SAY-3433634506-28-S1-MP-WR

Ka Band Monopulse Cassegrain Antenna, Weather Resistant, 34 to 36 GHz, 45 dBi

SAY-3433634506-28-S1-MP-WR is a weather resistant, monopulse Cassegrain antenna that operates from 34 to 36 GHz,and has a half power beamwidth of 0.6 degrees. The antenna offers a nominal gain of 45 dBi in the Sum Port, and 39 dBi in the H-Port and V-Port. The antenna has three WR-28 waveguides with UG-599/U compatible grooved flanges, which are designated as Sum Port, V-Port, and H-Port. The antenna comes with an in-built radome and enclosure for the feed system to make it weather resistant.The antenna can support linear polarized waveforms and is designed and manufactured for indoor and outdoor applications.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	34 GHz		36 GHz
Gain, Sum Port		45 dBi	
Sum 3 dB Beamwidth		0.6°	
Gain, Difference V-Port		39 dBi	
Gain, Difference H-Port		39 dBi	
Null Depth		30 dB	
Polarization		Linear	
Sidelobes, E-Plane		16 dB	
Sidelobes, H-Plane		16 dB	
Sum to Difference Port Isolation		20 dB	
Return Loss		13 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

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FEATURES

- Rugged Configuration and Low Profile
- Low Loss and High Gain
- Weather Resistant

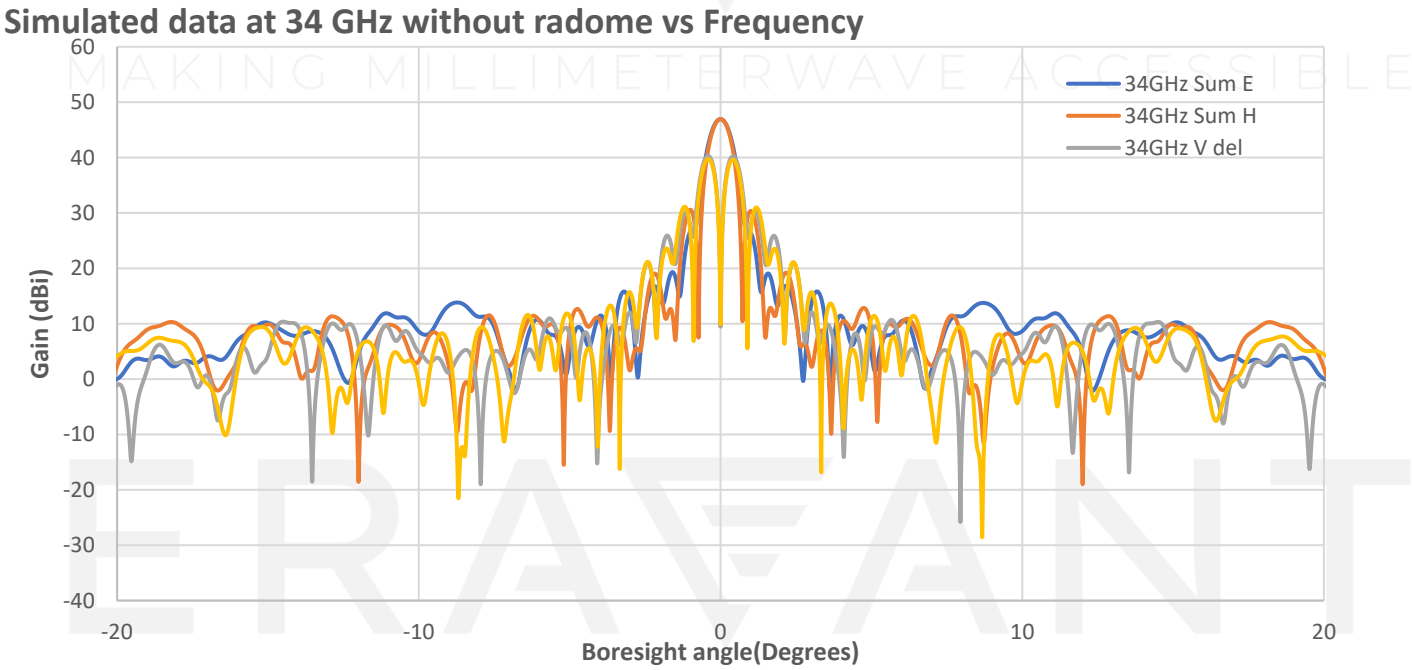
APPLICATIONS

- 5G Systems
- Communication Systems
- Radar Systems

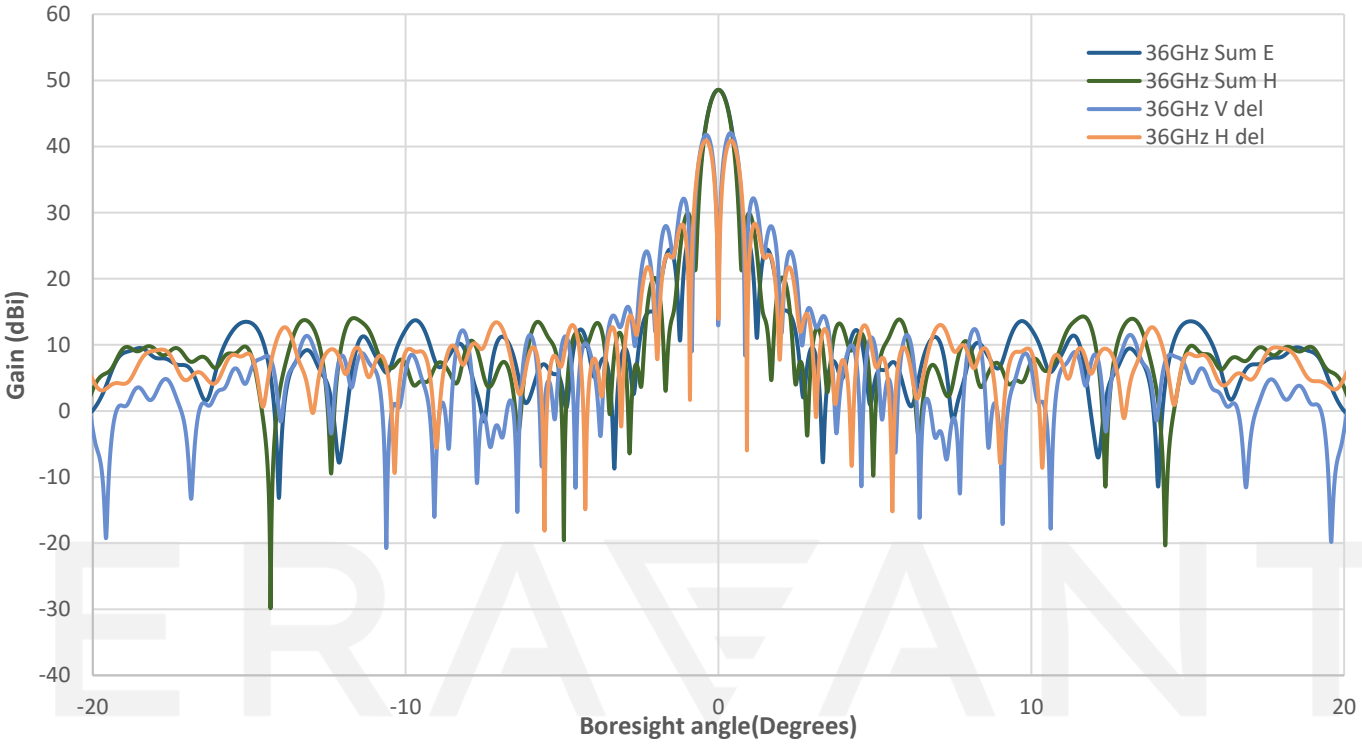
SUPPLEMENTAL DETAILS

Mechanical Specifications:

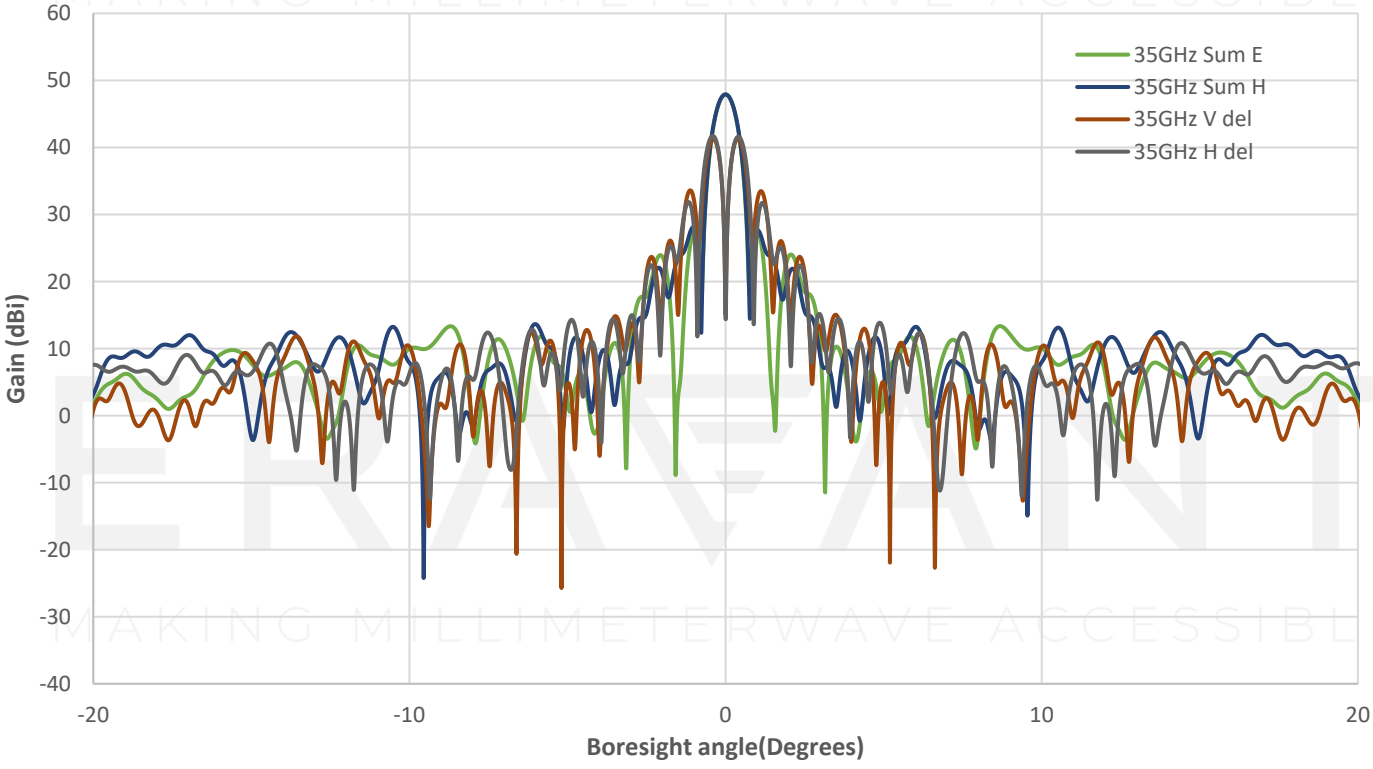
Item	Specification
RF Ports	WR-28 Waveguide with UG-599/U Compatible Grooved Flange
RF Port Material	Aluminum
RF Port Finish	Chem Film
Reflector Material	Aluminum
Reflector Finish	Powder Coated
Radome Material	HIPS (High Impact Polystyrene)
Radome Finish	Grey Painted
Weight	32.6 lbs.
Reflector Diameter	35.4”
Outline	AY-RA45-35-MP-WR-2



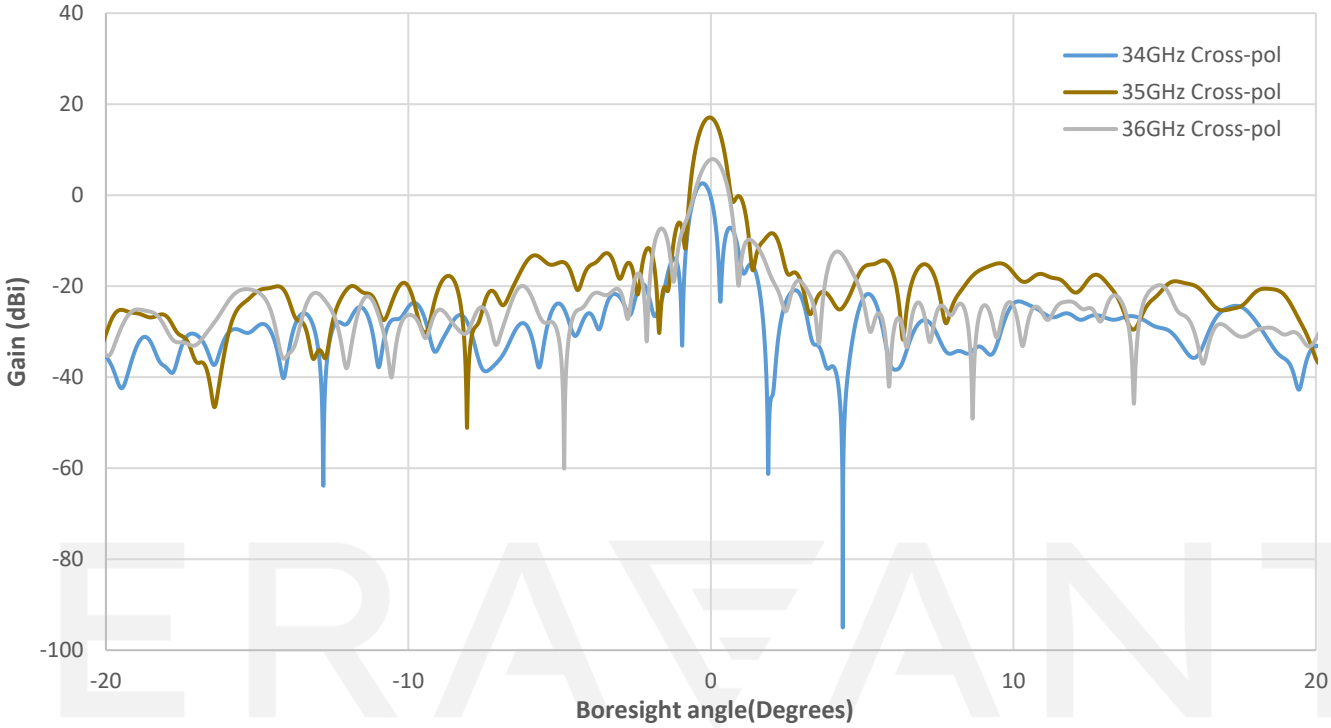
Simulated data at 36 GHz without radome vs Frequency



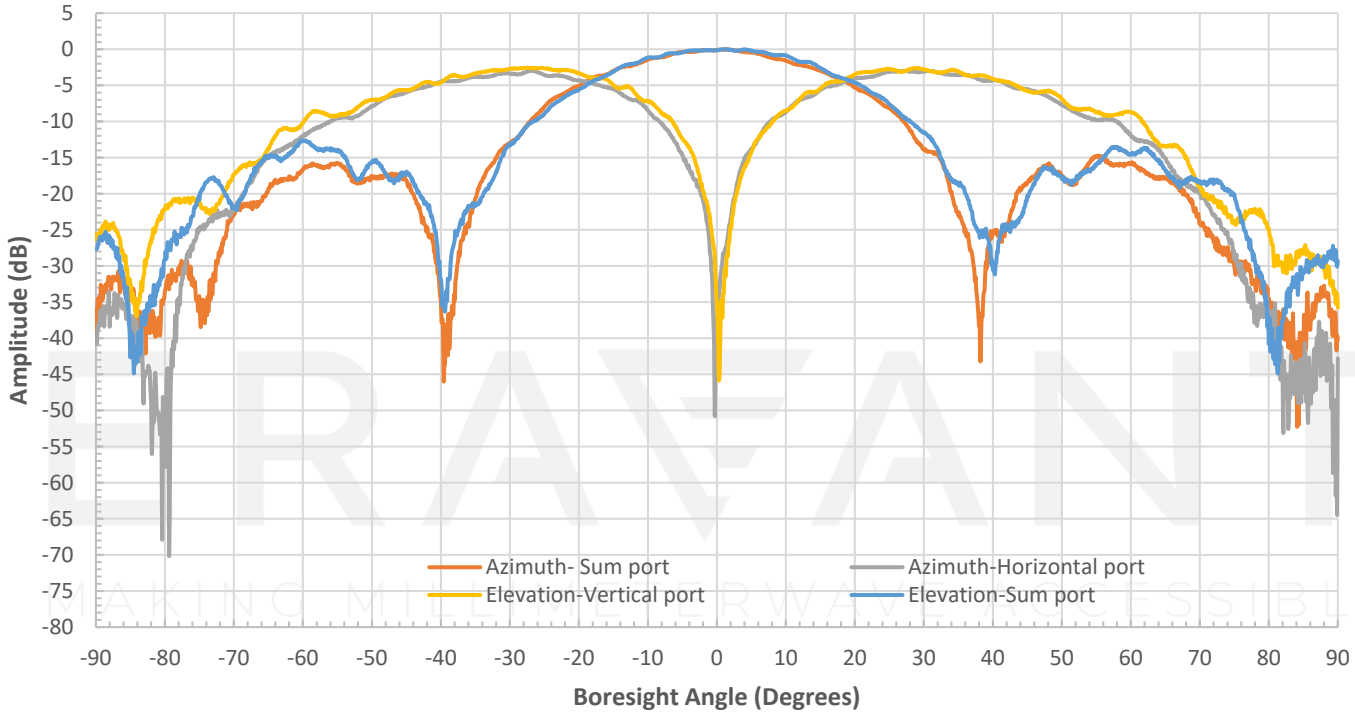
Simulated data at 35 GHz without radome vs Frequency



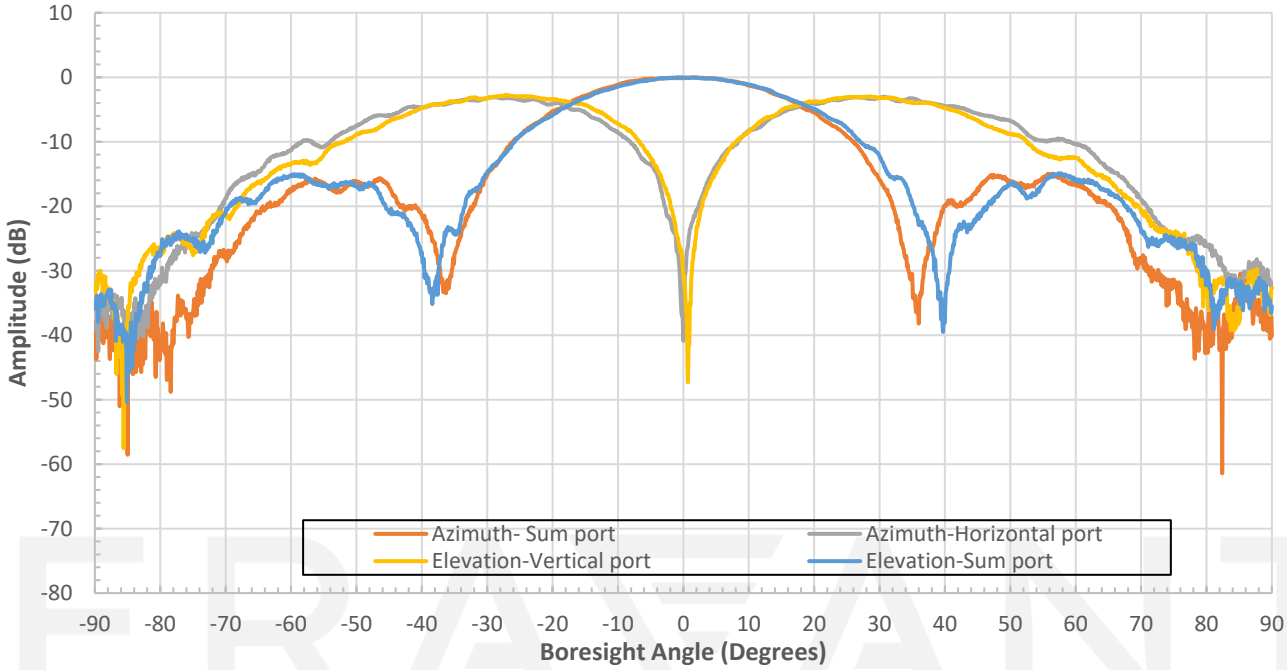
Simulated Cross-pol data without radome vs Frequency



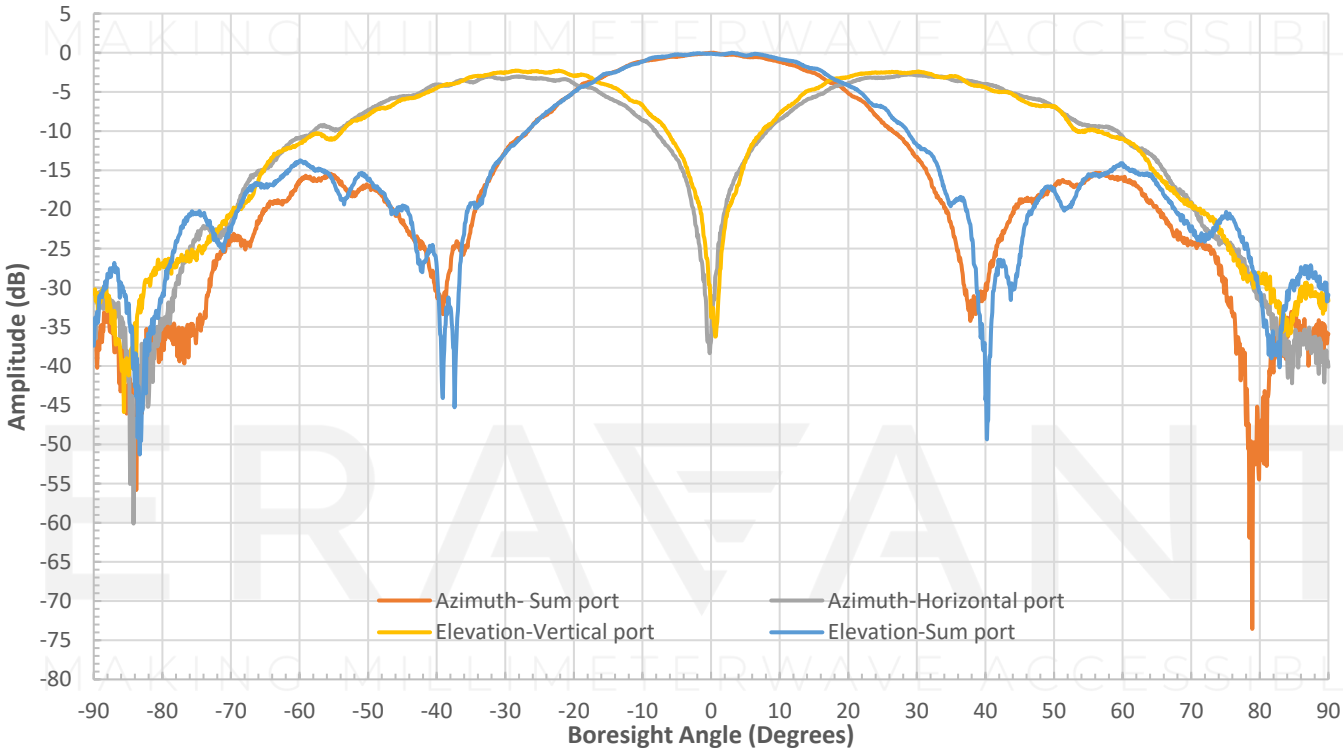
Measured Feed Network Pattern at 34 GHz



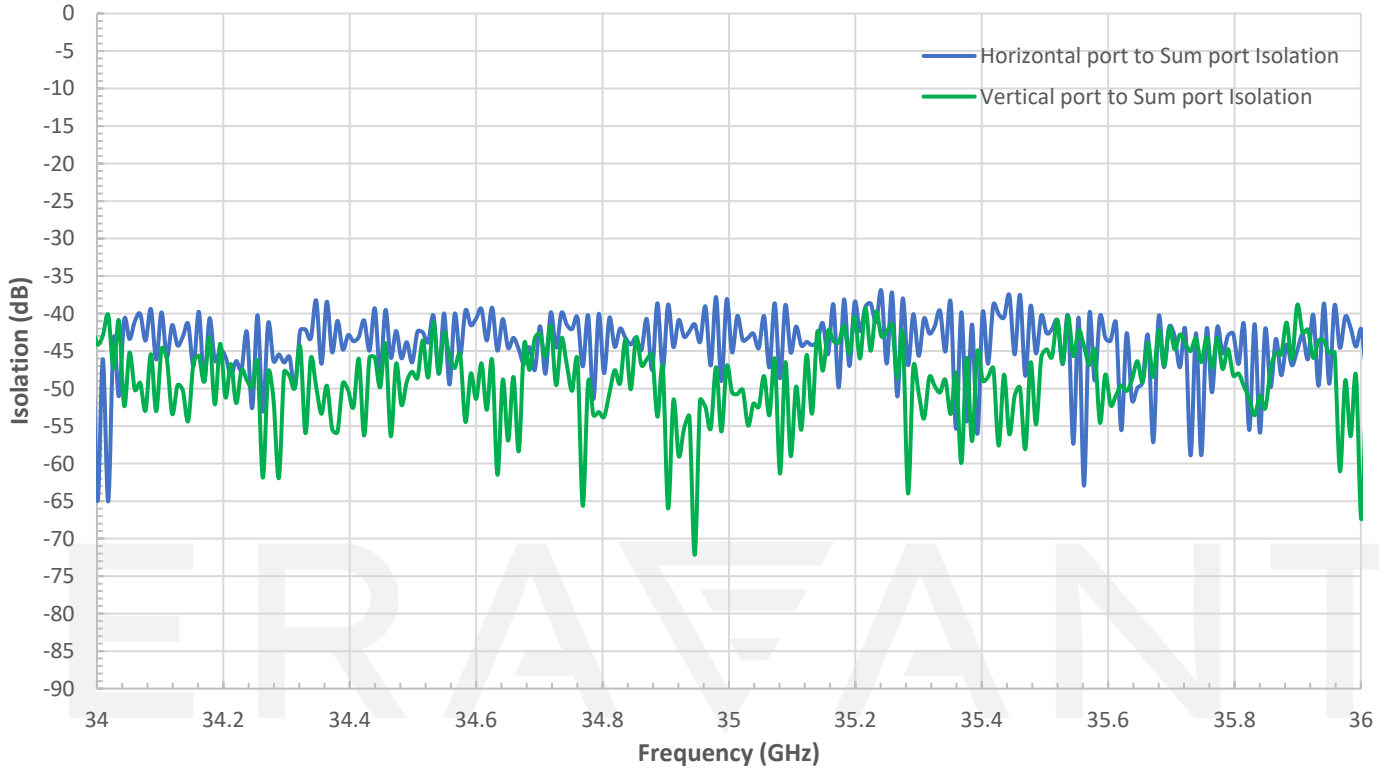
Measured Feed Network Pattern at 36 GHz



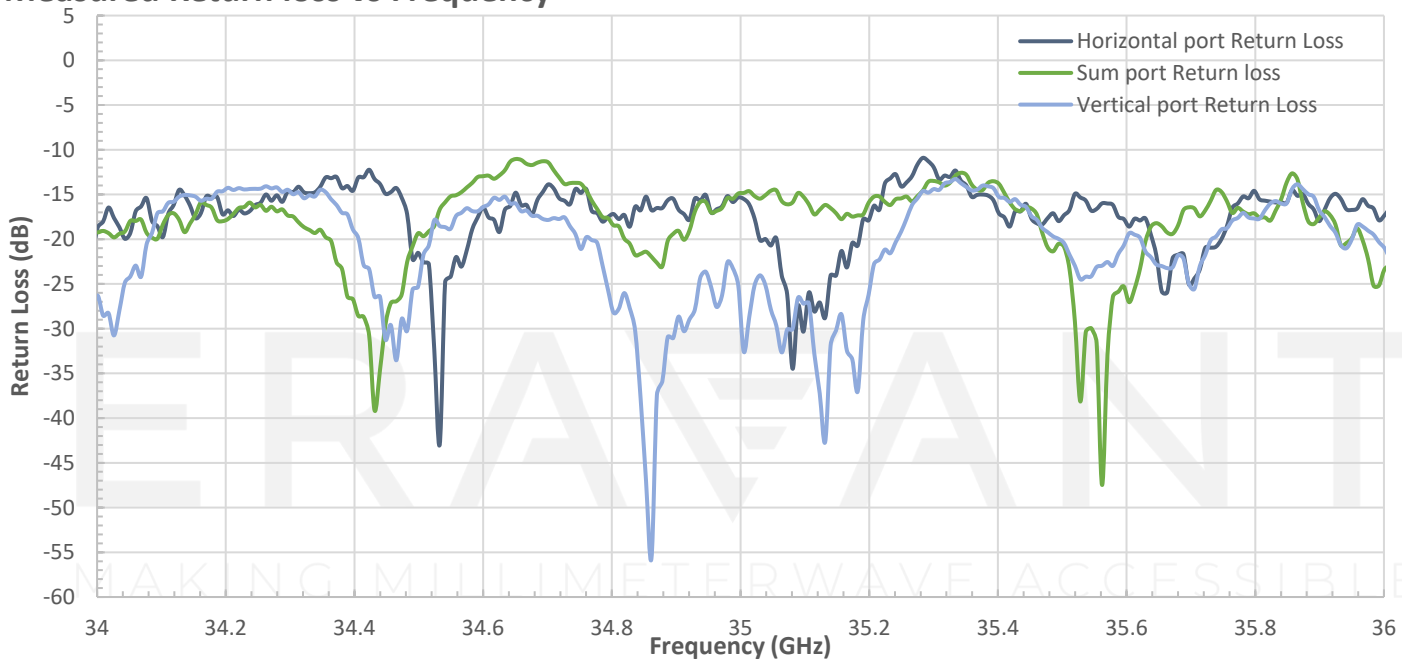
Measured Feed Network Pattern at 35 GHz



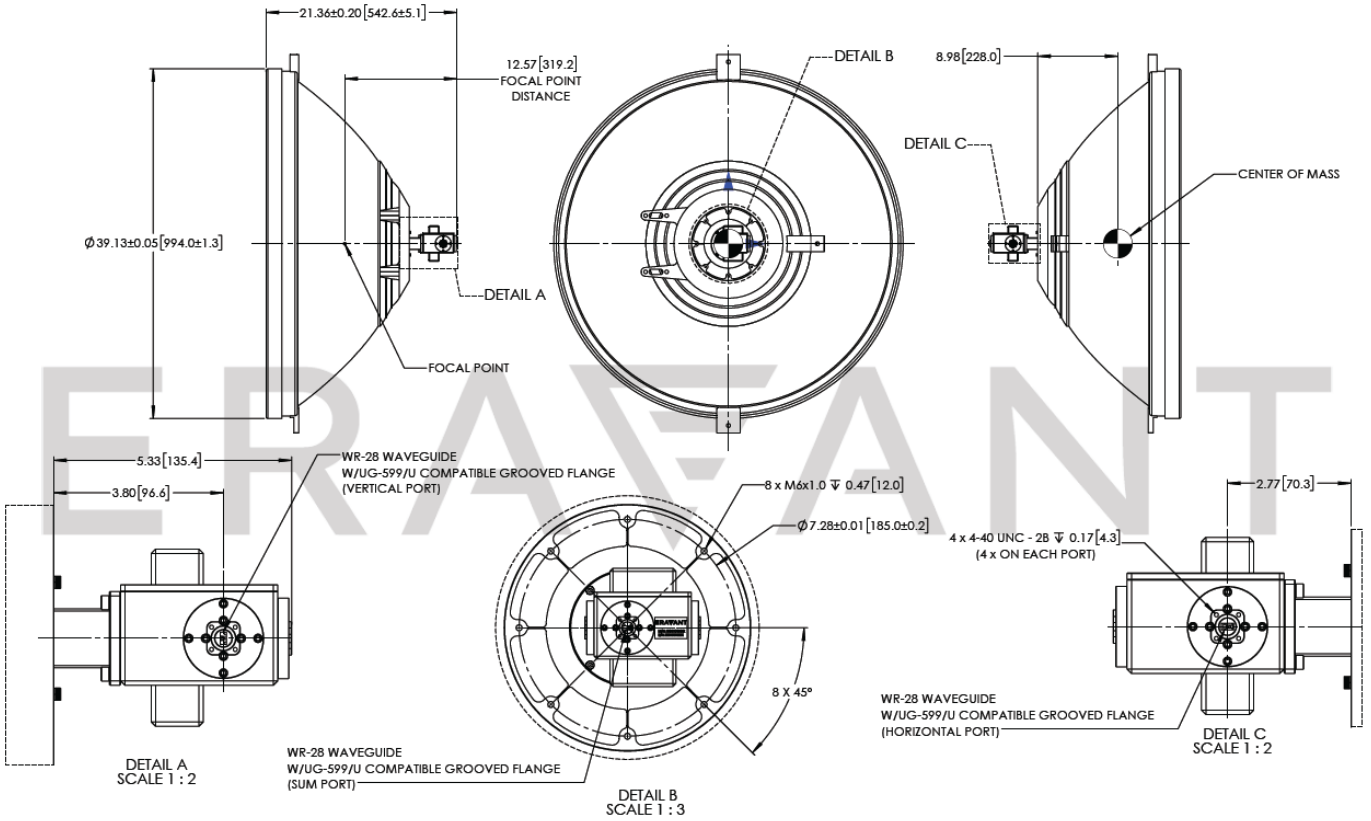
Measured Isolation vs Frequency



Measured Return loss vs Frequency



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



NOTE:

- Measured data provided is from a sample lot, test data may vary slightly from unit to unit.
- For simulated data provided, actual data may slightly vary.
- Drain holes to be kept open while in operation.
- 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.