

## V Band Scalar Feed Horn Antenna, 58 to 68 GHz, 17 dBi Gain

### Description:

**Model SAF-5836831725-141-S1** is a V-band scalar feed horn antenna that operates from 58 to 68 GHz. The antenna offers a 17 dBi nominal gain, 25 degree typical half power beamwidth, and -28.5 dB typical sidelobe level. The scalar feed horn is equipped with a 0.141" diameter circular waveguide that supports both linear and circular polarization. A rectangular waveguide port configuration that only supports linear polarization is available under a different model number.



### Features:

- Circular Waveguide Interface
- Precisely Machined
- Low Sidelobe Level
- High Return Loss
- Linear and Circular Polarization

### Applications:

- Feed Horn for Gaussian Optical Antennas
- Feed Horn for Cassegrain Antennas
- Rapid System Setups
- Engineering Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	58 GHz	63 GHz	68 GHz
Gain		17 dB	
3 dB Beamwidth, E-plane		25°	
3 dB Beamwidth, H-plane		25°	
Sidelobes, E-plane		-28.5 dB	
Sidelobes, H-plane		-28.5 dB	
Return Loss		20 dB	
Polarization	Linear and Circular		
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

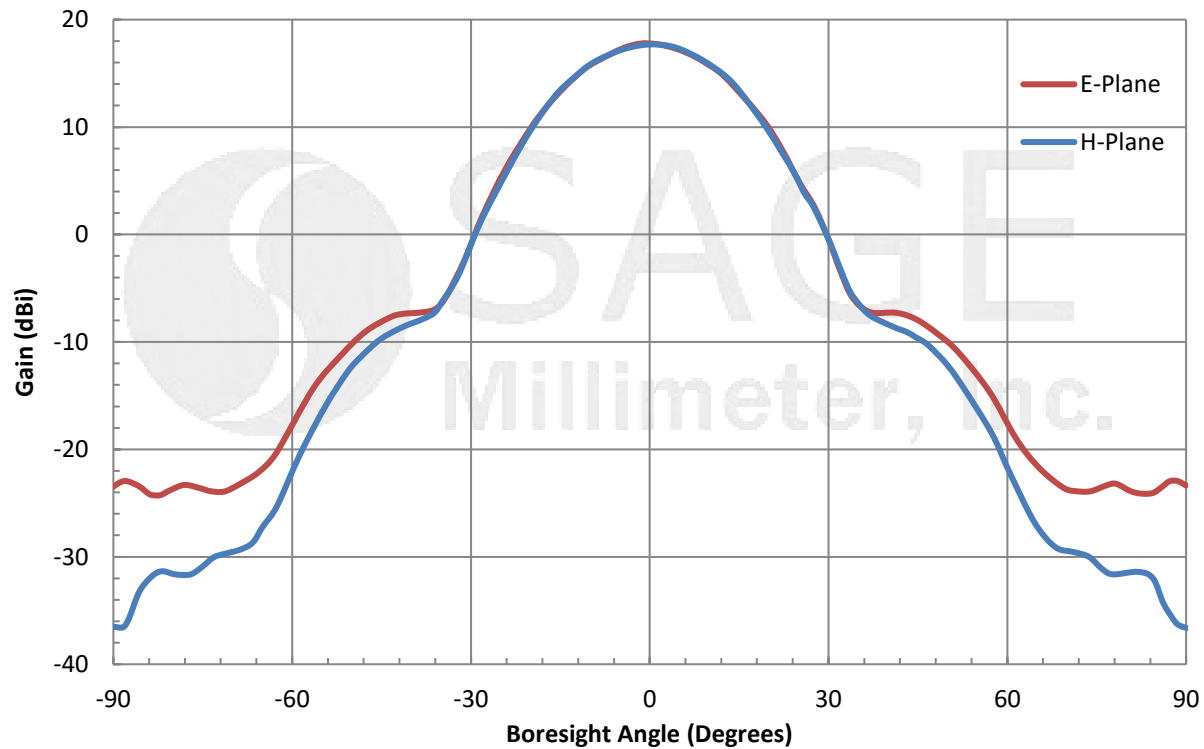
Item	Specification
Antenna Port	0.141" Diameter Circular Waveguide
Flange Type	UG-385/U-M
Material	Aluminum
Finish	Gold Plated
Weight	1.7 Oz
Size	1.52" (L) X 0.75" (Ø)
Outline	AF-CV17-141



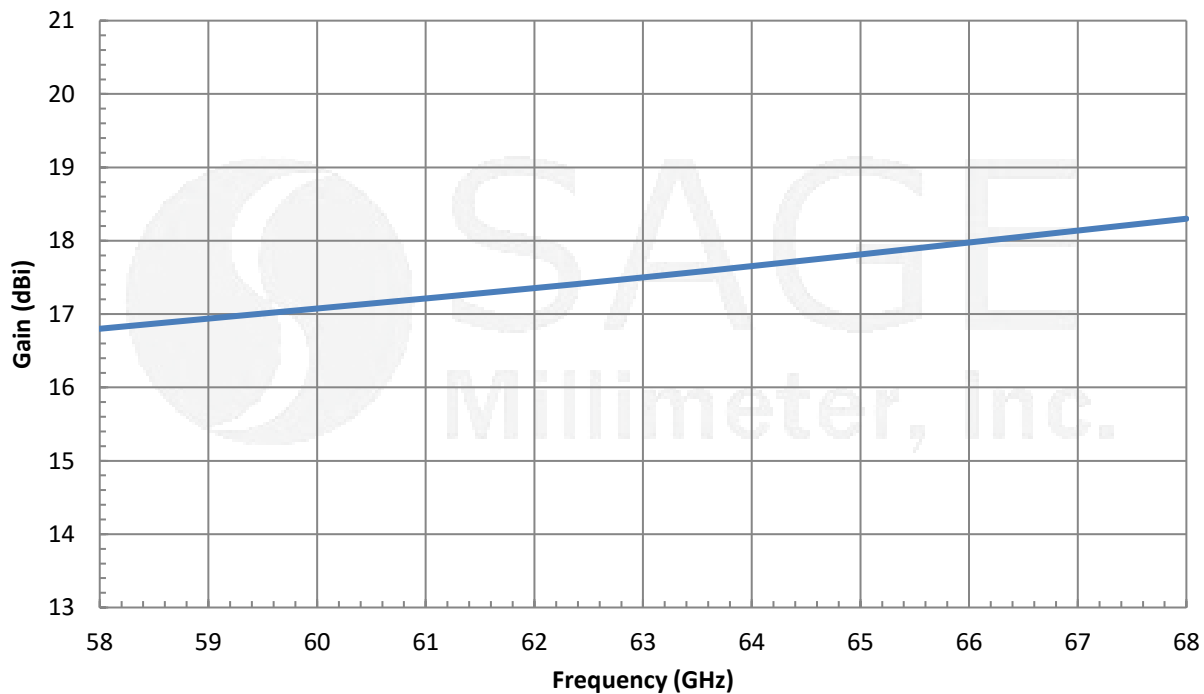


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### Typical Antenna Patterns @ 63 GHz

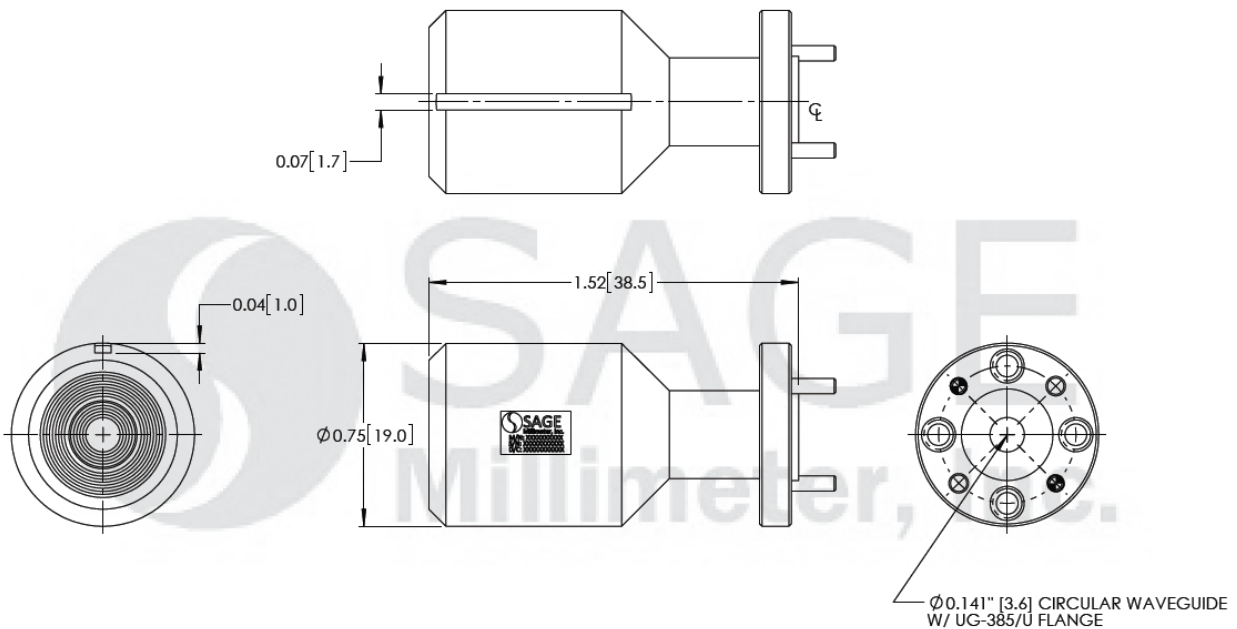


### Typical Gain vs. Frequency



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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 waveguide will cause performance degradation and possible device damage.

