SAC-1630-141-C2

WR-15 Conical Horn Antenna, 16 dBi Gain

SAC-1630-141-C2 is a V-band conical horn antenna that operates from 58 to 68 GHz. The antenna offers 16 dBi nominal gain, 30 degrees half power beamwidth, and -15 dB typical sidelobe level at center frequency. The conical horn antenna can support linear and circular polarization. The input of this antenna is a 0.141” diameter circular waveguide with UG-385/U flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	58 GHz		68 GHz
Gain		16 dBi	
3 dB Beamwidth, E-Plane		26°	
3 dB Beamwidth, H-Plane		32°	
Sidelobes, E-Plane		-15 dB	
Sidelobes, H-Plane		-24 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	ø 0.141” Circular Waveguide with UG-385/U-M Flange
Material	Brass
Finish	Gold Plated
Weight	3.5 Oz
Size	0.75” (L) X 0.75” (Ø)
Outline	AC-CV14-141

ECCN

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FEATURES

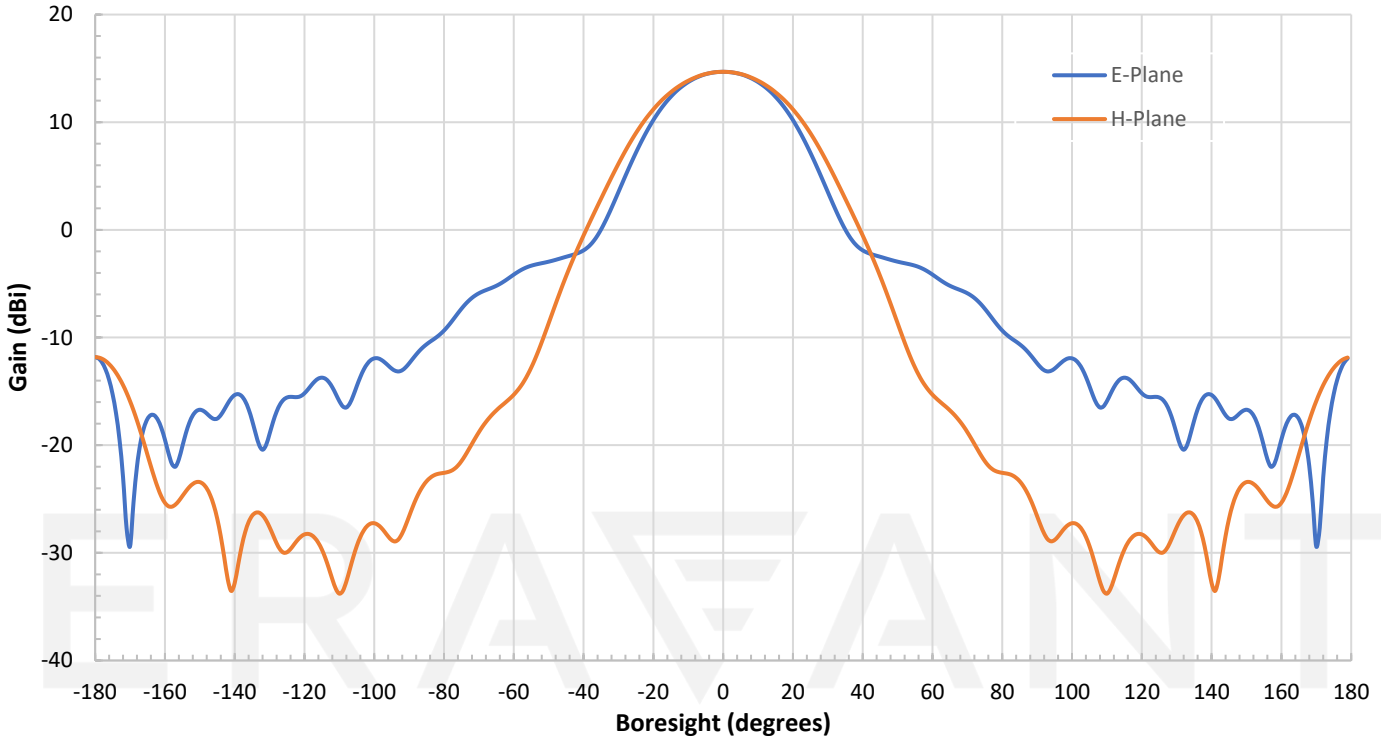
- Circular Waveguide Interface
- Precisely Machined and Gold Plated
- High Return Loss
- Linear and Circular Polarization

APPLICATIONS

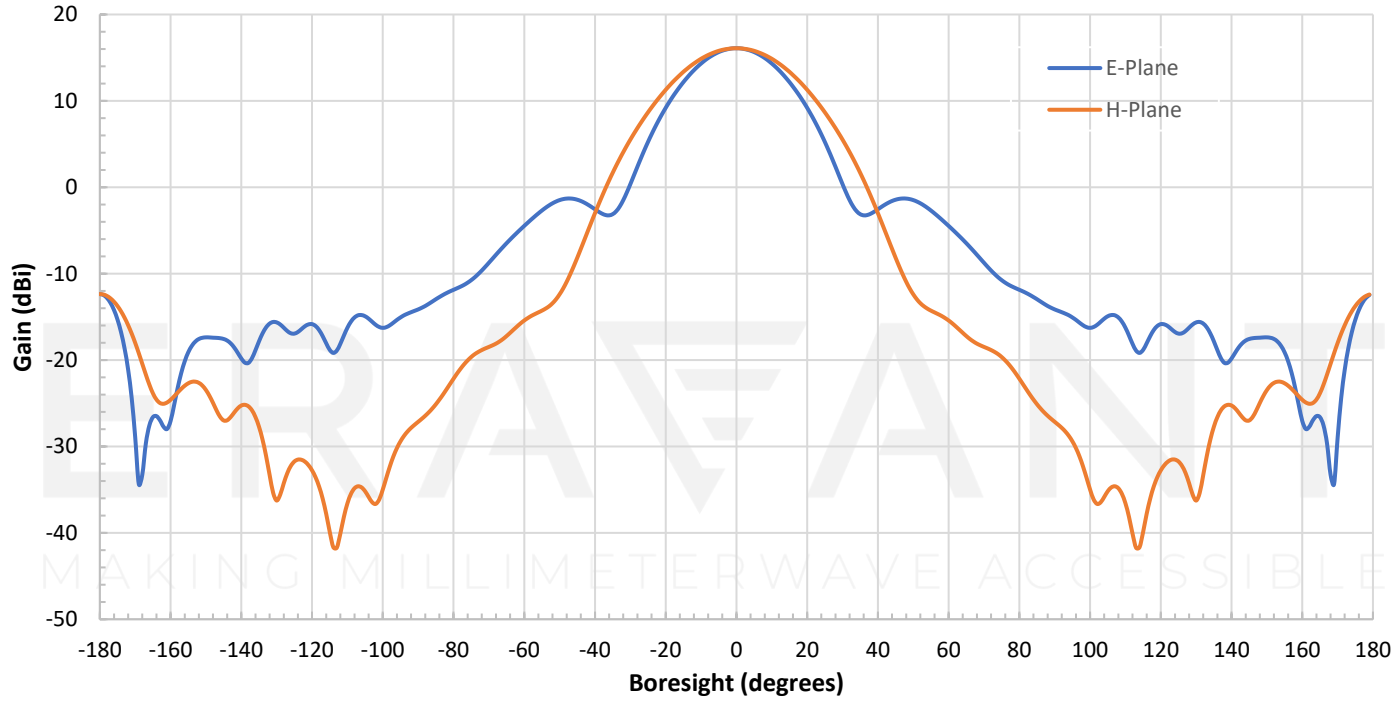
- Antenna Ranges
- Feed Horns
- System Setups

SUPPLEMENTAL DETAILS

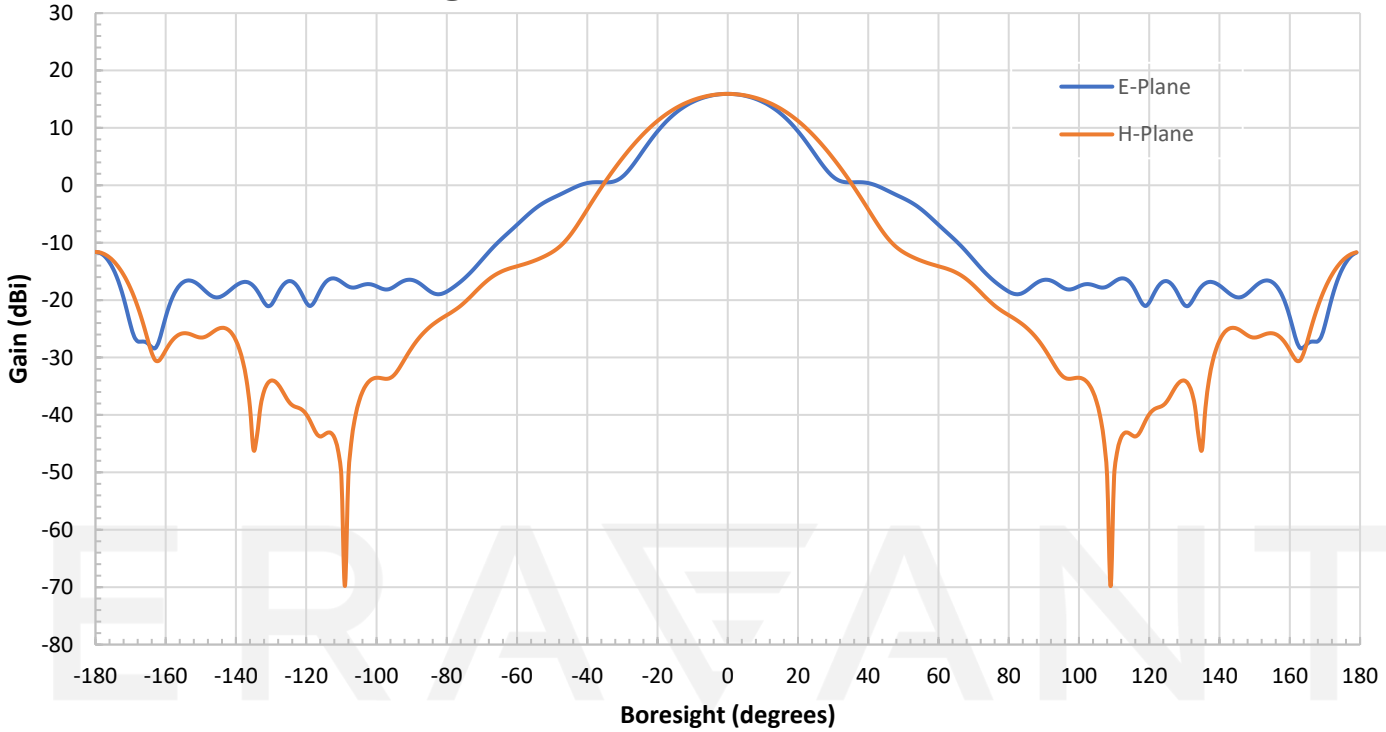
Simulated Antenna Patterns @ 58 GHz



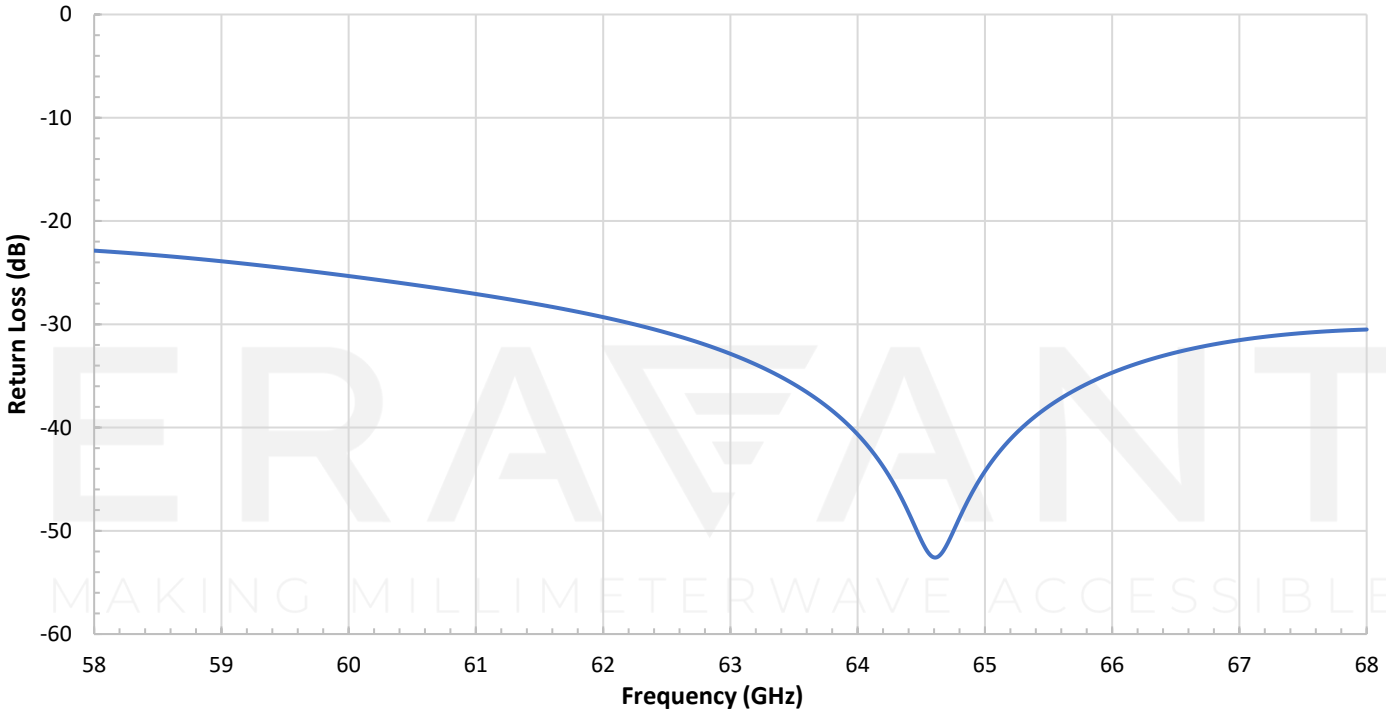
Simulated Antenna Patterns @ 63 GHz



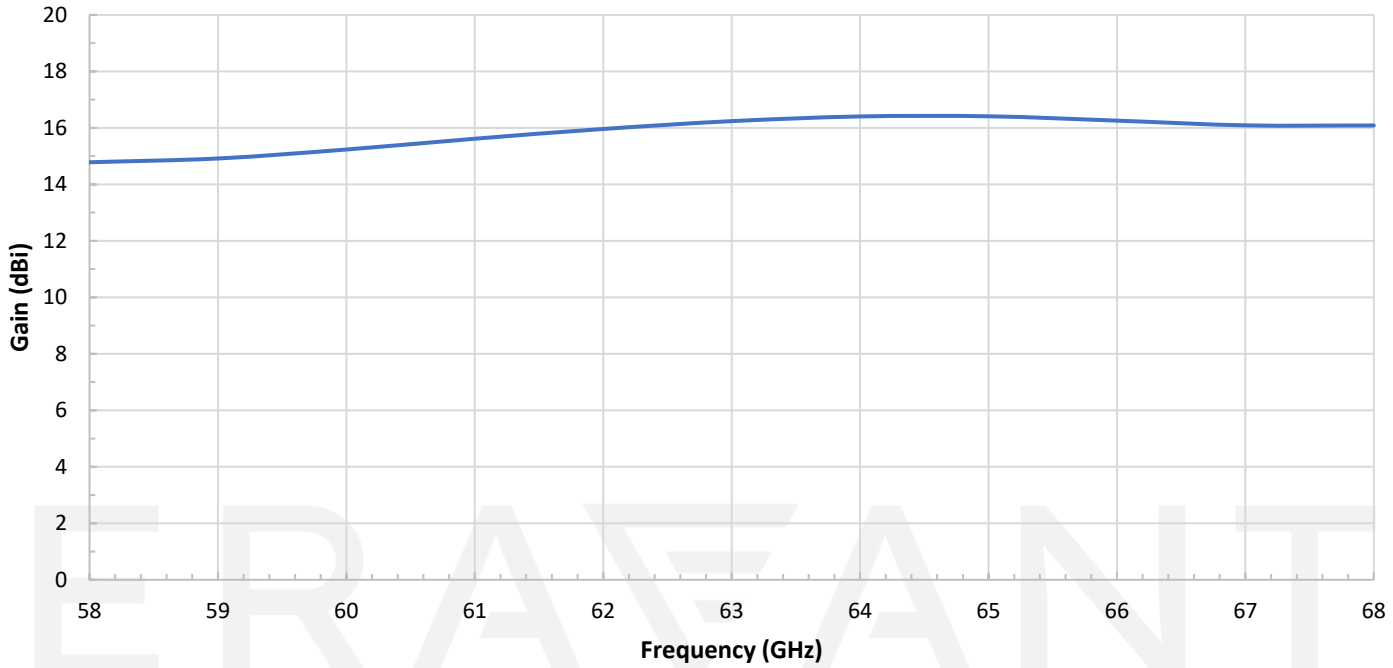
Simulated Antenna Patterns @ 68 GHz



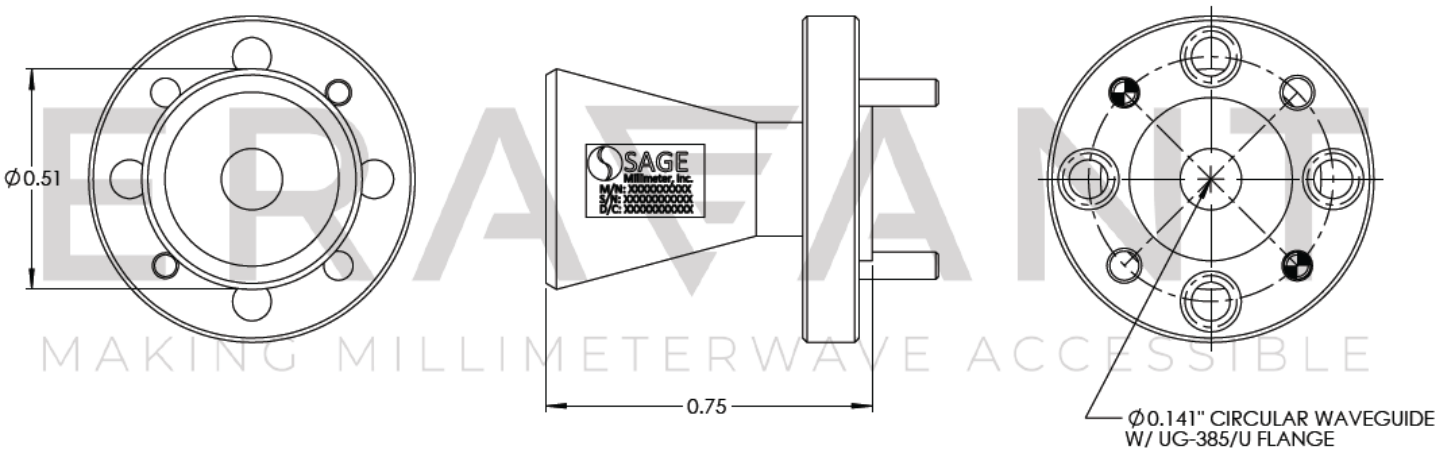
Simulated Return Loss vs. Frequency



Simulated Gain vs. Frequency



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.
- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog here.
- 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.

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