SAV-0632531431-SF-S1-QR

Quad Ridged Dual Polarized Horn Antenna, 6 to 24.5 GHz

SAV-0632531431-SF-S1-QR is a 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 ¼-20 threaded hole for mounting. The antenna ports are two female SMA connectors. A weather resistant configuration with radome is available under the model **SAV-0632531431-SF-S1-QR-WR**.

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
Material	Aluminum
Finish	Chem Film
Weight	11.4 oz.
Outline	AV-C14-QR

ECCN

EAR99

FEATURES

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

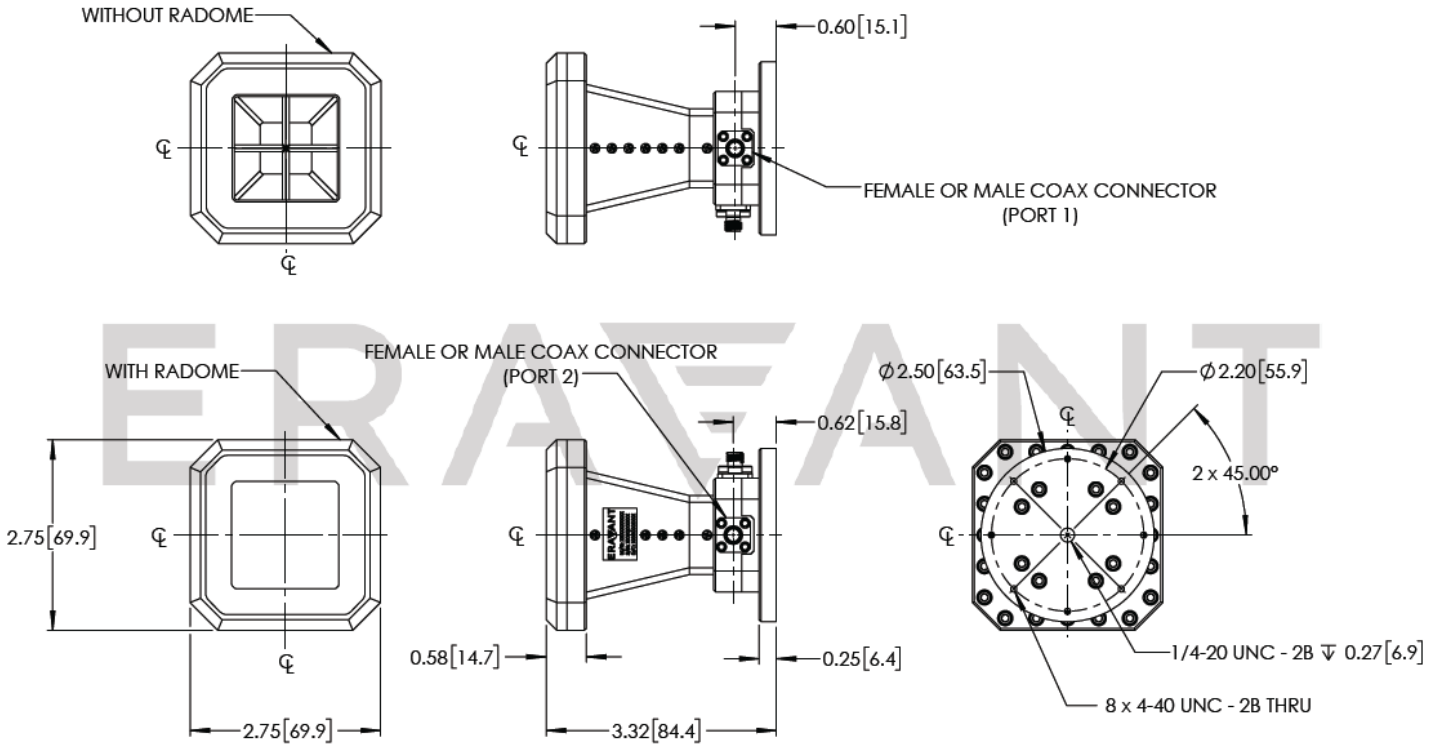
APPLICATIONS

- Antenna Range
- Antenna Gain Measurement
- System Setup

SUPPLEMENTAL DETAILS

Mechanical Outline:

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



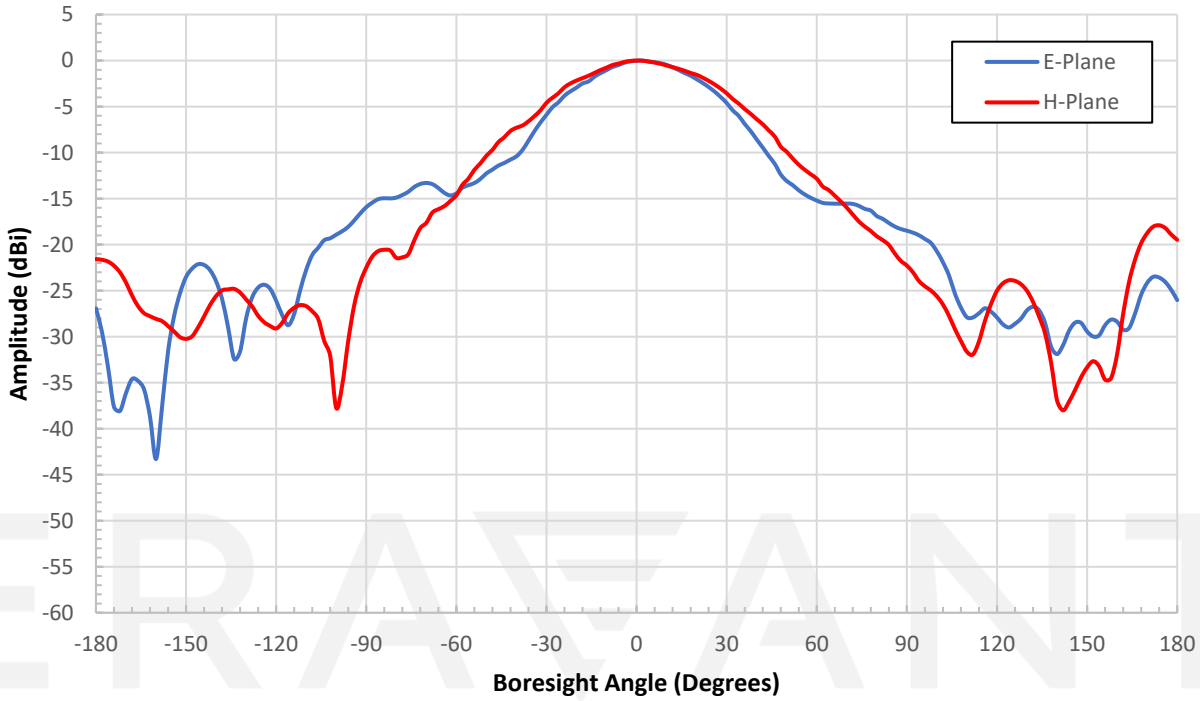
NOTE:

- 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.

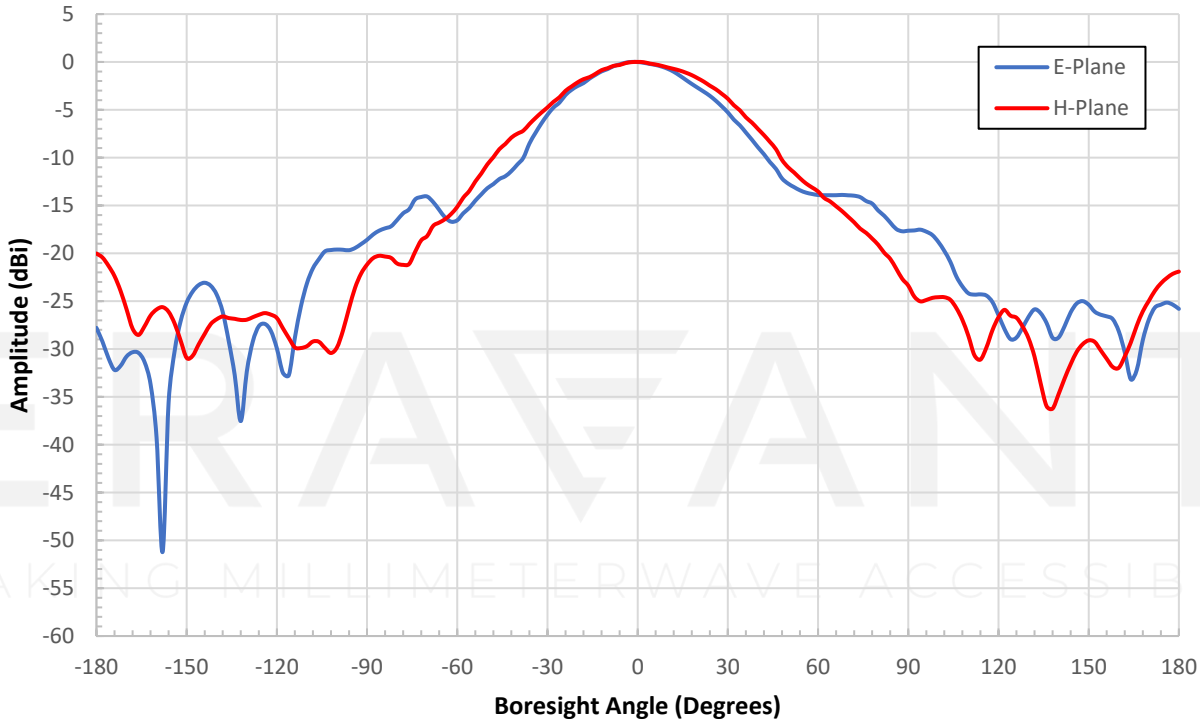
CAUTION:

- 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

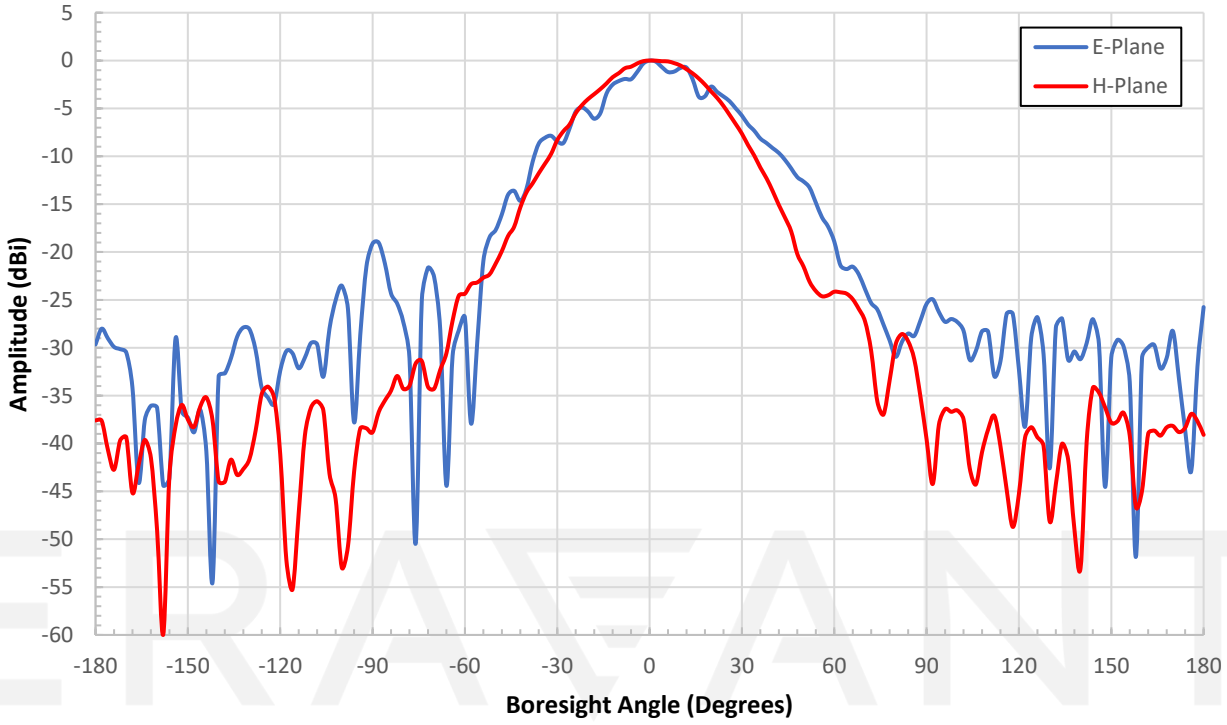
Typical Measured Antenna Patterns @ 6 GHz (Port 1)



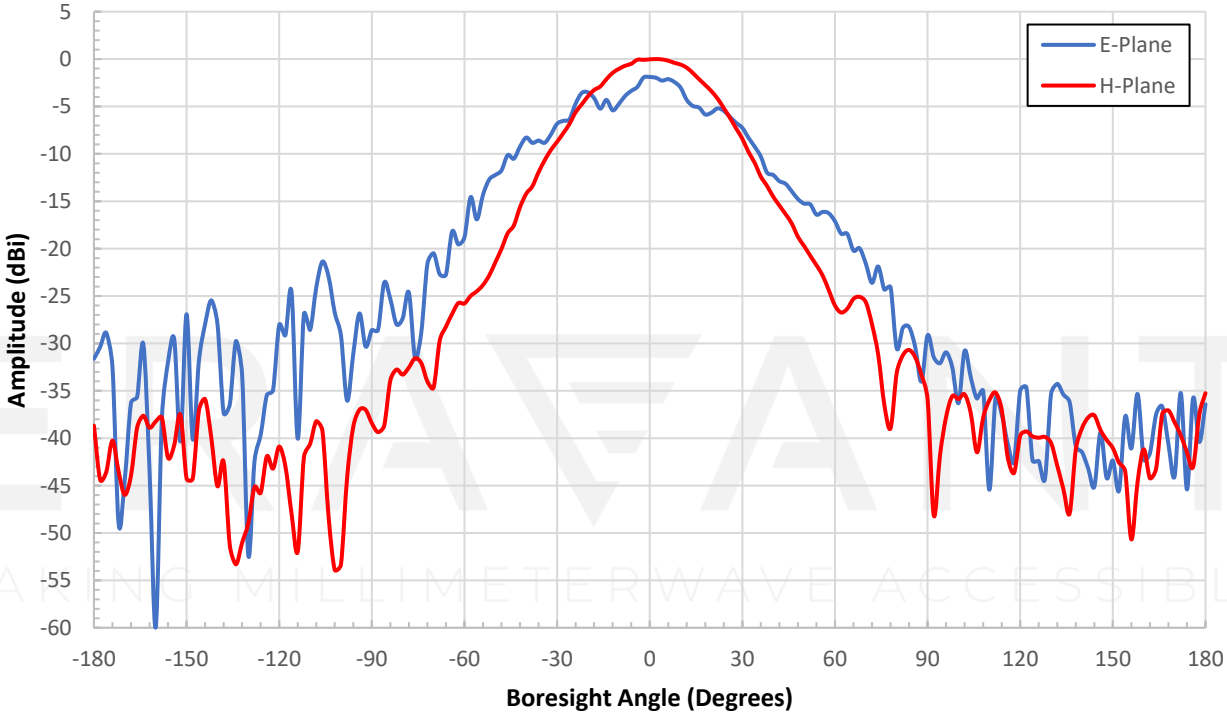
Typical Measured Antenna Patterns @ 6 GHz (Port 2)



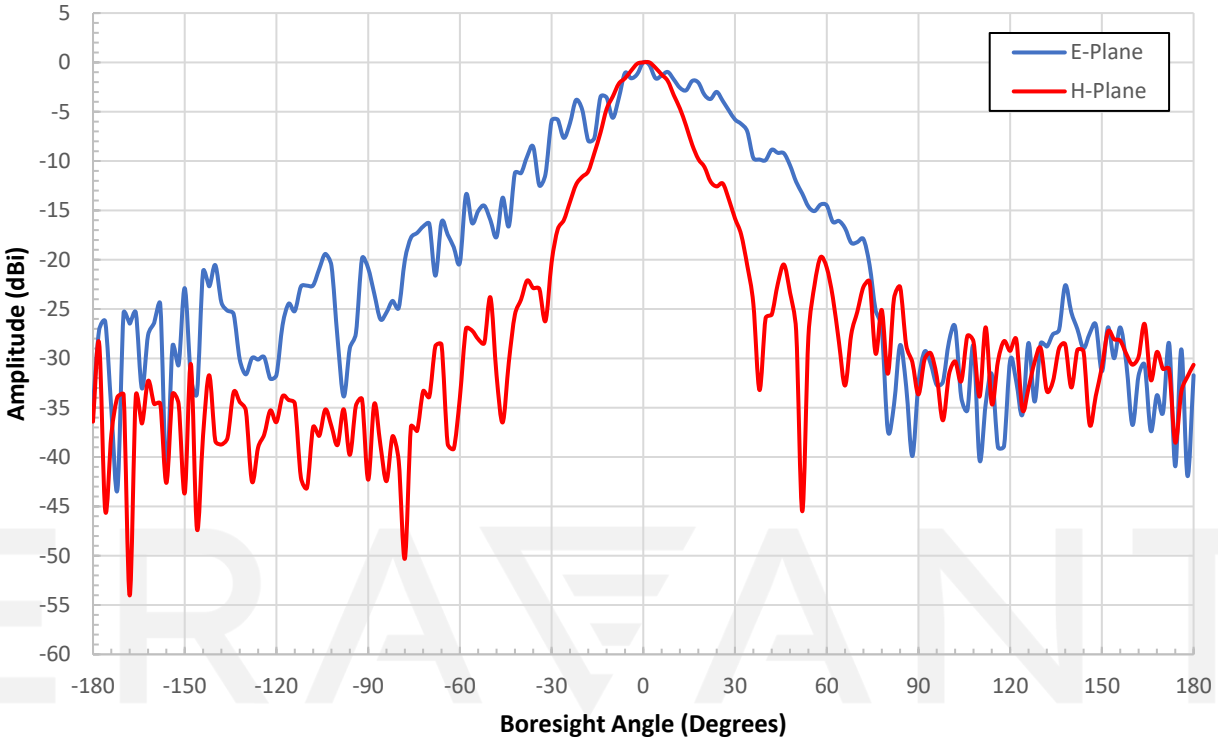
Typical Measured Antenna Patterns @ 16 GHz (Port 1)



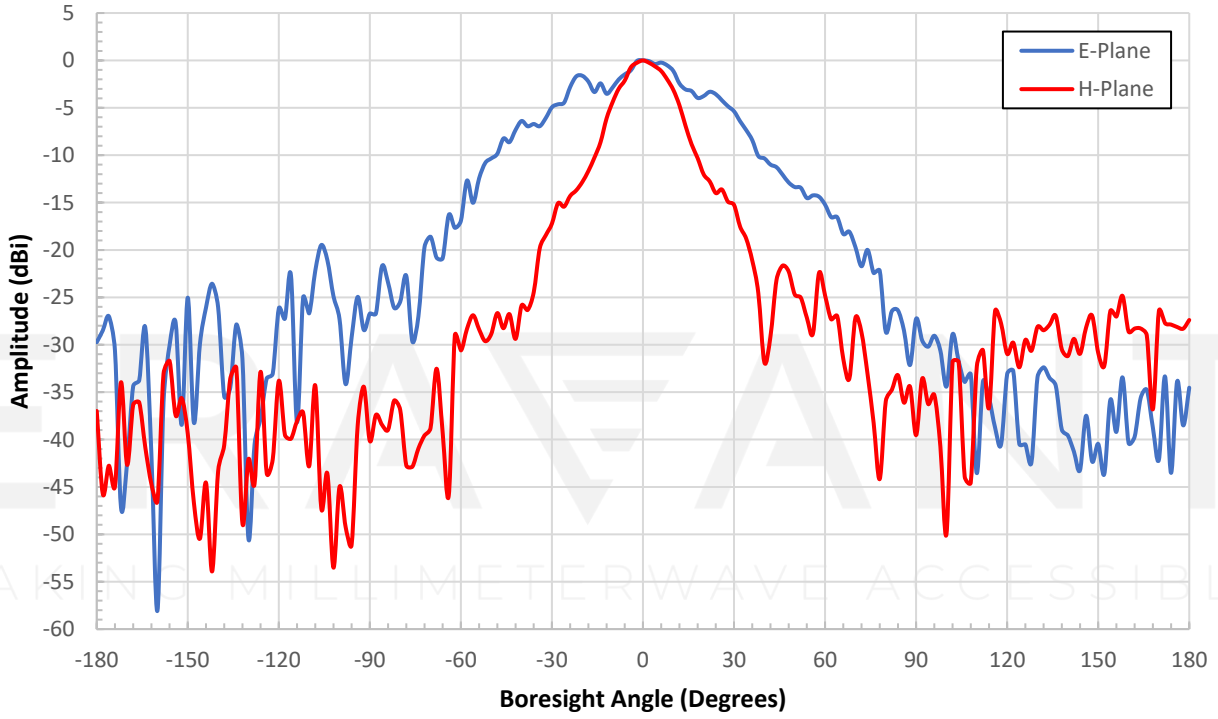
Typical Measured Antenna Patterns @ 16 GHz (Port 2)



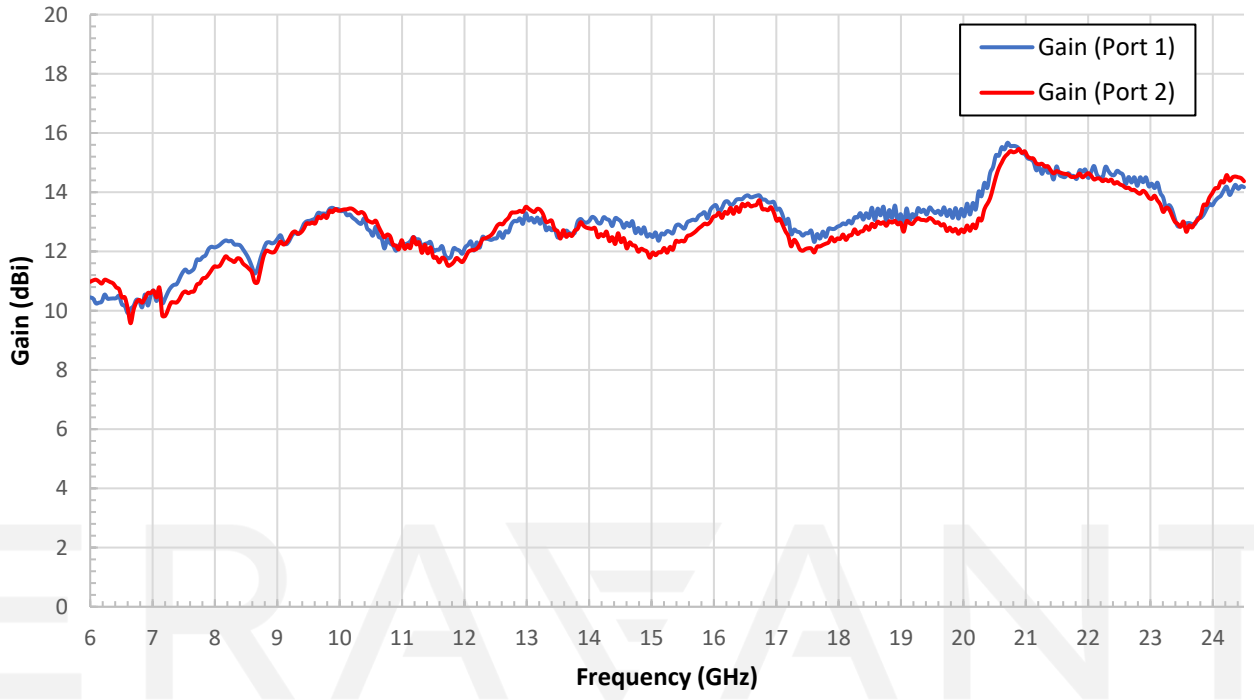
Typical Measured Antenna Patterns @ 24.5 GHz (Port 1)



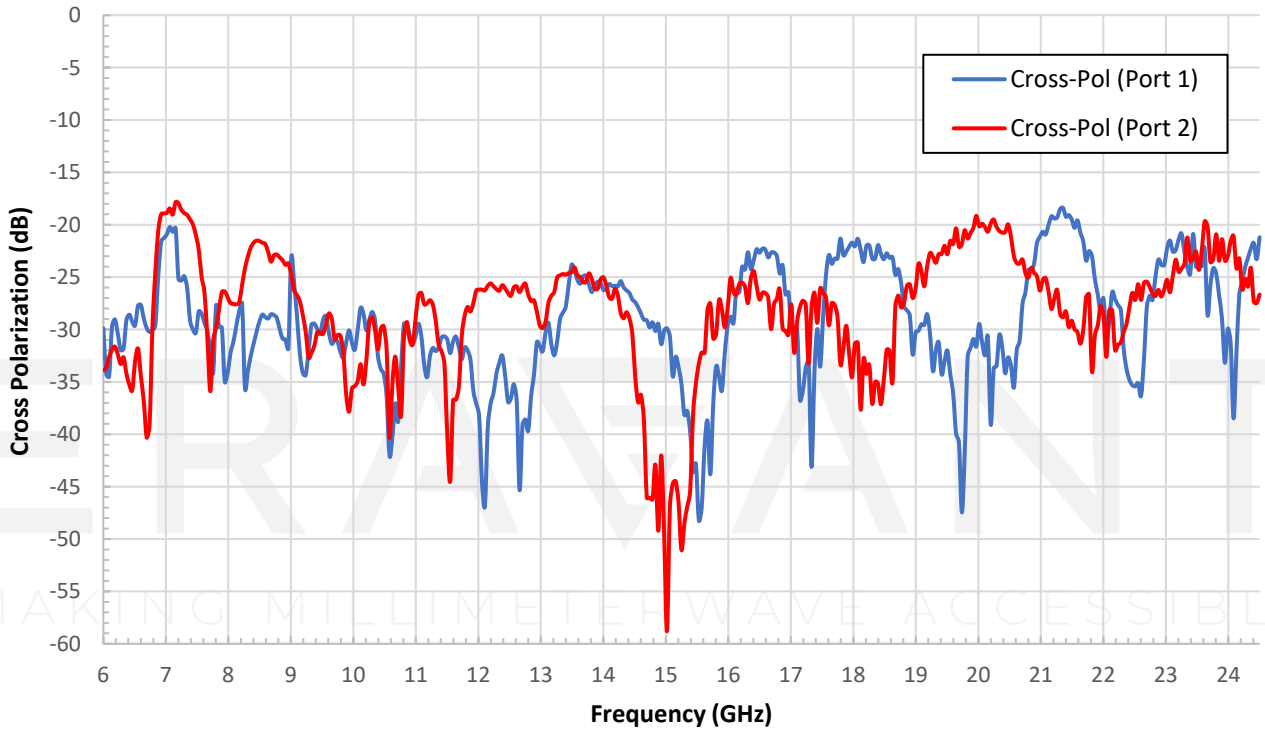
Typical Measured Antenna Patterns @ 24.5 GHz (Port 2)



Typical Measured Gain vs Frequency



Typical Measured Cross-Polarization vs Frequency



Typical Measured Return Loss and Isolation vs Frequency