SAY-3433634310-28-S1-MP

Ka Band Monopulse Cassegrain Antenna, 34 to 36 GHz, 43 dBi

SAY-3433634310-28-S1-MP is a Monopulse Cassegrain antenna that operates from 34 to 36 GHz, and has a half power beamwidth of 1.0 degrees. The antenna offers a nominal gain of 43 dBi in the Sum Port, and 36 dBi in the H-Port and V-Port. The antenna has three WR-28 waveguides with UG-599/U compatible flanges, which are designated as Sum Port, V-Port, and H-Port. The antenna can support linear polarized waveforms and is designed and manufactured for indoor applications.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	34 GHz		36 GHz
Gain, Sum Port		43 dBi	
Sum 3 dB Beamwidth		1.0°	
Gain, Difference V-Port		36 dBi	
Gain, Difference H-Port		36 dBi	
Null Depth		30 dB	
Polarization		Linear	
Sidelobes, E-Plane		16 dB	
Sidelobes, H-Plane		16 dB	
Return Loss		13 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Ports	WR-28 Waveguide with UG-599/U Compatible Flange
RF Port Material	Aluminum
RF Port Finish	Chem Film
Reflector Material	Aluminum
Reflector Finish	Grey Painted, Color Code-Pantone 1C
Weight	12 lbs.
Reflector Diameter	24”
Outline	AY-RA43-24-MP

ECCN

EAR99

FEATURES

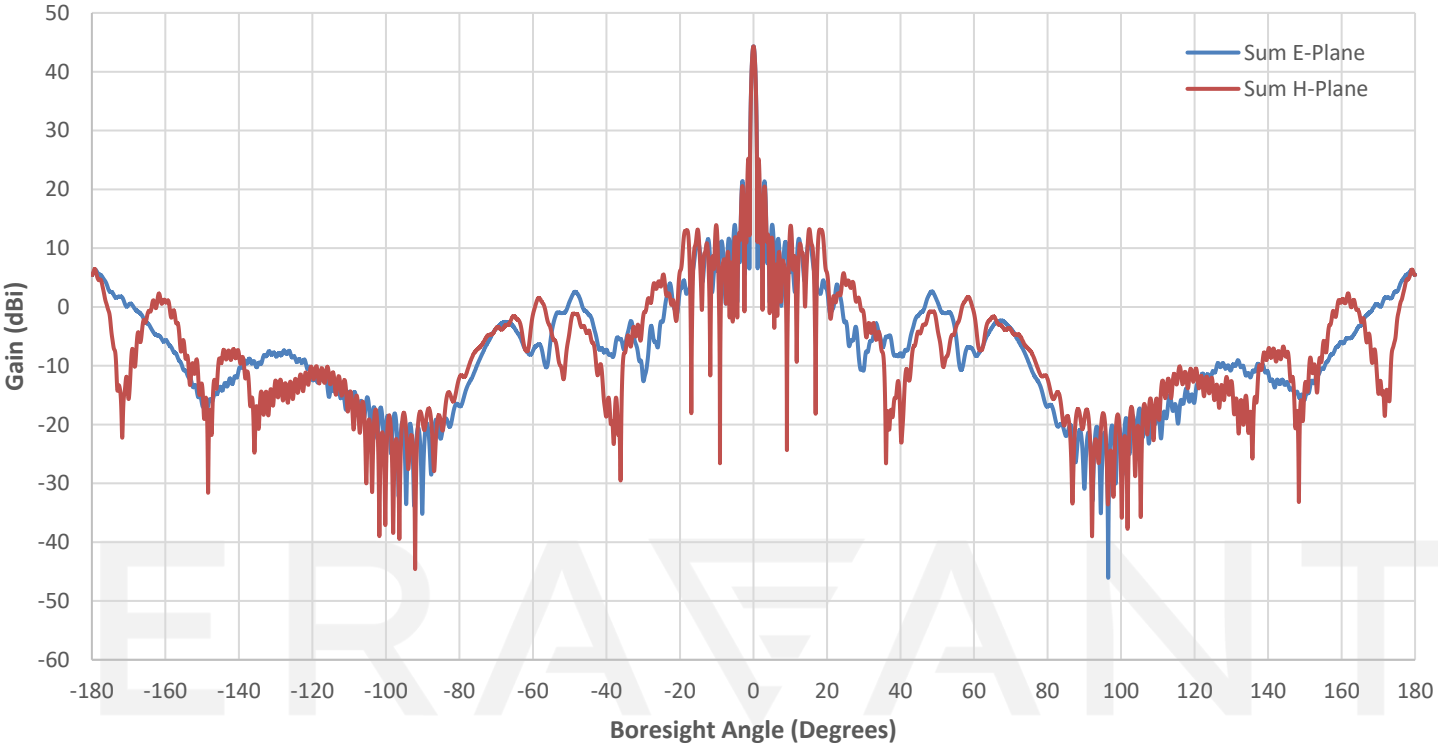
- Rugged Configuration and Low Profile
- Low Loss and High Gain
- Telescope to Aid Alignment

APPLICATIONS

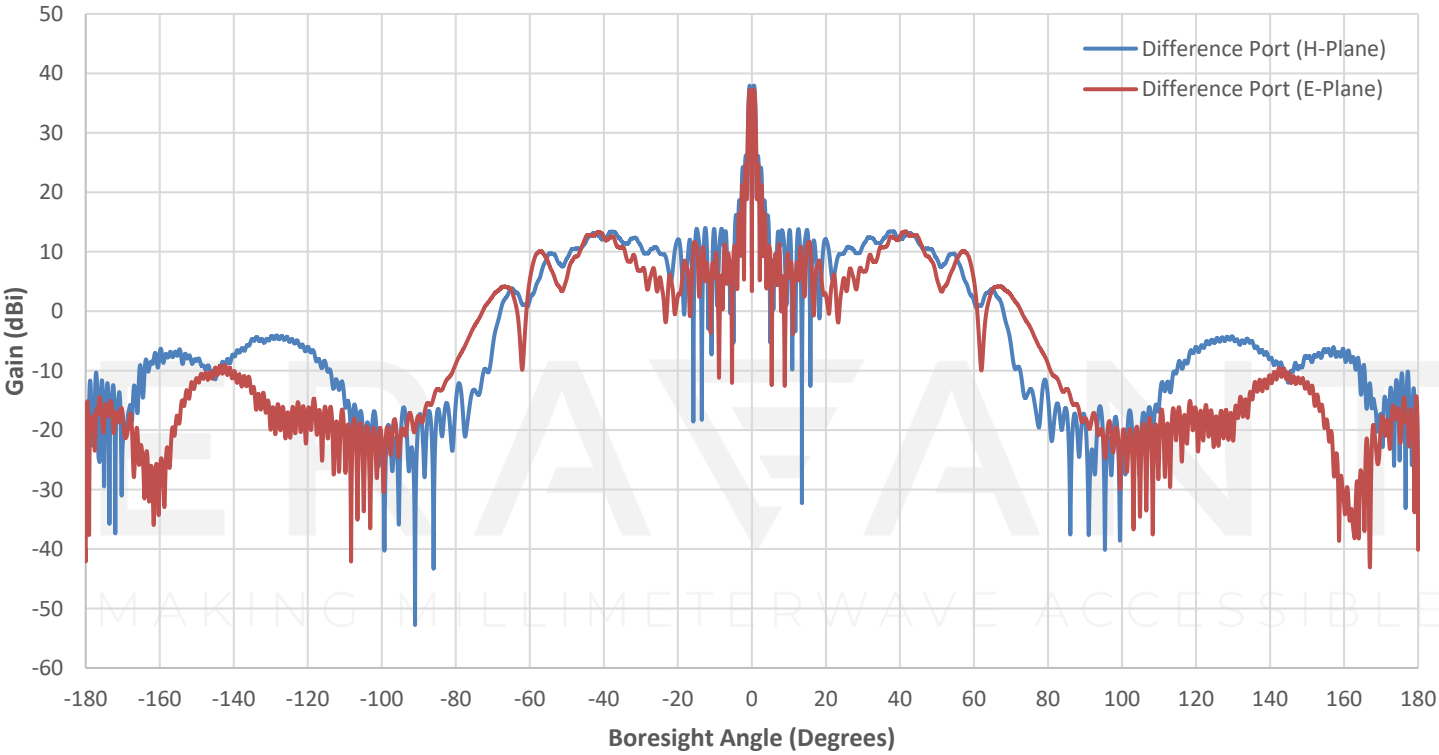
- 5G Systems
- Communication Systems
- Radar Systems

SUPPLEMENTAL DETAILS

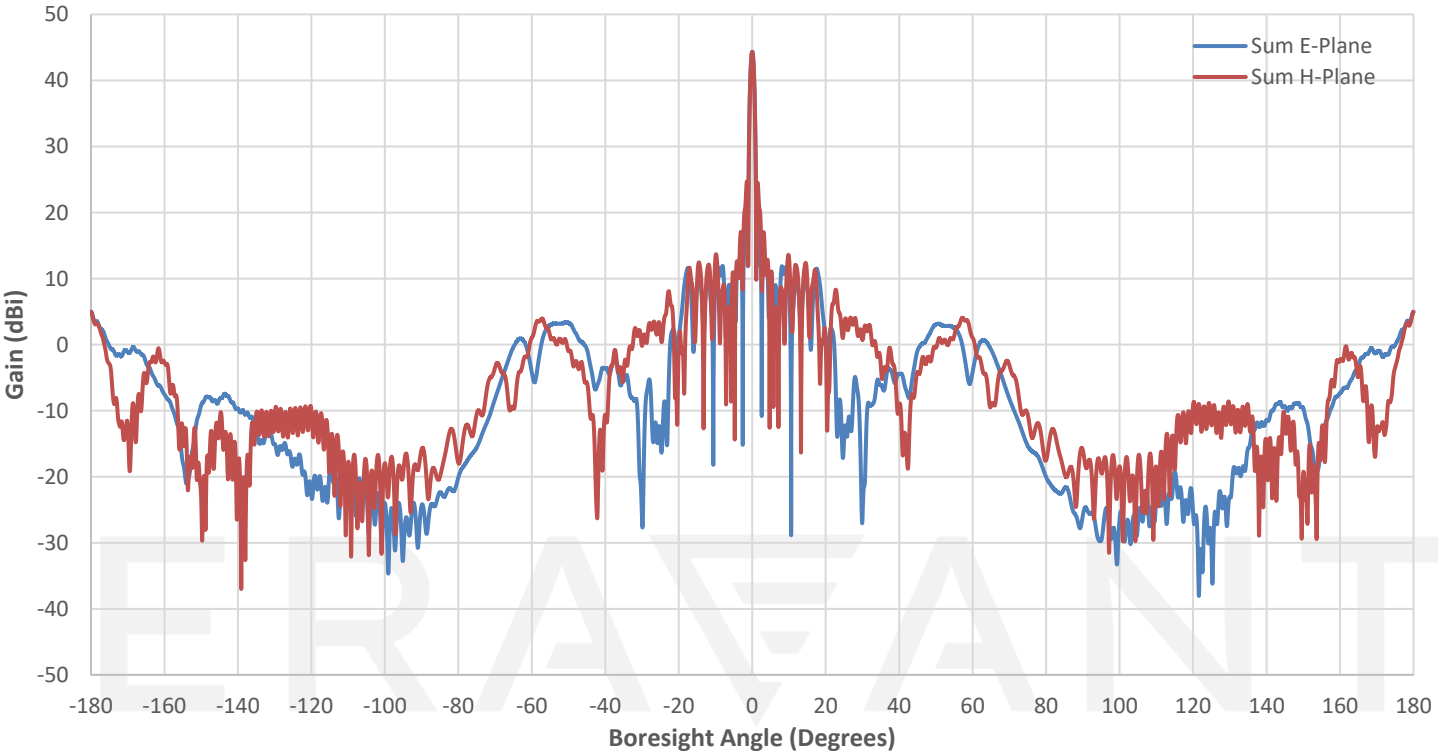
Simulated Sum Port (E-plane and H-plane) Pattern at 34 GHz



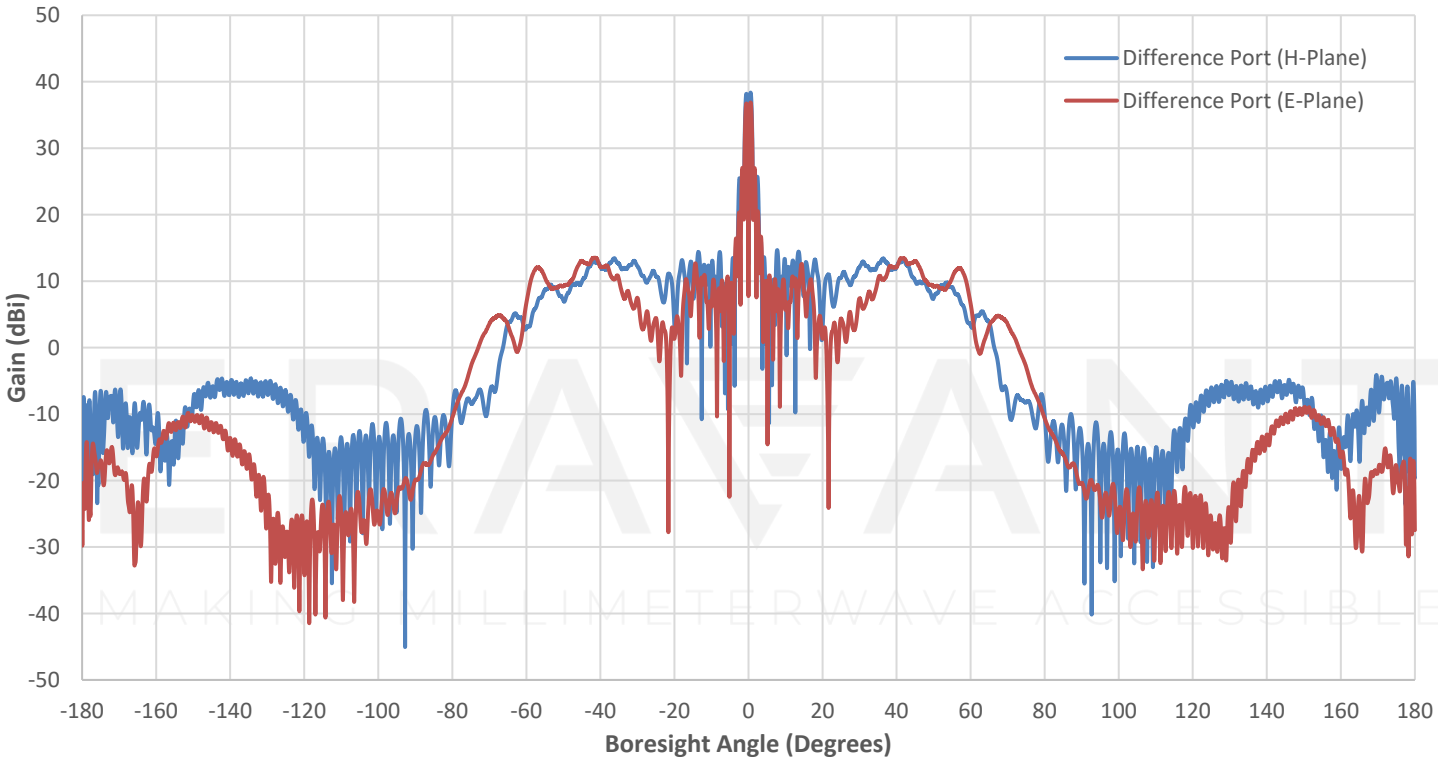
Simulated Difference Port (E-plane and H-plane) Pattern at 34 GHz



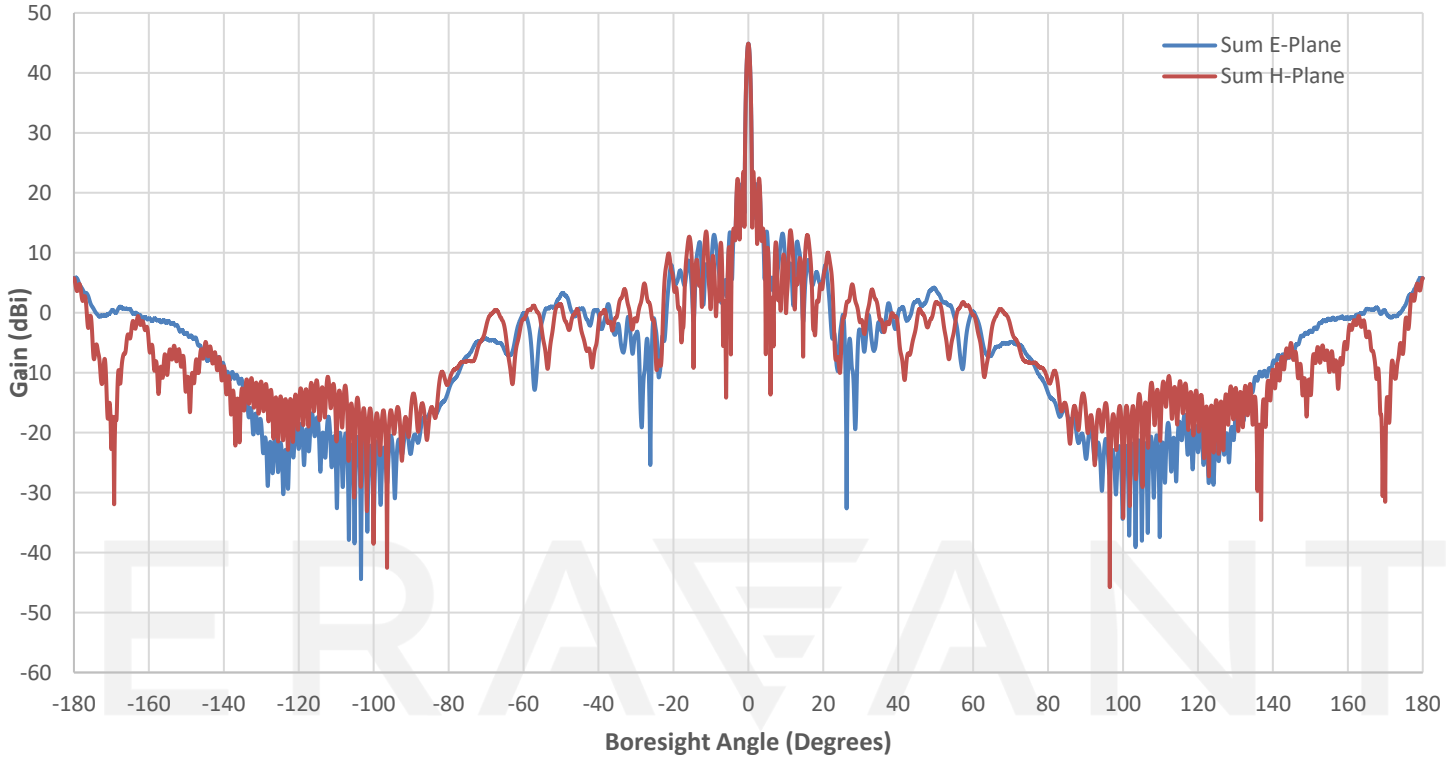
Simulated Sum Port (E-plane and H plane) Pattern at 35 GHz



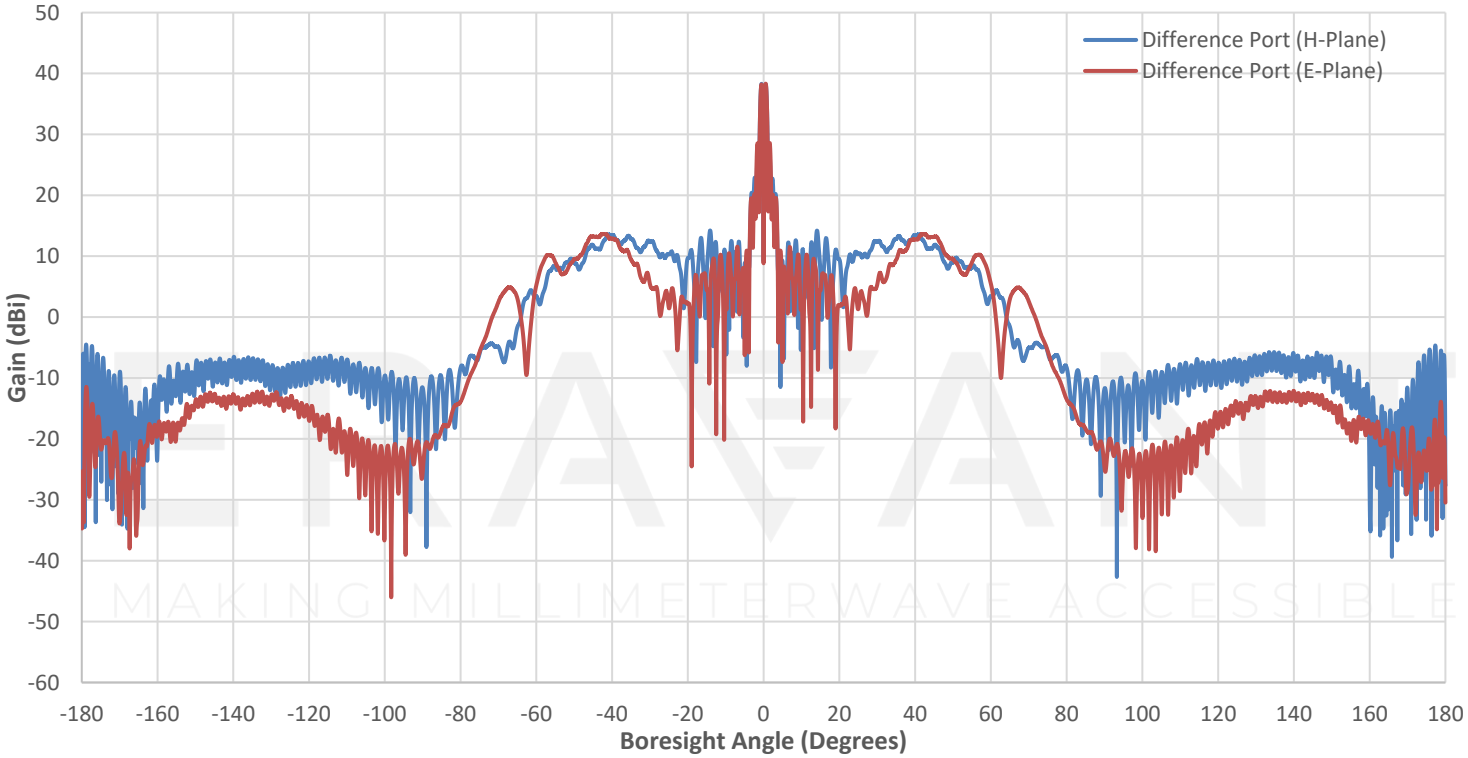
Simulated Difference Port (E-plane and H-plane) Pattern at 35 GHz



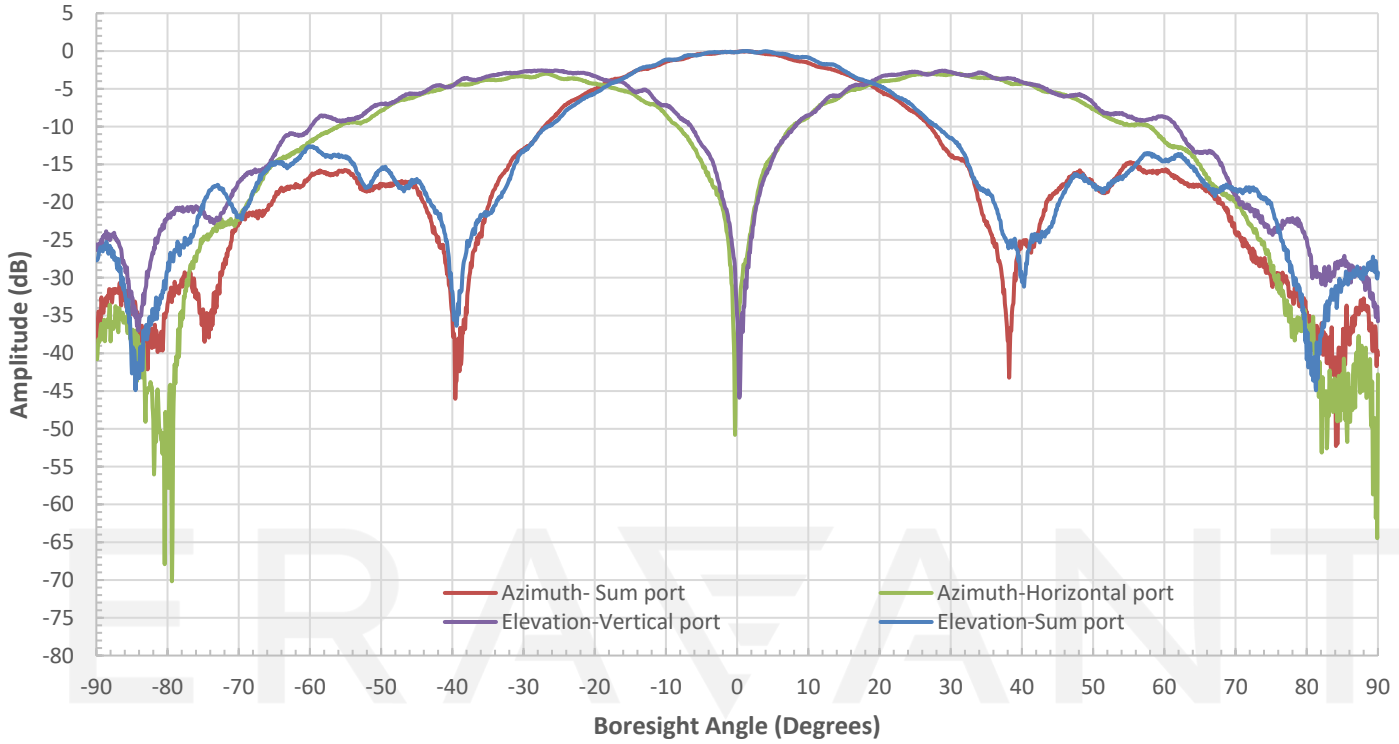
Simulated Sum Port (E-plane and H plane) Pattern at 36 GHz



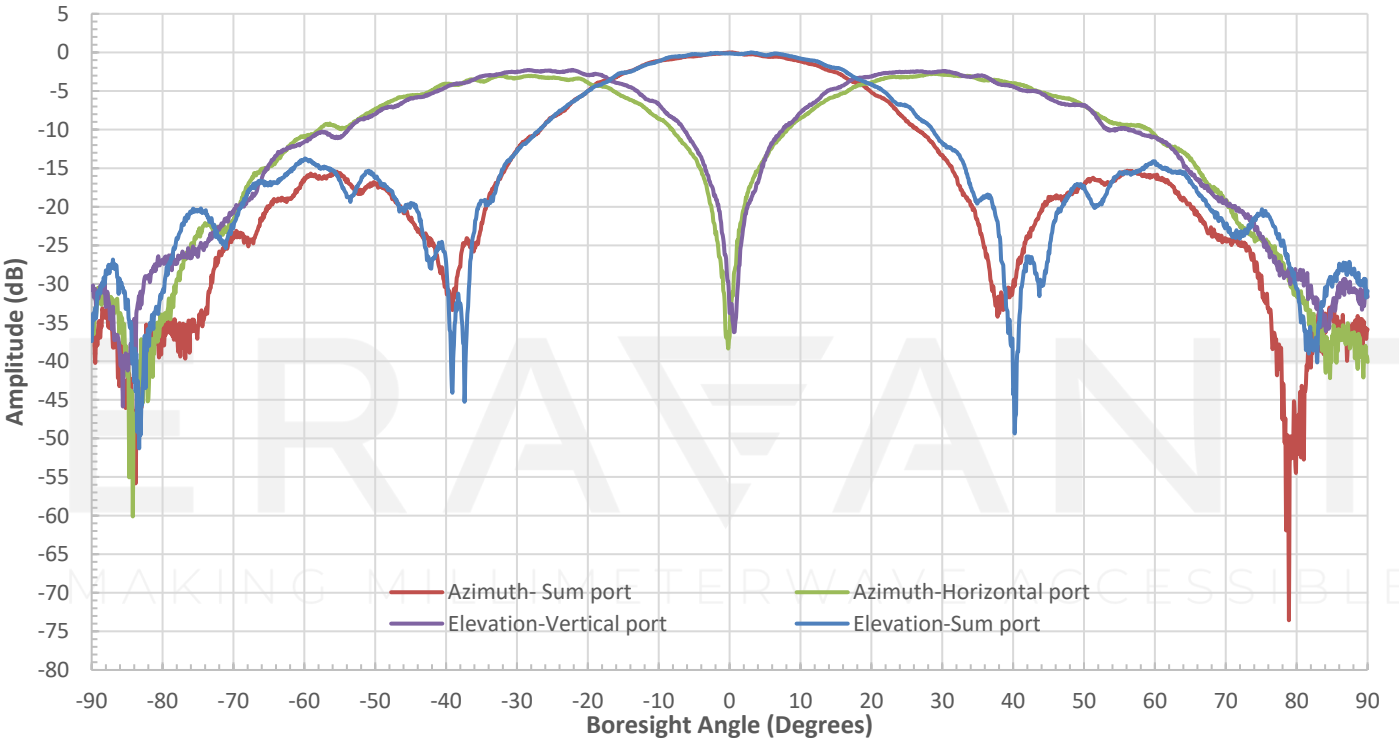
Simulated Difference Port (E-plane and H plane) Pattern at 36 GHz



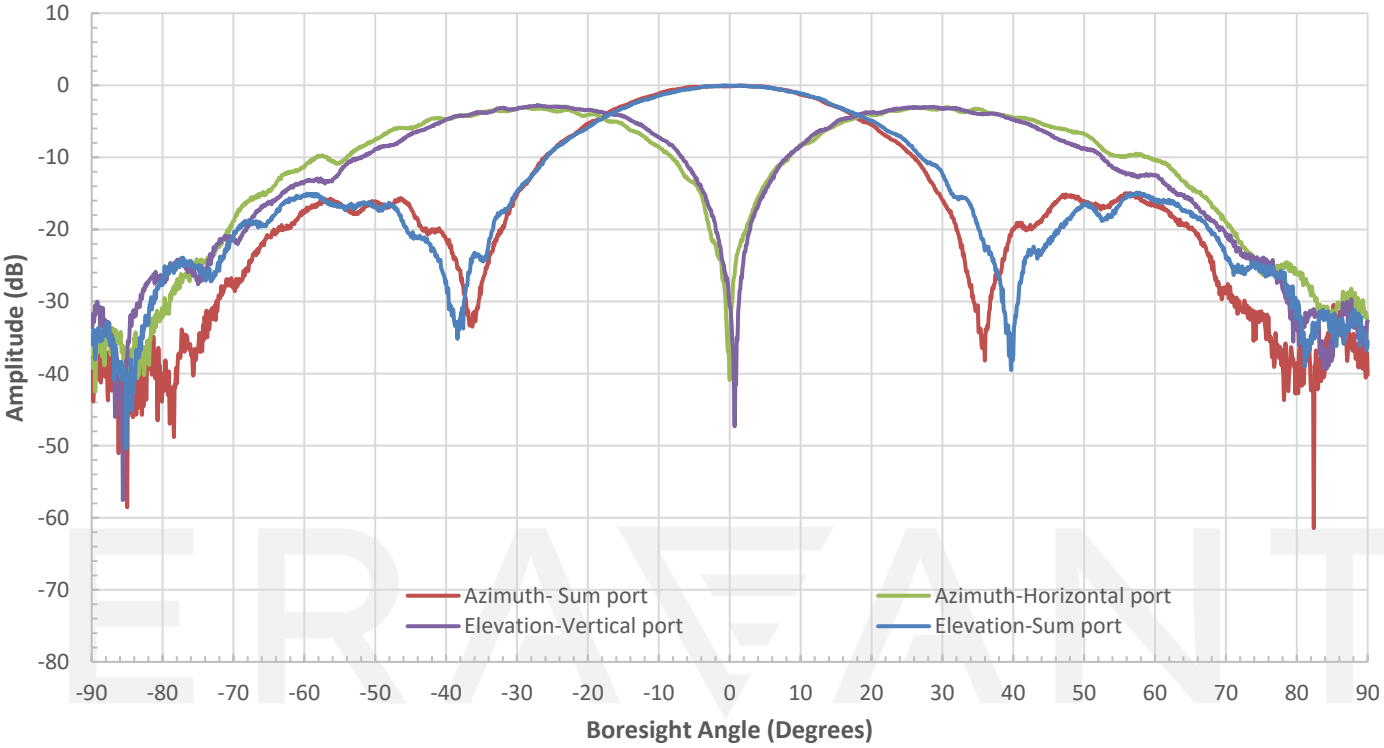
Measured Feed Network Pattern at 34 GHz



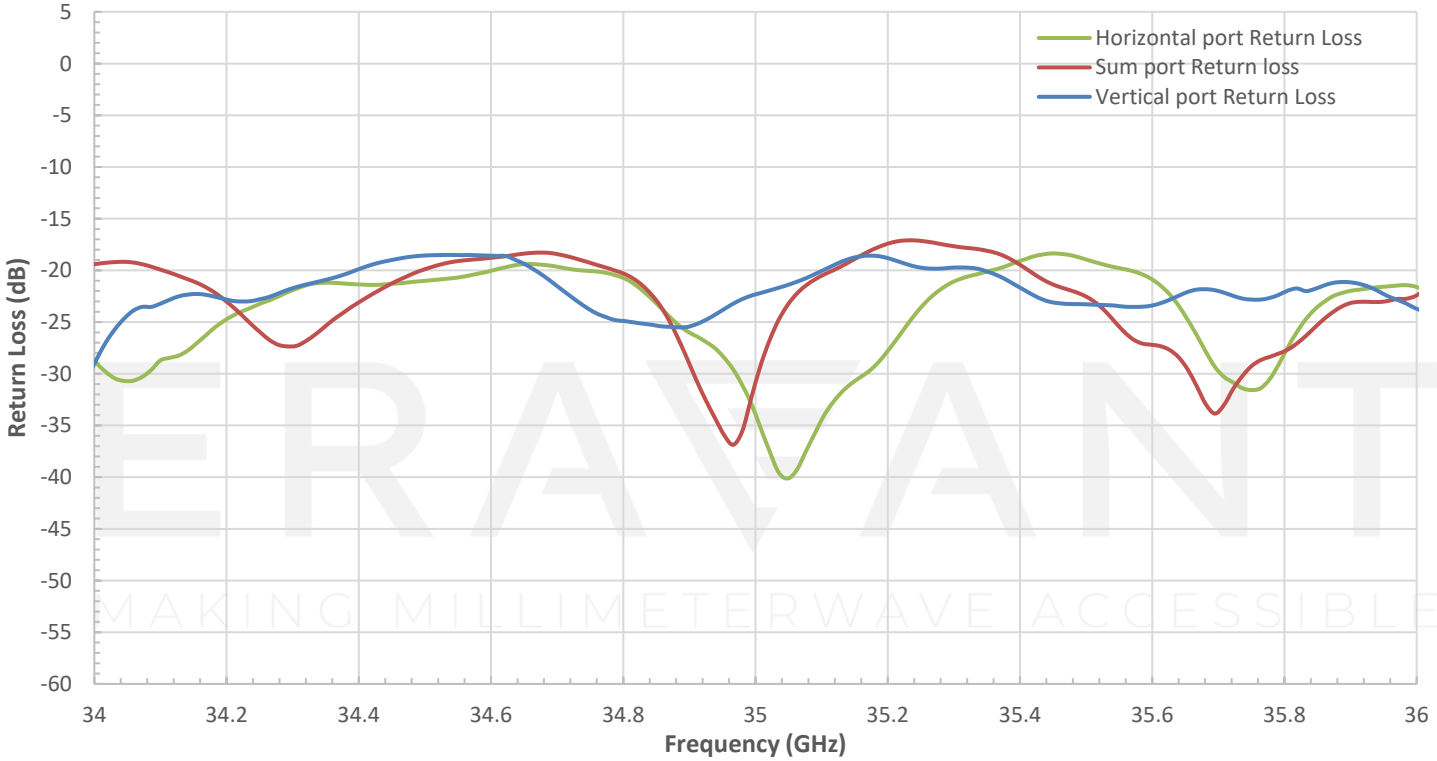
Measured Feed Network Pattern at 35 GHz



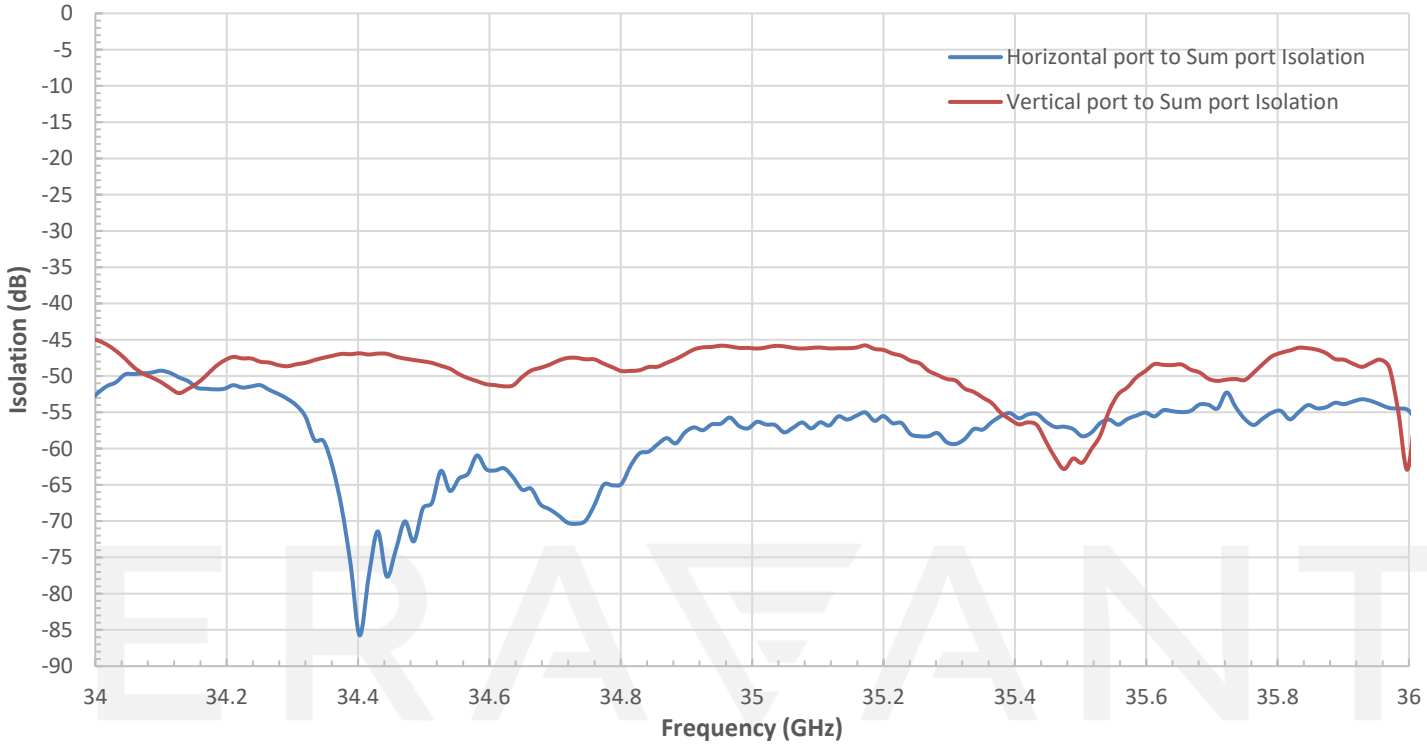
Measured Feed Network Pattern at 36 GHz



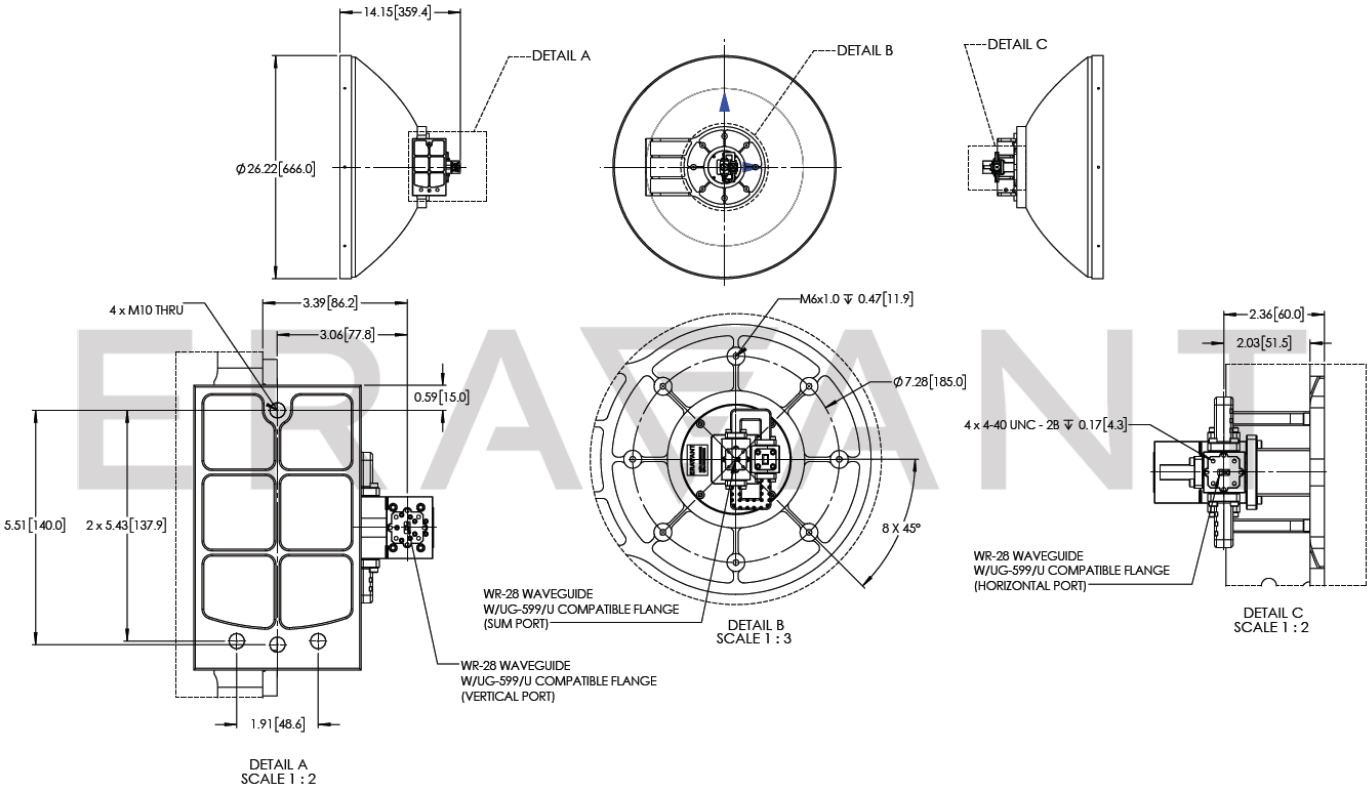
Measured Return Loss vs Frequency



Measured Isolation vs Frequency



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



NOTE:

- Test data is provided is simulated; 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.

MAKING MILLIMETERWAVE ACCESSIBLE