SAC-1834031621-KF-S5-DP

Quad Ridged, Dual Polarization Horn Antenna, 18 to 40 GHz

SAC-1834031621-KF-S5-DP quad-ridged, dual polarized horn antenna that covers the frequency range of 18 to 40 GHz. The antenna offers 17 dBi nominal gain and a half power beamwidth of 19 degrees on the E-plane and 14 degrees on the H-plane at center frequency. The antenna also offers -15 dB typical sidelobe levels and a nominal isolation of 30 dB. The input ports of this antenna are female 2.92 mm (K) connectors.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz	28 GHz	40 GHz
Gain		17 dBi	
3 dB Beamwidth, E-Plane		19°	
3 dB Beamwidth, H-Plane		14°	
Sidelobe Levels		-15 dB	
Port Isolation		30 dB	
Return Loss	7 dB	10 dB	
Specification Temperature		+25°C	
Operating Temperature	-45°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Ports	2.92 mm (K) Female Connectors
Mounting	Ø 0.18” Thru Holes
Material	Aluminum Alloy
Inner Finish	Chem Film
Outer Finish	Black Paint
Weight	7.3 oz.
Outline	AC-TK16-DP-H1

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FEATURES

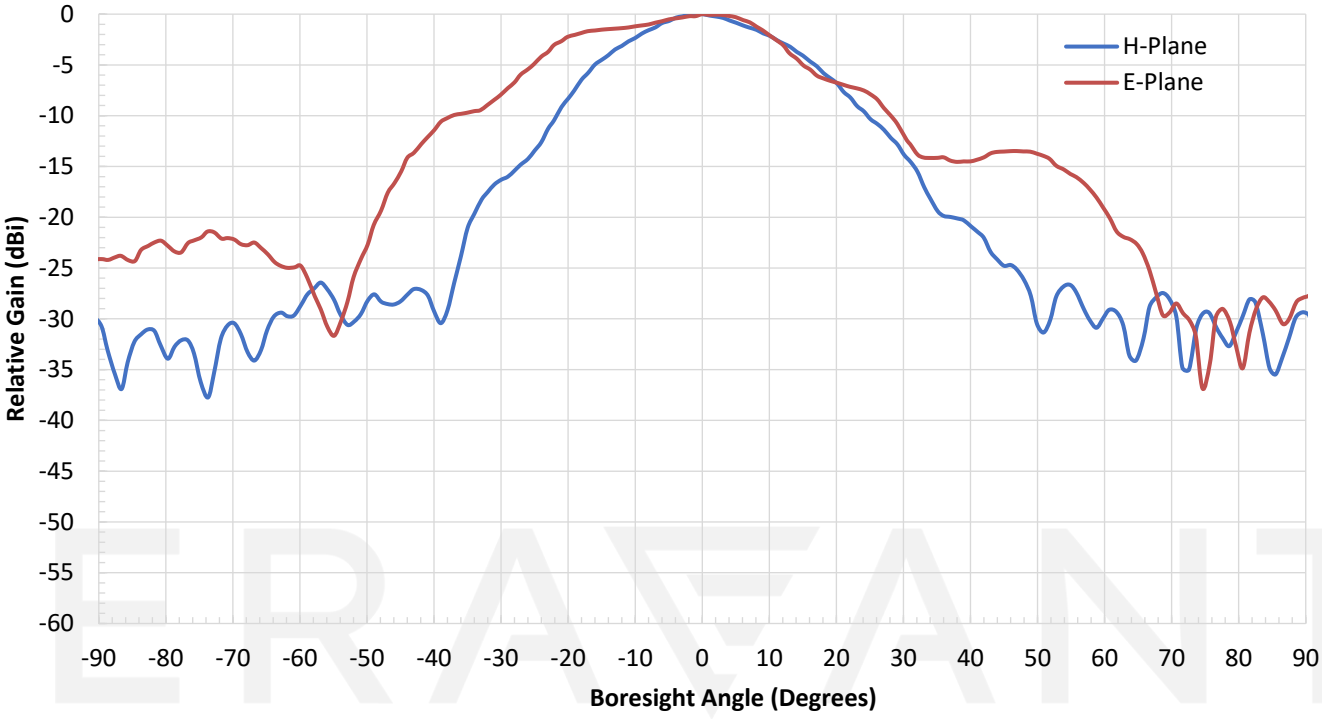
- Coaxial Connectors for RF Inputs
- Broad Bandwidth
- Dual Polarization
- Moderate Gain

APPLICATIONS

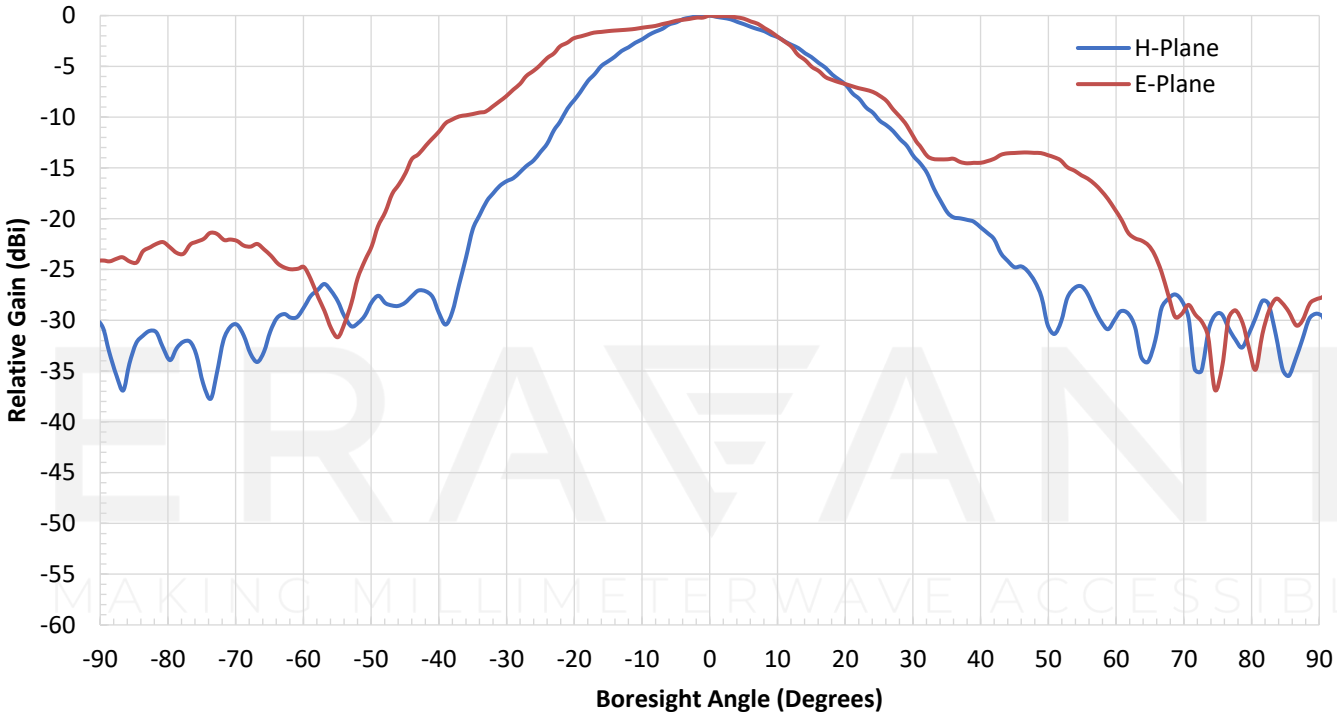
- Communication Systems
- Radar Systems
- Antenna Ranges
- System Setups

SUPPLEMENTAL DETAILS

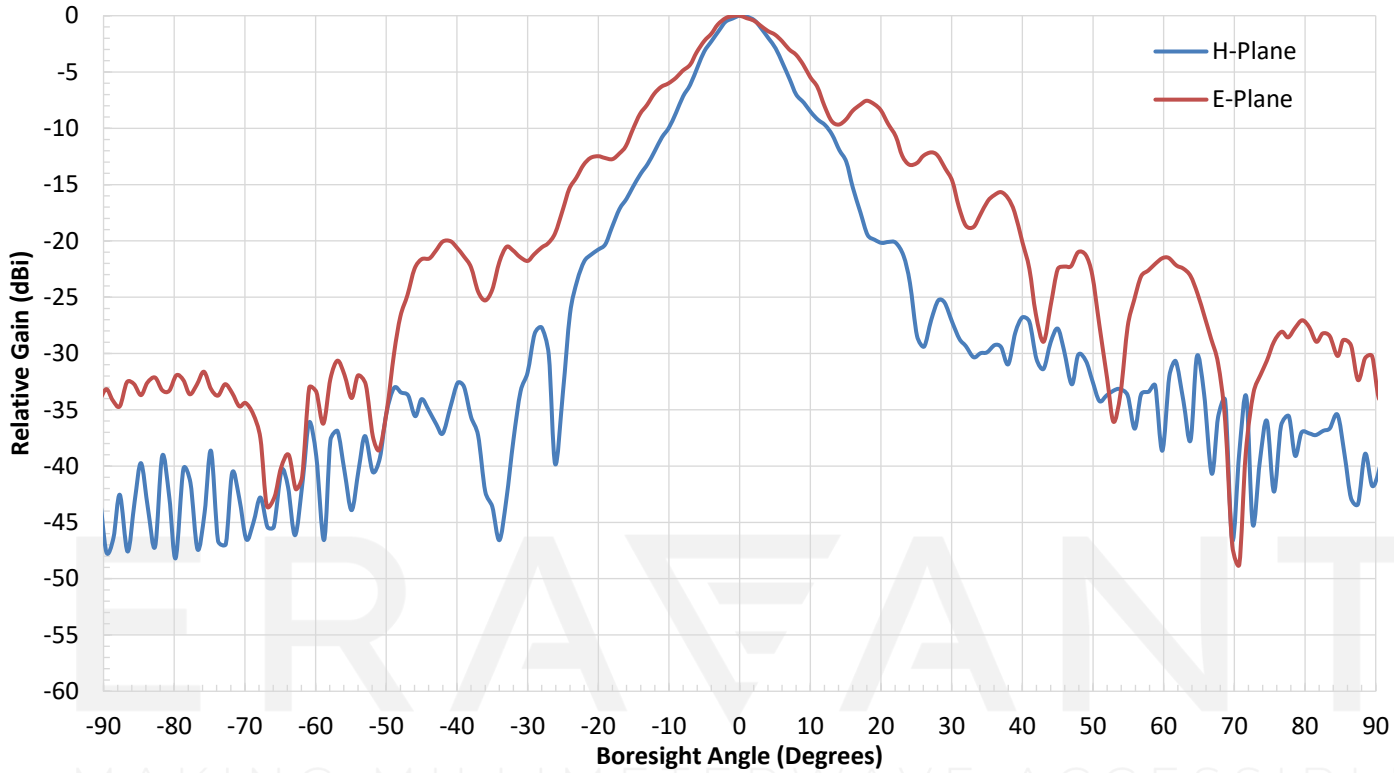
Typical Antenna Pattern @ 18 GHz



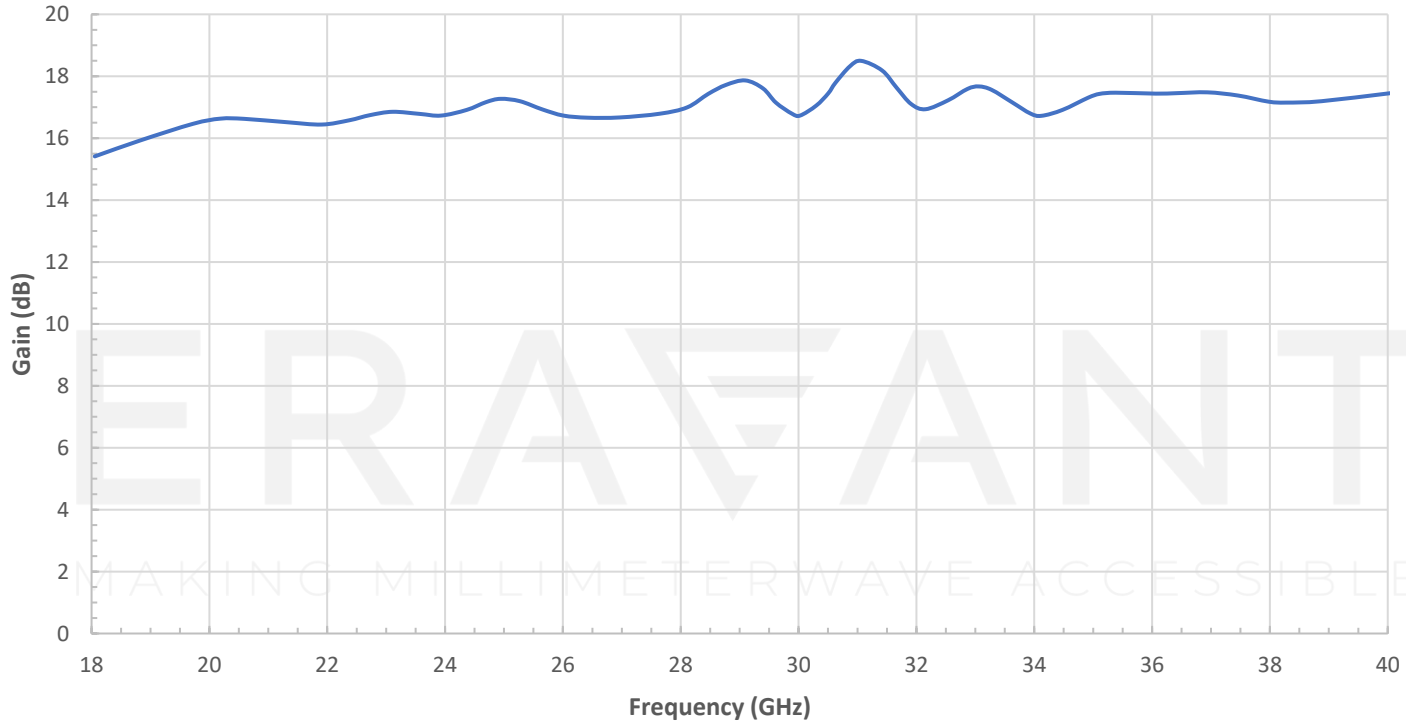
Typical Antenna Pattern @ 18 GHz



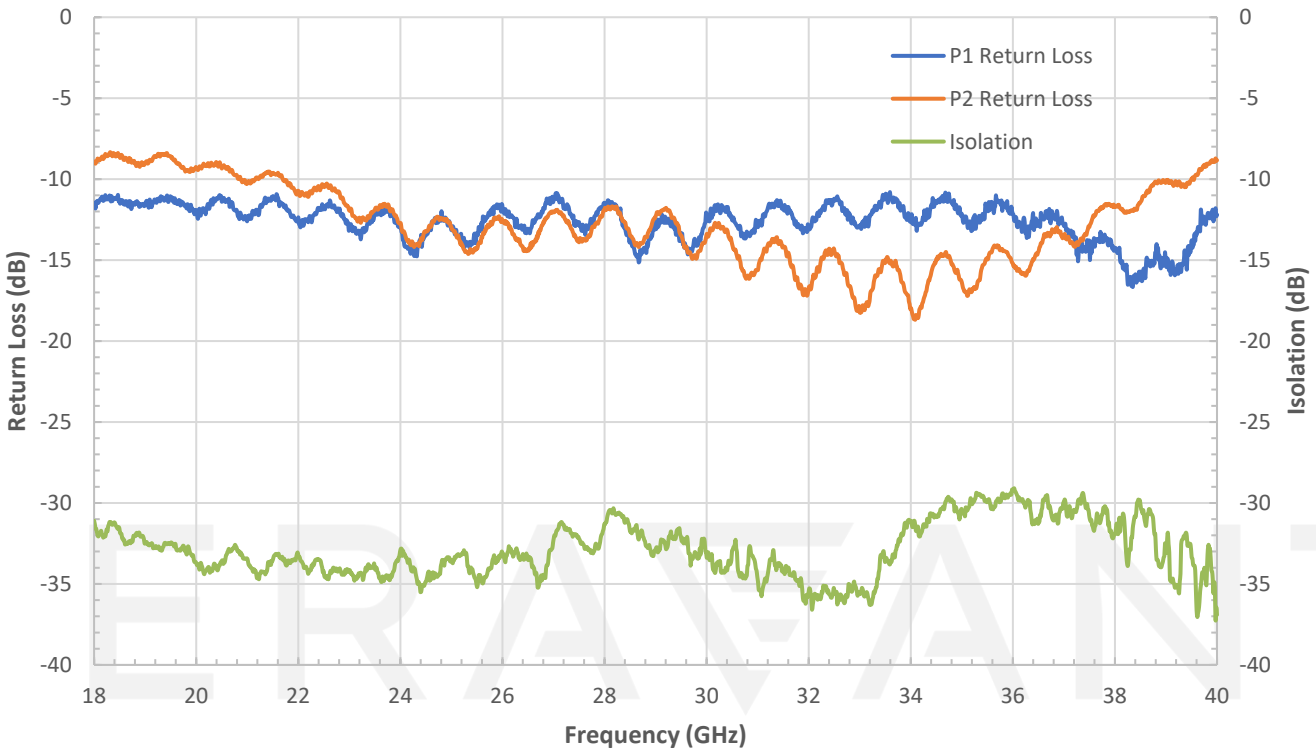
Typical Antenna Pattern @ 40 GHz



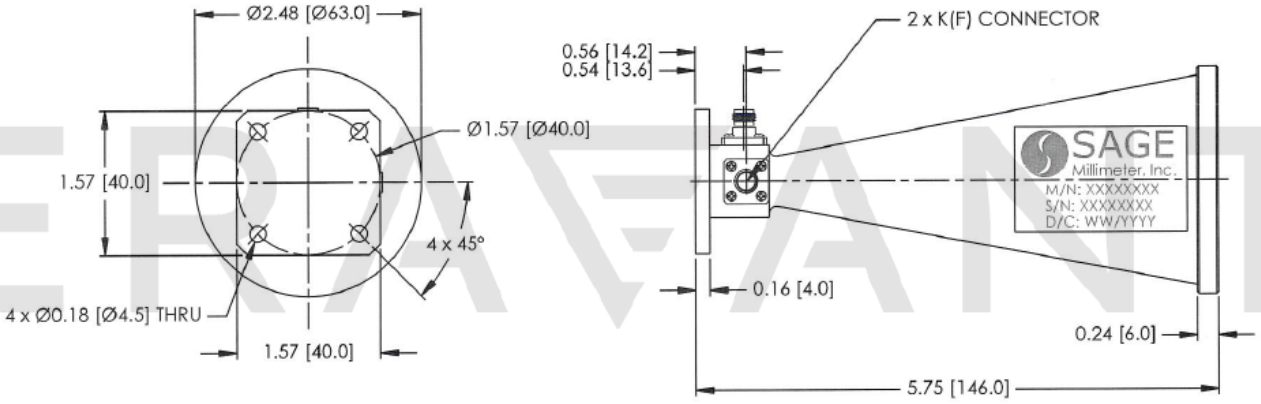
Typical Gain vs. Frequency



Typical Performance vs. Frequency



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



NOTE:

- All 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.
- 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.

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