

SAV-0632531431-SF-S1-QR-WR

Quad Ridged Dual Polarized Horn Antenna, Weather Resistant, 6 to 24.5 GHz

SAV-0632531431-SF-S1-QR-WR is a weather resistant quad-ridged horn antenna that operates from 6 to 24.5 GHz. The antenna offers a typical gain of 14 dBi and a nominal 3 dB beamwidth of 26° for the E-plane and 36° for the H-plane, respectively. The antenna supports both circular and linear polarized waveforms. The antenna features eight 4-40 threaded holes and one 1/4-20 threaded hole for mounting. The antenna ports are two female SMA connectors. The mechanical configuration is designed for weather resistance, with features such as an integrated radome, O-ring sealed coax connectors and assembly screws, and a corrosion resistant chemical film surface treatment.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	6 GHz		24.5 GHz
Gain		14 dBi	
3 dB Beamwidth, E-Plane		26°	
3 dB Beamwidth, H-Plane		36°	
Sidelobes, E-Plane		-17 dB	
Sidelobes, H-Plane		-20 dB	
Isolation		25 dB	
Cross Polarization		25 dB	
Return Loss		8 dB	
Polarization	Linear and Circular		
Power Handling			25 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	SMA (F) Connector
Radome Material	HDPE
Body Material	Aluminum
Finish	Chem Film
Weight	11.4 oz.
Outline	AV-C14-QR

ECCN

EAR99

FEATURES

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

APPLICATIONS

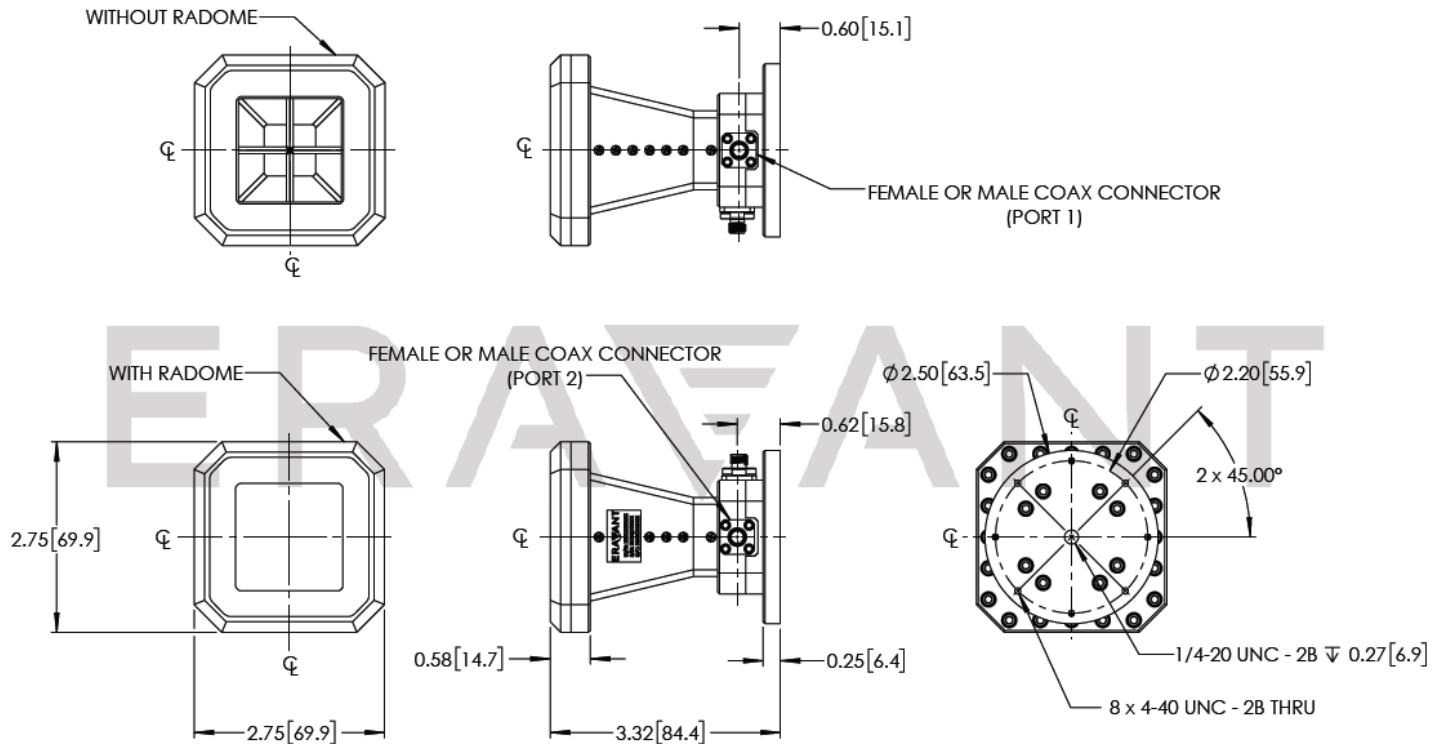
- Antenna Range
- Antenna Gain Measurement
- System Setup

SUPPLEMENTAL DETAILS

SAV-0632531431-SF-S1-QR-WR

Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



NOTE:

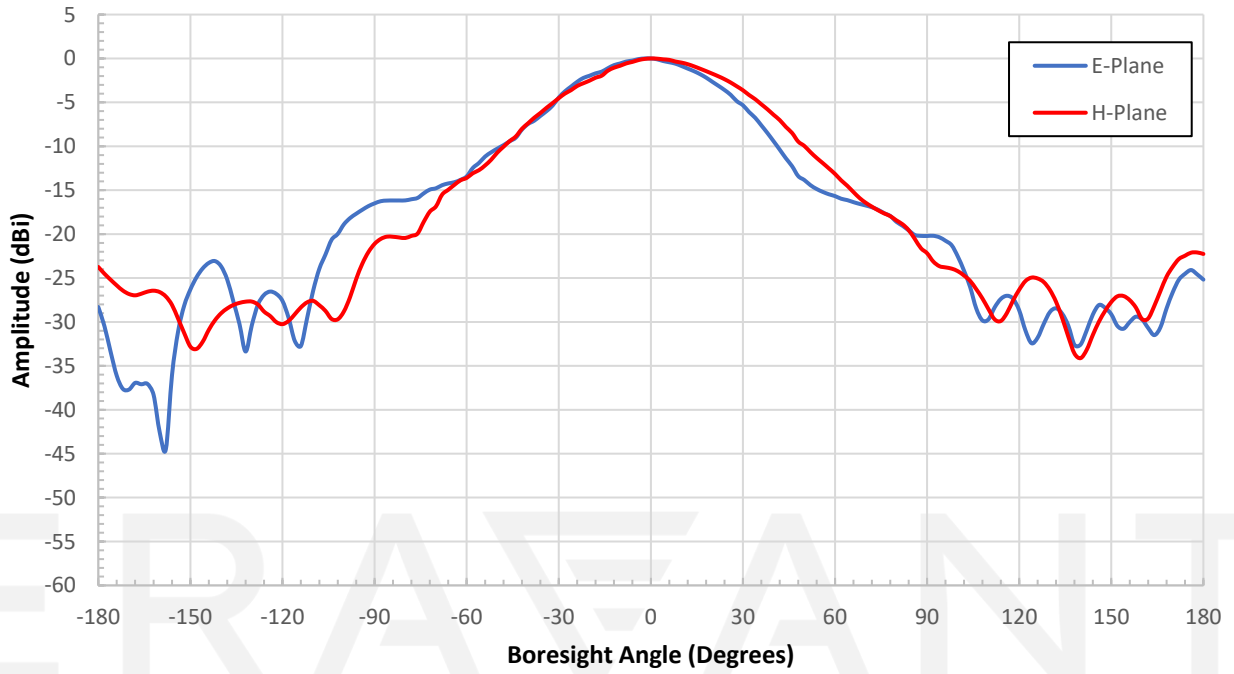
- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right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

CAUTION:

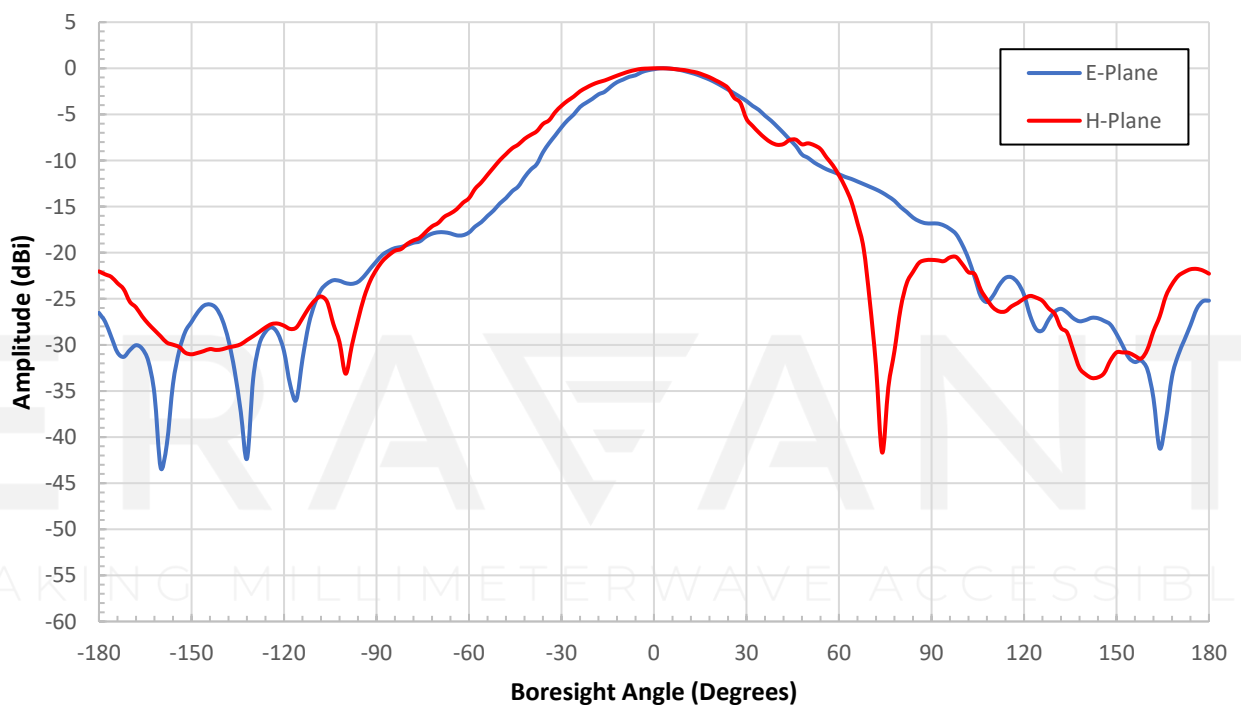
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model [SCH-06004-S1](#) is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended.

MAKING MILLIMETERWAVE ACCESSIBLE

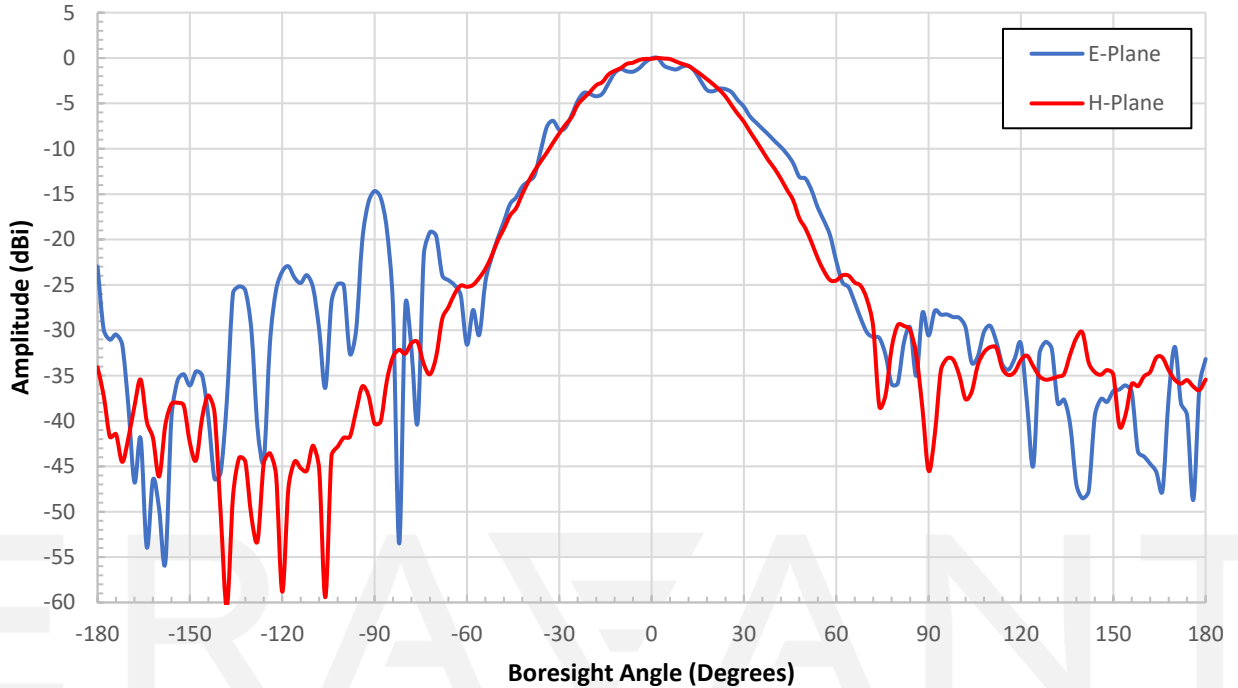
Typical Measured Antenna Patterns @ 6 GHz (Port 1)



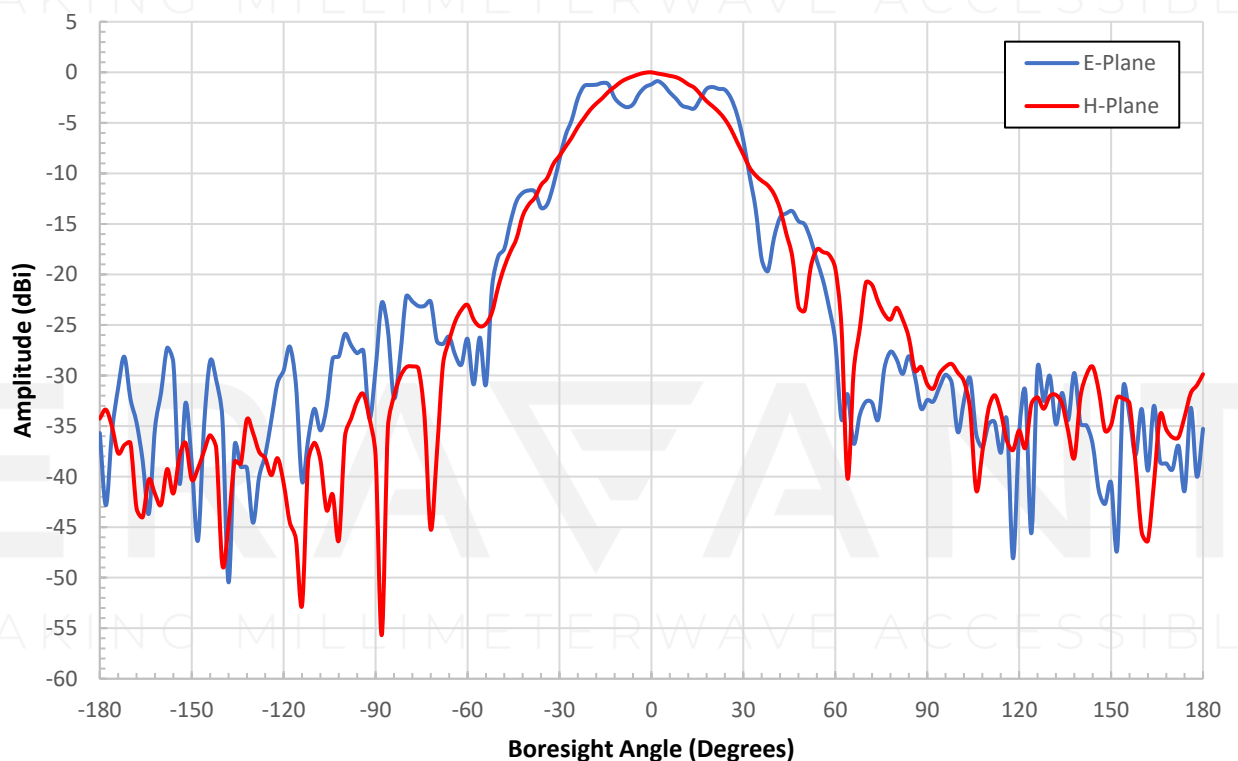
Typical Measured Antenna Patterns @ 6 GHz (Port 2)



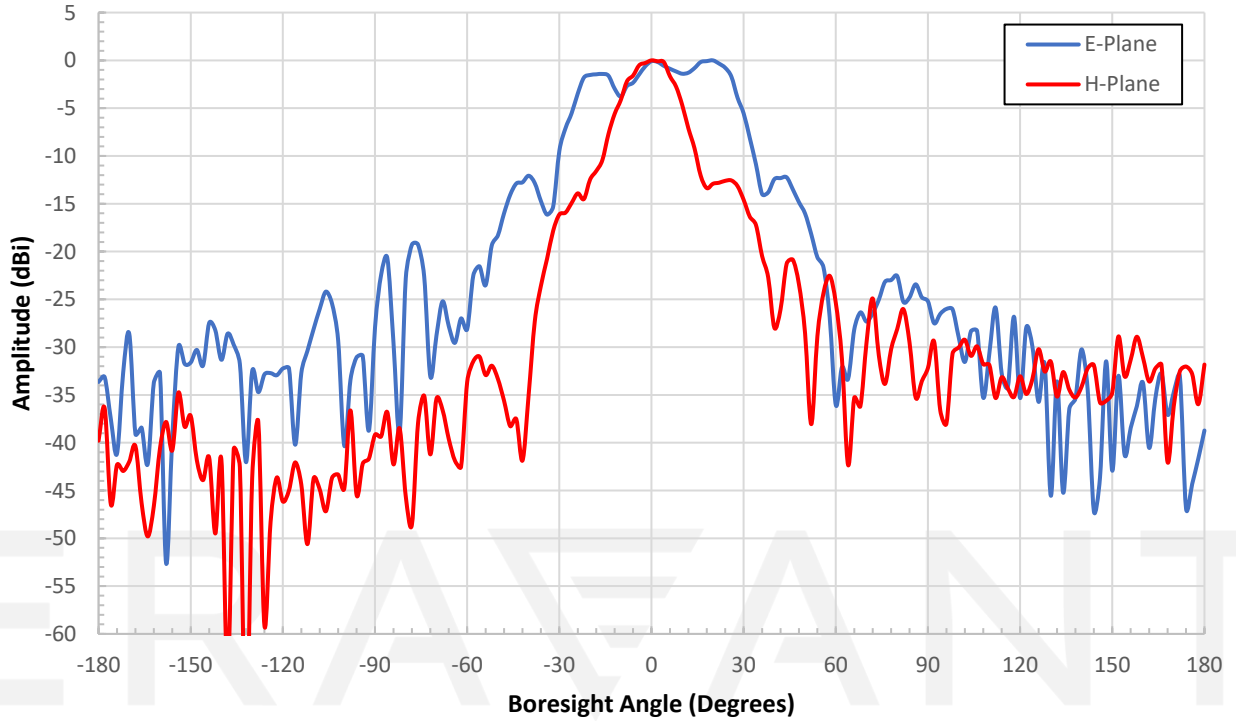
Typical Measured Antenna Patterns @ 16 GHz (Port 1)



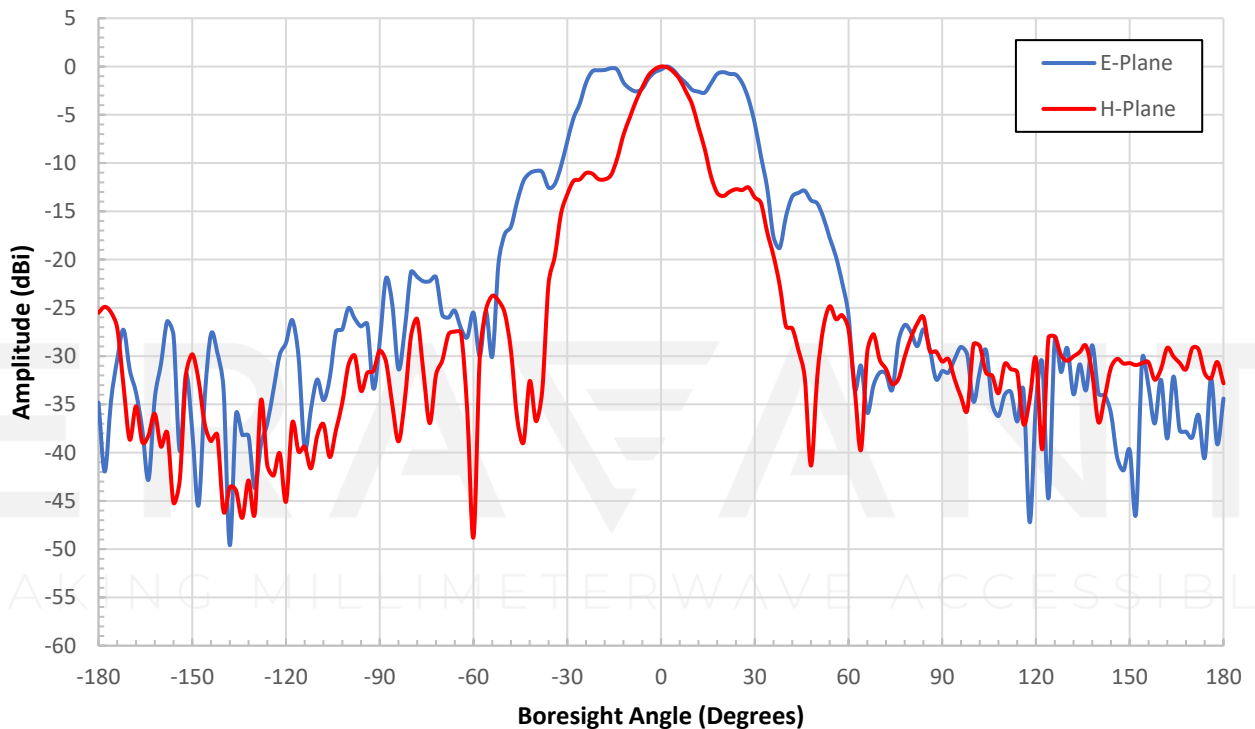
Typical Measured Antenna Patterns @ 16 GHz (Port 2)



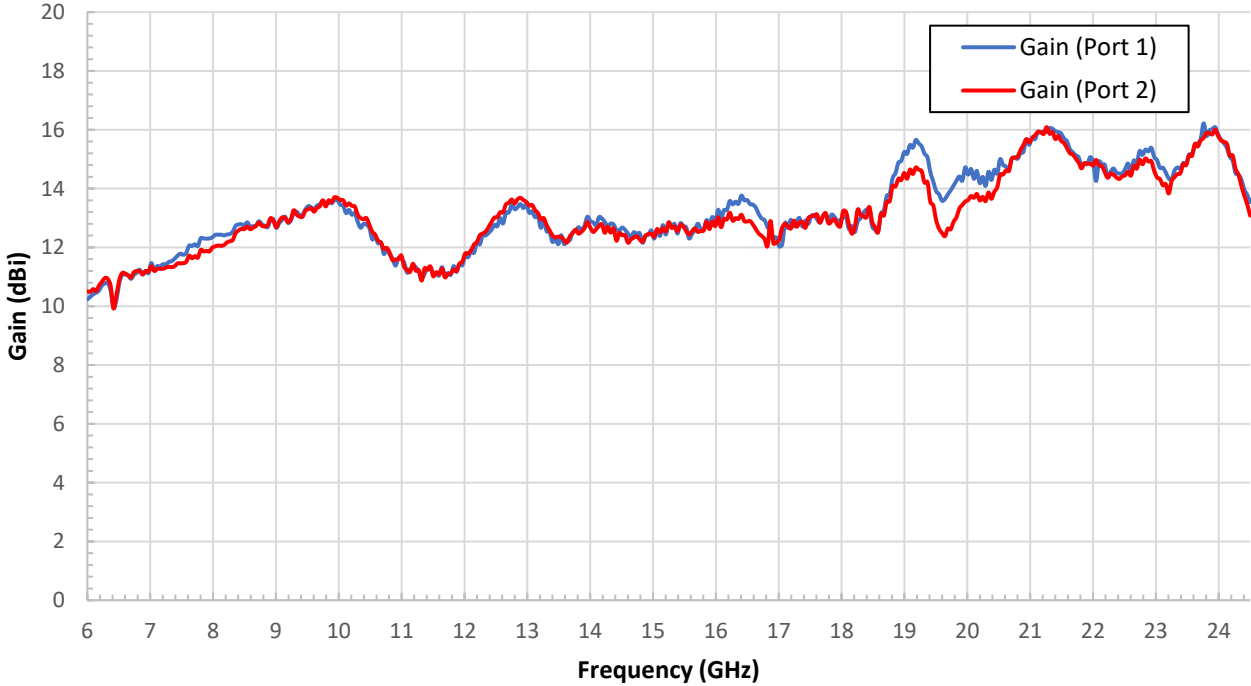
Typical Measured Antenna Patterns @ 24.5 GHz (Port 1)



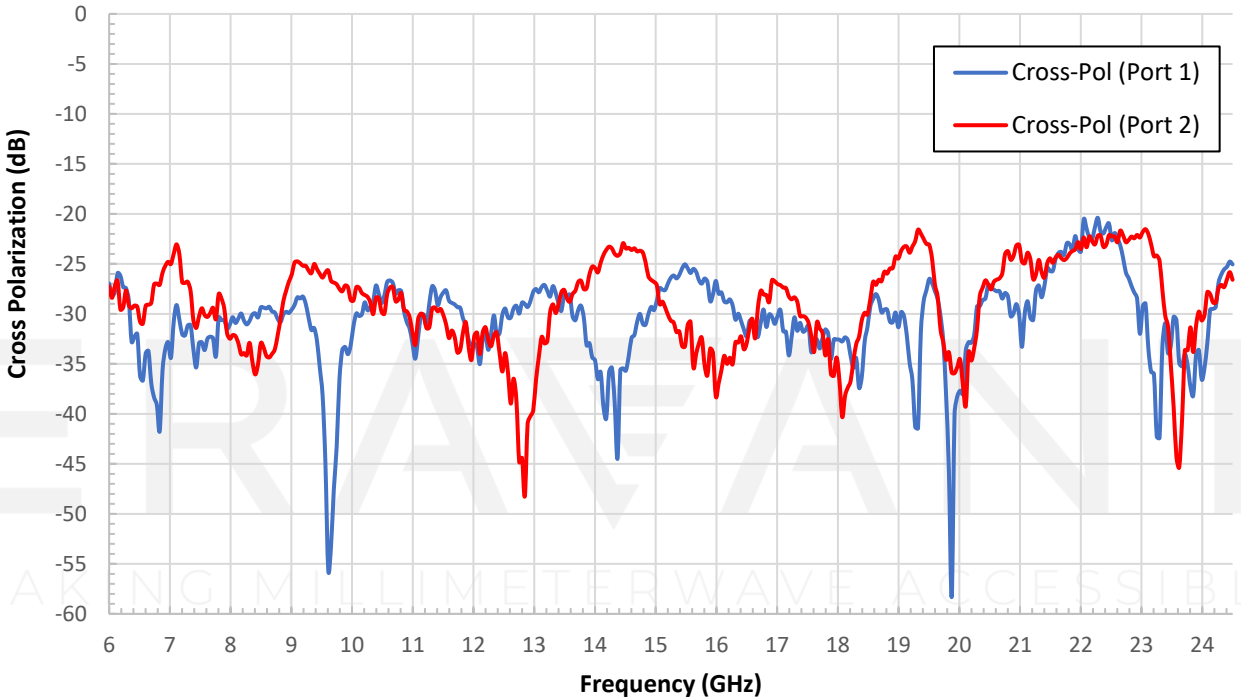
Typical Measured Antenna Patterns @ 24.5 GHz (Port 2)



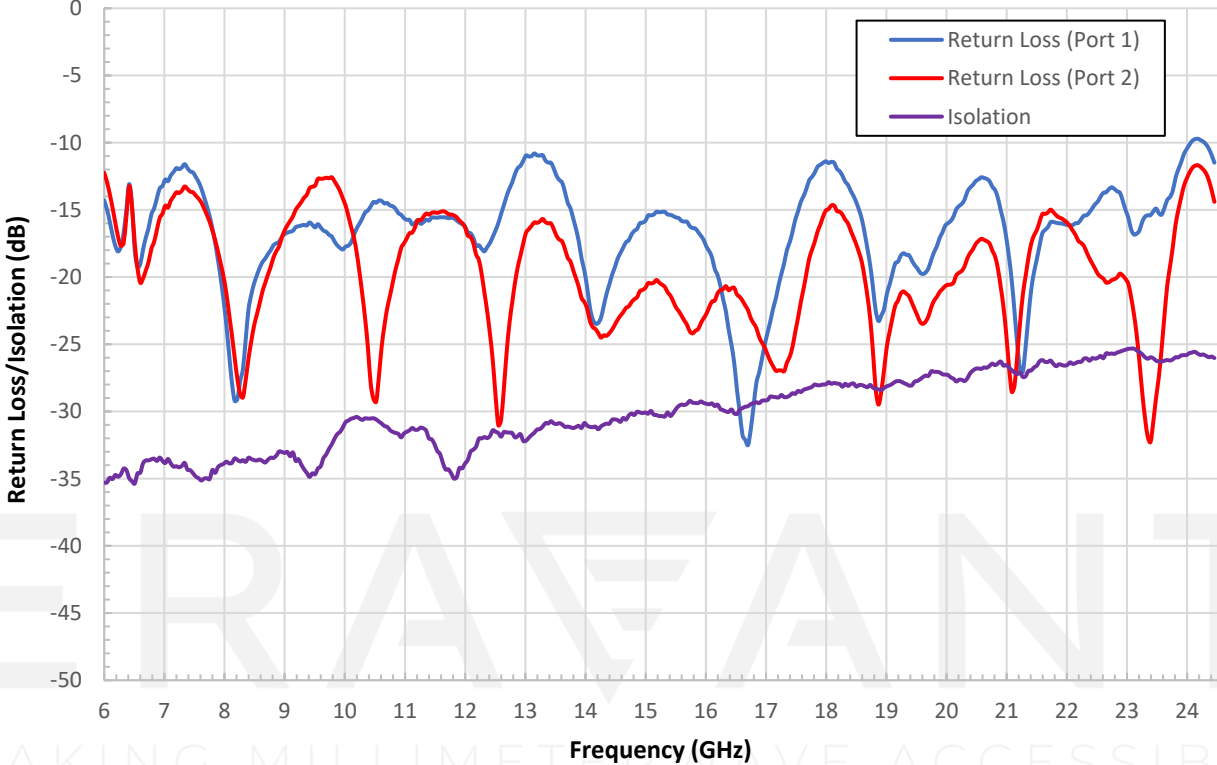
Typical Measured Gain vs Frequency



Typical Measured Cross-Polarization vs Frequency



Typical Measured Return Loss and Isolation vs Frequency



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