



Ka Band Conical Horn Antenna, 15 dBi Gain

Description:

Model SAC-1533-250-S2 is a Ka-band conical horn antenna that operates from 33 to 38.5 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 30 degrees on the E-plane and 36 degrees on the H-plane. The horn also offers typical sidelobes of -16 dB on the E-plane and -28 dB on the H-plane. The conical horn can support linear and circular polarization. The input of this antenna is a 0.250" diameter circular waveguide with UG-599/U-M flange.



Features:

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

Applications:

- Antenna Ranges
- Feed Horns
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency*	33 GHz		38.5 GHz
Gain		15 dBi	
3 dB Beamwidth, E-plane		30°	
3 dB Beamwidth, H-plane		36°	
Sidelobes, E-plane		-16 dB	
Sidelobes, H-plane		-28 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-45°C		+85°C

*Note: Can operate from 31 to 40 GHz if the dominant mode is maintained.

Mechanical Specifications:

Item	Specification
Antenna Port	0.250" Diameter Circular Waveguide
Flange Type	UG-599/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.3 Oz
Size	1.15" (L) X 0.75" (Ø)
Outline	AC-CA15-250

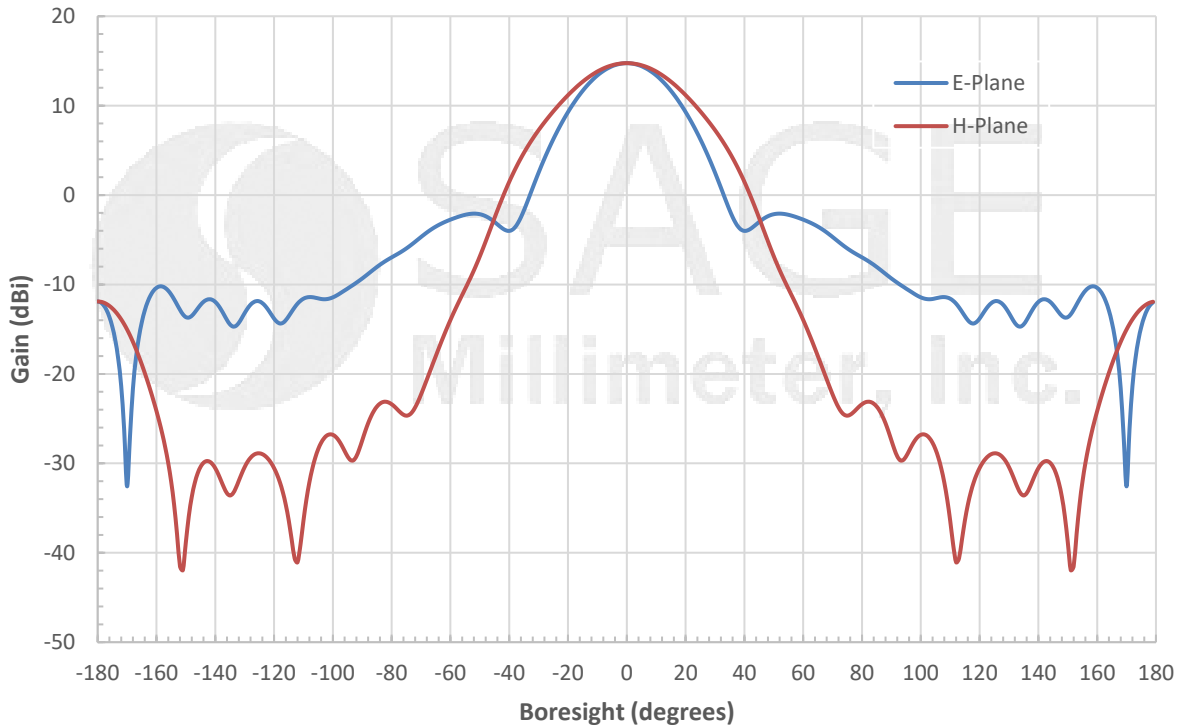


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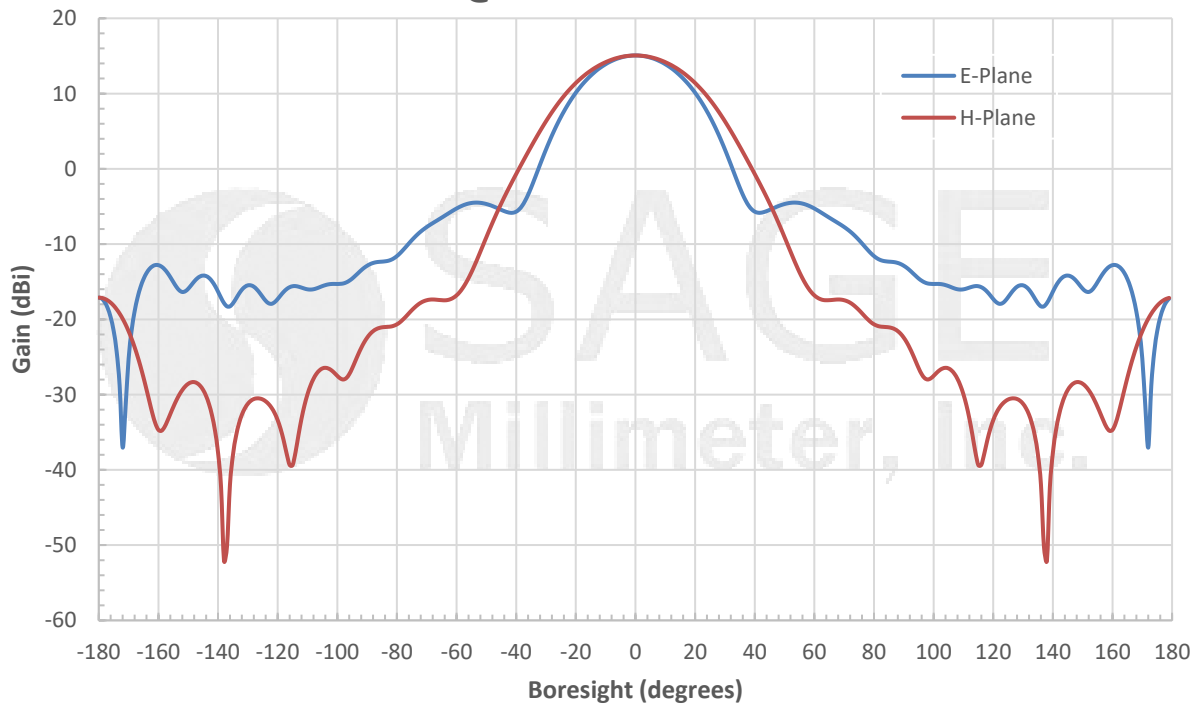


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Simulated Antenna Patterns @ 33 GHz



Simulated Antenna Patterns @ 35.75 GHz

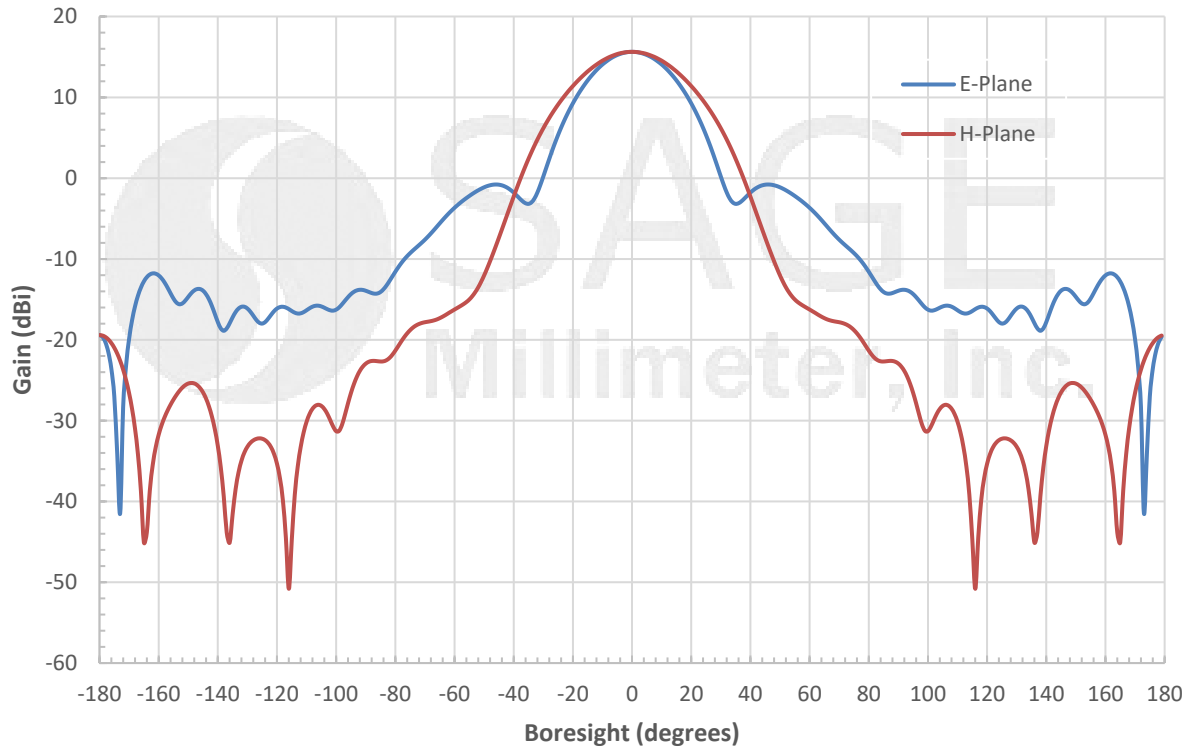


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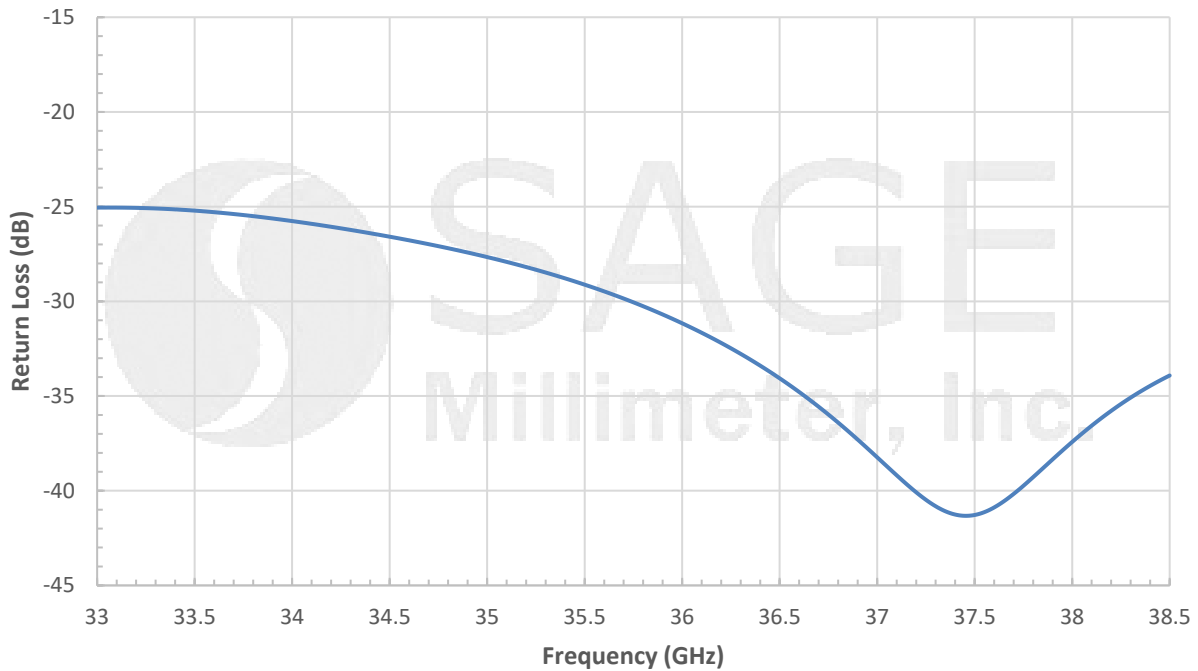


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Simulated Antenna Patterns @ 38.5 GHz



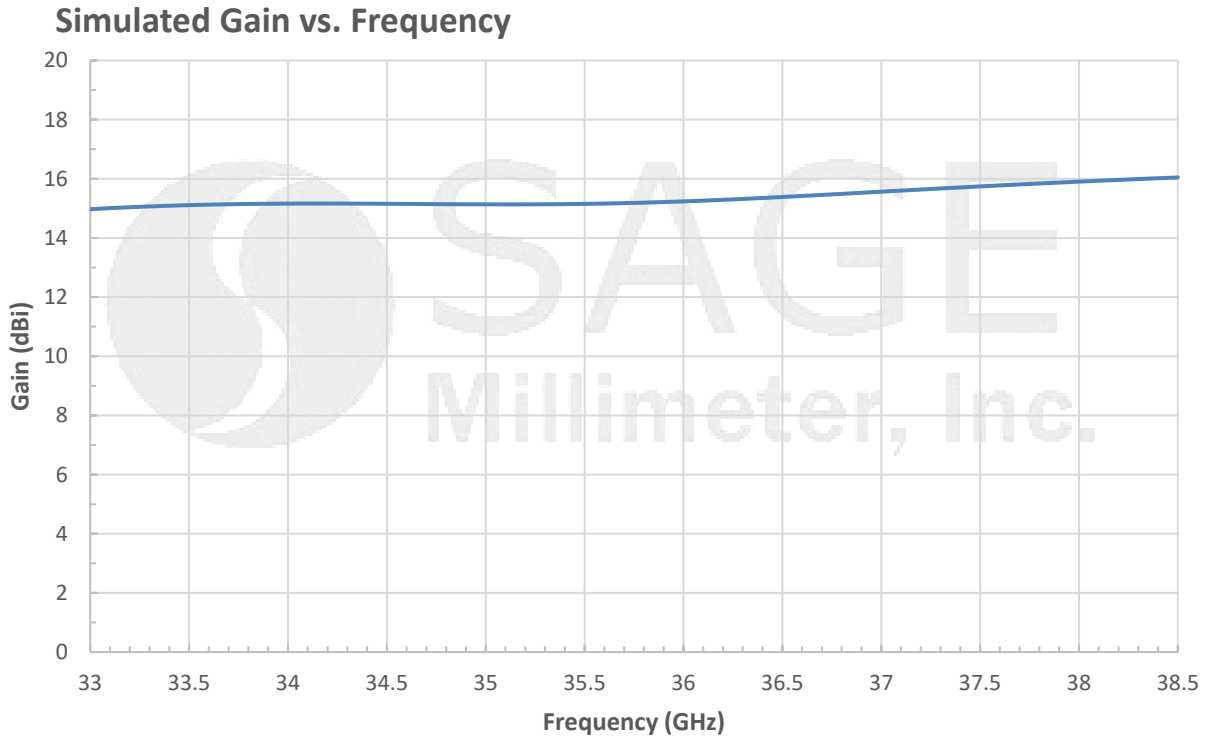
Simulated Return Loss vs. Frequency



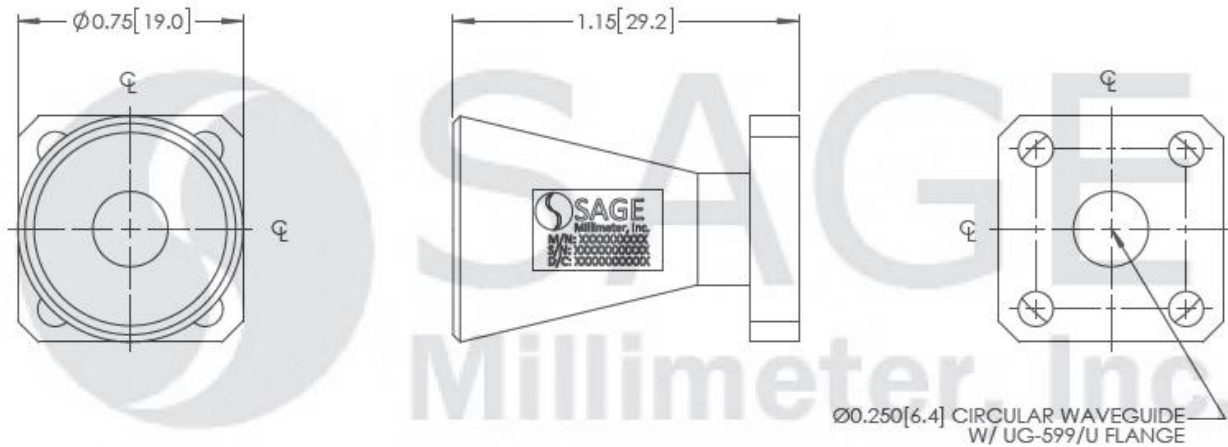
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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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Note:

- 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:

- Any foreign objects in the antenna will cause performance degradation and possible device damage.

