

SAV-0131831240-SF-S1-WR

Dual Ridged Horn Antenna, Weather Resistant, 1 to 18 GHz

SAV-0131831240-SF-S1-WR is a weather resistant, dual-ridged broadband horn antenna that operates from 1 to 18 GHz and is designed for outdoor applications. The antenna offers a typical gain of 15 dBi and a typical 3 dB beamwidth of 30° on the E-plane and 25° and H-plane, respectively. The antenna supports linear polarized waveforms. The model is equipped with a radome to make it weather resistant. The RF port is equipped with a female SMA connector.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	1 GHz		18 GHz
Gain		15 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		30°	
3 dB Beamwidth, H-Plane		25°	
Return Loss		10 dB	
Input Impedance		50 Ω	
Power Handling			50 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	SMA (F)
Body Material	Aluminum
Radome Material	PTFE
Finish	Chem Film
Weight	16.45 lbs.
Outline	AV-C12-DR-WR

ECCN

EAR99

FEATURES

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

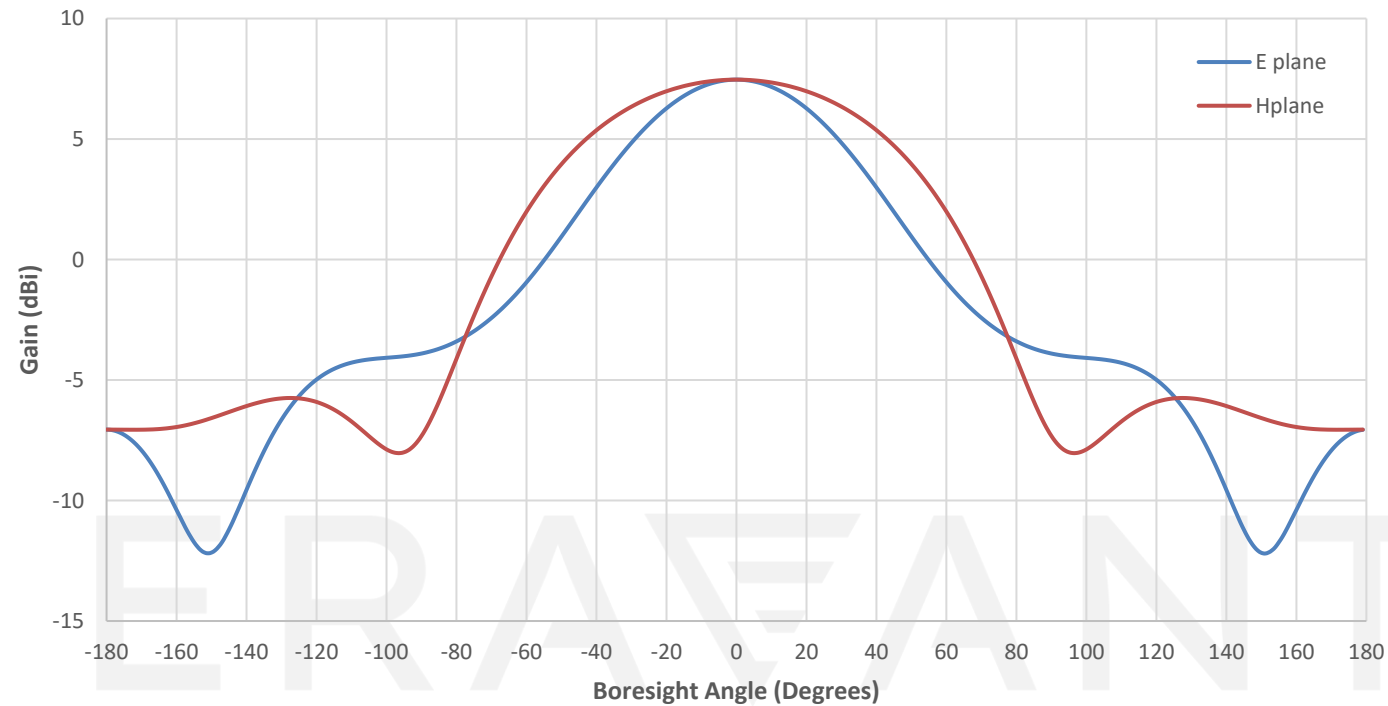
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

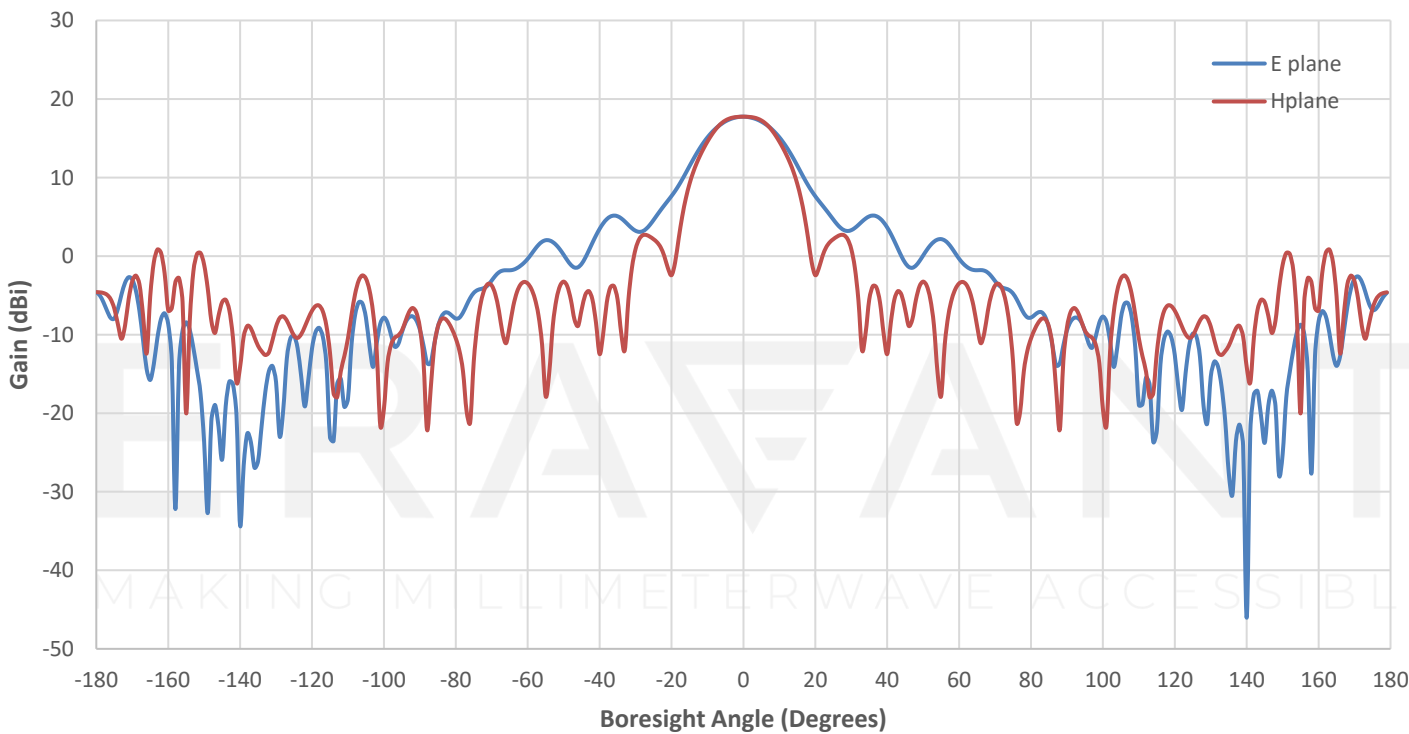
SUPPLEMENTAL DETAILS



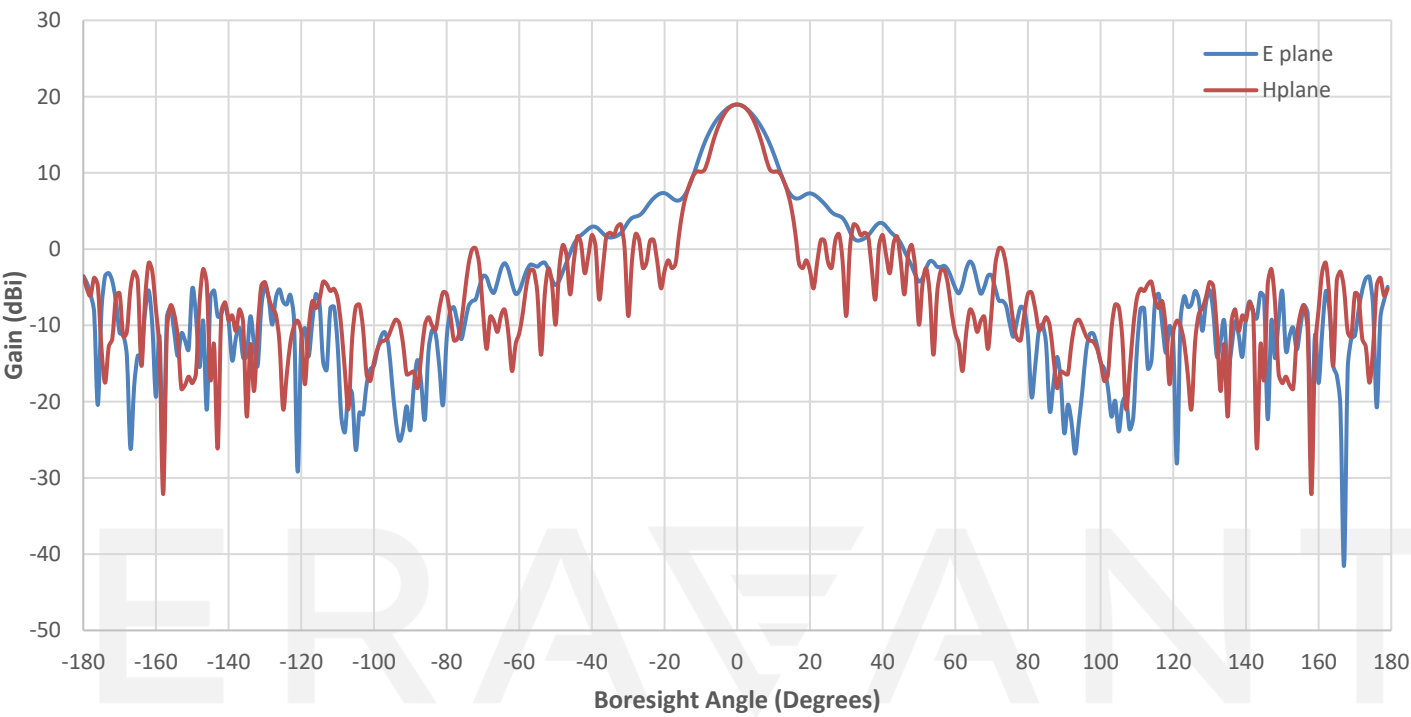
Simulated patterns at 1 GHz



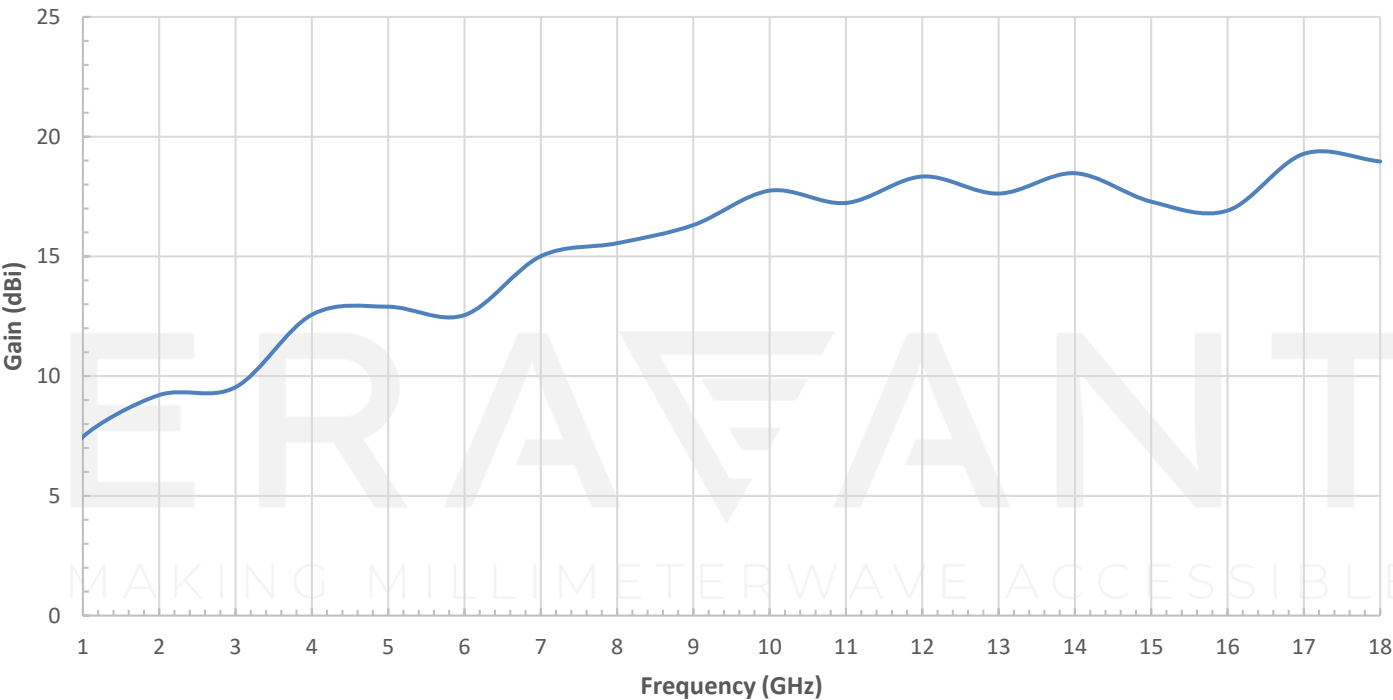
Simulated patterns at 10 GHz



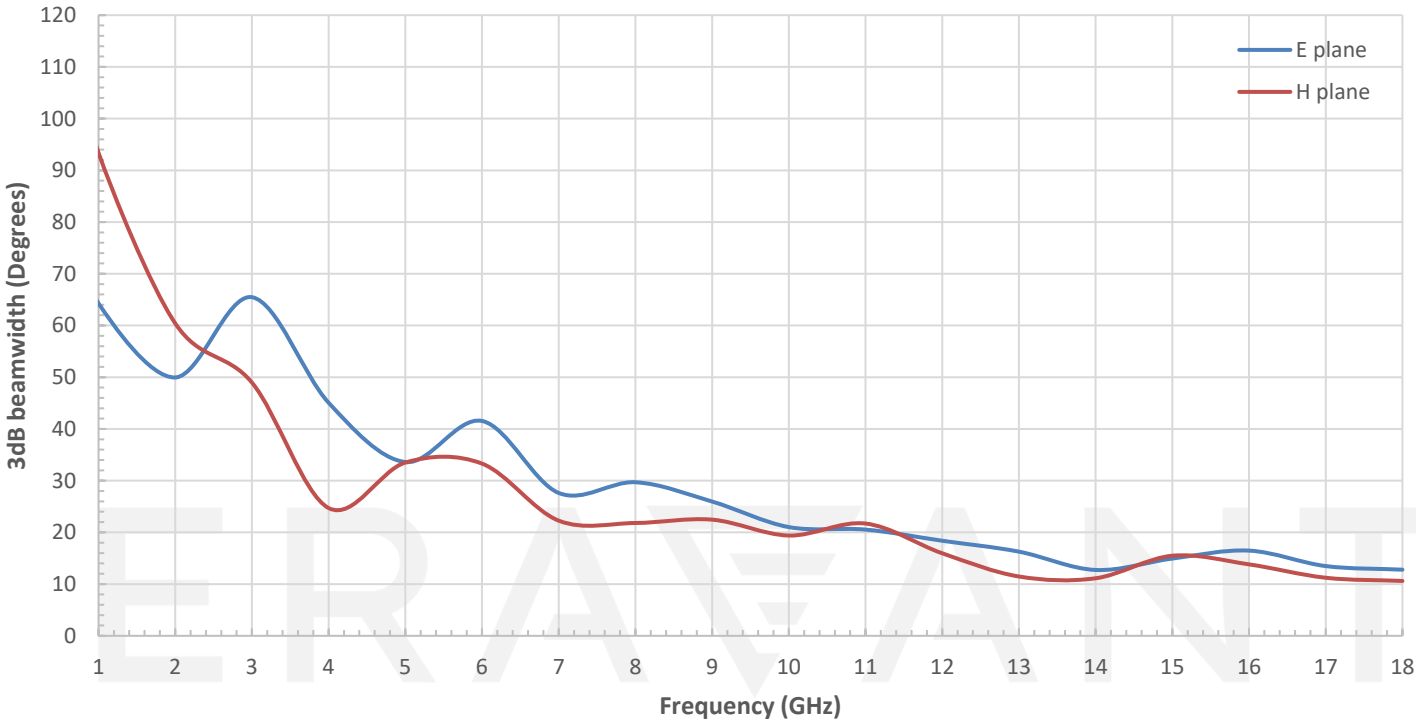
Simulated patterns at 18 GHz



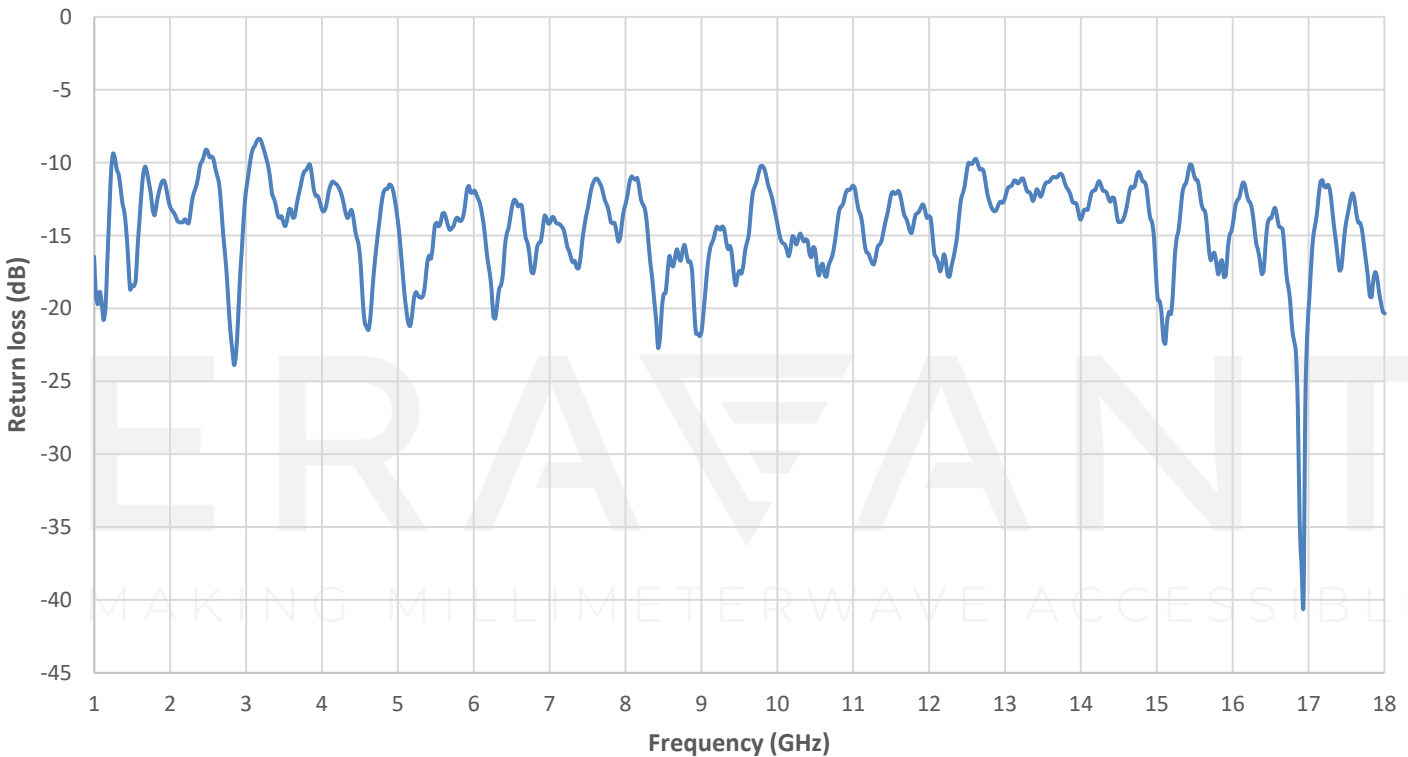
Simulated Gain vs Frequency



Simulated 3dB Beamwidth vs Frequency



Measured Return loss vs Frequency



[illegible]

Technical drawing of a mechanical part, showing front, side, and top views with dimensions in inches and millimeters.

Front View Dimensions:

- Vertical dimensions (from top): 3.50 [88.9], 3.00 [76.2], 2.50 [63.5], 2.00 [50.8], 1.50 [38.1].
- Horizontal dimensions (from left): 2 x 0.75 [19.1], 2 x 3.00 [76.2], 2 x 0.75 [19.1], 2 x 3.50 [88.9].
- Feature callouts: 2 x $\varnothing 0.27$ [6.9] THRU, 6 x $\varnothing 0.25$ [6.4] THRU, 1/4-20 UNC THRU.

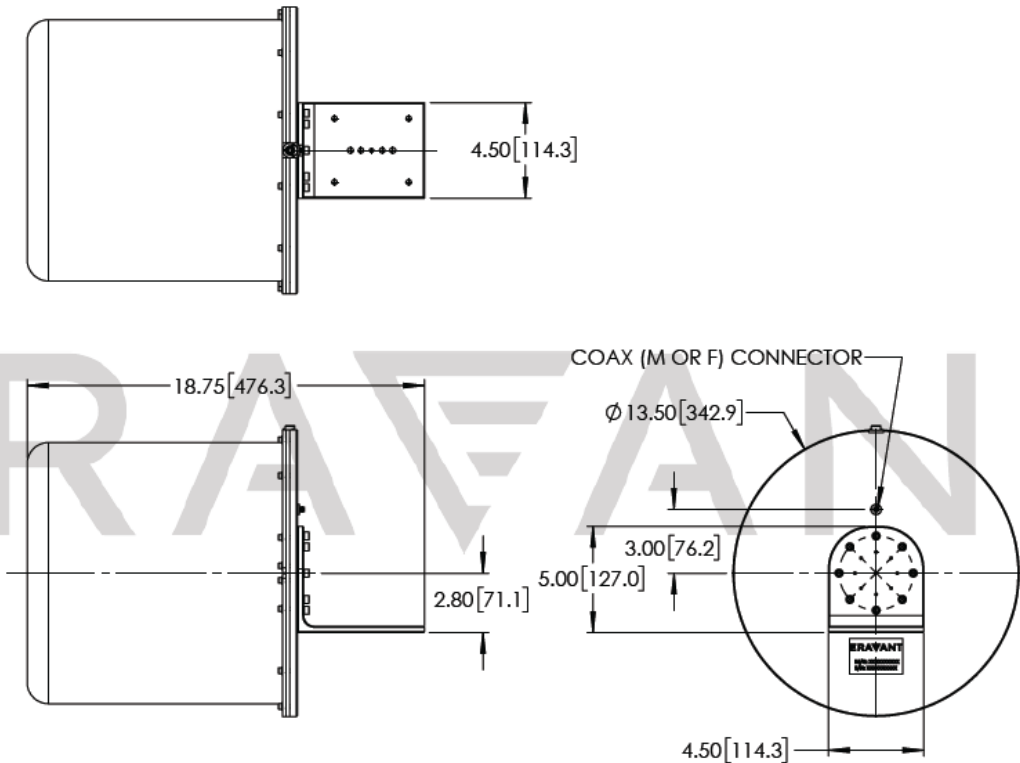
Side View Dimensions:

- Vertical dimensions (from bottom): 0.30 [7.6], 5.00 [127.0].
- Horizontal dimensions (from left): 0.30 [7.6], 6.00 [152.4].

Top View Dimensions:

- Overall width: 4.50 [114.3].
- Radius: R1.00 [25.4].
- Feature callouts: 8 x $\varnothing 0.25$ [6.4] THRU, 8 x $\varnothing 0.13$ [3.2] THRU, R1.75 [44.5].
- Angle: 16 x 45°.

Antenna with Mounting Bracket Attached Outline:



NOTE:

- For simulated data provided, actual measurement may slightly vary.
- 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.