SAC-1430-141-C2

Rev 1.3

WR-15 Conical Horn Antenna, 14 dBi Gain

Description:

Model SAC-1430-141-C2 is a V-band conical horn antenna that operates from 58 to 68 GHz. The antenna offers 14 dB 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.

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	58 GHz		68 GHz
Gain		14 dBi	
3 dB Beamwidth, E-Plane		26°	
3 dB Beamwidth, H-Plane		32°	
Sidelobe, E-Plane		-15 dB	
Sidelobe, H-Plane		-24 dB	
Return Loss		23 dB	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

*Note: Can operate from 54 to 75 GHz if the dominant mode is maintained.

Mechanical Specifications:

Item	Specification
Antenna Port	0.141" Diameter Circular Waveguide
Flange Type	UG-385/U-M Flange
Material	Brass
Finish	Gold Plated
Weight	0.4 Oz
Size	0.75" (L) X 0.75" (Ø)
Outline	AC-CV14-141

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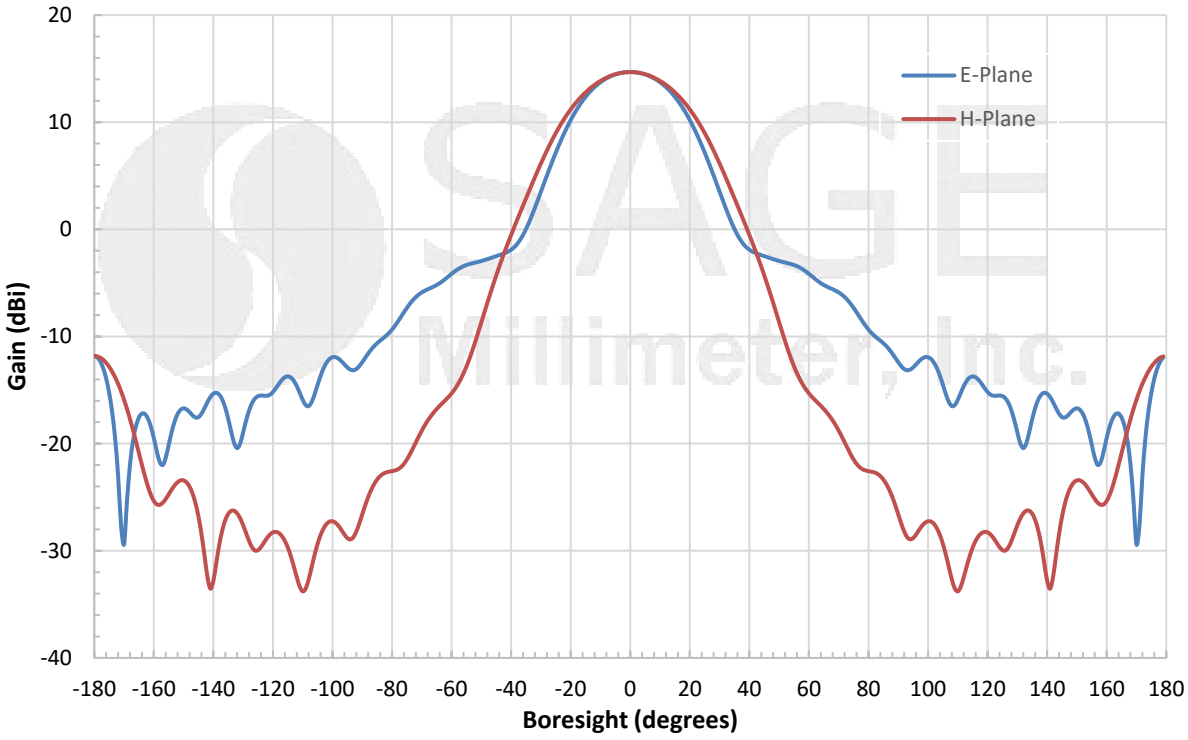
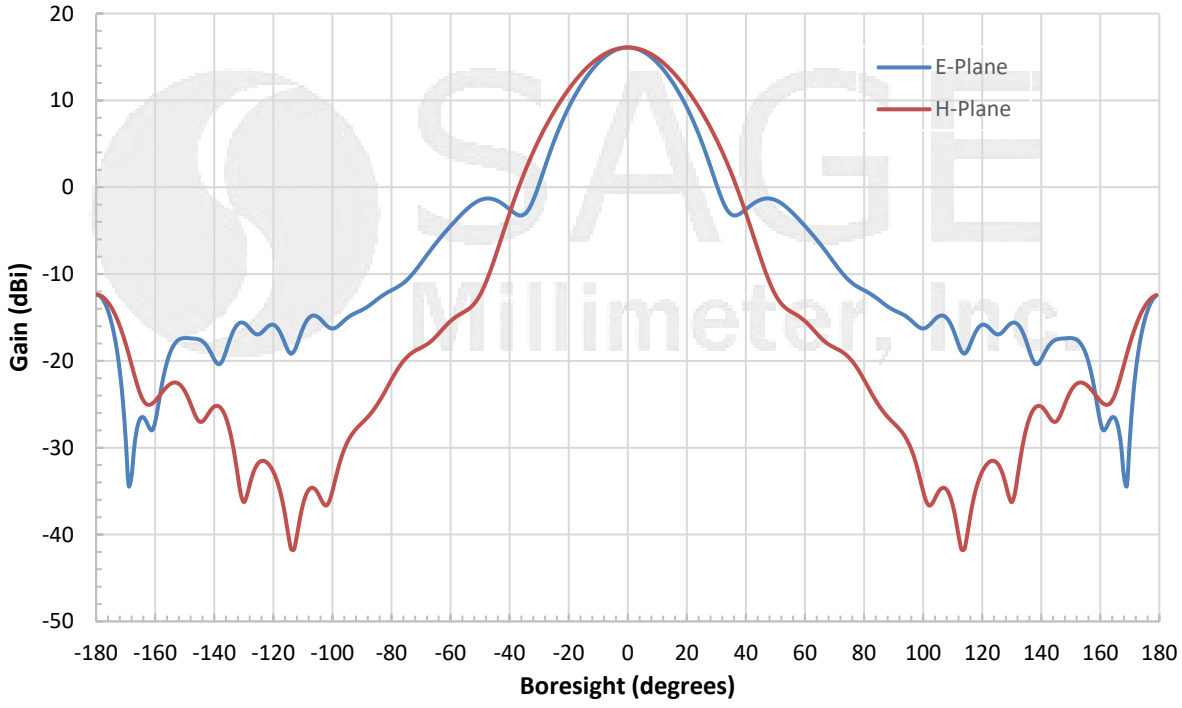
WR-15 Conical Horn Antenna, 14 dBi Gain

Simulated Antenna Patterns @ 58 GHz



Simulated Antenna Patterns @ 63 GHz



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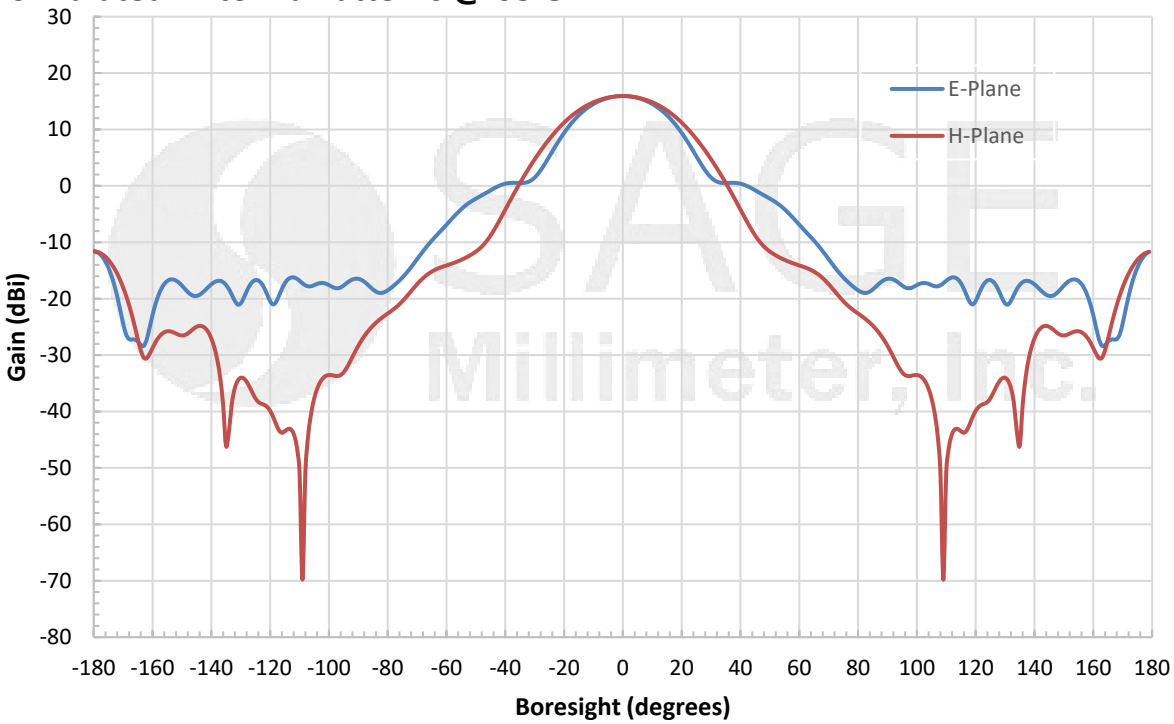
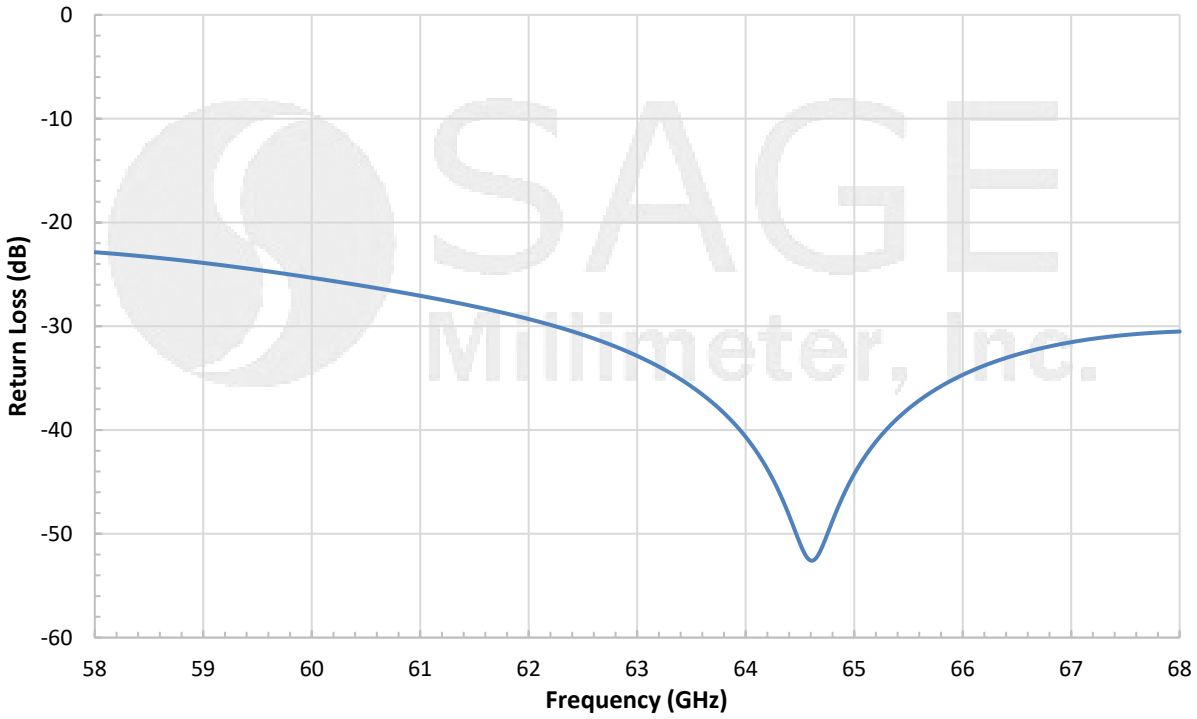
WR-15 Conical Horn Antenna, 14 dBi Gain

Simulated Antenna Patterns @ 68 GHz



Simulated Return Loss vs. Frequency



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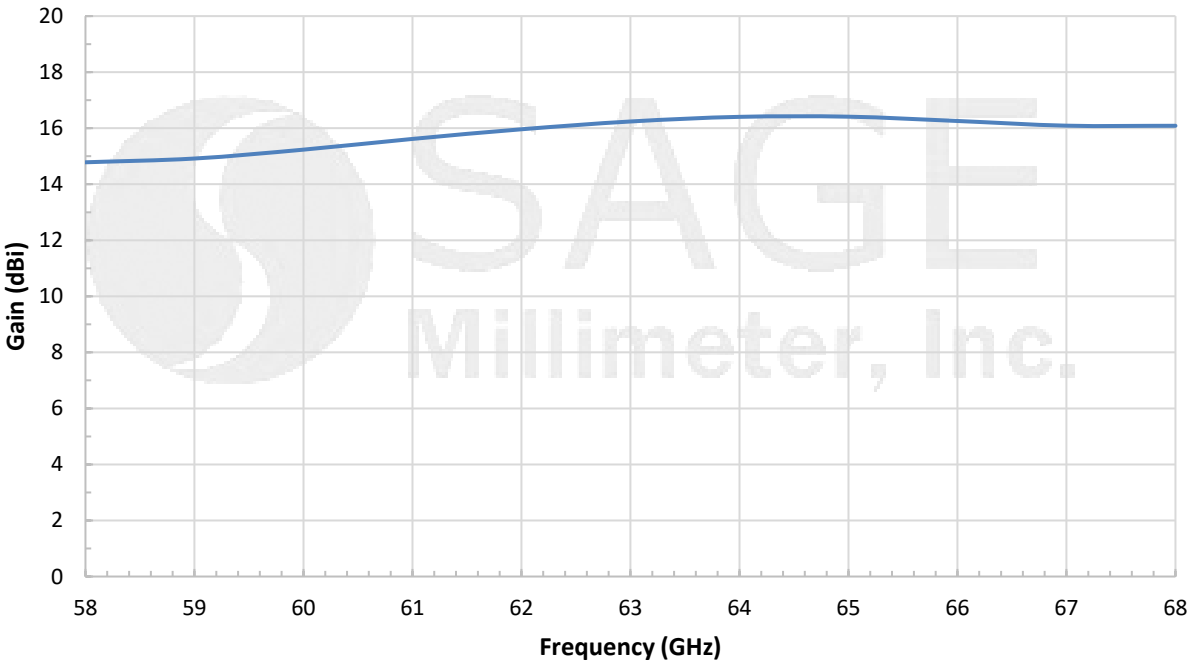
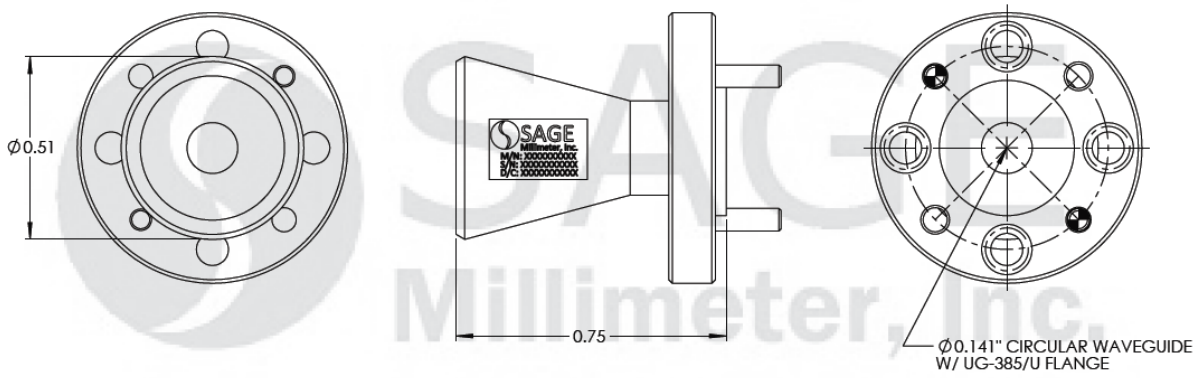
Simulated Gain vs. Frequency



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



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.

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