SAV-0632531431-SF-U3

Quad-Ridged, Dual Polarized Horn Antenna, 6 to 24.5 GHz

SAV-0632531431-SF-U3 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 M3 threaded holes and one M6 threaded hole for mounting. The antenna ports are two female SMA connectors.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	6.0 GHz		24.5 GHz
Gain		14 dBi	
Polarization		Circular and Linear	
E-Plane 3 dB Beamwidth		26°	
H-Plane 3 dB Beamwidth		36°	
E-Plane Sidelobe Levels		-17 dB	
H-Plane Sidelobe Levels		-20 dB	
Port Isolation		25 dB	
Cross Polarization		25 dB	
Port Return Loss		8 dB	
Power Handling			25 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Ports	SMA (F)
Mounting	8 x M3 Holes and 1 x M6 Hole
Material	Aluminum
Finish	Chem Film and Black Paint
Weight	3.5 Oz
Outline	AV-S14-QR-H1

ECCN

EAR99

FEATURES

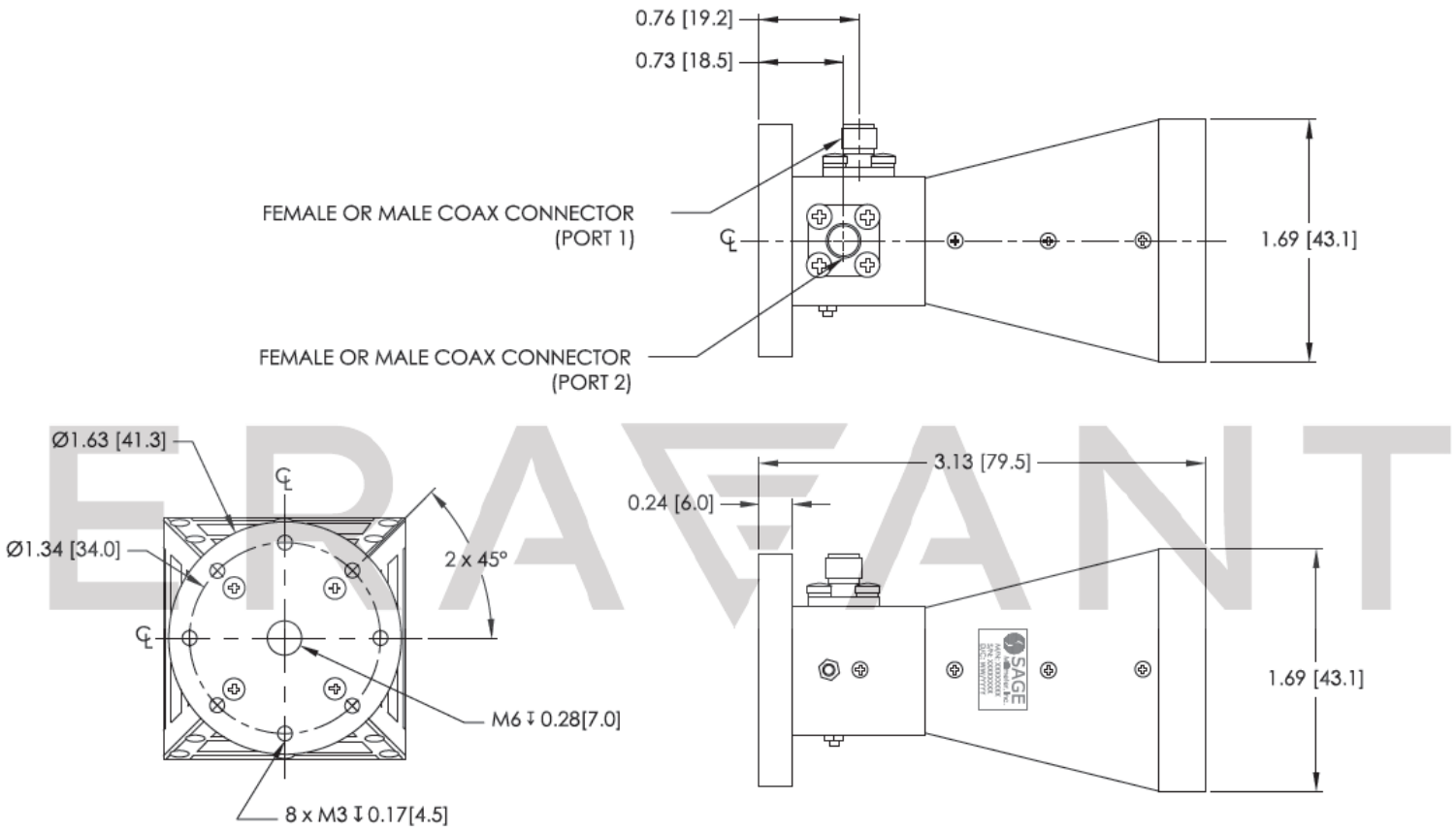
- Coaxial Connector for RF Input
- Broadband Coverage
- Circular and Linear Polarization
- Good Impedance Match

APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

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



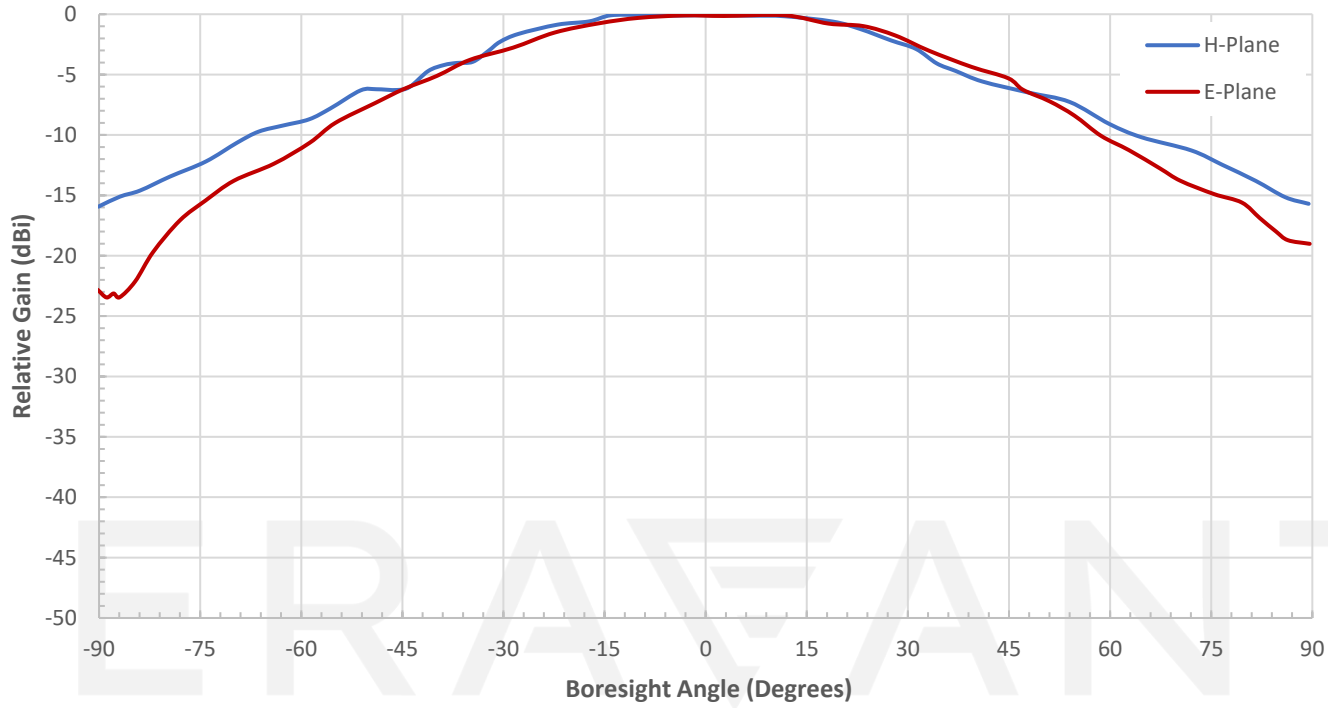
NOTE:

- 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.

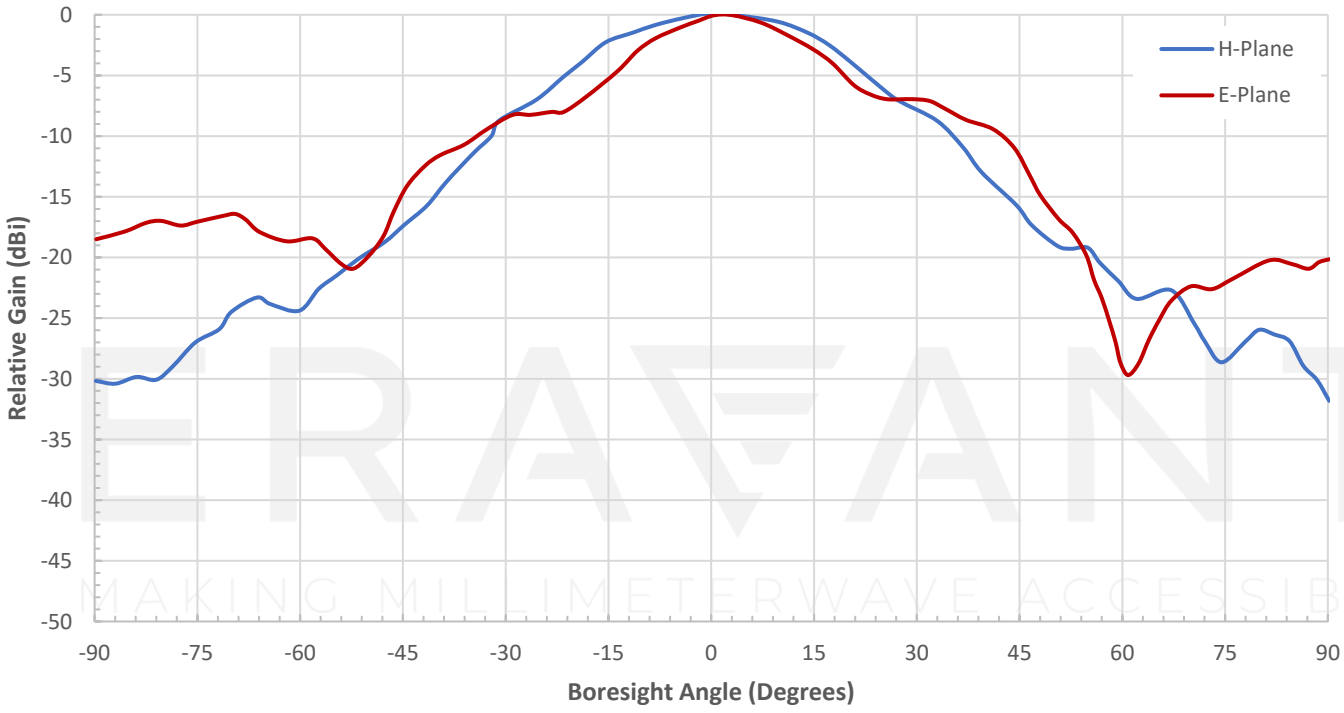
CAUTION:

- 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

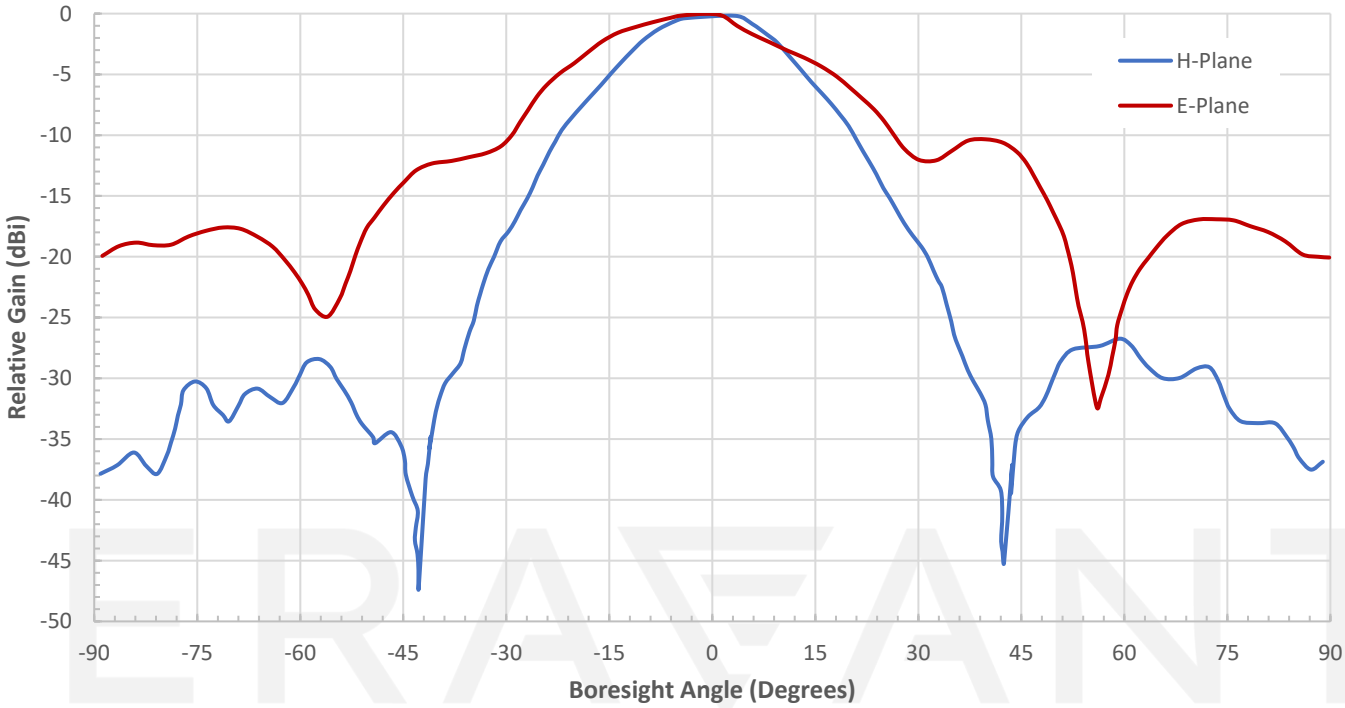
Typical Antenna Pattern @ 6 GHz



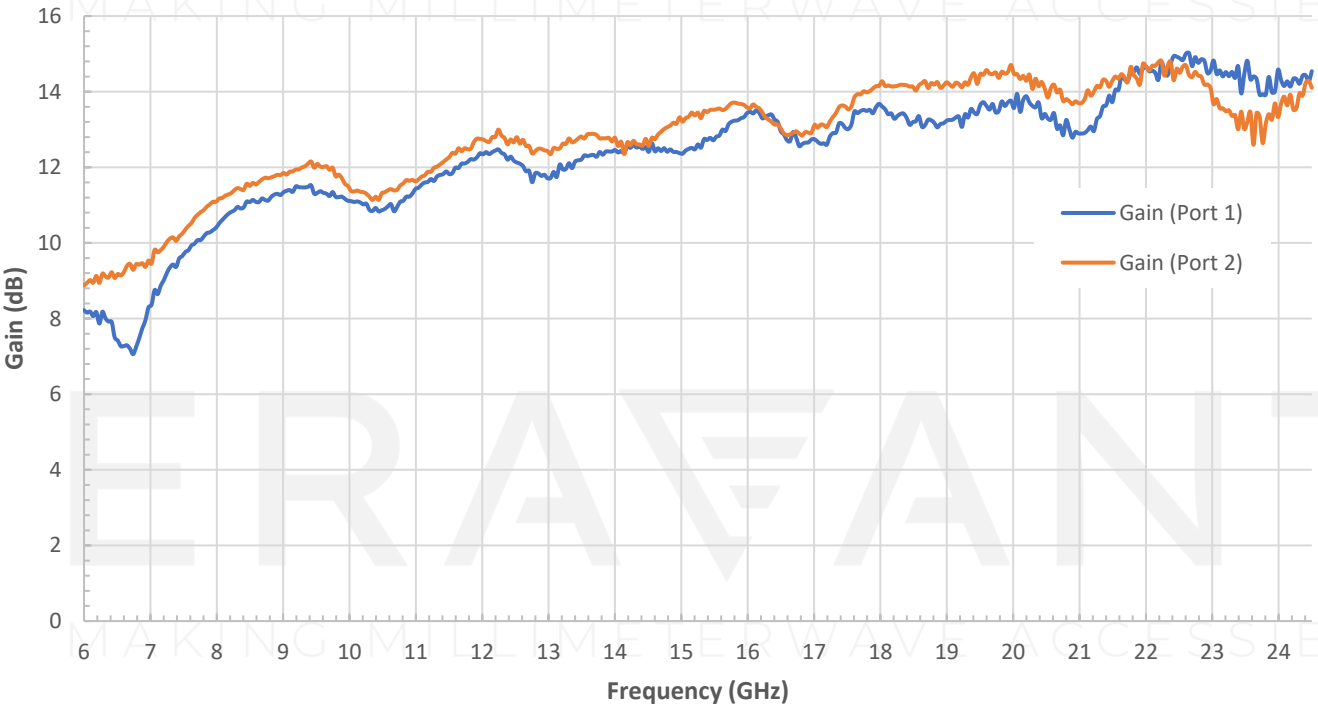
Typical Antenna Pattern @ 16 GHz



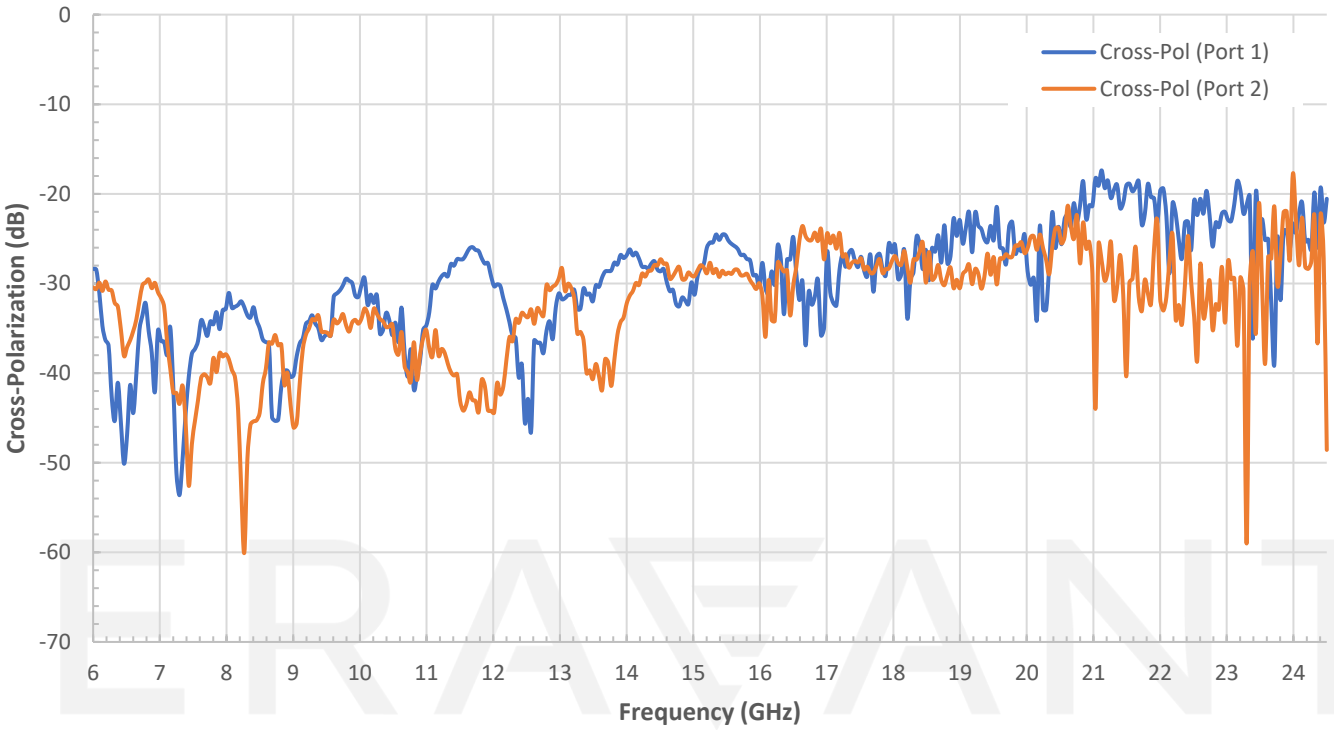
Typical Antenna Pattern @ 24.5 GHz



Typical Measured Gain vs Frequency



Typical Measured Cross-Polarization vs Frequency



Typical Measured Return Loss and Isolation vs Frequency