



Ka Band Scalar Feed Horn Antenna, 26 to 30 GHz, 17 dBi Gain

Description:

Model SAF-2633031728-28-S1 is a Ka band scalar feed horn antenna that operates from 26 to 30 GHz. The antenna offers 17 dBi nominal gain, 28 degrees typical half power beamwidth, and -25 dB typical side lobe levels. The scalar feed horn is equipped with a WR-28 rectangular waveguide that supports vertical linear polarization. Circular waveguide ports supporting vertical and horizontal linear polarization, as well as left and right hand circular polarization, are available under a different model number.



Features:

- Rectangular Waveguide Interface
- Precisely Machined
- Low Side Lobe Levels
- High Return Loss
- Linear 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*	26.0 GHz	28.0 GHz	30.0 GHz
Gain		17 dB	
3 dB Beamwidth, E-plane		28.0°	
3 dB Beamwidth, H-plane		28.0°	
Sidelobes, E-plane		-25 dB	
Sidelobes, H-plane		-25 dB	
Return Loss		20 dB	
Polarization		Linear	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*Note: Actual bandwidth is broader, 26.0 to 33.0 GHz.

Mechanical Specifications:

Item	Specification
Antenna Port	WR-28 Rectangular Waveguide
Flange Type	UG-599/U
Material	Aluminum
Finish	Chem Film
Weight	3.7 Oz
Size	3.22" (L) X 1.40" (Ø)
Outline	AF-RA-17

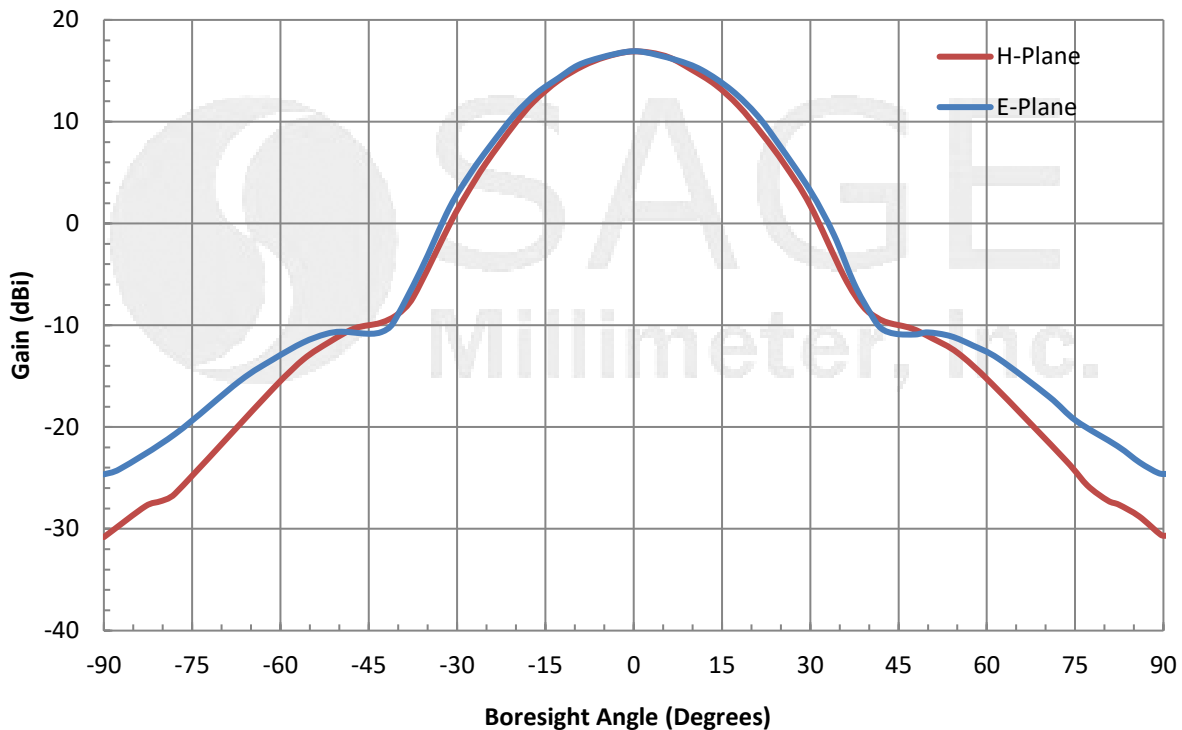


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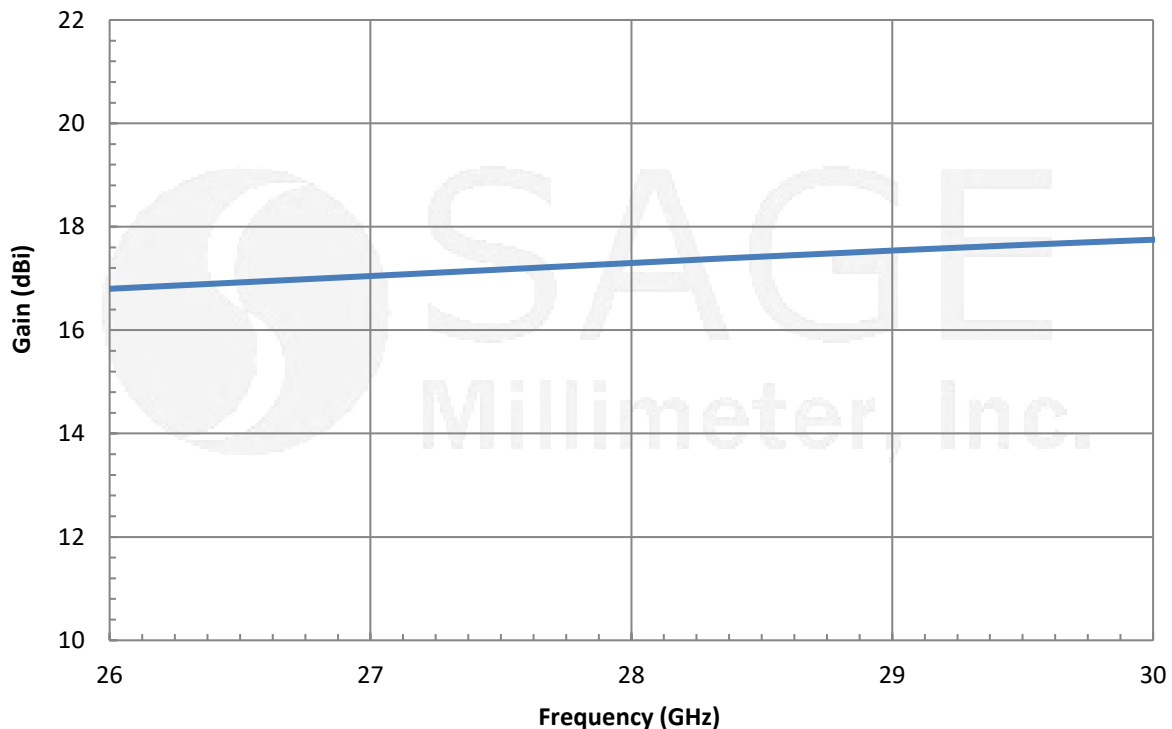


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Typical Antenna Pattern @ 26 GHz



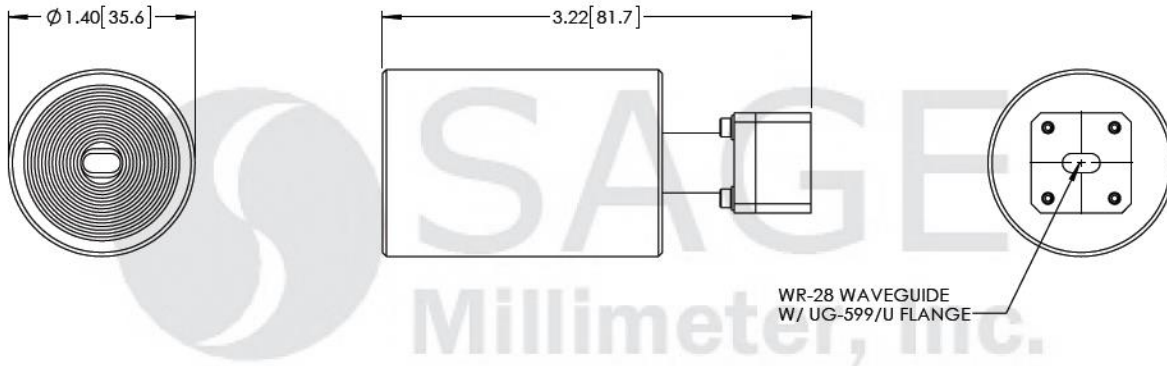
Typical Gain vs. Frequency





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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.

