

SAV-0634431050-KF-S1-QR

Quad-Ridged, Dual Polarized Horn Antenna, 6 to 40 GHz

SAV-0634431050-KF-S1-QR is a quad-ridged, dual polarized broadband horn antenna that operates from 6 to 40 GHz. The antenna offers a typical half power beamwidth of 45 degrees on the E-plane and 55 degrees on the H-plane. The antenna supports both linear and circular polarized waveforms. The antenna includes an mounting plate with a 1/4-20 threaded hole and various other mounting holes for flexible mounting capacity. The RF ports are equipped with two female 2.92 mm connectors.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	6 GHz		40 GHz
Gain		10 dBi	
Polarization	Linear and Circular		
E-Plane 3 dB Beamwidth		45°	
H-Plane 3 dB Beamwidth		55°	
E-Plane Sidelobe Levels		-15 dB	
H-Plane Sidelobe Levels		-15 dB	
Port Isolation		25 dB	
Cross Polarization		20 dB	
Port Return Loss		10 dB	
Power Handling			10 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Ports	2.92 mm (F)
Mounting	Mounting Plate with 1/4-20 Threaded Hole
Material	Aluminum
Finish	Chem Film (Antenna), Black Anodized (Antenna Mount Plate)
Weight	1.2 Oz
Outline	AK-AC-C10-QR

ECCN

EAR99

FEATURES

- Broadband Operation
- Coaxial Connector for RF Input
- Linear and Circular Polarization
- Good Impedance Match

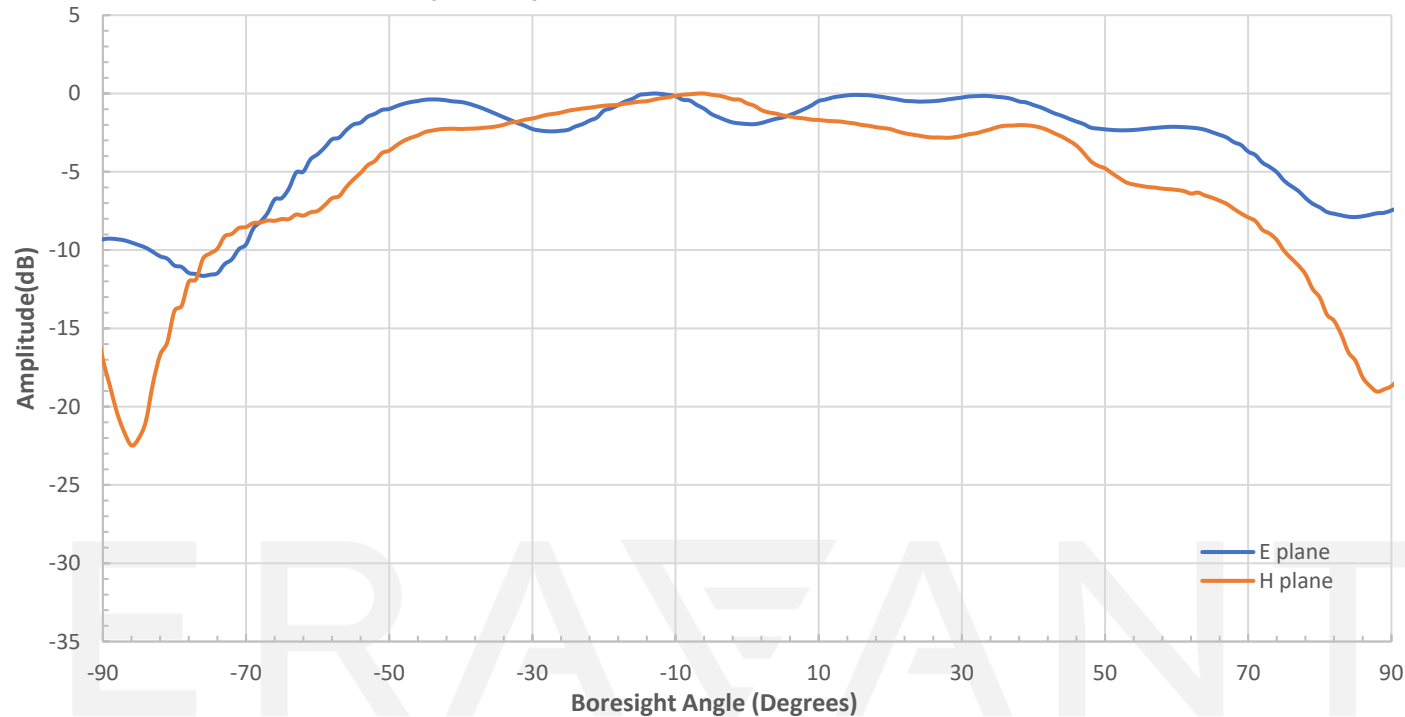
APPLICATIONS

- 5G mmW Systems
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

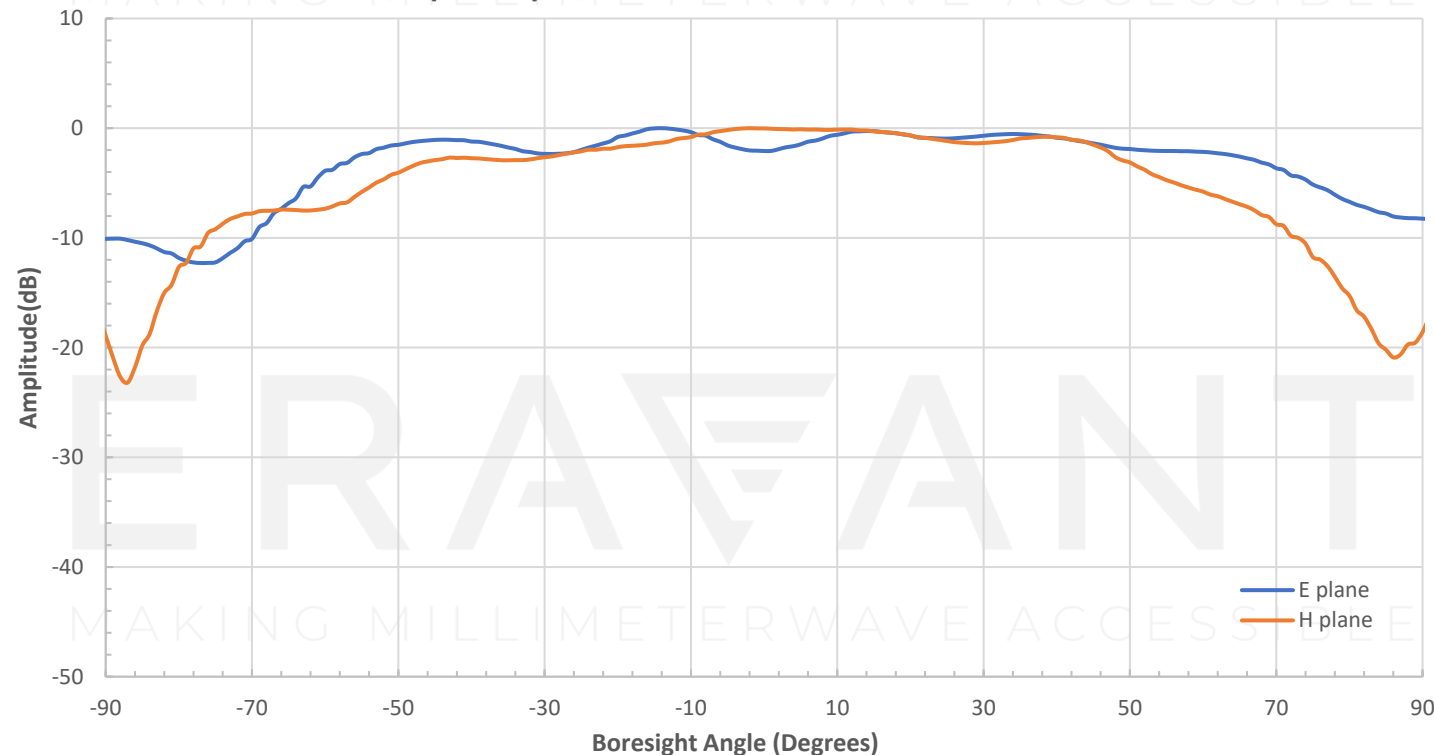
SUPPLEMENTAL DETAILS



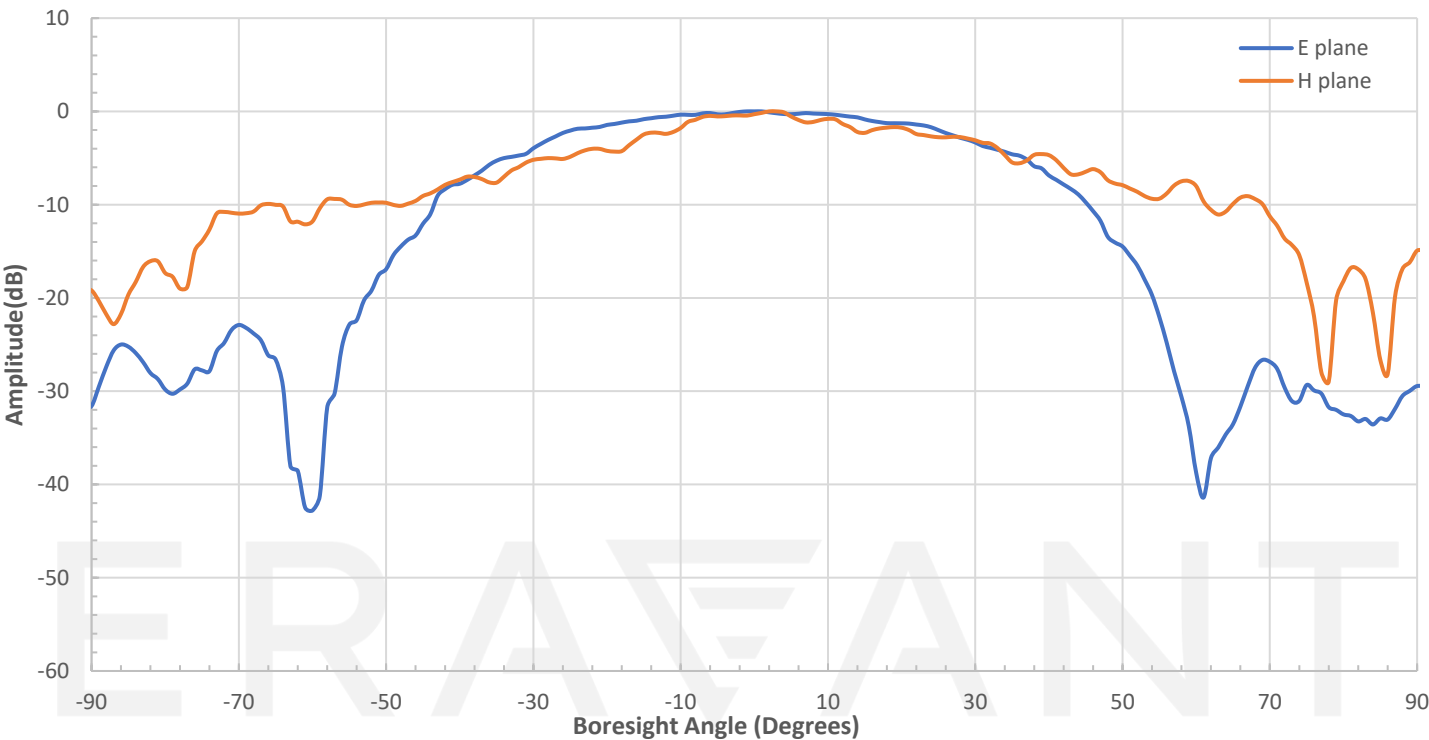
Measured Patterns at 6 GHz (Port 1)



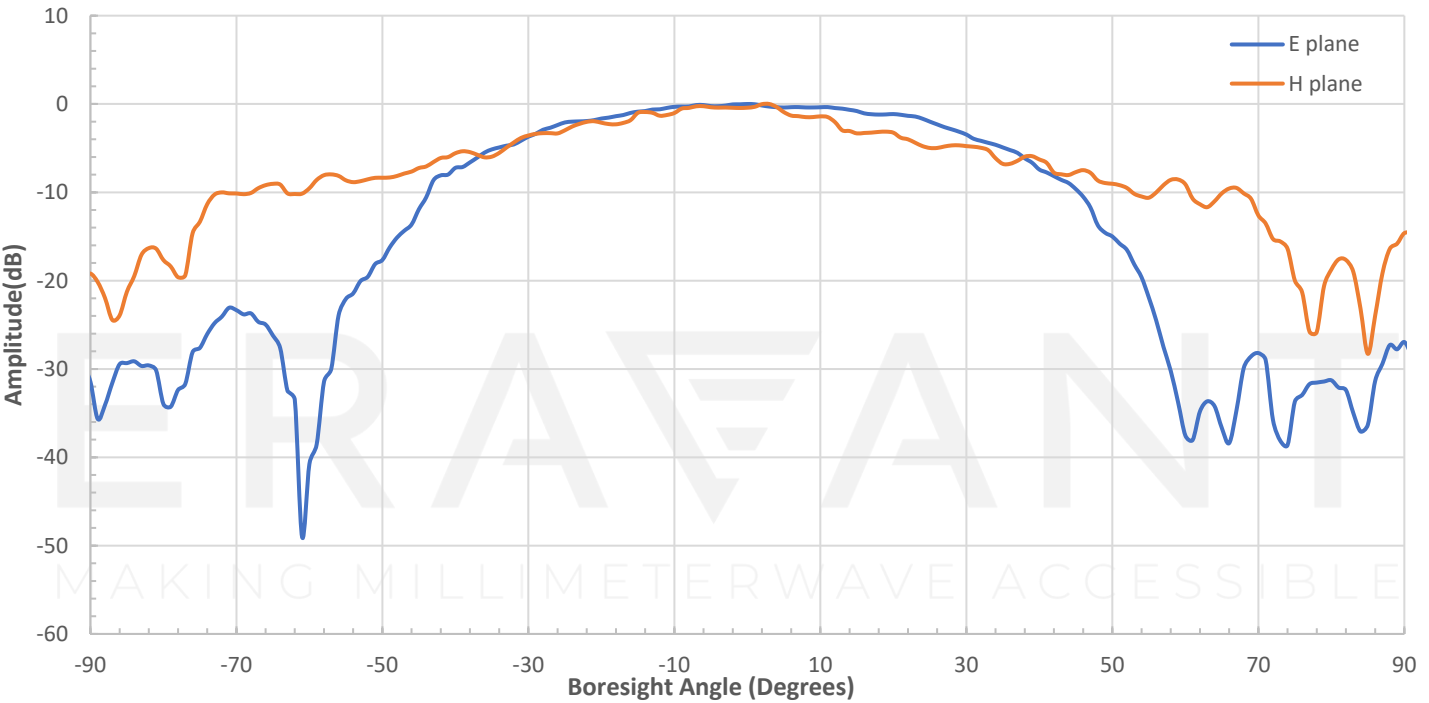
Measured Patterns at 6 GHz (Port 2)



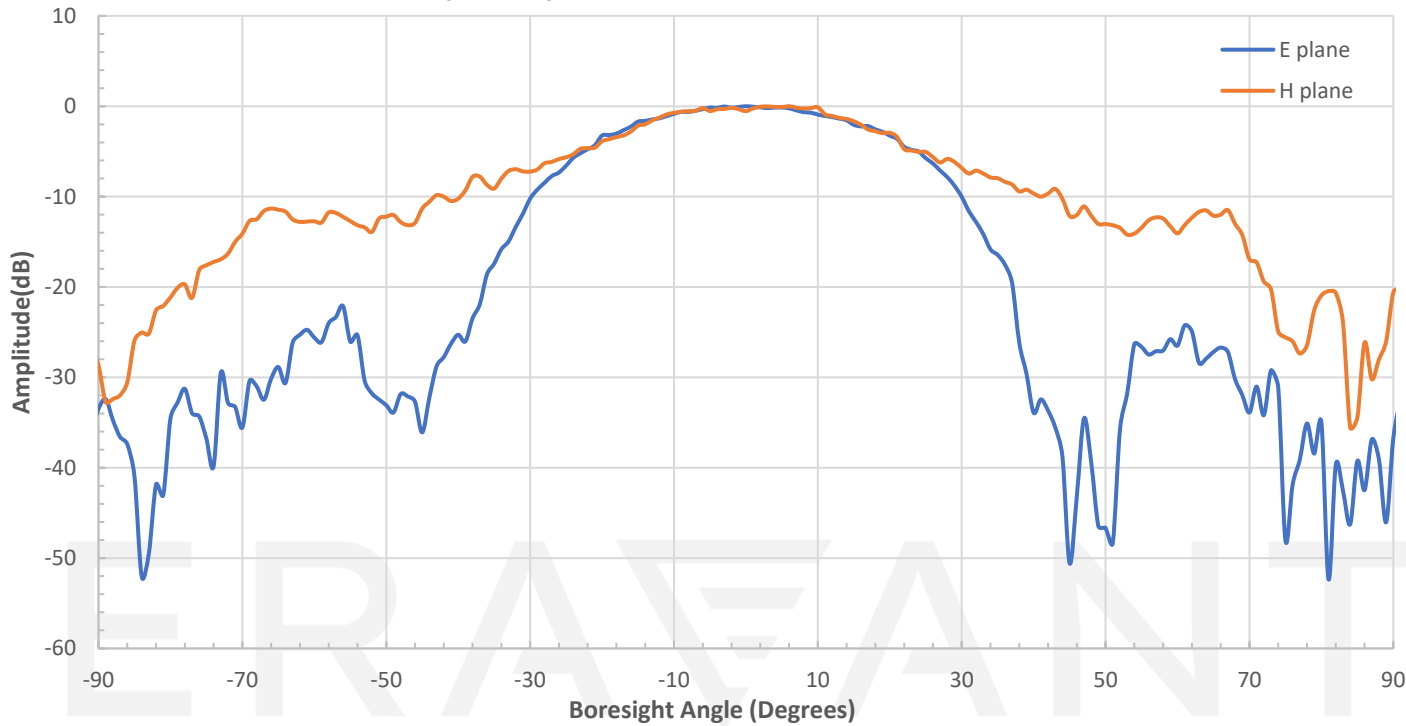
Measured Patterns at 23 GHz (Port 1)



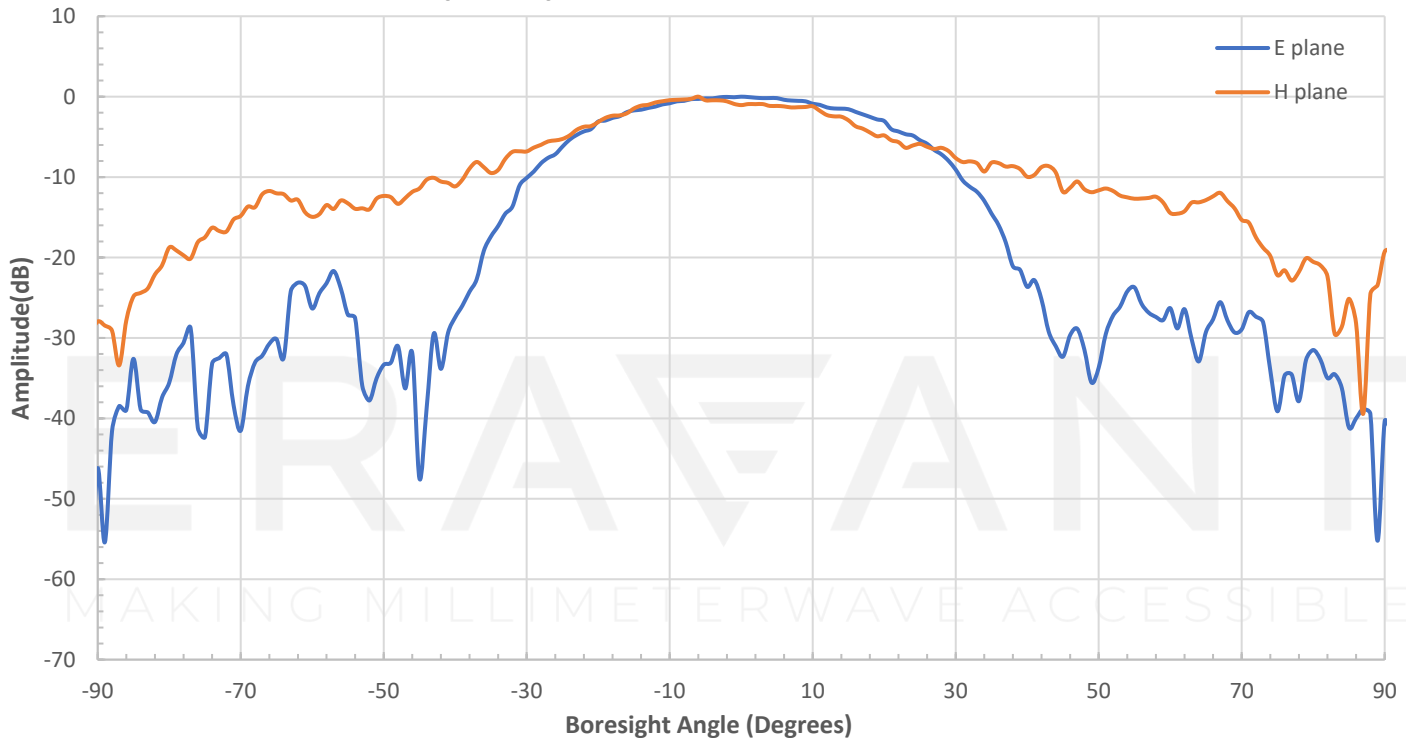
Measured Patterns at 23 GHz (Port 2)



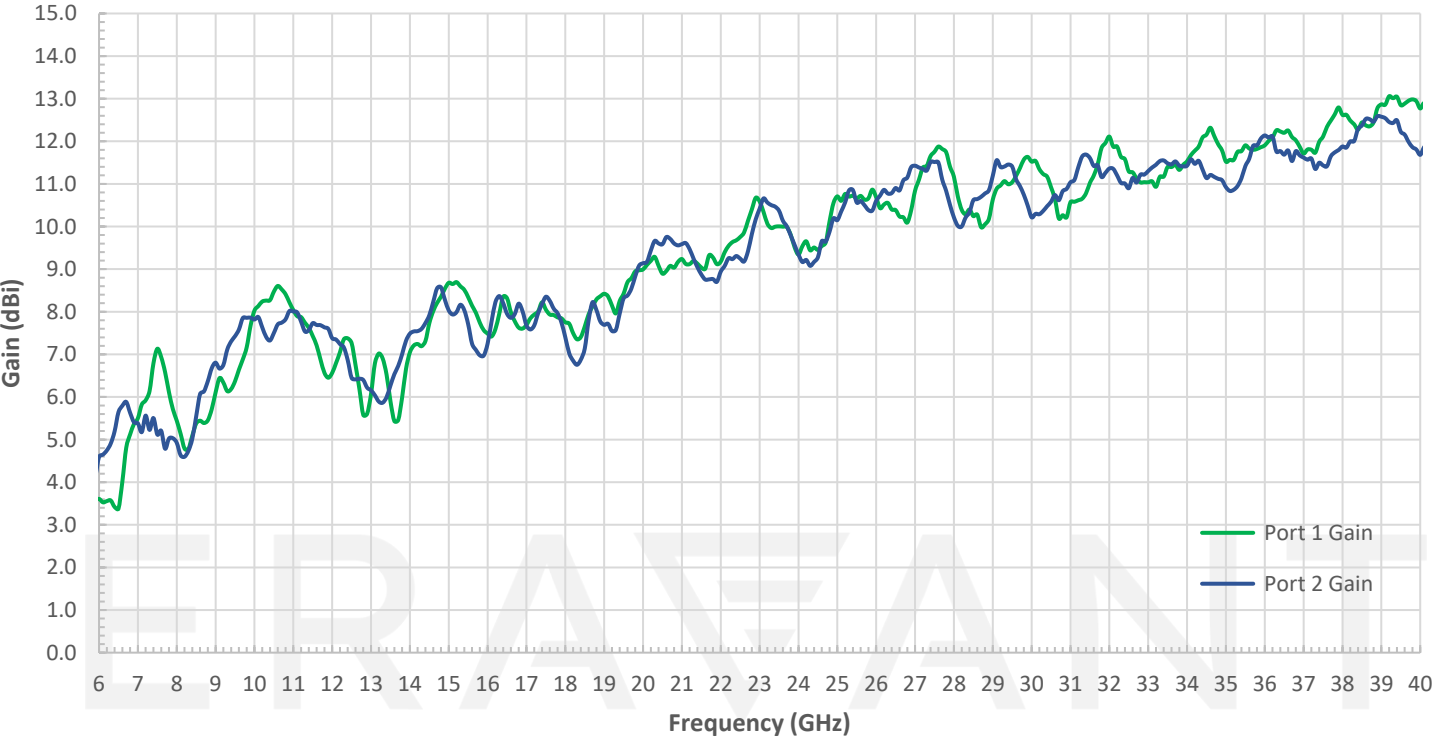
Measured Patterns at 40 GHz (Port 1)



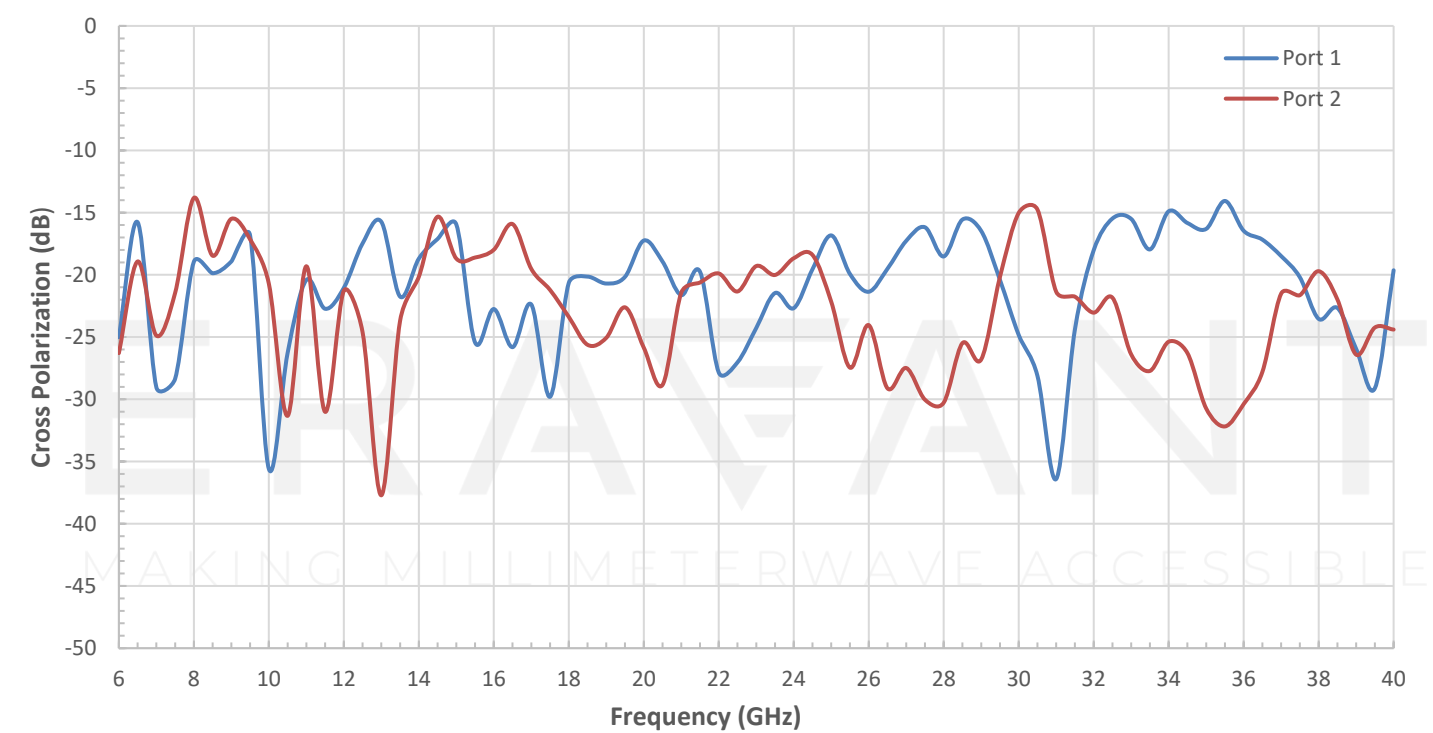
Measured Patterns at 40 GHz (Port 2)



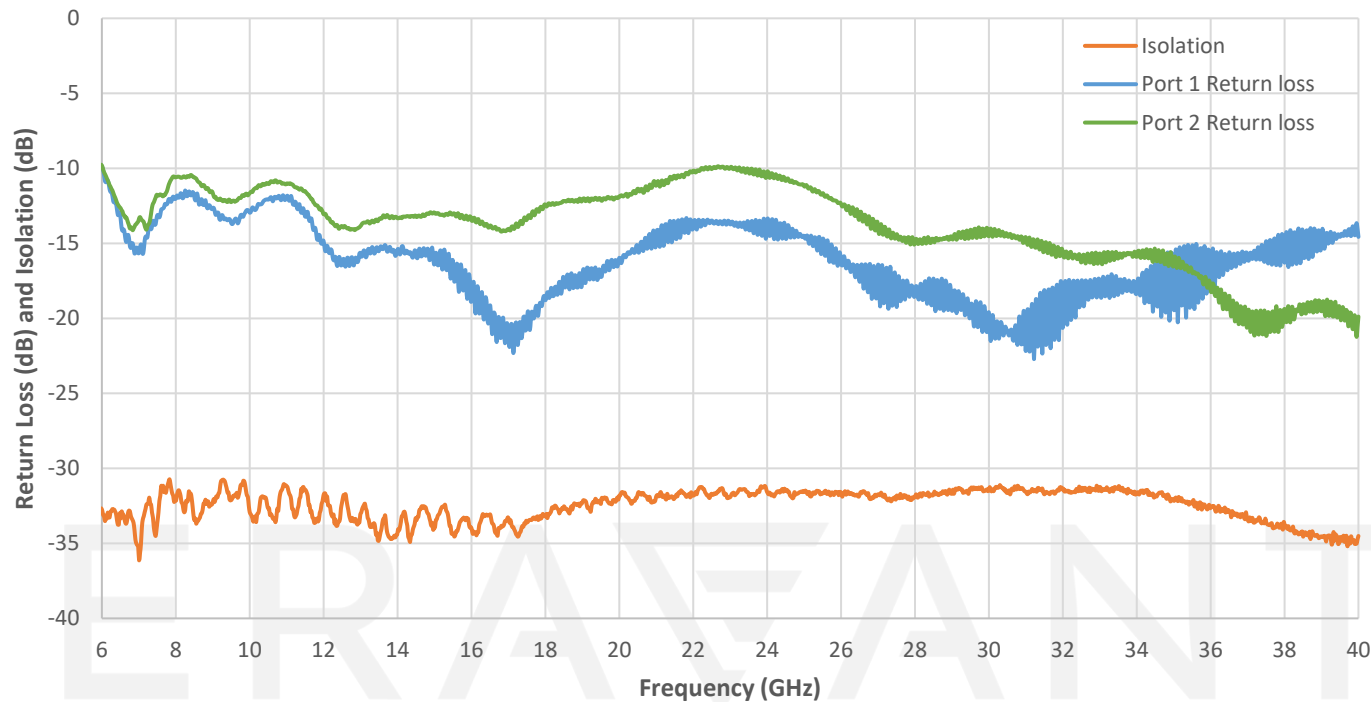
Measured Gain vs frequency



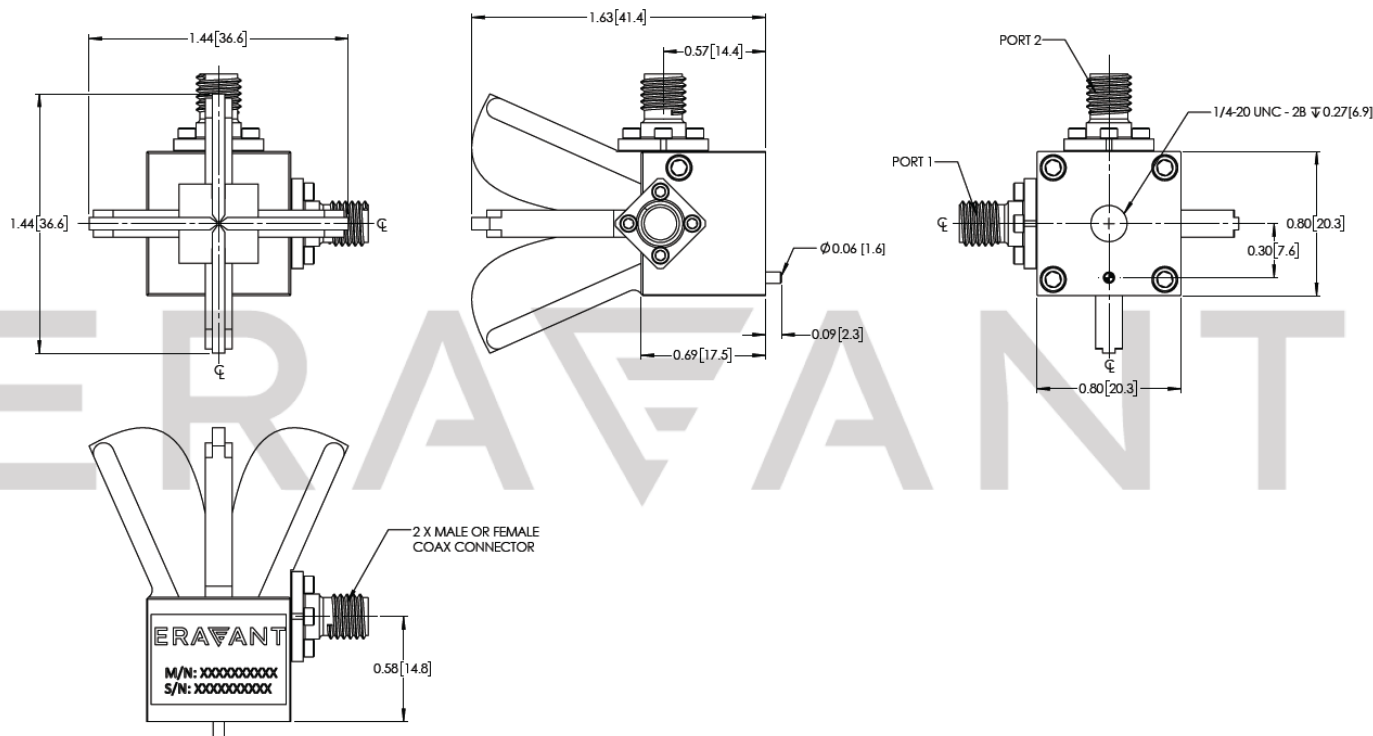
Measured Cross Polarization vs Frequency



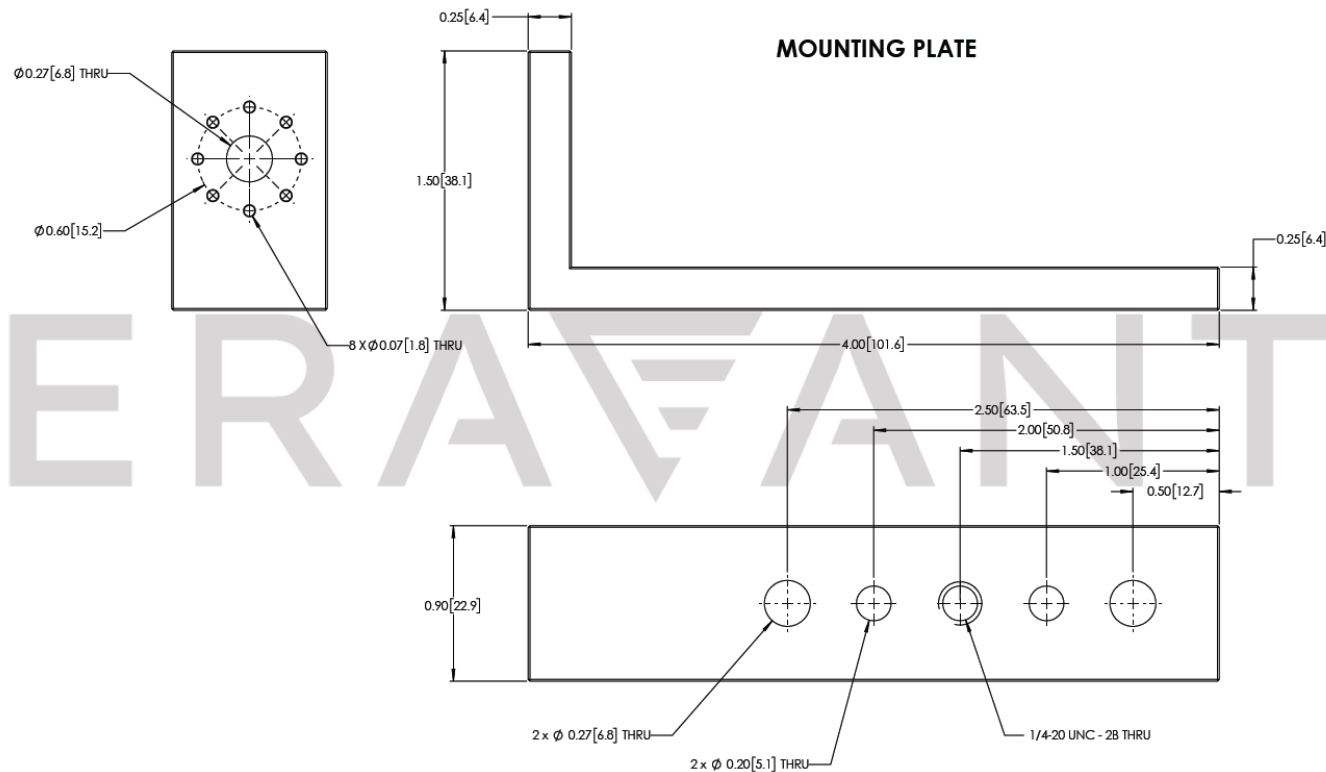
Measured Return Loss and Isolation vs Frequency



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



Antenna Mount Outline:



NOTE:

- Data provided is from a sample lot and may vary from diff 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 antenna will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. Eravant torque wrench, model SCH-08008-S1, is highly recommended.