



Quad Ridged, Dual Polarized Horn Antenna, 2 to 18 GHz, 12 dBi Gain

Description:

Model SAC-0231831225-SF-S4-DP-WP is a quad ridged, dual polarized horn antenna that operates from 2 to 18 GHz. The antenna offers 12 dBi nominal gain and a half power beamwidth of 25 degrees on the E-plane and 22 degrees on the H-plane . The antenna also offers -15 dB typical sidelobe levels across the entire operating frequency. The antenna RF ports 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	2 GHz	12 GHz	18 GHz
Gain		12 dBi	
E-Plane 3 dB Beamwidth		25°	
H-Plane 3 dB Beamwidth		22°	
Sidelobe Levels		-15 dB	
Port Isolation		20 dB	
Return Loss		7 dB	
Power Handling			150 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

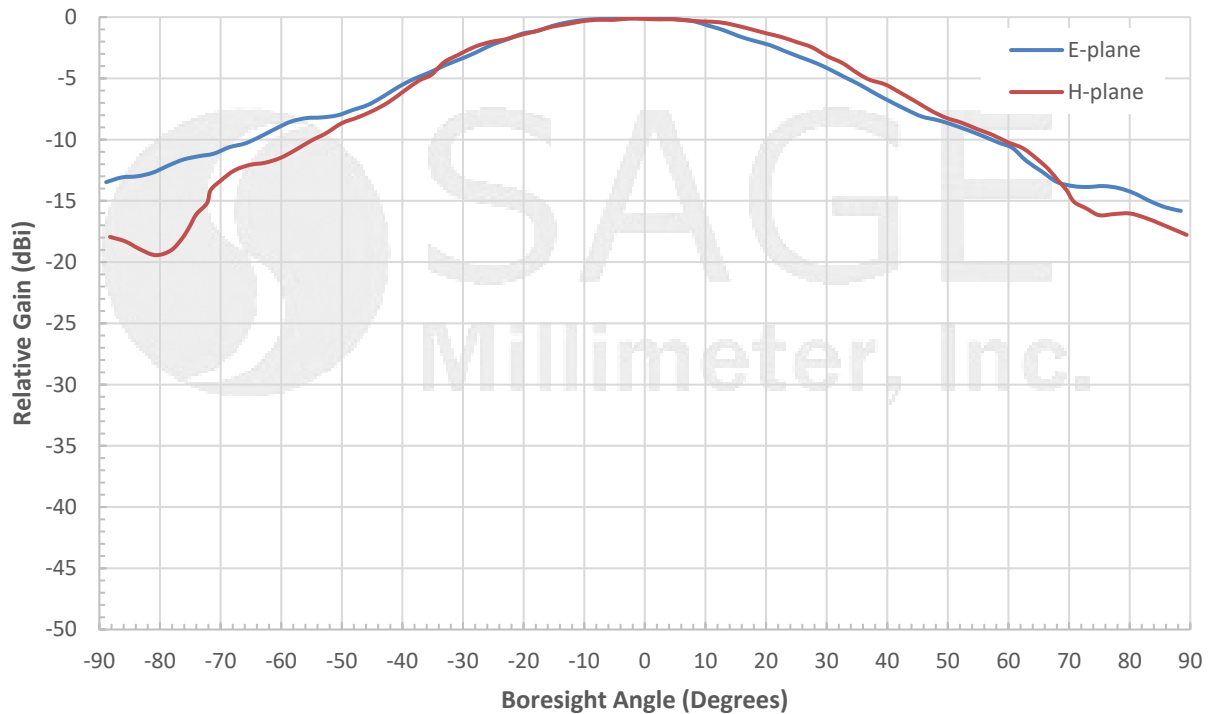
Parameter	Connector
Antenna Ports	SMA (F)
Mounting Options	Ø 0.24" Thru Holes
Material	Aluminum
Finish	Black Paint
Weight	2.42 lbs.
Outline	AC-TS12-DP-BX2



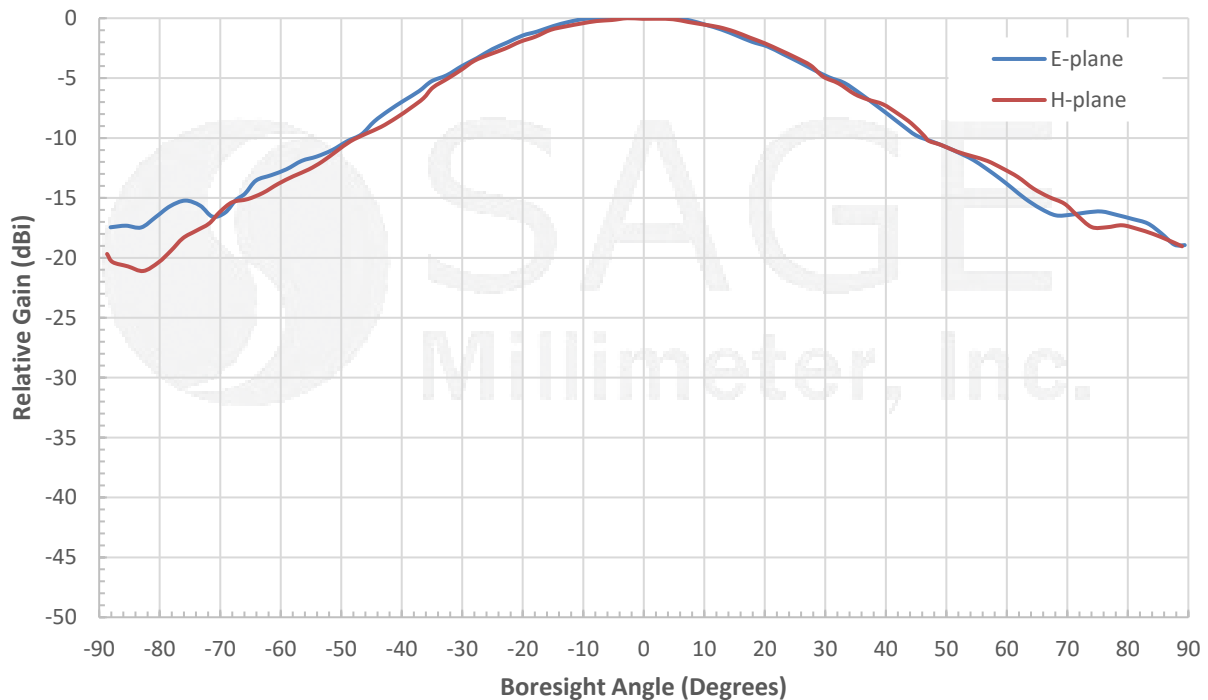


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Typical Antenna Pattern @ 2 GHz



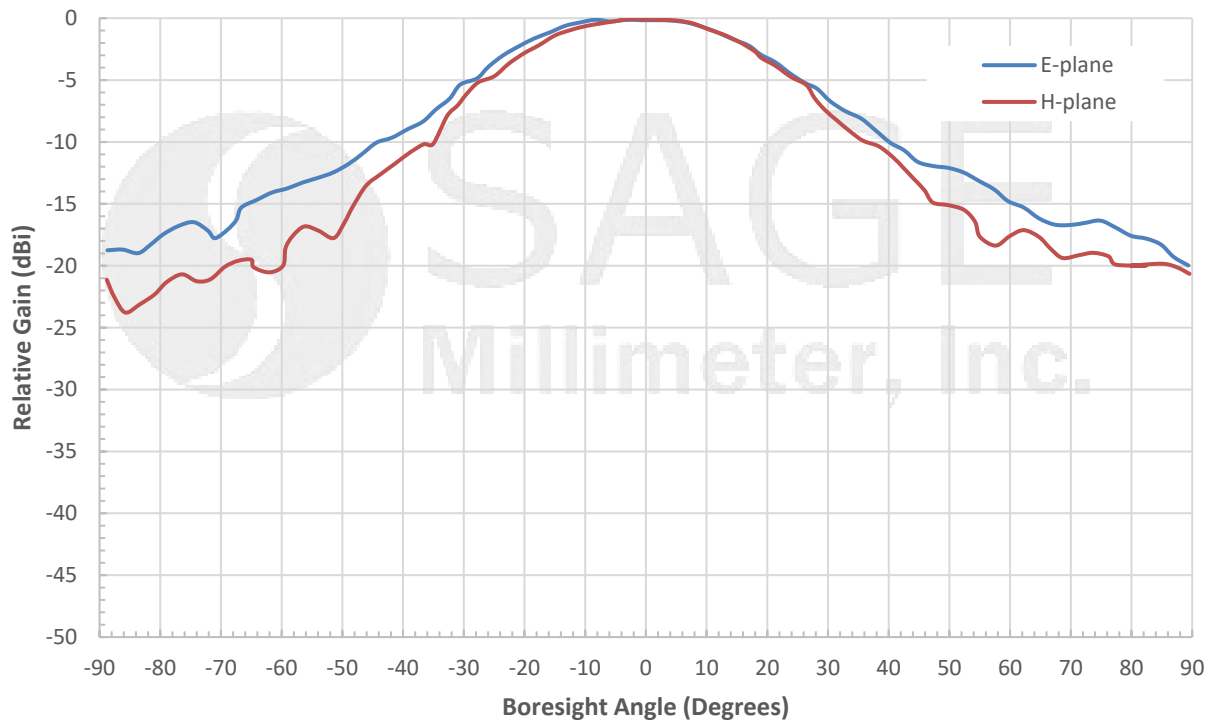
Typical Antenna Pattern @ 3 GHz



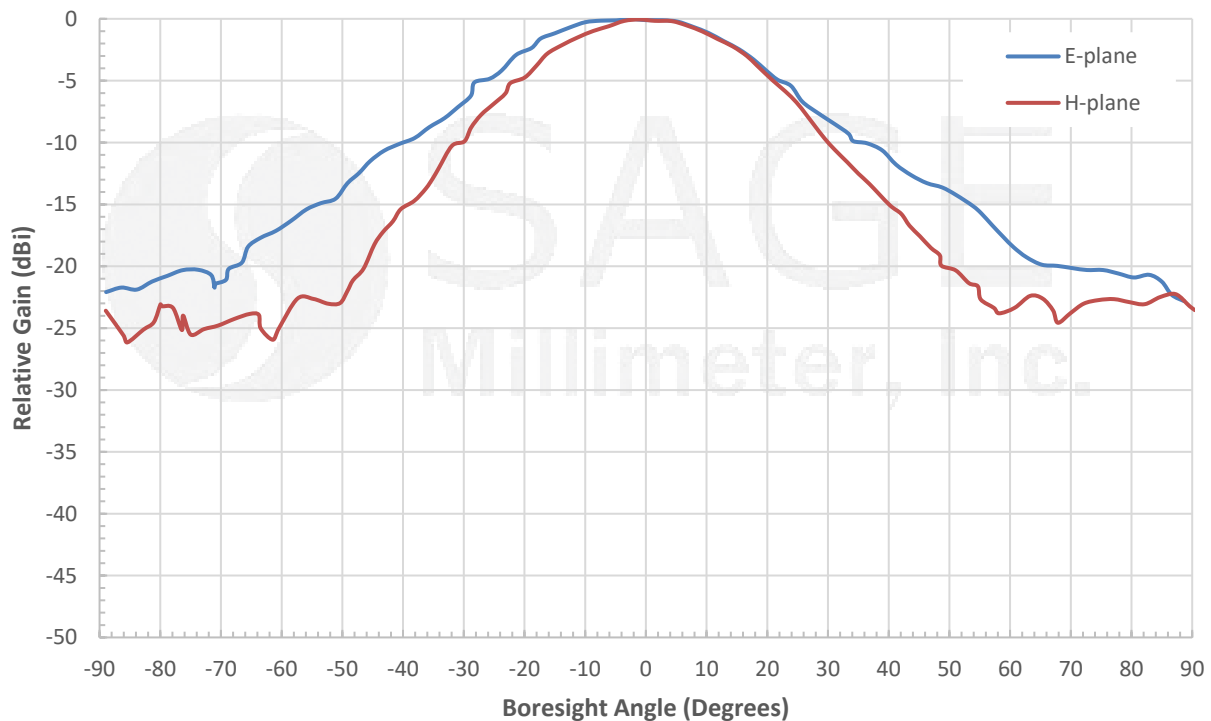


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Typical Antenna Pattern @ 4 GHz

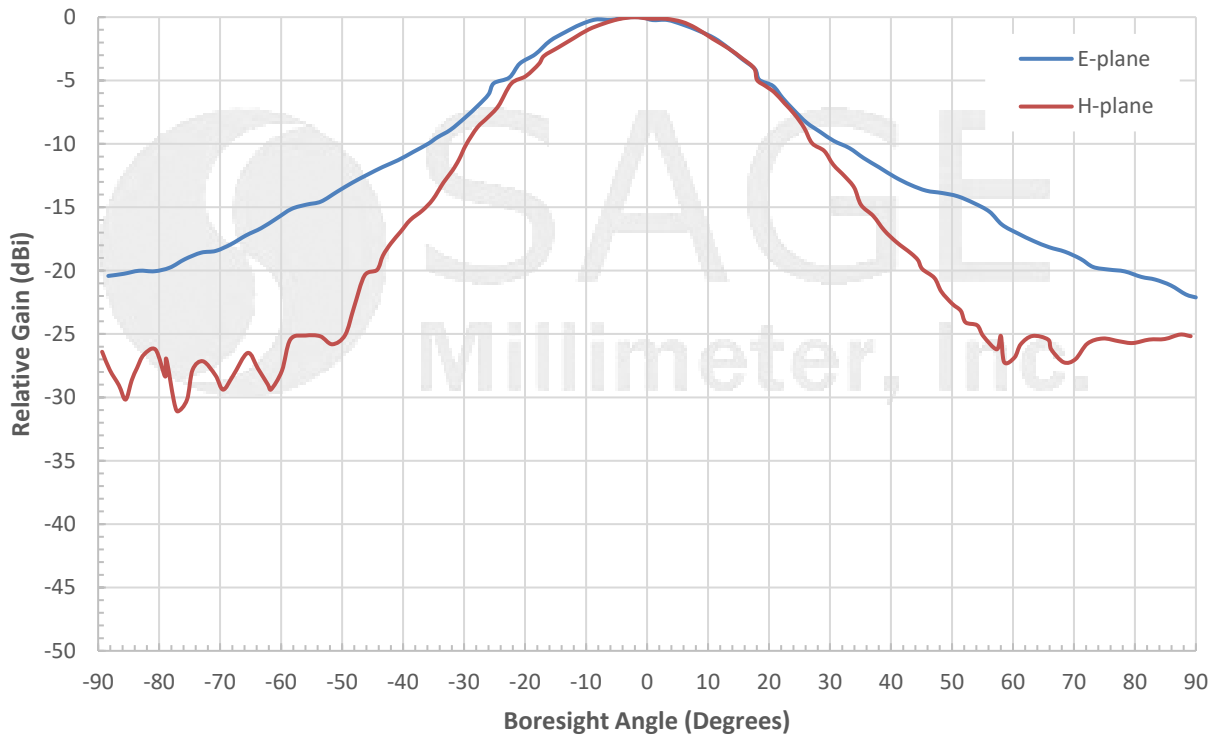


Typical Antenna Pattern @ 5 GHz

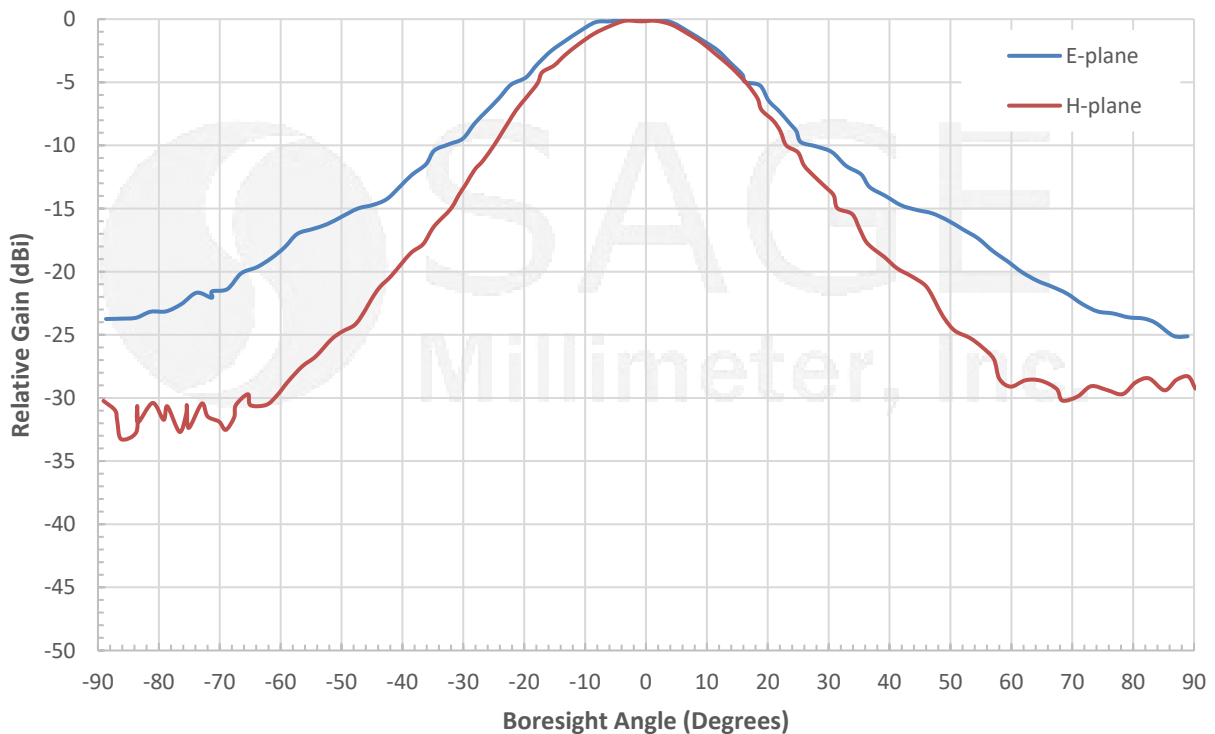


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Typical Antenna Pattern @ 6 GHz



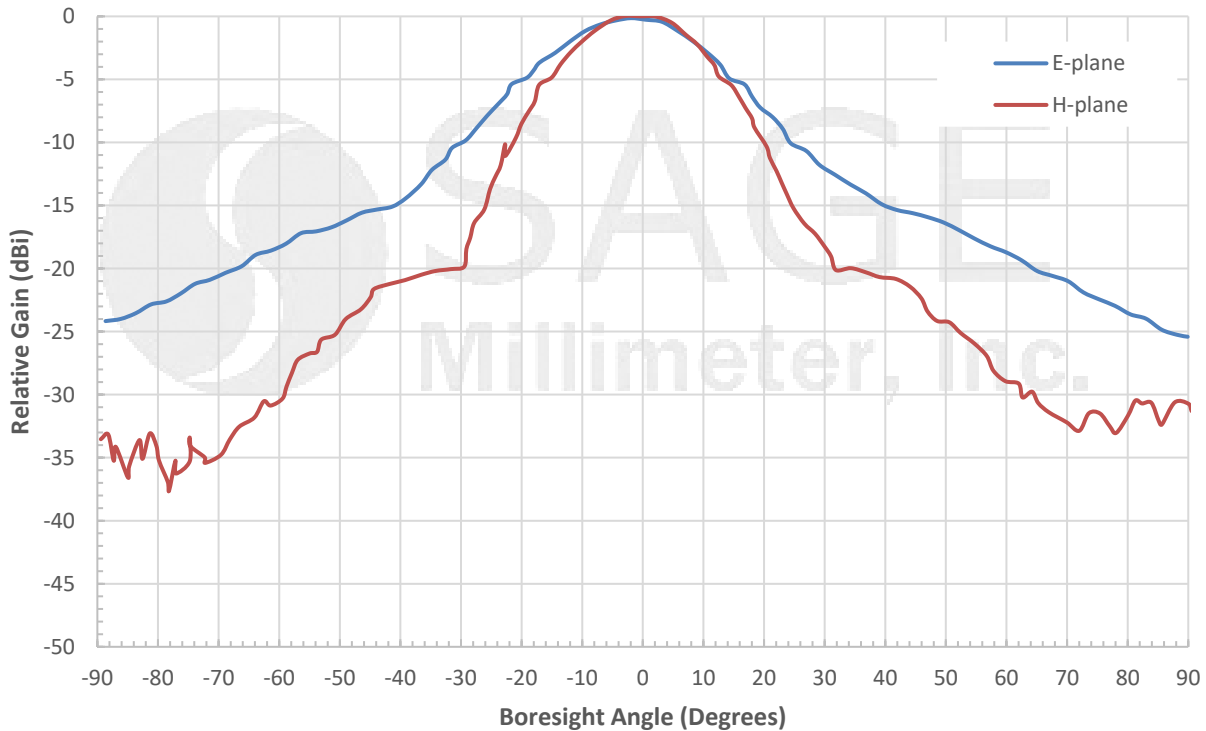
Typical Antenna Pattern @ 7 GHz



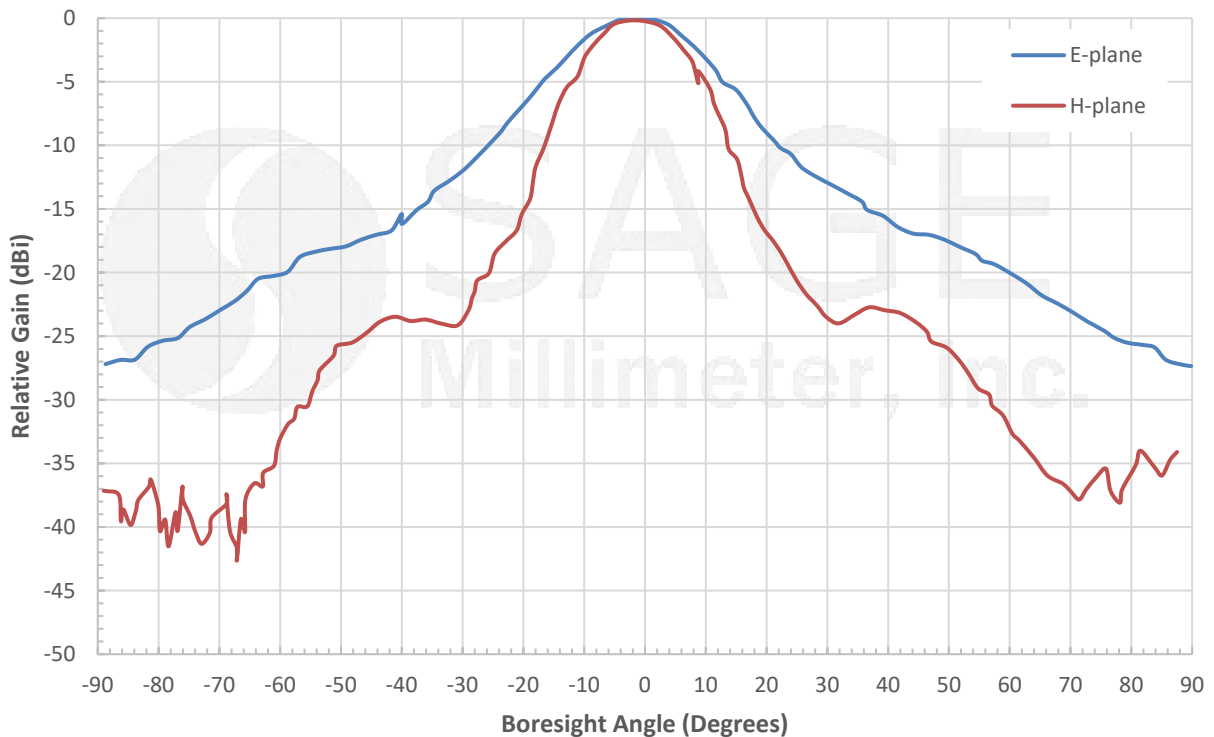


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Typical Antenna Pattern @ 8 GHz

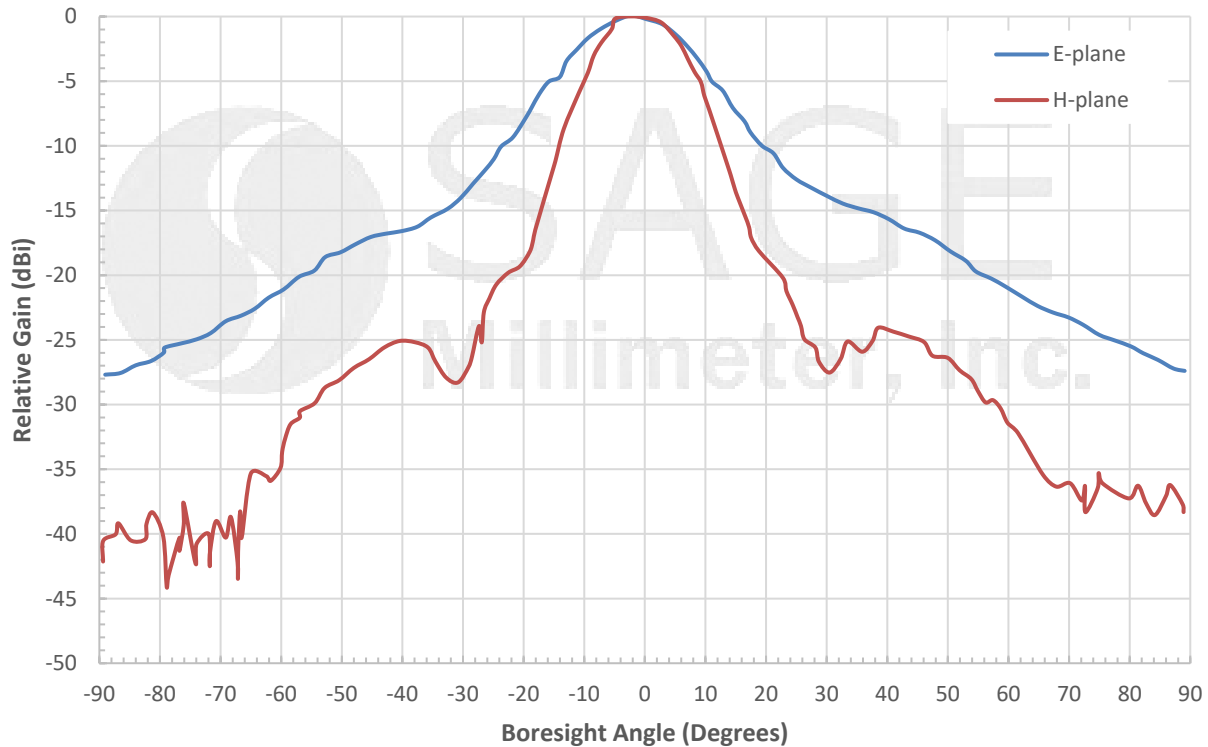


Typical Antenna Pattern @ 9 GHz

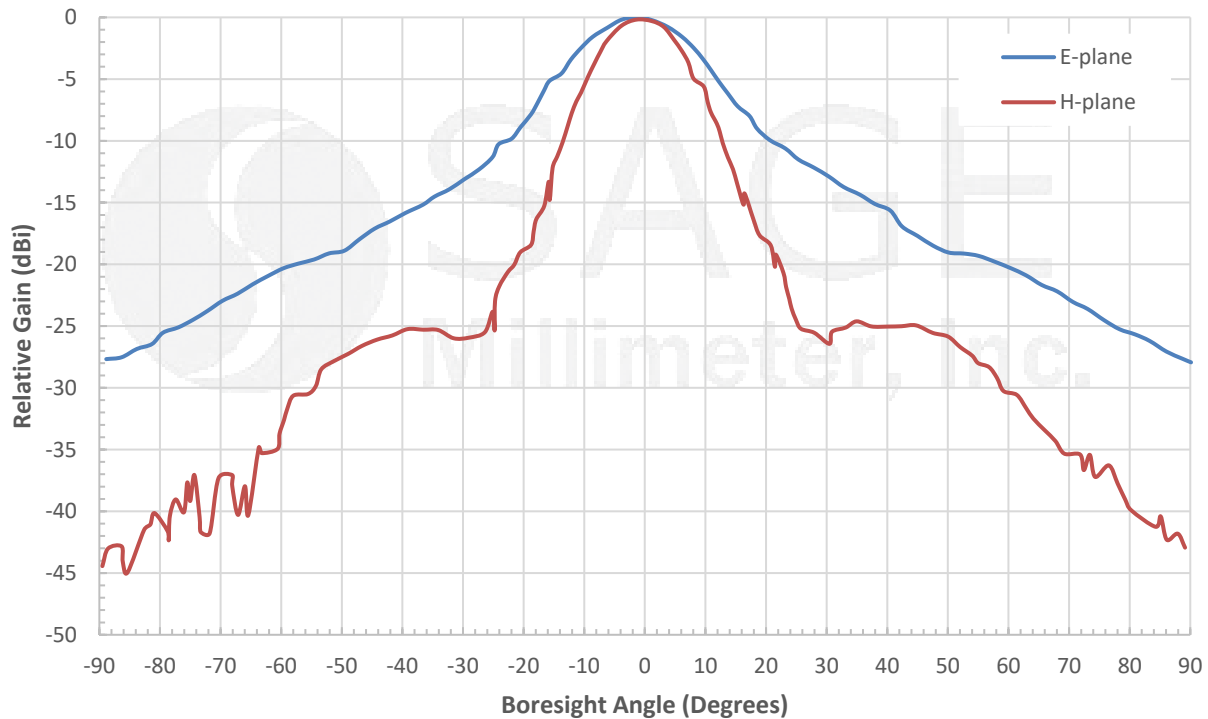


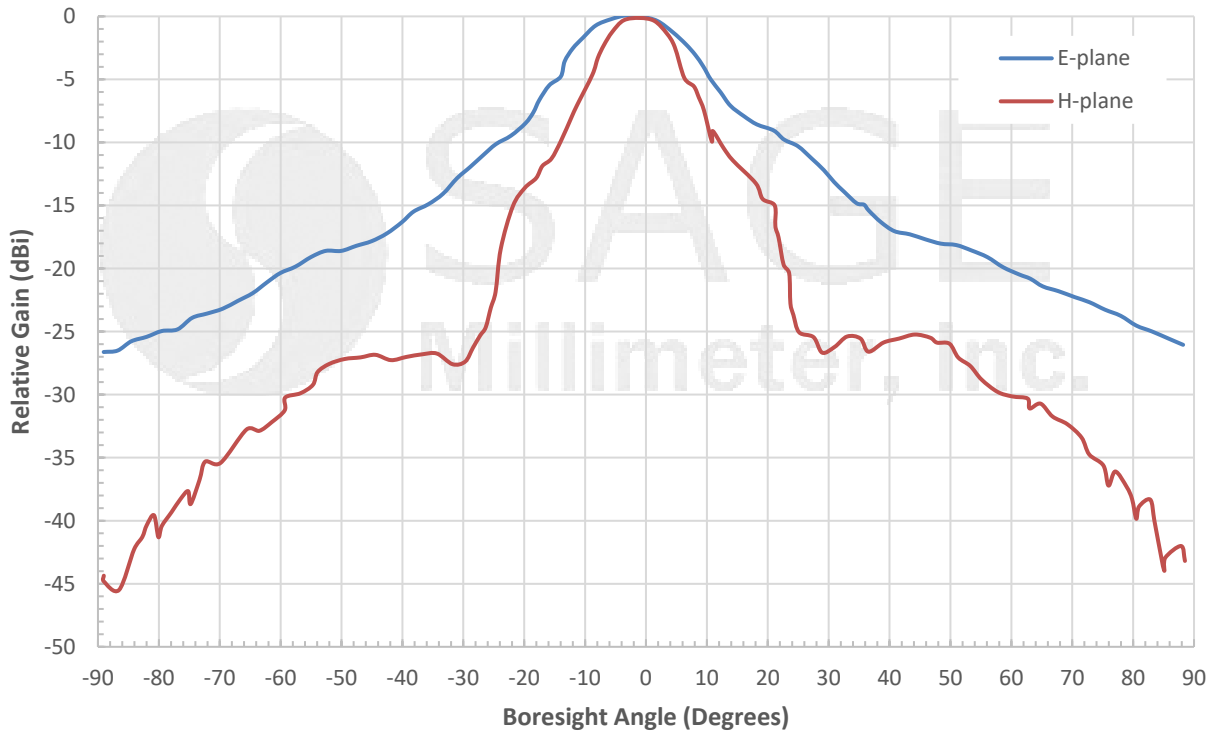
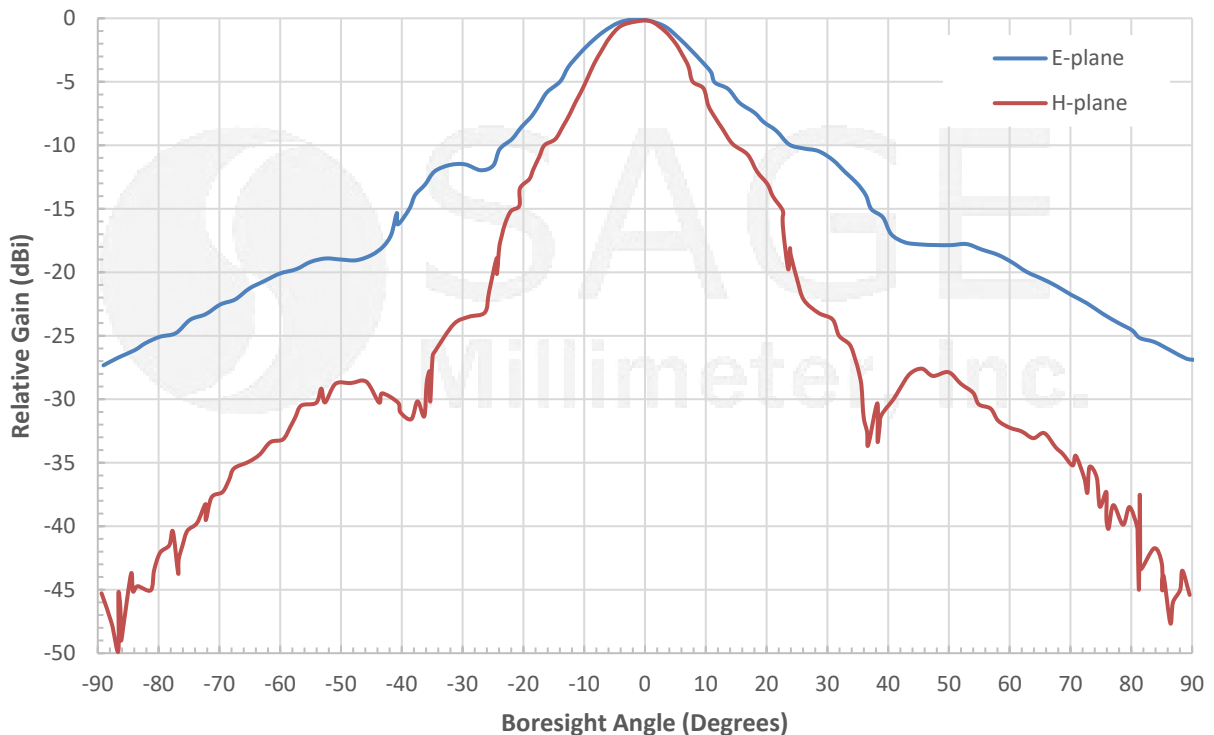
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Typical Antenna Pattern @ 10 GHz



Typical Antenna Pattern @ 11 GHz

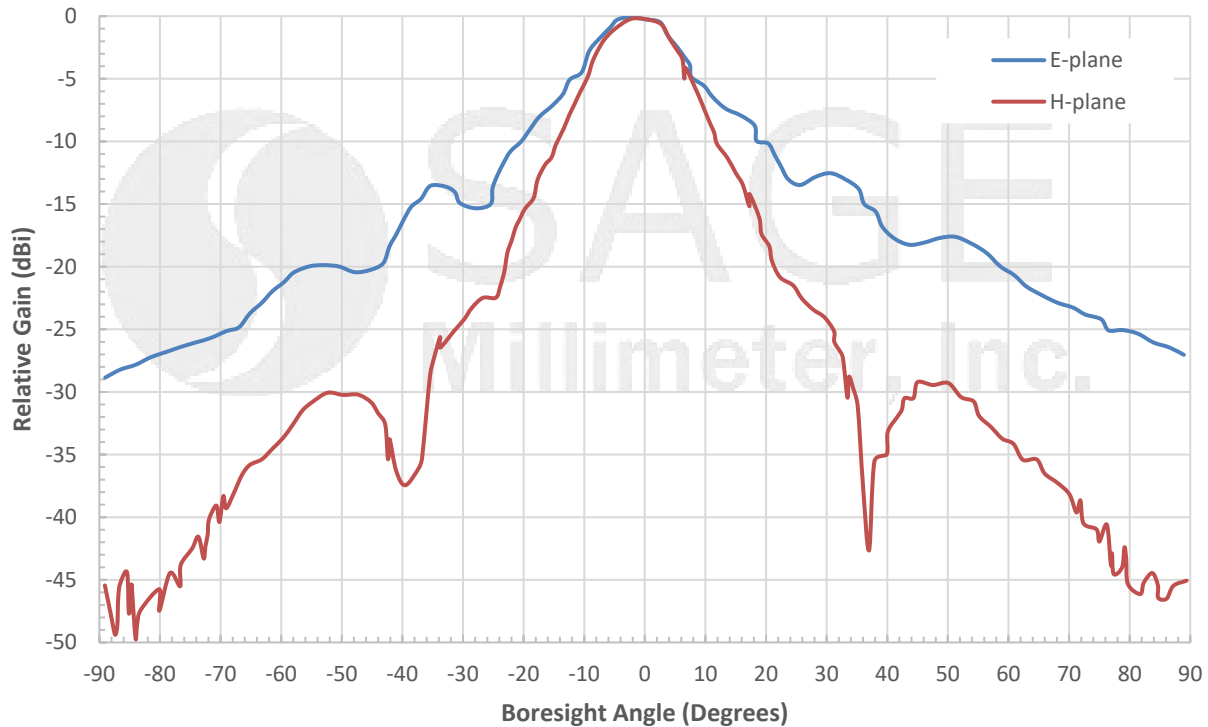


**Quad Ridged, Dual Polarized Horn Antenna, 2 to 18 GHz, 12 dBi Gain****Typical Antenna Pattern @ 12 GHz****Typical Antenna Pattern @ 13 GHz**

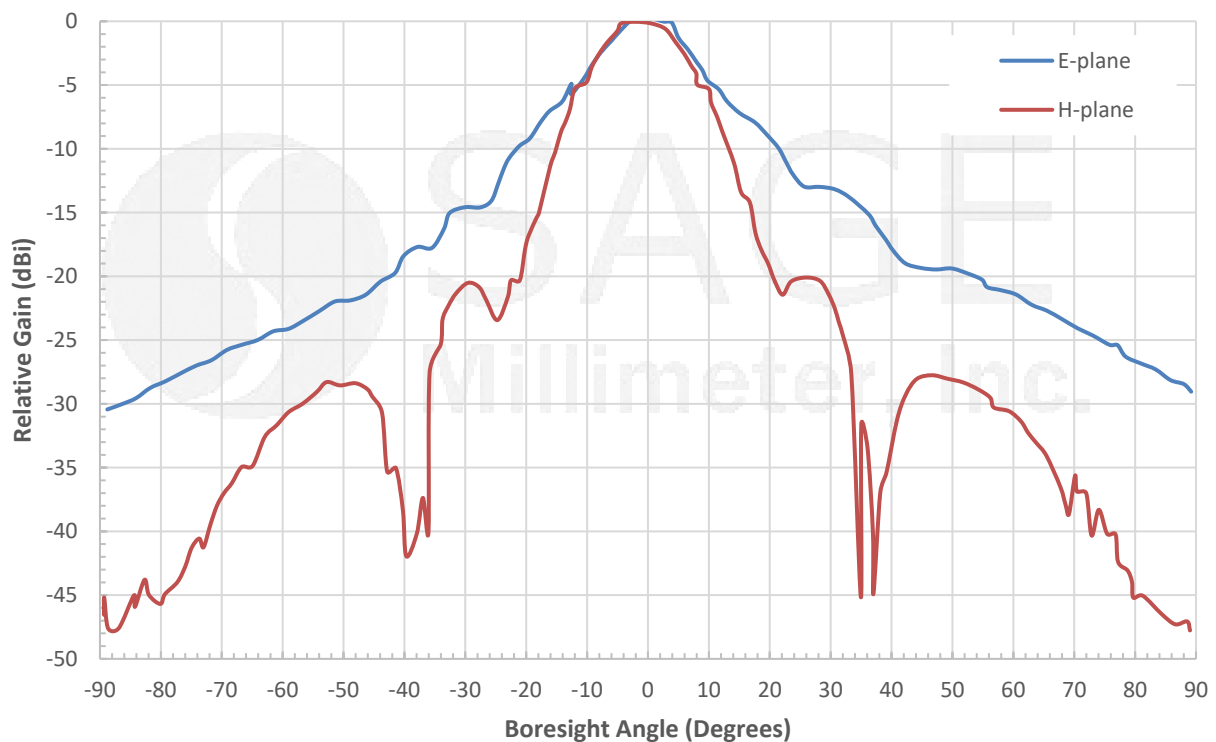


Quad Ridged, Dual Polarized Horn Antenna, 2 to 18 GHz, 12 dBi Gain

Typical Antenna Pattern @ 14 GHz



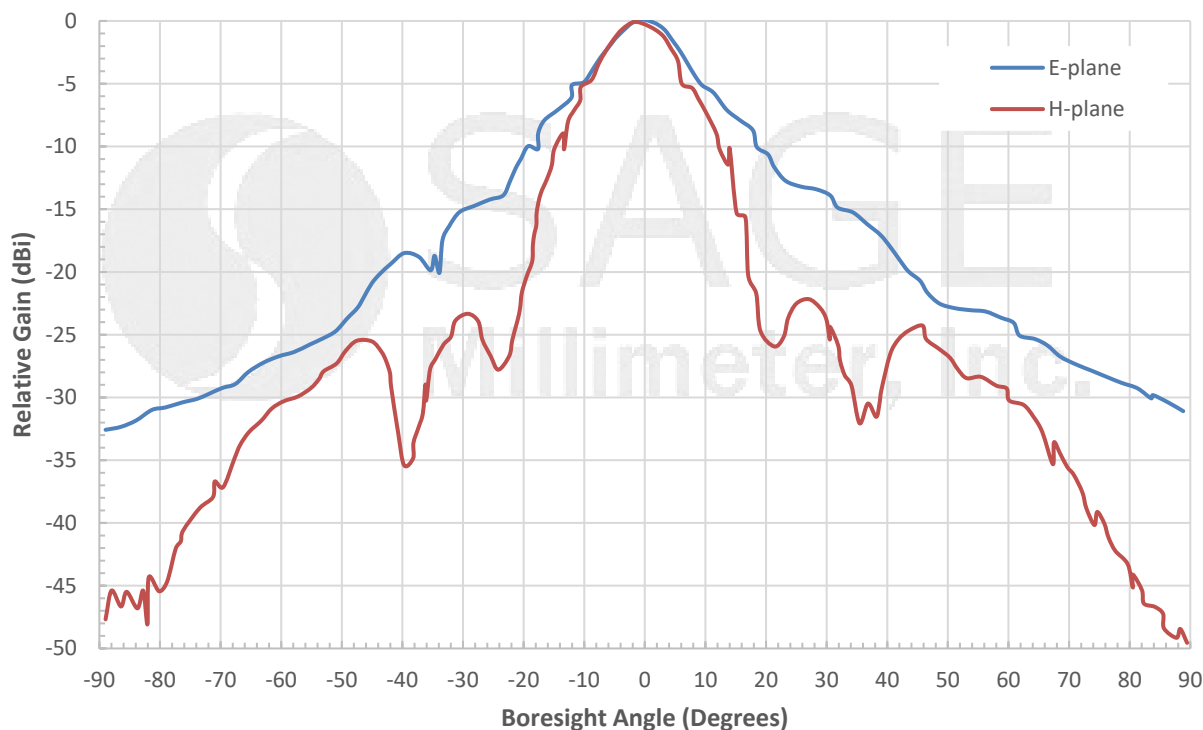
Typical Antenna Pattern @ 15 GHz



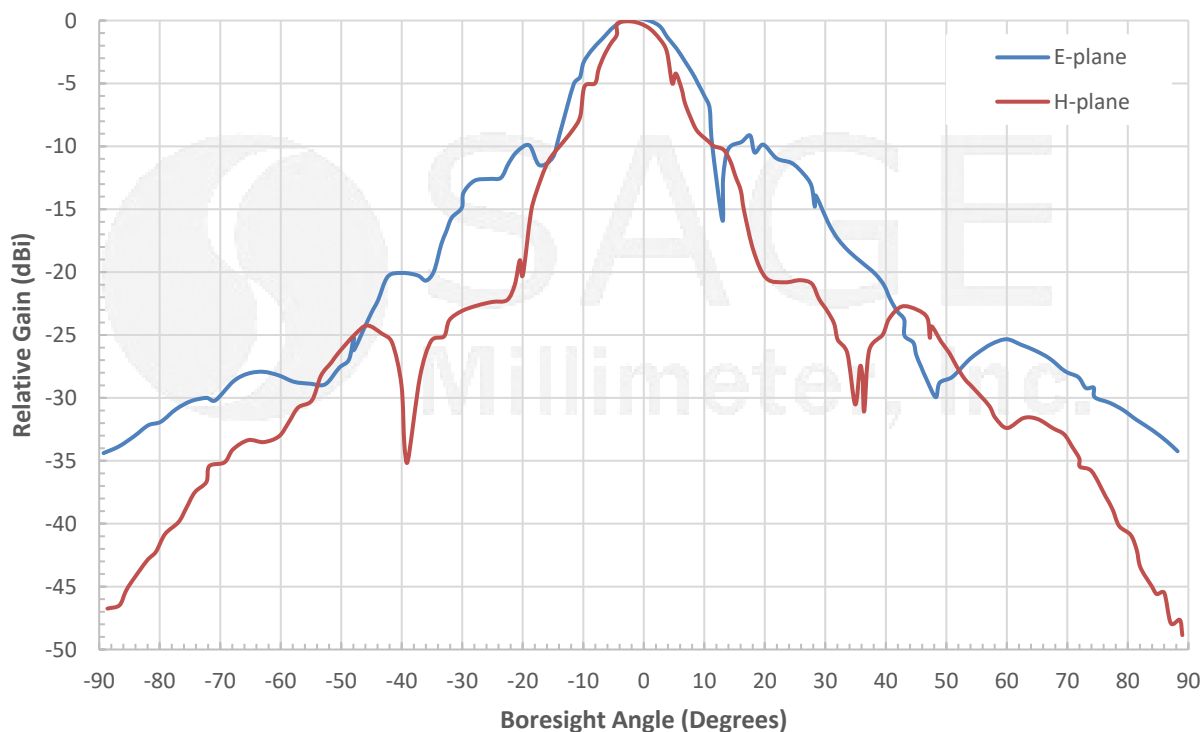


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Typical Antenna Pattern @ 16 GHz



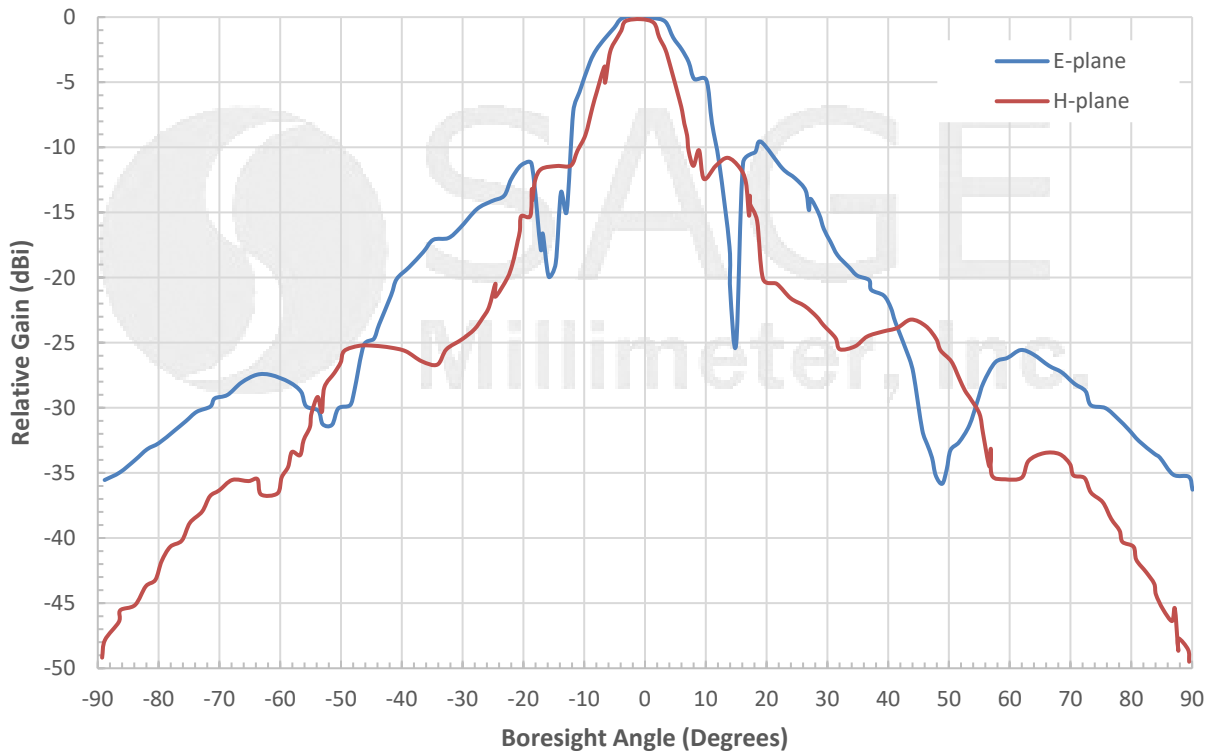
Typical Antenna Pattern @ 17 GHz



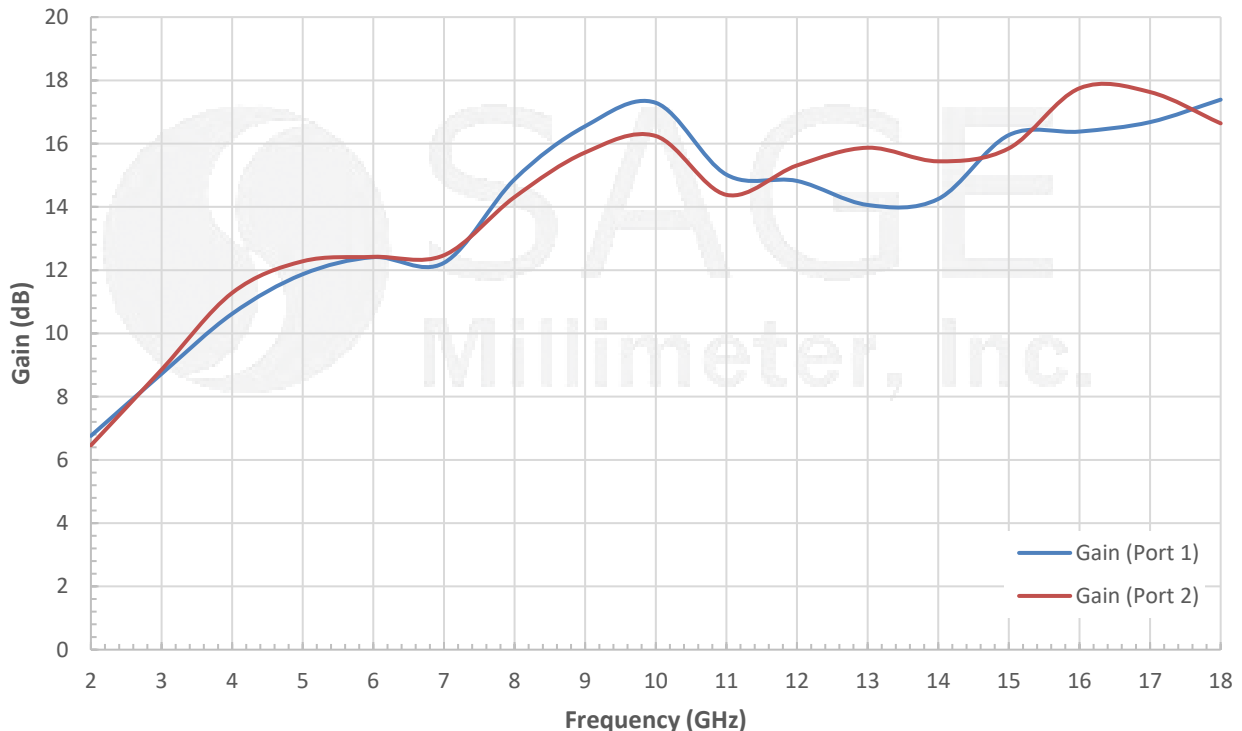


Quad Ridged, Dual Polarized Horn Antenna, 2 to 18 GHz, 12 dBi Gain

Typical Antenna Pattern @ 18 GHz



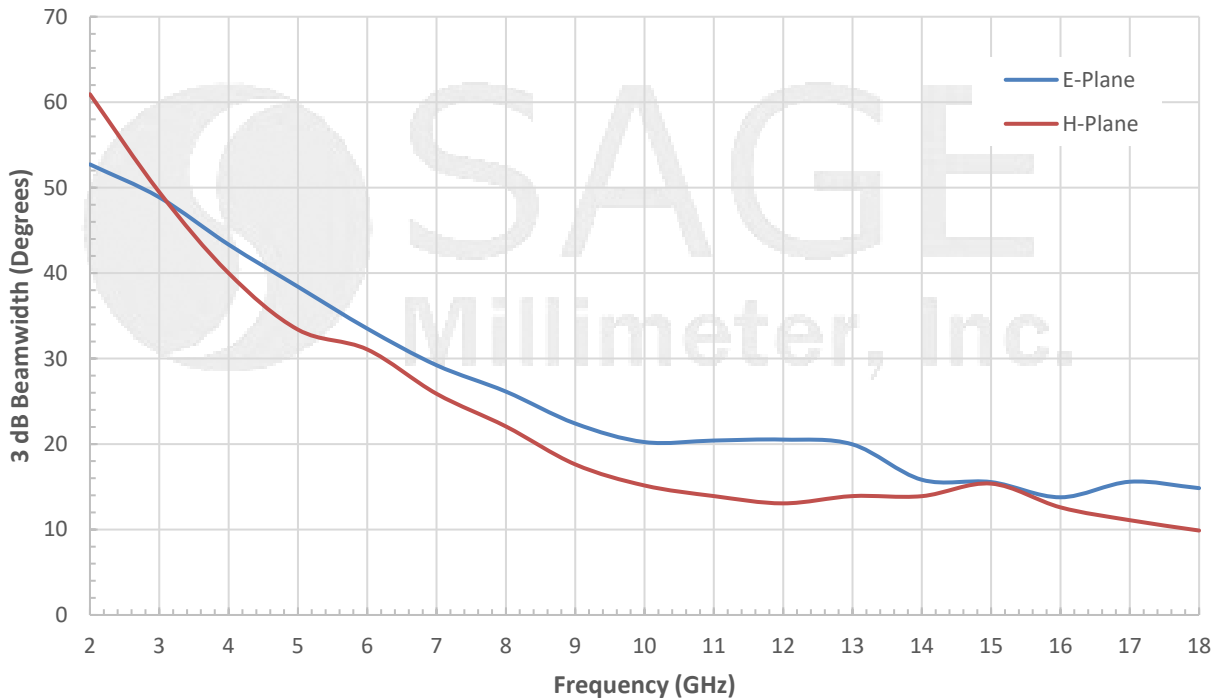
Typical Gain vs Frequency



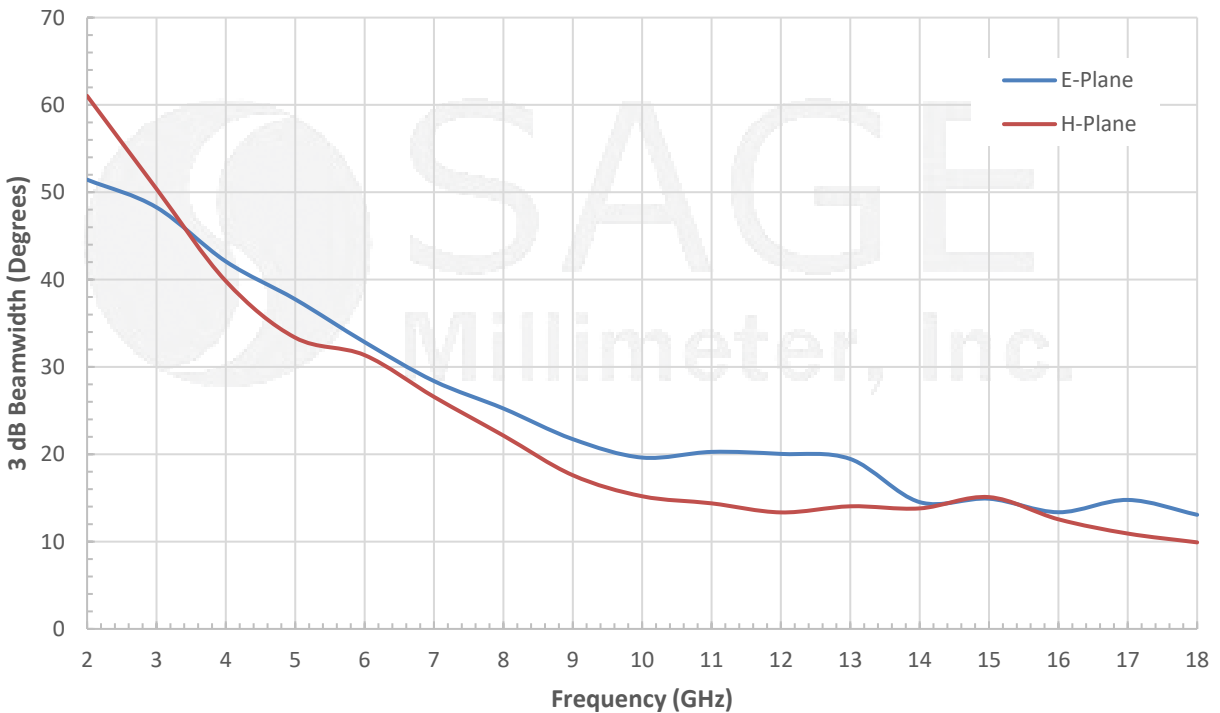


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Typical 3 dB Beamwidth vs Frequency (Port 1)

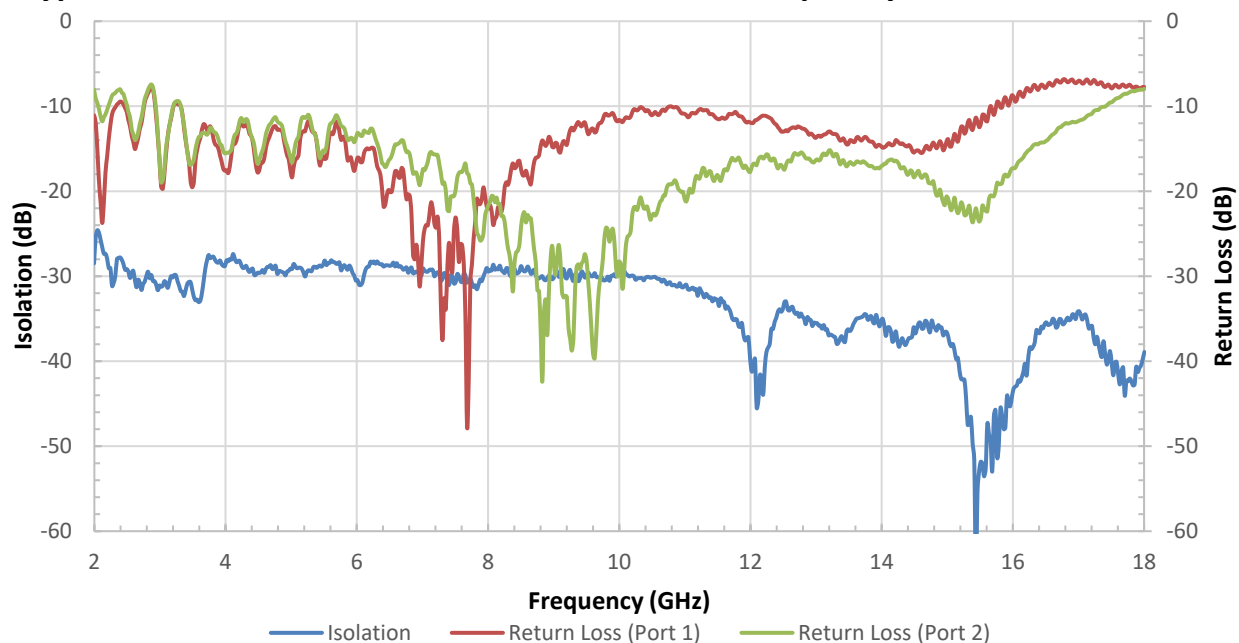


Typical 3 dB Beamwidth vs Frequency (Port 2)

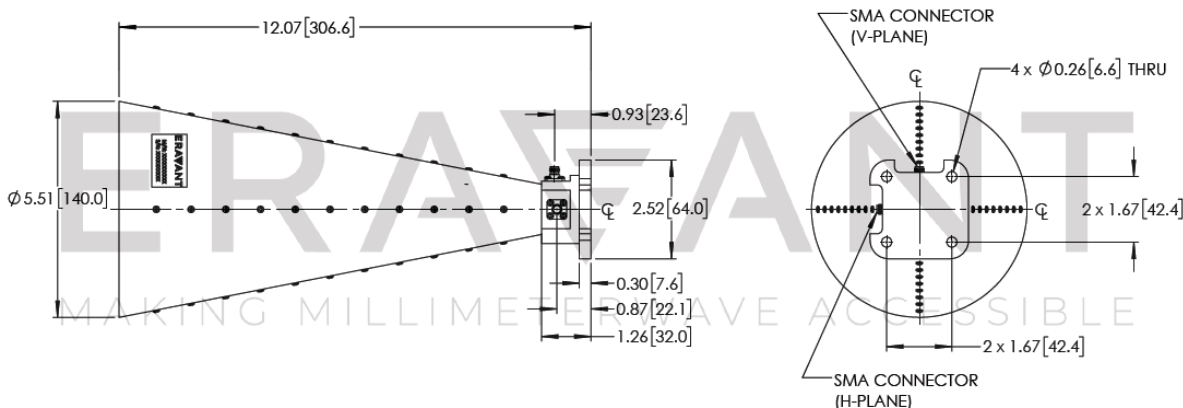


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Typical Measured Isolation and Return Loss vs Frequency



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.
- All testing was 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.