel Paint
Weight	Approx. 16 lbs.
Outline	AY-RA45-36-315-DP-WR

ERAVANT  
MAKING MILLIMETERWAVE ACCESSIBLE

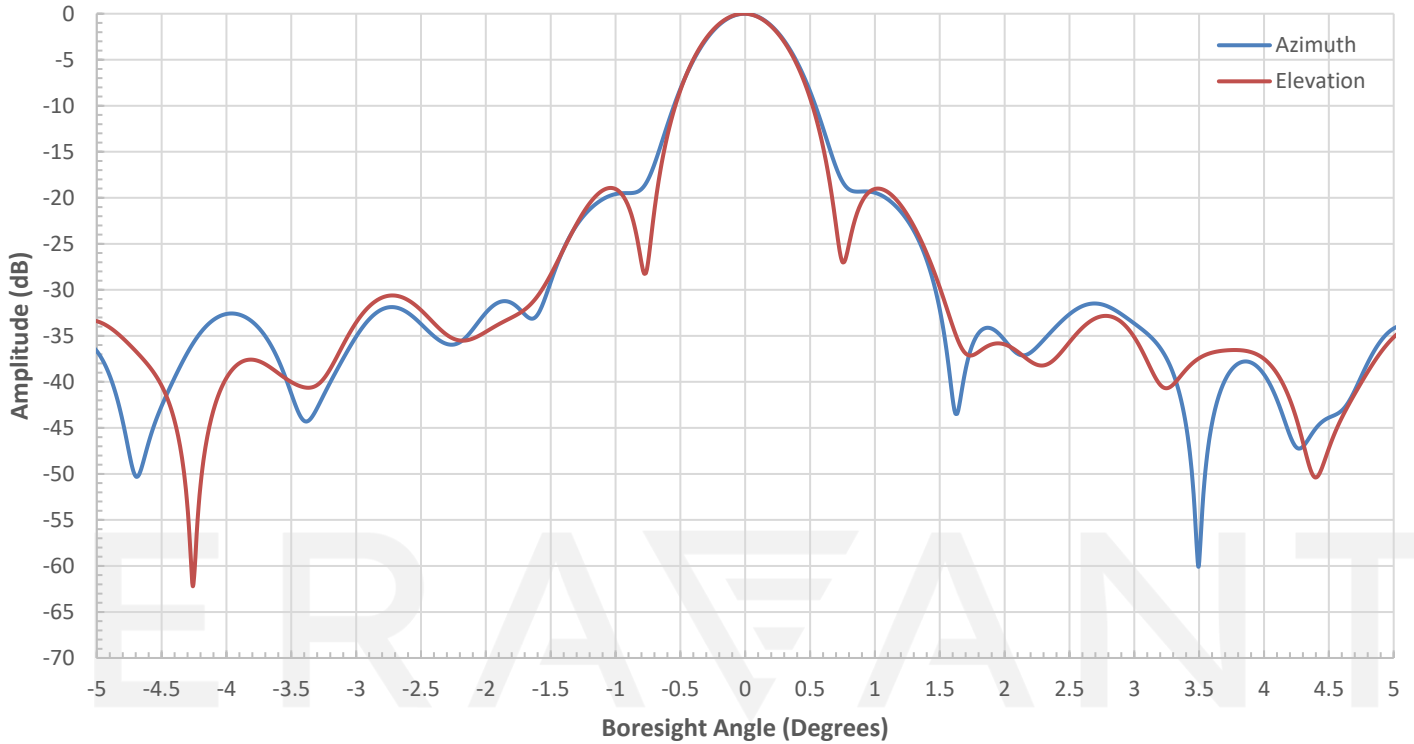
### Measured Patterns at 26.5 GHz



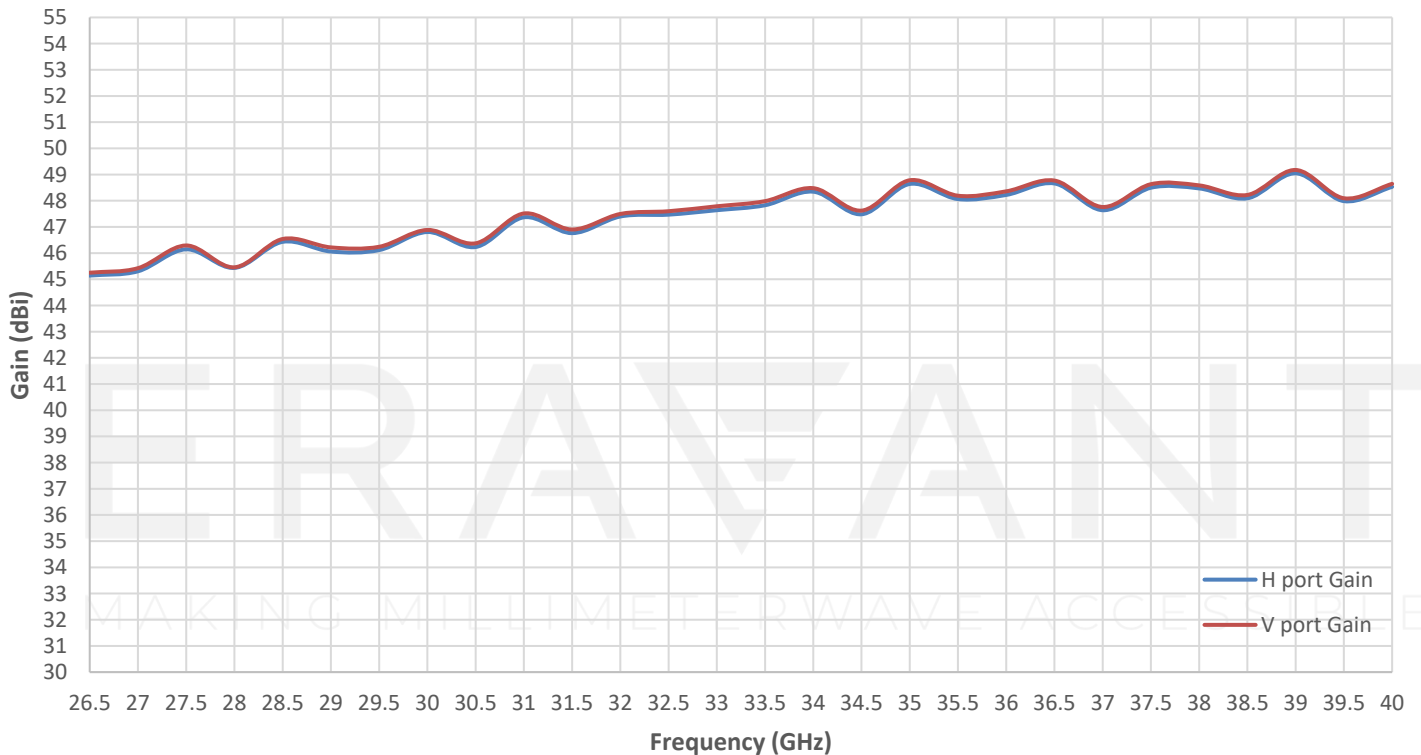
### Measured Patterns at 33.5 GHz



### Measured Pattern at 40 GHz

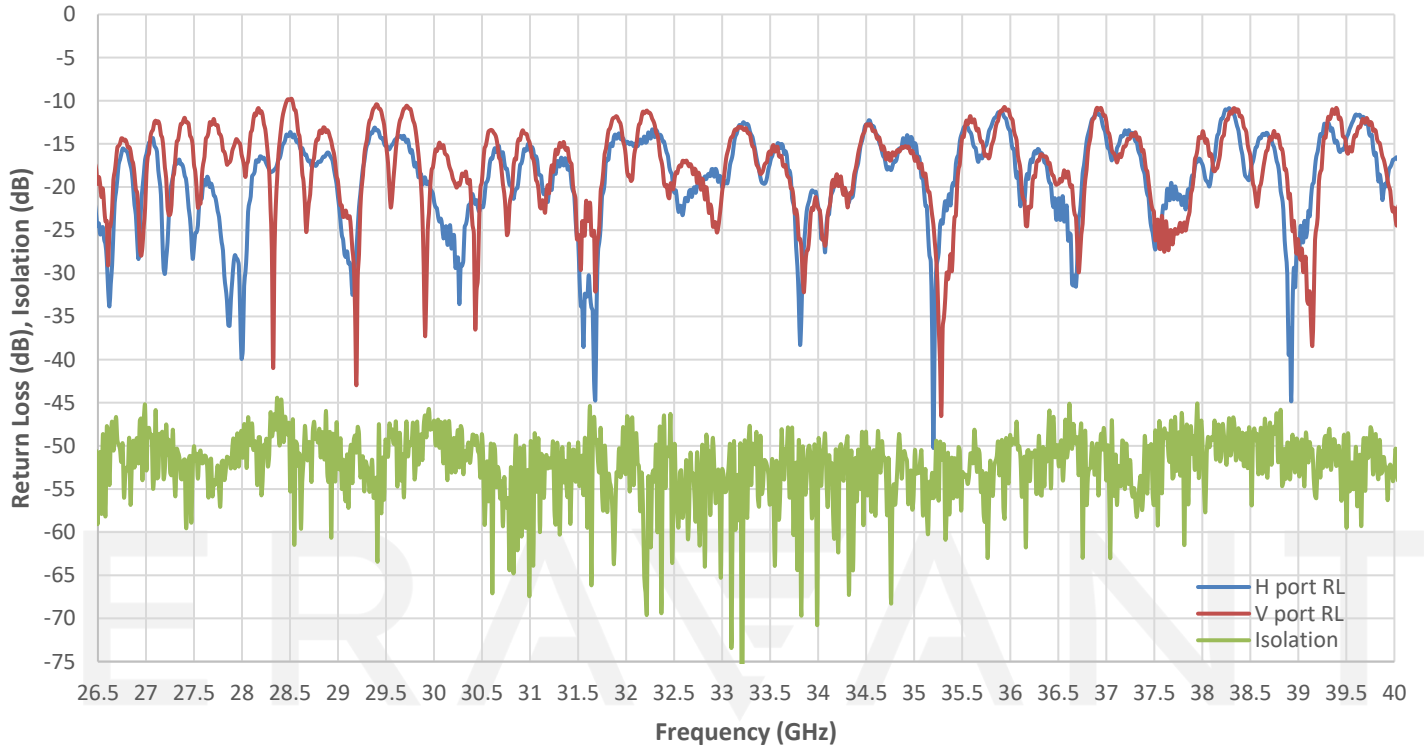


### Measured Gain vs Frequency



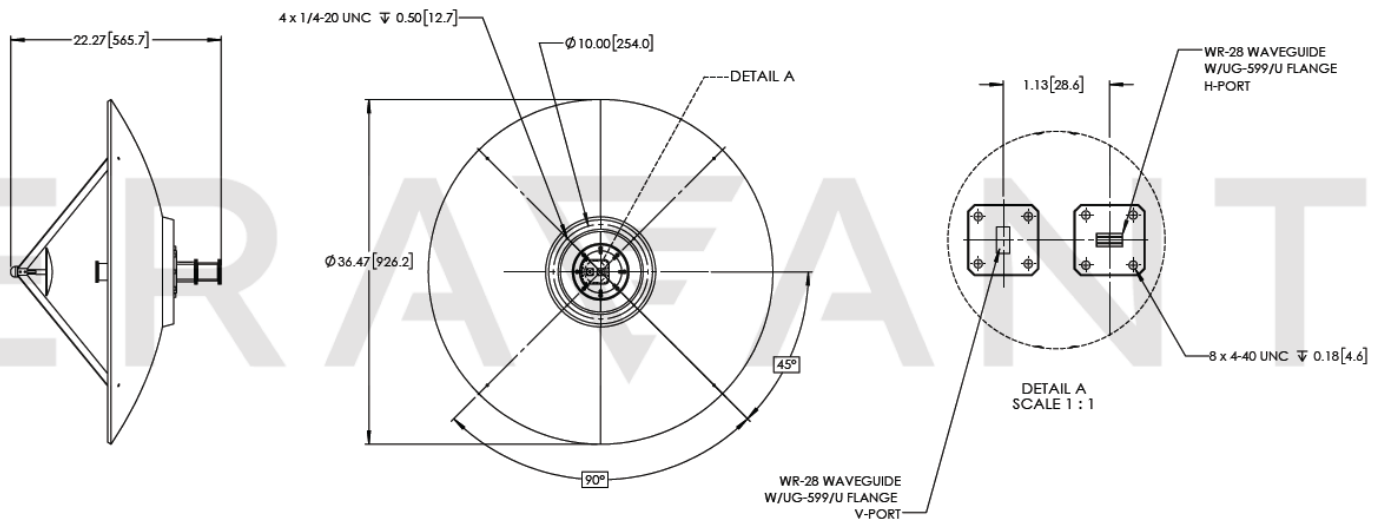
## SAY-2734034508-28-S1-DP-WR

### Measured Return Loss and Isolation



MAKING MILLIMETERWAVE ACCESSIBLE

### 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.

ERAVANT  
MAKING MILLIMETERWAVE ACCESSIBLE

ERAVANT  
MAKING MILLIMETERWAVE ACCESSIBLE