



## Ka Band Choke Flange Feed Horn Antenna, 24 to 42 GHz, 10 dBi

### Description:

**Model SAH-2434231060-328-S1** is a Ka-band choke flange feed horn antenna that operates from 24 to 42 GHz. The antenna offers a 10 dBi nominal gain, 60 degree typical half power beamwidth in both E and H planes, and -25 dB typical sidelobe level for E plane and -35 dB for H Plane, respectively. The choke flange feed horn is equipped with a 0.328" diameter circular waveguide with UG-599/U flange that supports both linear and circular polarized waveforms.



### Features:

- Ultrabroad Band Operation
- Circular Waveguide Interface
- Low Sidelobe Level
- Linear and Circular Polarization

### Applications:

- Feed Horn for Gaussian Optical Antennas
- Feed Horn for Cassegrain Antennas
- Rapid System Setups
- Antenna Range Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	24 GHz	33 GHz	42 GHz
Gain		10 dBi	
3 dB Beamwidth, E-plane		60°	
3 dB Beamwidth, H-plane		60°	
Sidelobes, E-plane		-25 dB	
Sidelobes, H-plane		-35 dB	
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

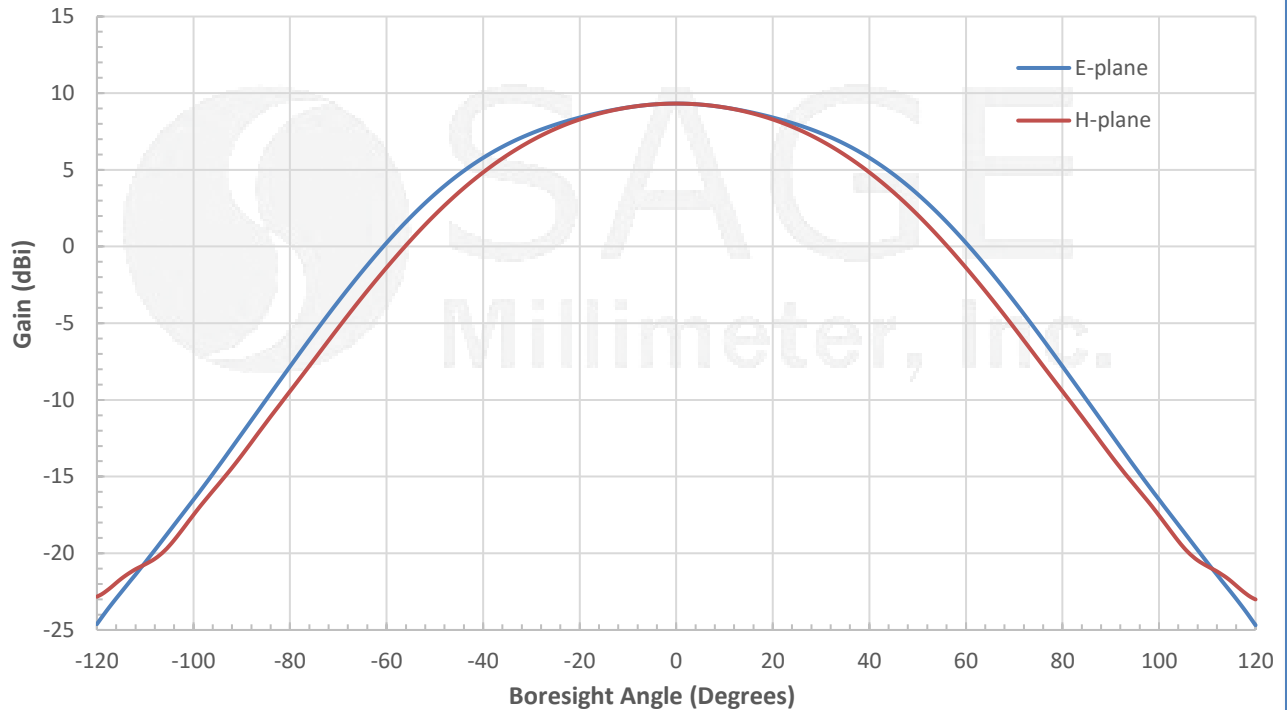
Item	Specification
Antenna Port	0.328" Diameter Circular Waveguide
Flange Type	UG-599/U
Material	Brass
Finish	Gold Plated
Weight	4 Oz
Size	1.70" (L) X 1.48" (Ø)
Outline	AH-CA10-328



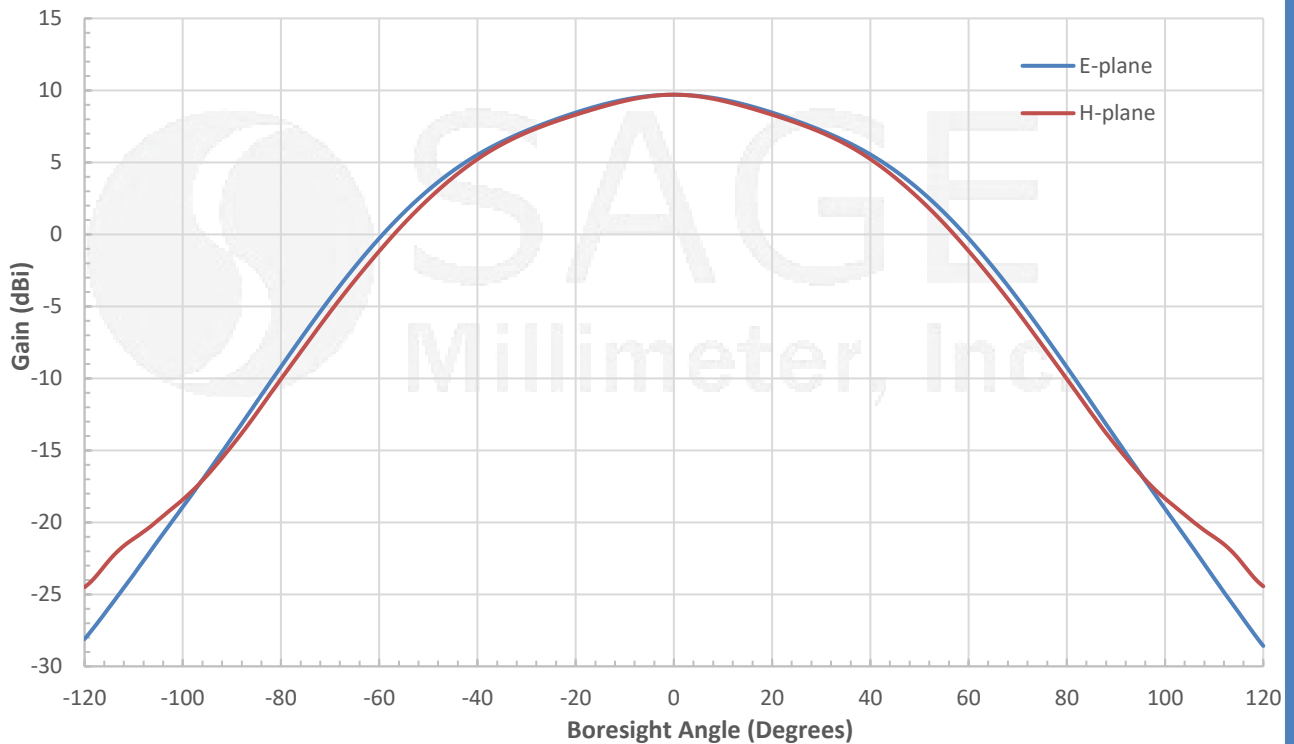


## Ka Band Choke Flange Feed Horn Antenna, 24 to 42 GHz, 10 dBi

### Simulated Antenna Patterns @ 24 GHz



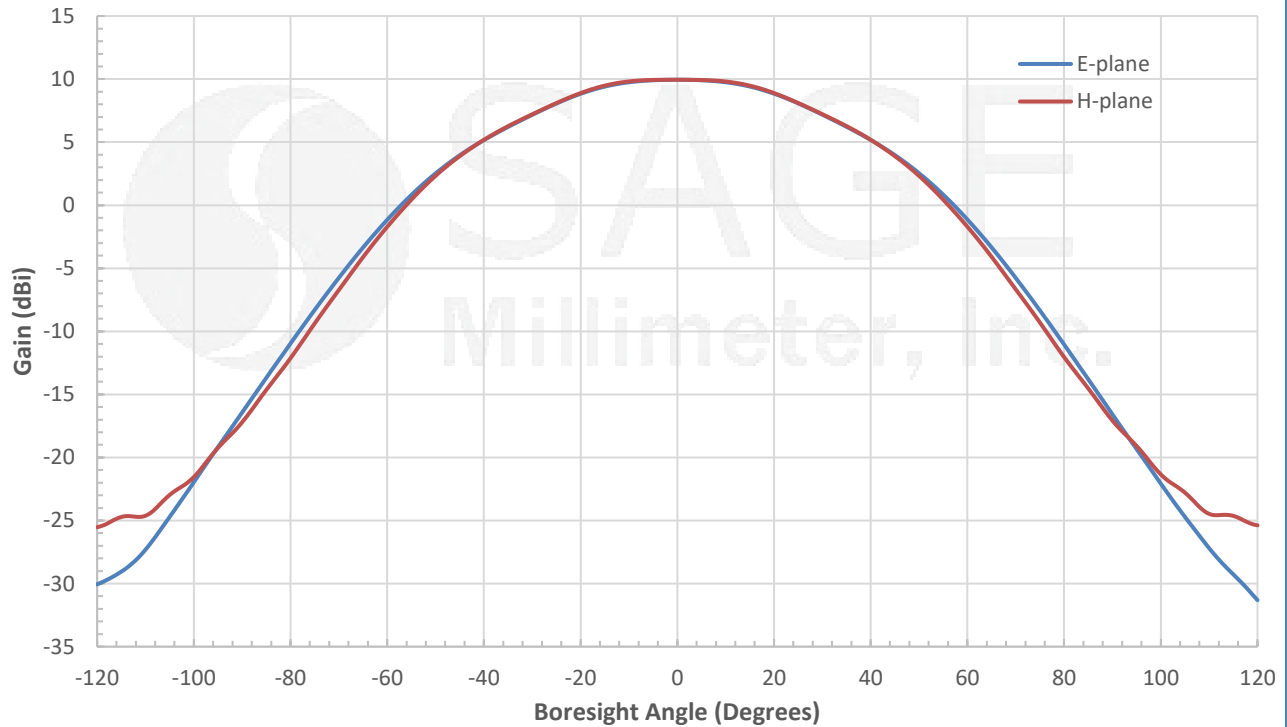
### Simulated Antenna Patterns @ 30 GHz



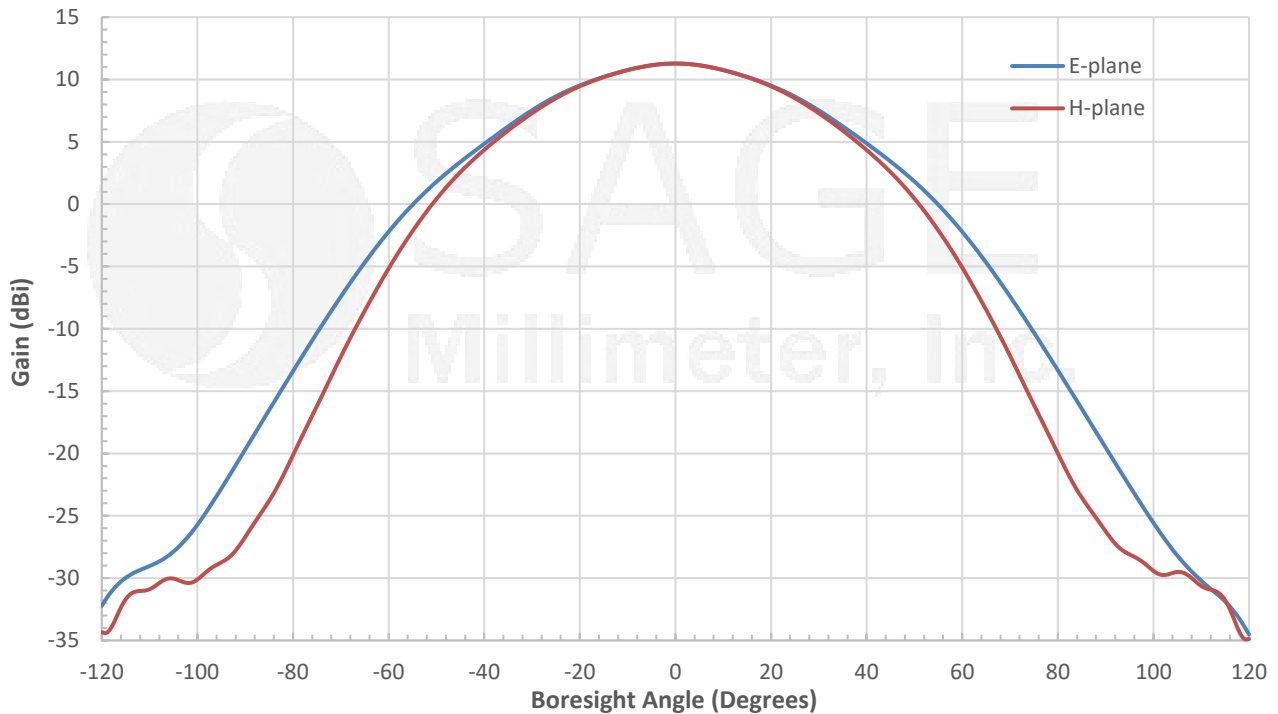


## Ka Band Choke Flange Feed Horn Antenna, 24 to 42 GHz, 10 dBi

### Simulated Antenna Patterns @ 36 GHz



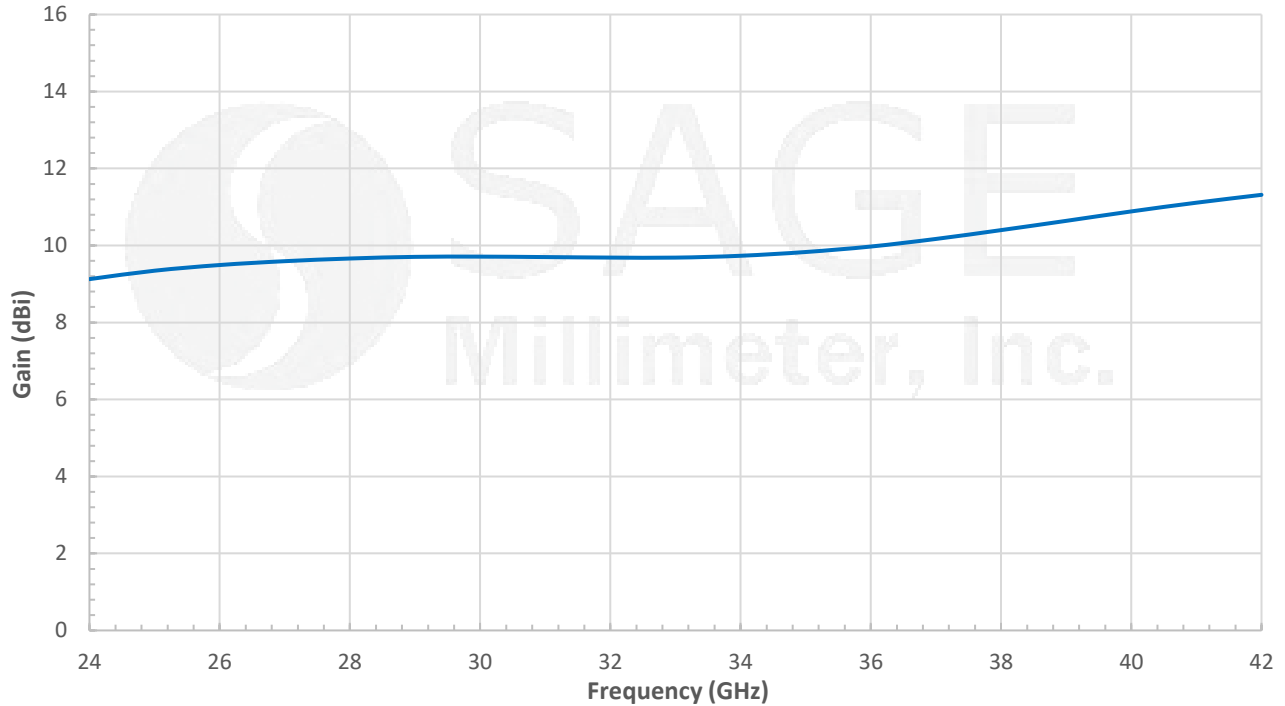
### Simulated Antenna Patterns @ 42 GHz



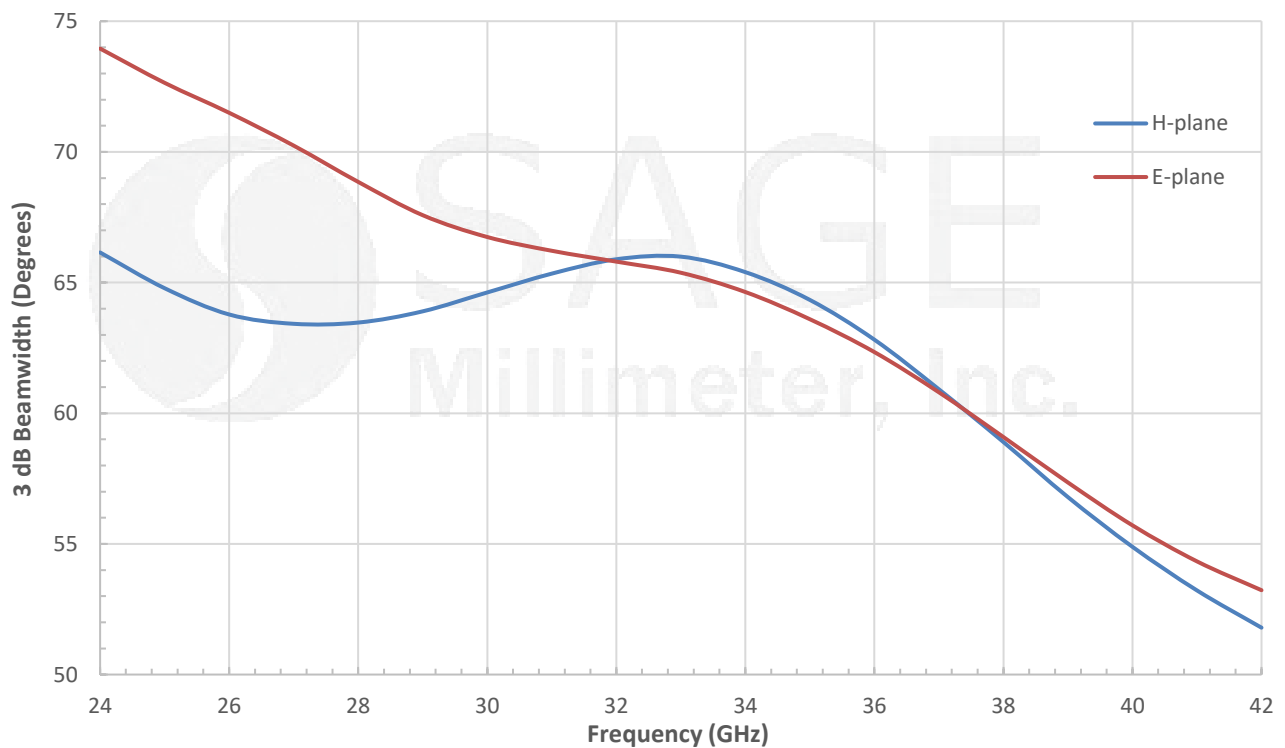


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### Simulated Gain vs. Frequency

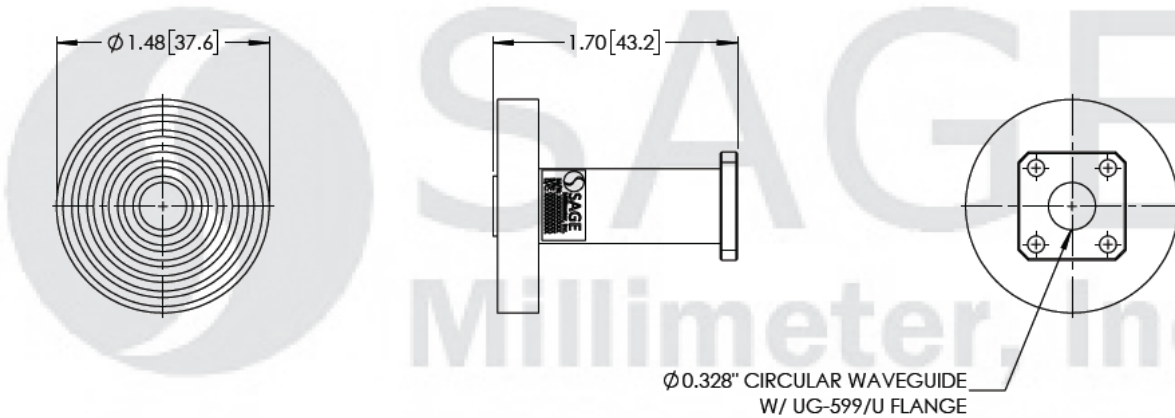


### Simulated E and H Plane 3dB Beamwidth vs. Frequency



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



**Note:**

- All data presented is simulated. Actual data may vary slightly.
- SAGE Millimeter, Inc. 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.

