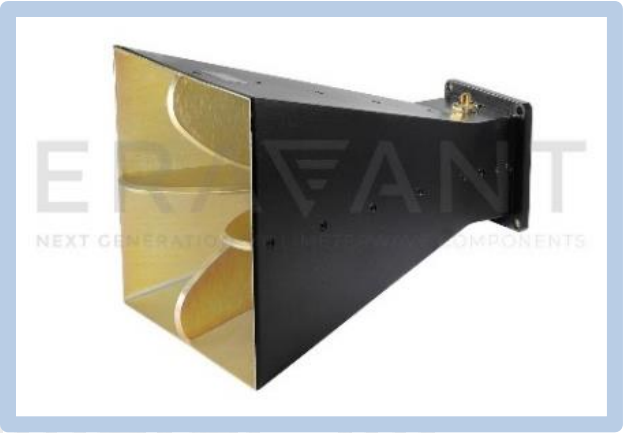
SAV-0131231226-SF-S5-DP-QR

Rev 1.0

Quad Ridged, Dual Polarization Horn Antenna, 1 to 12 GHz, 12 dBi

Description:



Model SAV-0131231226-SF-S5-DP-QR is a quad ridged, dual polarized horn antenna that operates from 1 to 12 GHz. The antenna offers 12 dBi nominal gain and a half power beamwidth of 27 degrees on the E-plane and 24 degrees on the H-plane at the center frequency of 6.5 GHz. The typical cross polarization rejection is 20 dB and typical port isolation is 25 dB. The antenna supports both linear and circular polarized waveforms and features a mounting plate with four Ø 0.22" through holes for flexible mounting capacity. The RF ports of this antenna are female SMA connectors.

Features:

- Coaxial Connectors for RF Inputs
- Broadband Width
- Dual Polarization
- Moderate Gain

Applications:

- Communication Systems
- Radar Systems
- Antenna Ranges
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	1 GHz		12 GHz
Gain		12 dBi	
Polarization		Linear and Circular	
3 dB Beamwidth, E-plane @ 6.5 GHz		27°	
3 dB Beamwidth, H-plane @ 6.5 GHz		24°	
Cross Polarization		20 dB	
Port Isolation		25 dB	
Port Return Loss		7 dB	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	0 °C		50 °C

Mechanical Specifications:

Item	Specification
Antenna Ports	SMA (F)
Mounting	4 x Ø 0.22" through holes
Material	Aluminum
Finish	Outer Finish: Black Paint, Inner Finish: Chem Film
Weight	2.75 lbs.
Outline	AV-S12-QR-H1

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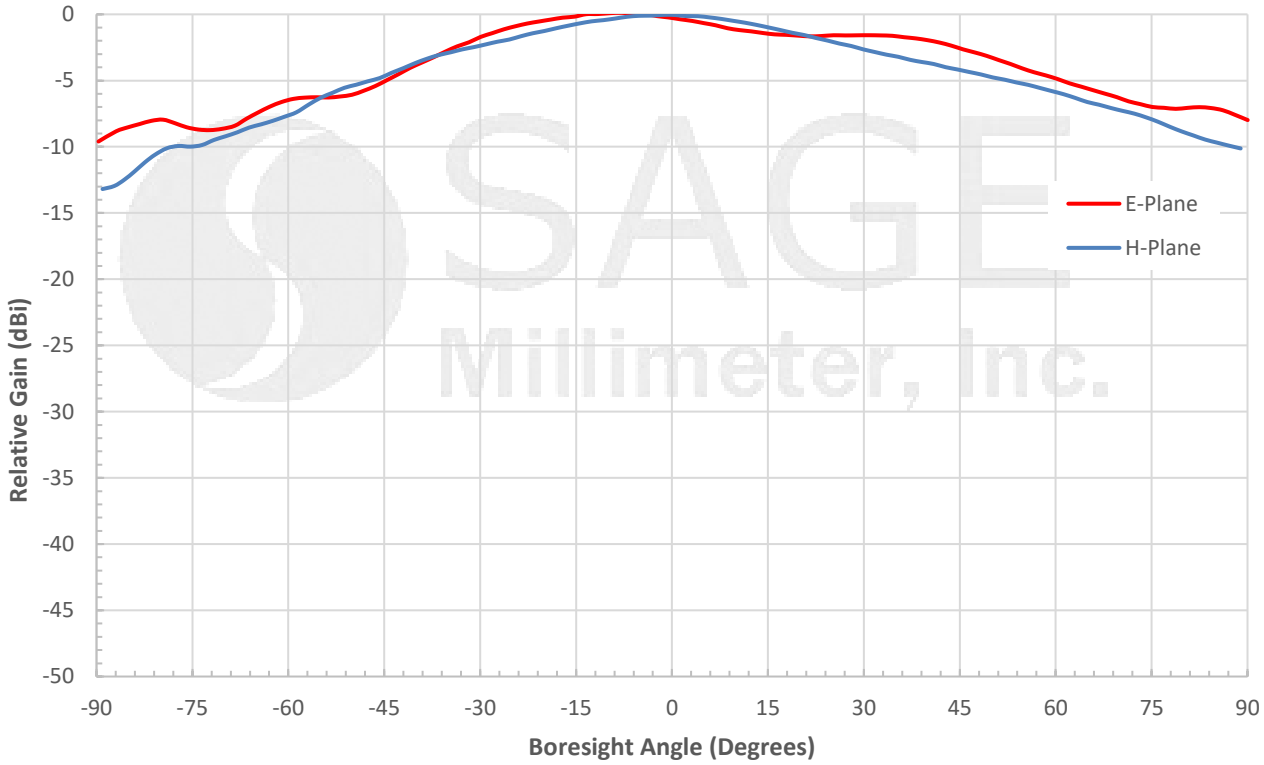
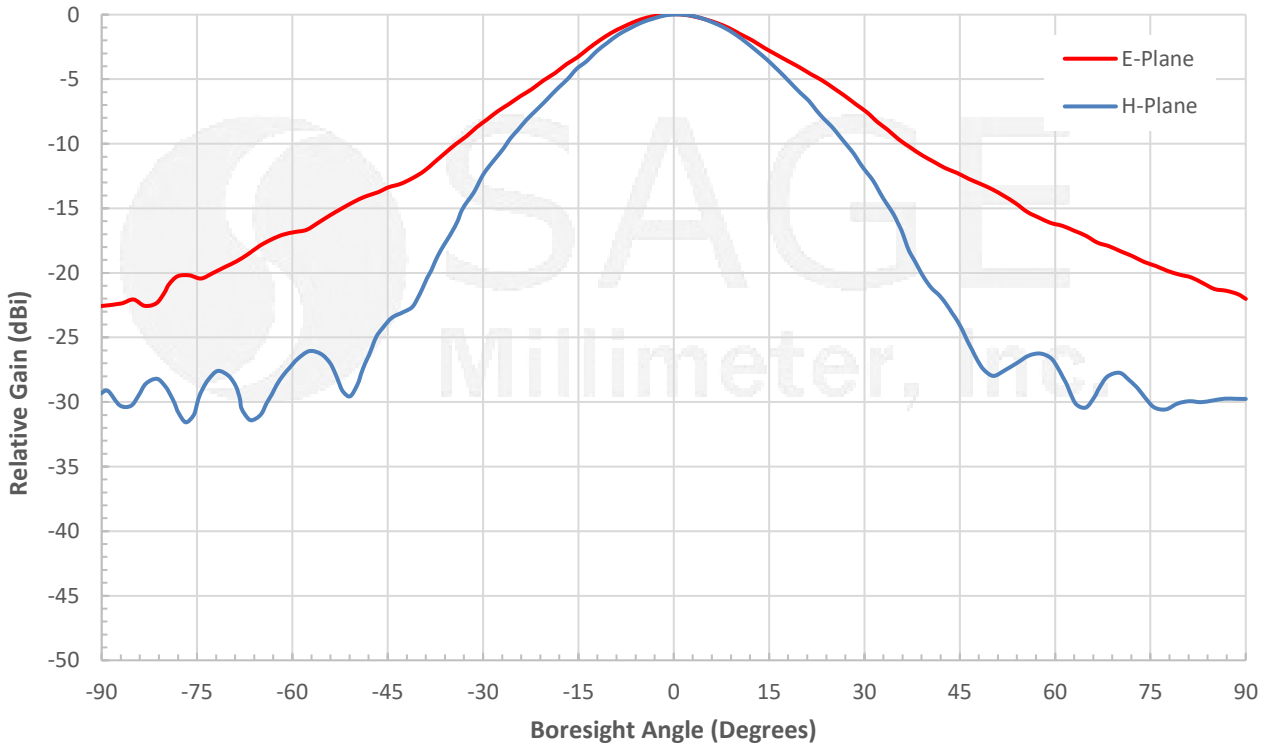
Quad Ridged, Dual Polarization Horn Antenna, 1 to 12 GHz, 12 dBi

Typical Antenna Patterns @ 1 GHz



Typical Antenna Patterns @ 6 GHz



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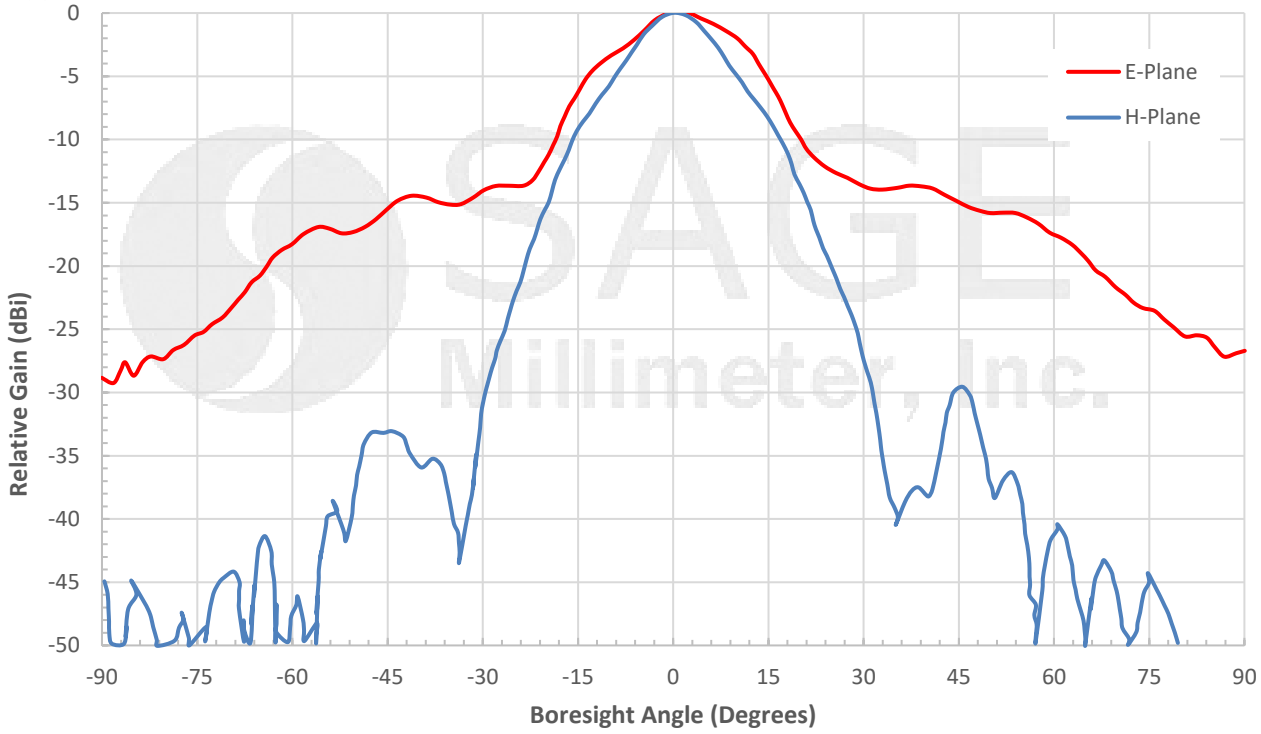
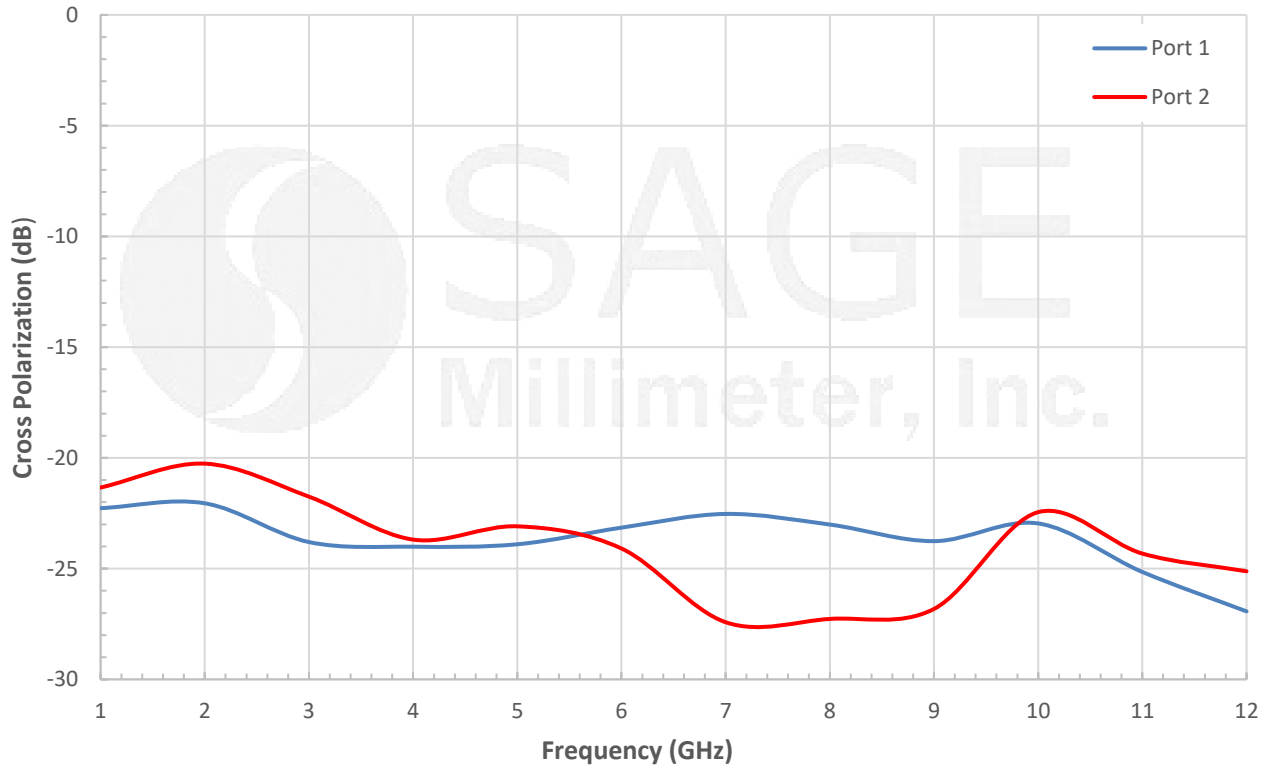
Typical Antenna Patterns @ 12 GHz



Typical Cross Polarization vs Frequency



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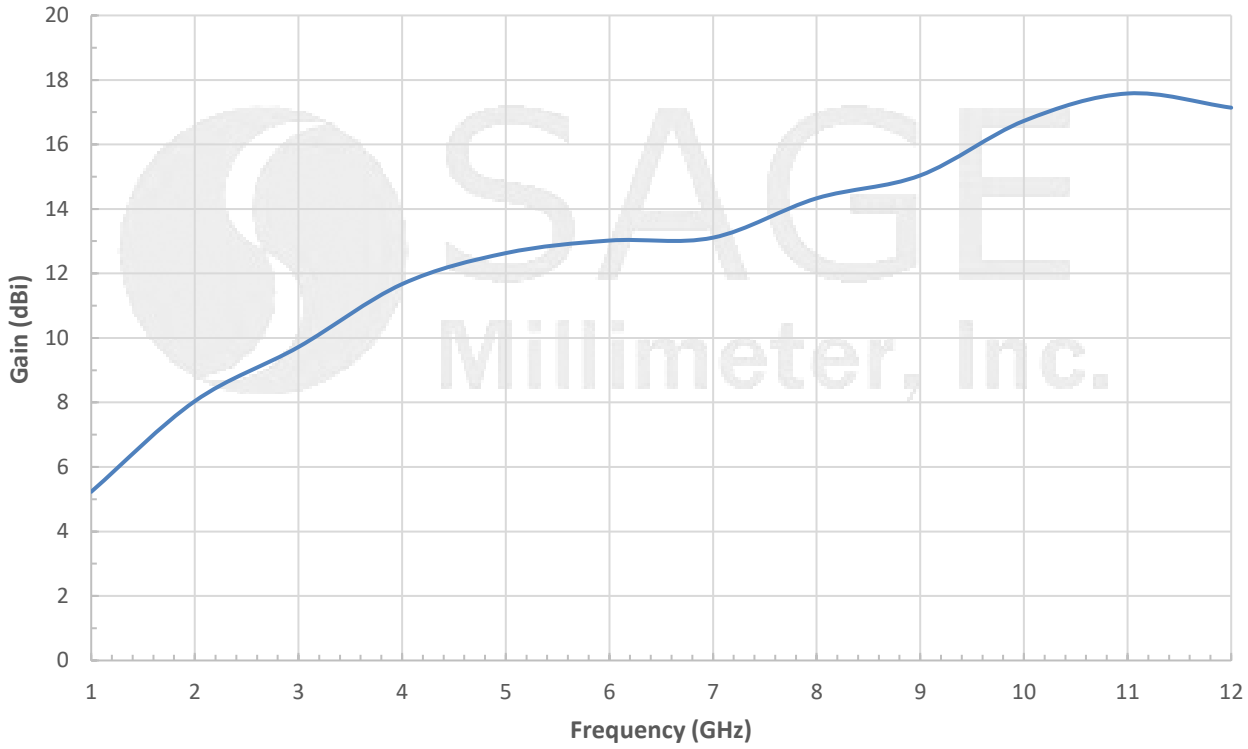
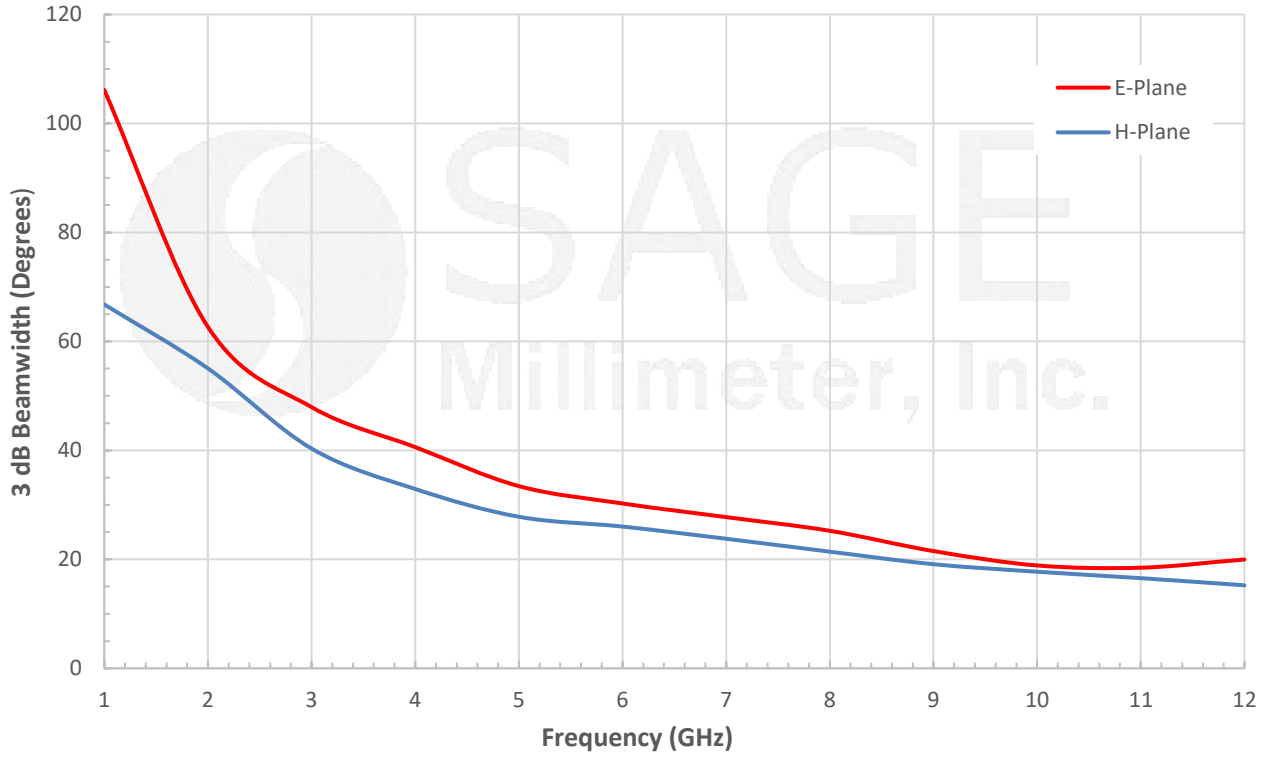
Typical Gain vs Frequency



Typical 3 dB Beamwidth vs Frequency



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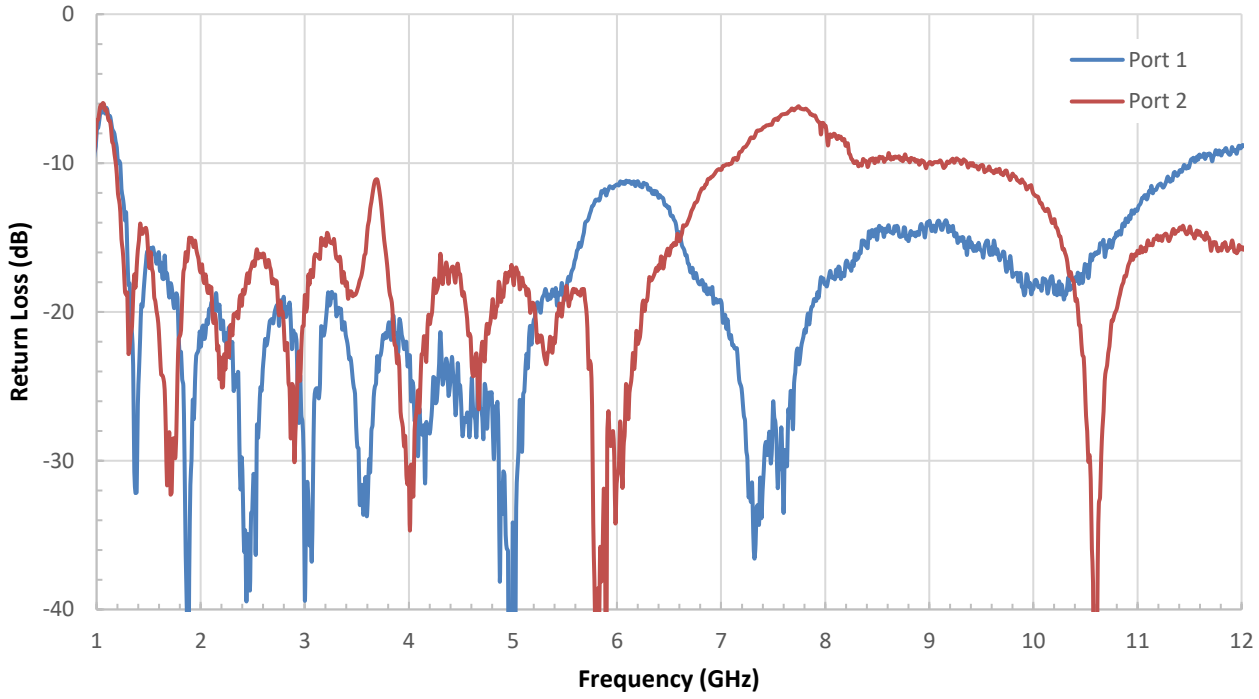
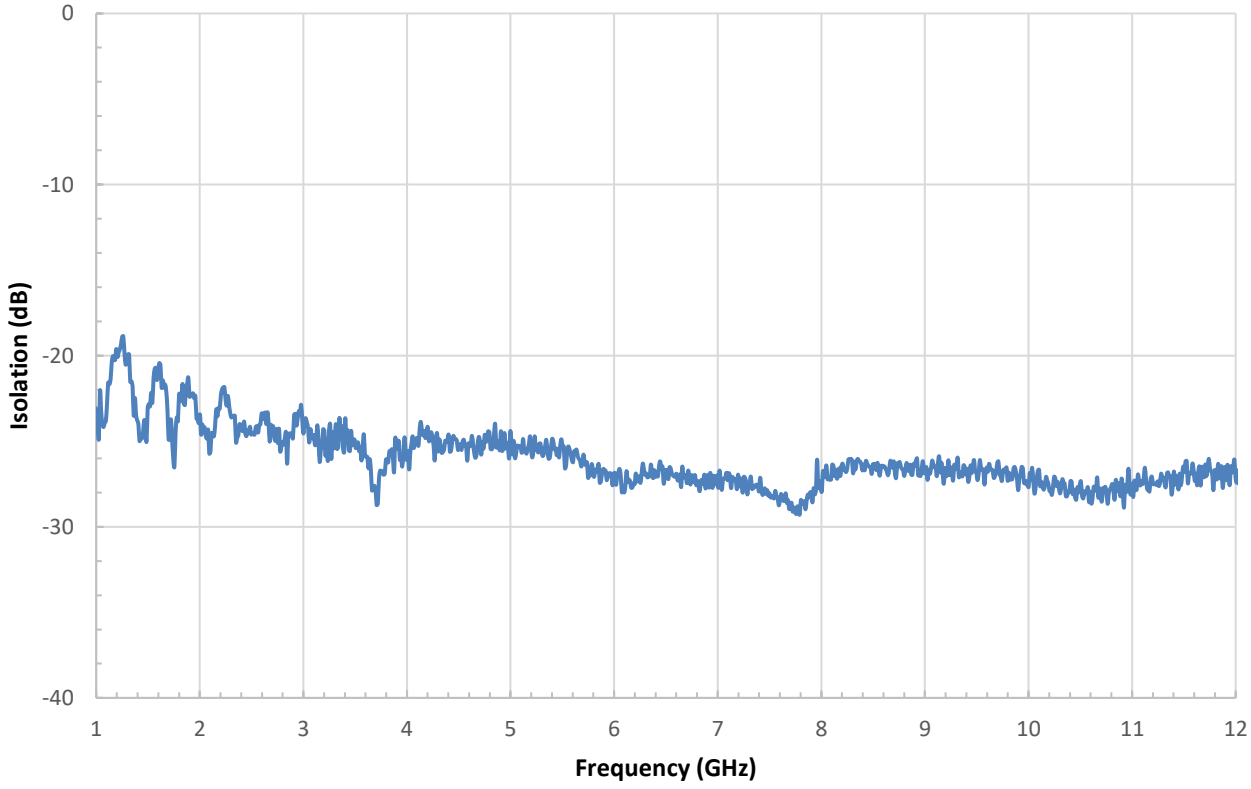
Typical Return Loss vs Frequency



Typical Isolation vs Frequency



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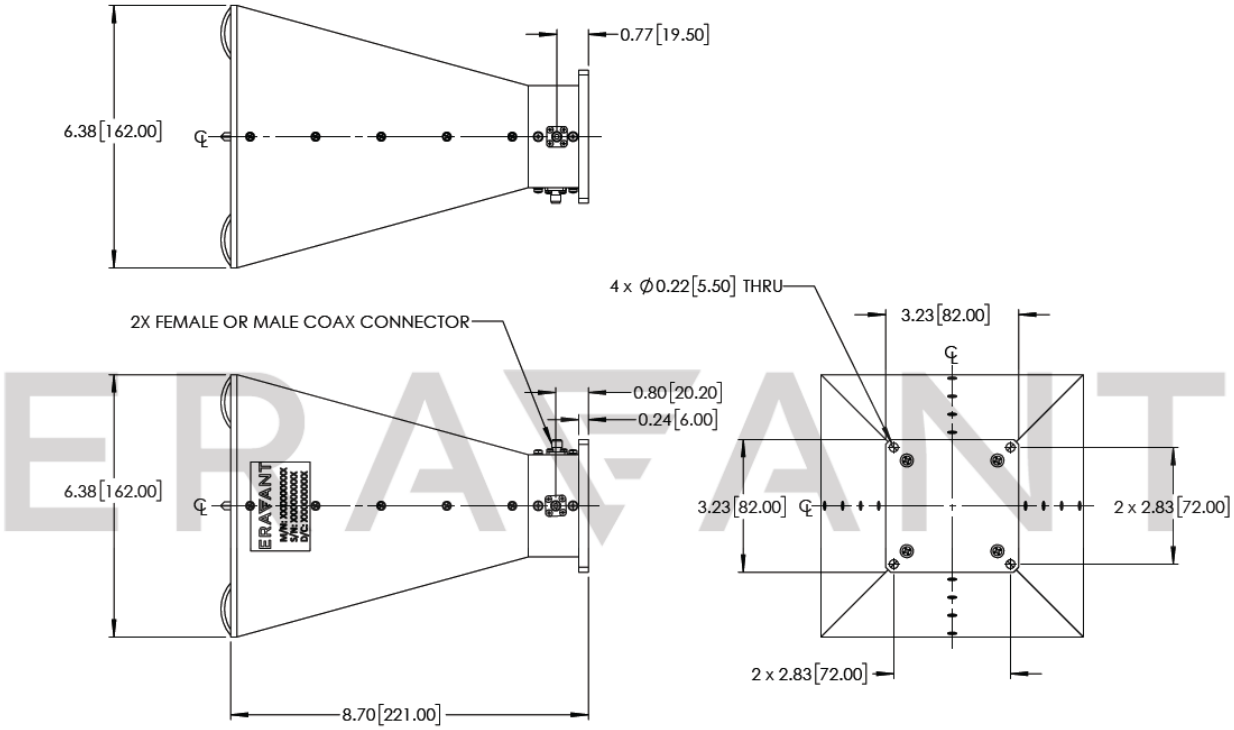
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C room temperature.
- SAGE Millimeter, Inc. 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 (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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