SAV-1431141129-1F-S1

Dual-Ridged Horn Antenna, 14 to 110 GHz

SAV-1431141129-1F-S1 is a dual-ridged broadband horn antenna that operates from 14 to 110 GHz. The antenna offers a typical gain of 11 dBi and a typical 3 dB beamwidth of 40° on both the E-plane and H-plane, respectively. The antenna supports linear polarized waveforms. The antenna features a compact design and provides a ¼-20 threaded hole and a mounting fixture for flexible mounting capacity. The RF port is equipped with a female 1 mm connector.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	14 GHz		110 GHz
Gain		11 dBi	
Polarization		Linear	
E-Plane 3dB Beamwidth		40°	
H-Plane 3dB Beamwidth		40°	
E-Plane Sidelobe Levels		-8 dB	
H-Plane Sidelobe Levels		-11 dB	
Return Loss		10 dB	
Power Handling			4 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	1mm (F)
Mounting	¼-20 Threaded Hole and Mounting Bracket
Material	Aluminum
Finish	Gold Plated
Weight	3.0 oz
Outline	AV-C11-DR-2

ECCN

EAR99

FEATURES

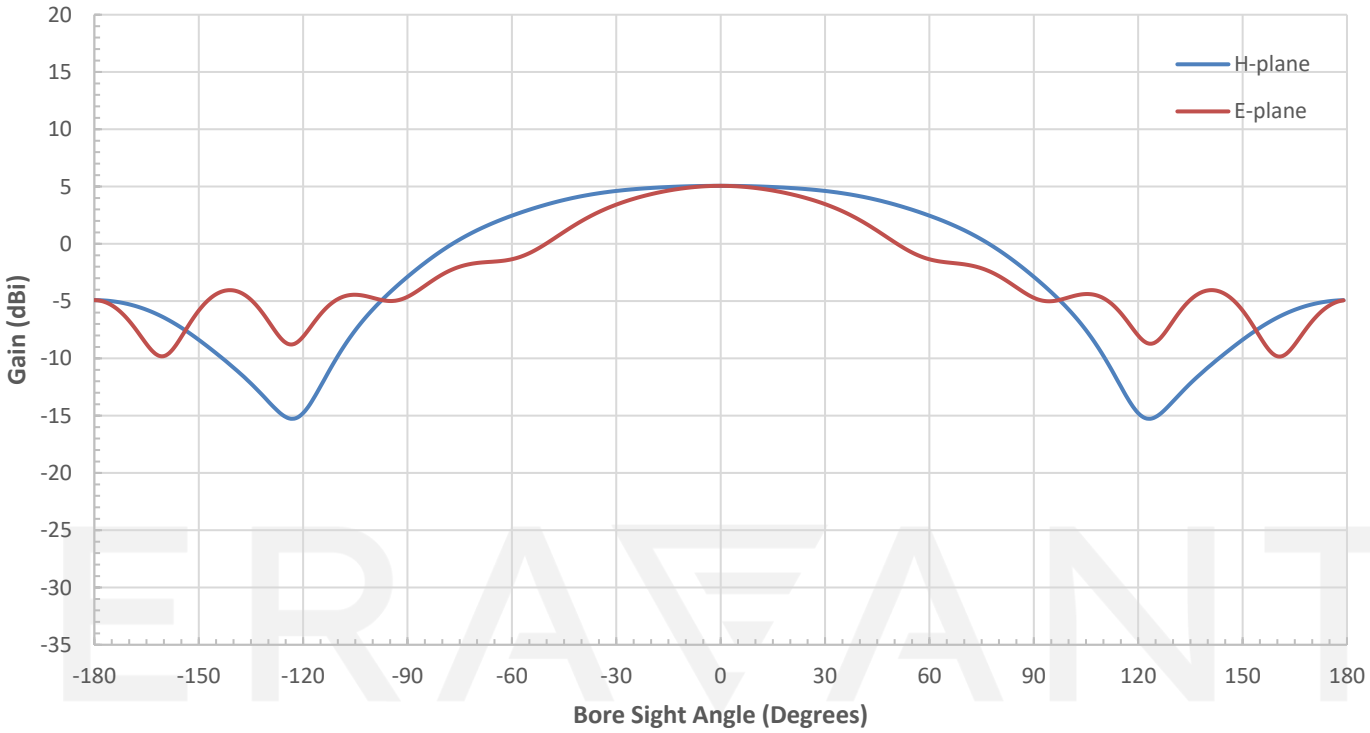
- Broadband Operation
- Coaxial Connector for RF Input
- Linear Polarization
- Good Impedance Match
- Bubble Level

APPLICATIONS

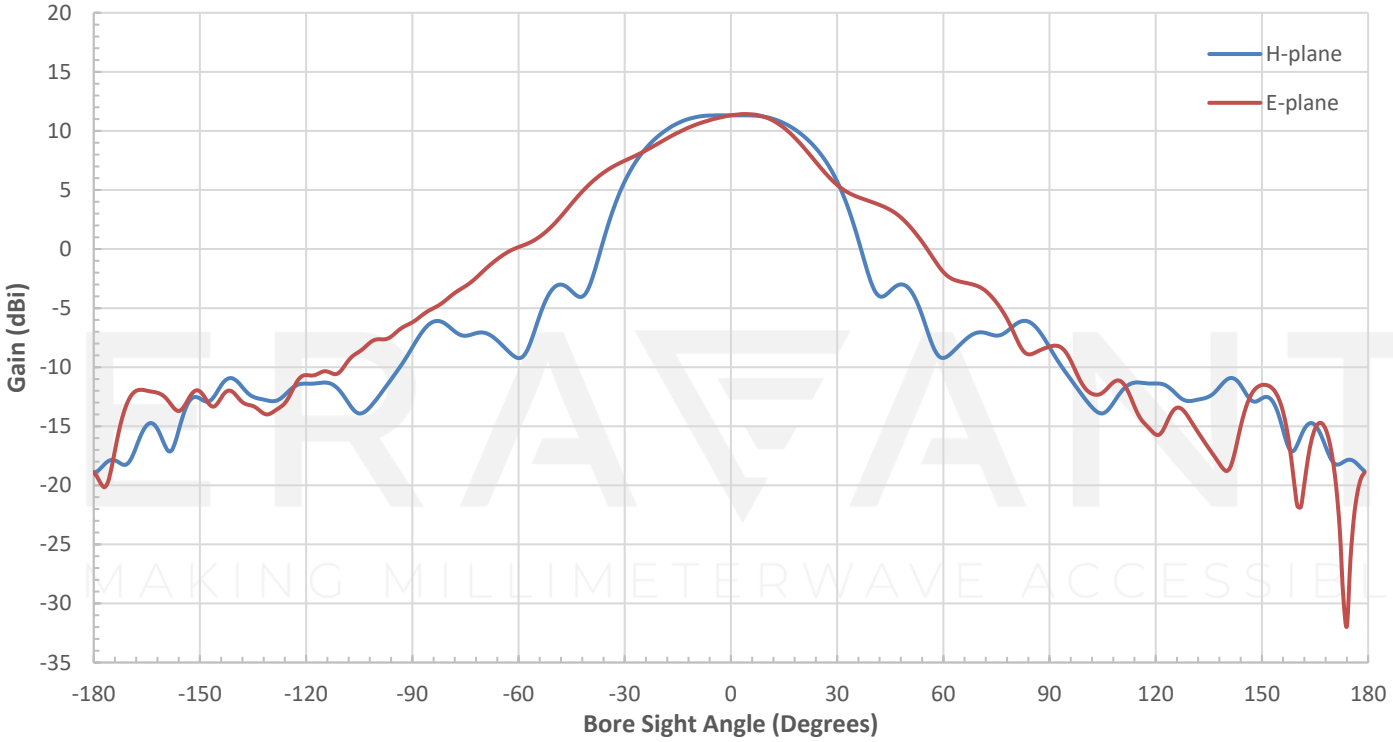
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

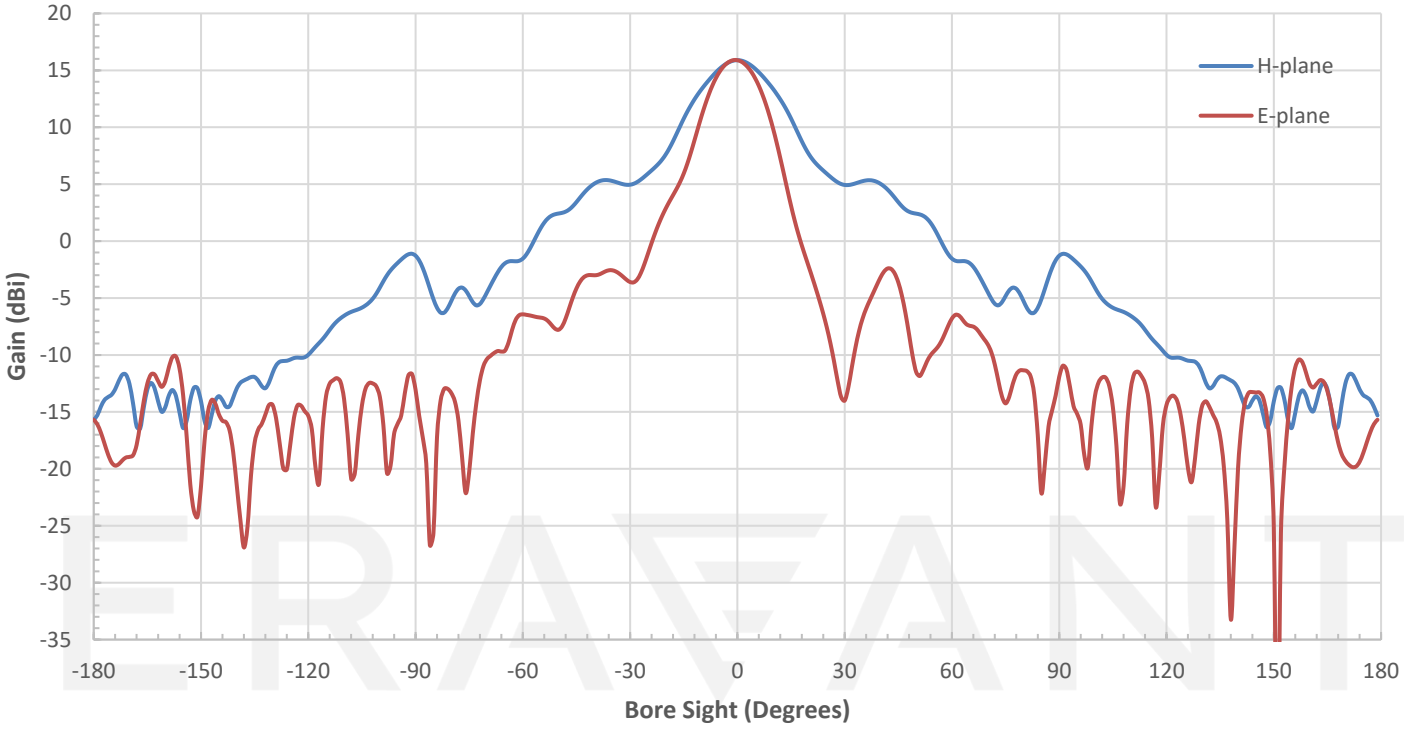
Simulated Antenna Pattern at 14 GHz



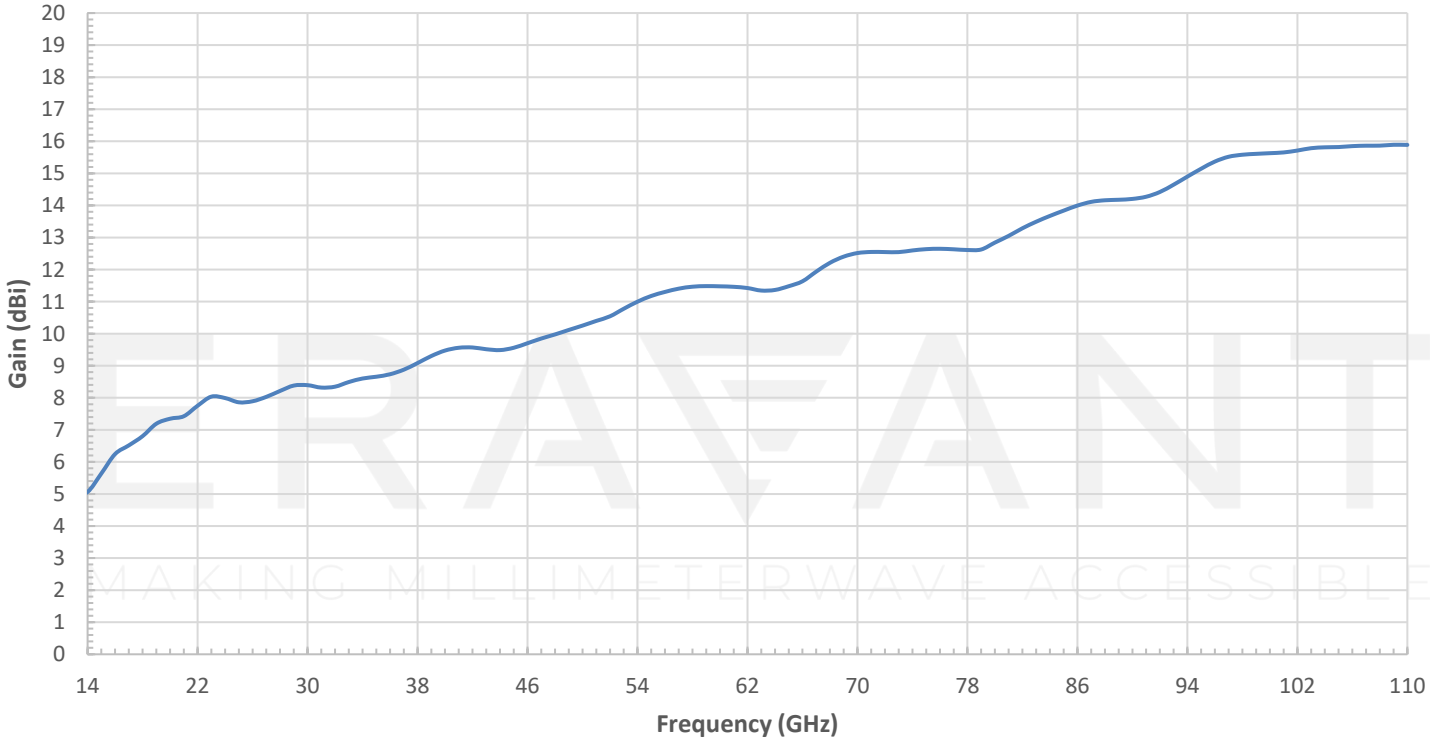
Simulated Antenna Pattern at 62 GHz



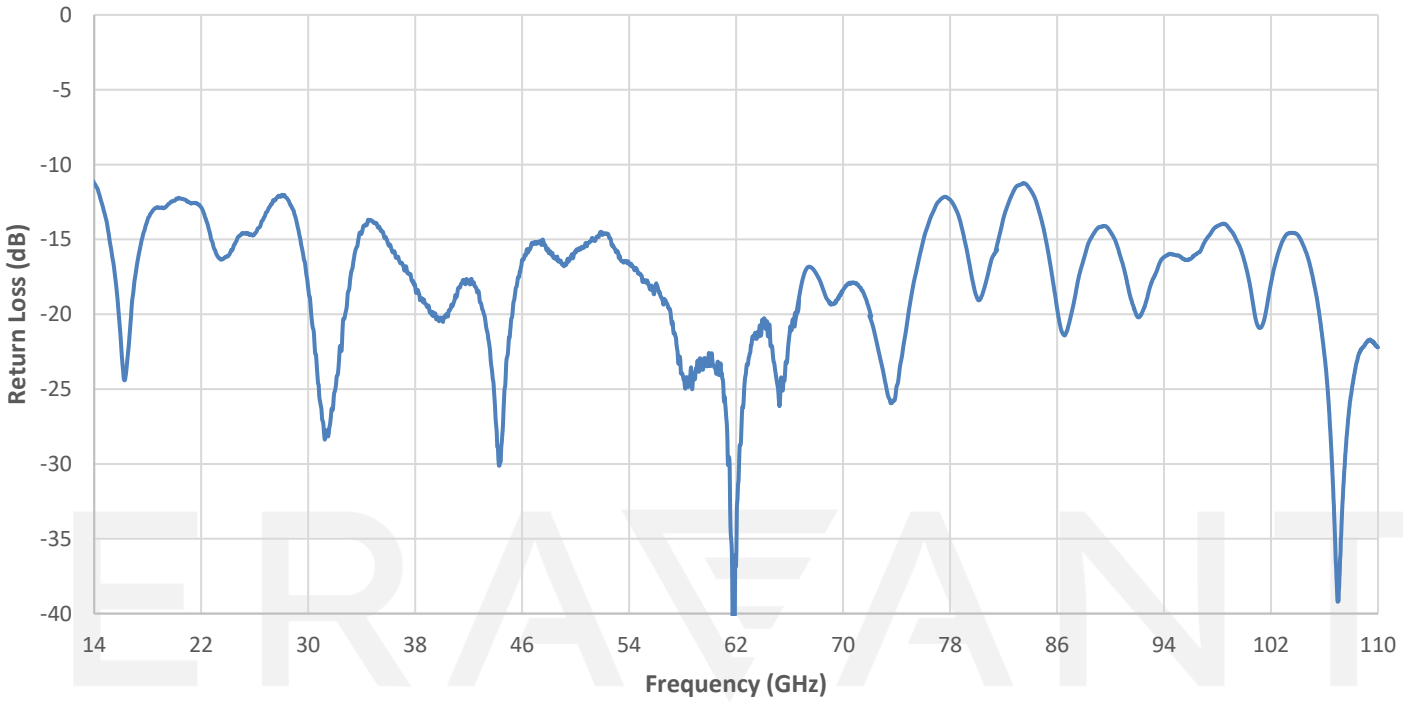
Simulated Antenna Pattern at 110 GHz



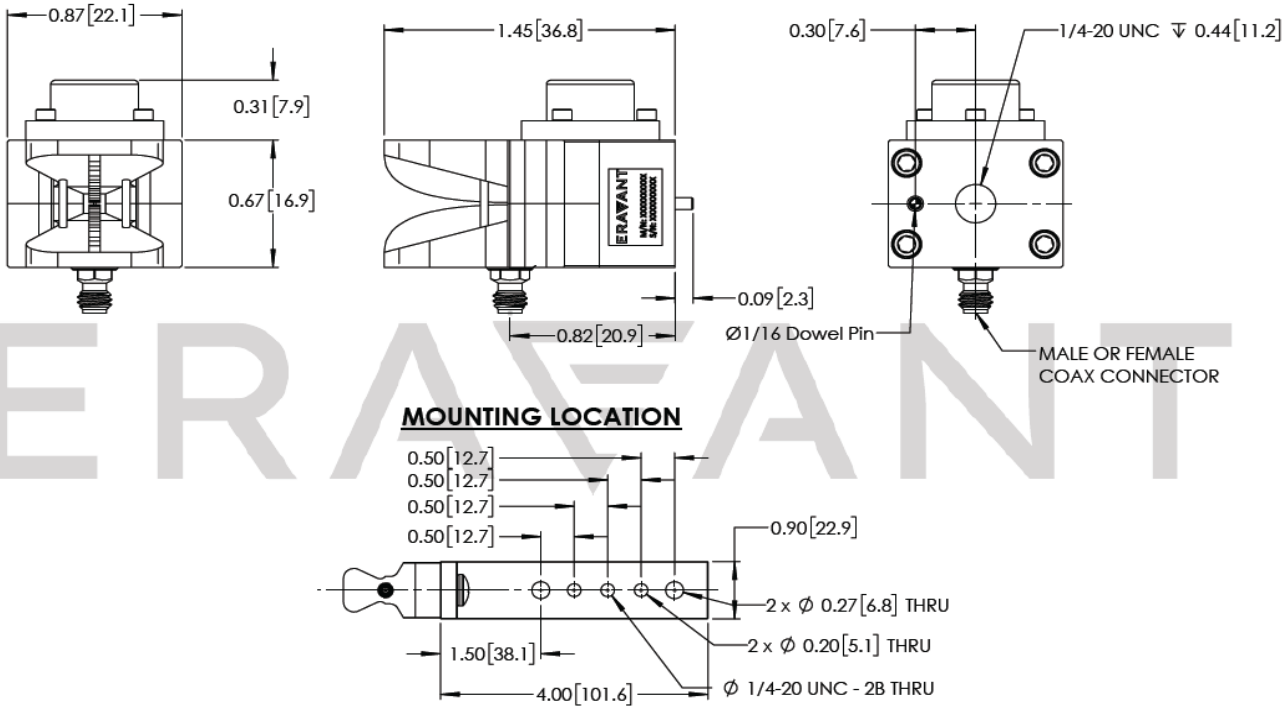
Simulated Gain Vs Frequency



Measured Return Loss Vs Frequency



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



NOTE:

- Measured test data provided is collected from a sample lot. Pattern and Gain data are simulated. Actual data may vary slightly. 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.

MAKING MILLIMETERWAVE ACCESSIBLE