



E Band Scalar Feed Horn Antenna, 68 to 77 GHz, 17 dBi Gain

Description:

Model SAF-6837731725-125-S1 is an E-band scalar feed horn antenna that operates from 68 to 77 GHz. The antenna offers a 17 dBi nominal gain, 25 degree typical half power beamwidth, and -28.5 dB typical side lobe level. The scalar feed horn is equipped with a 0.125" 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 Side Lobe 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 | 68.0 GHz | 72.5 GHz | 77.0 GHz |
| Gain | | 17 dBi | |
| 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:

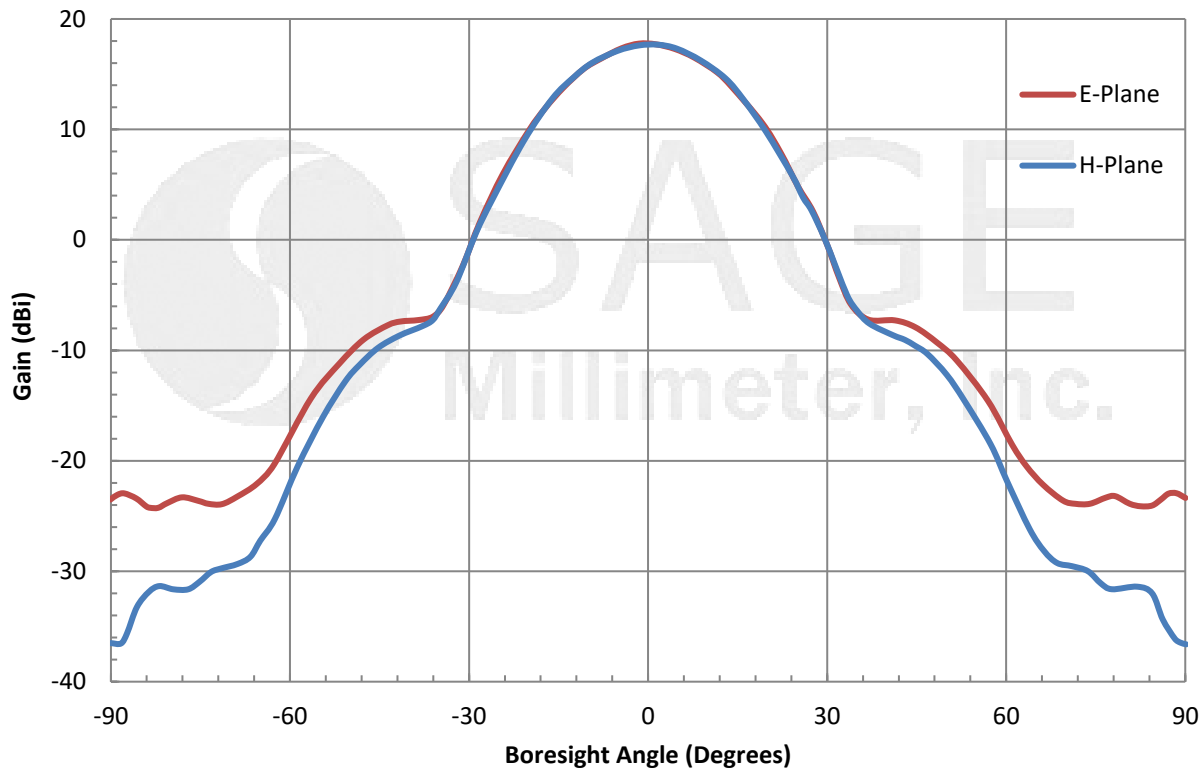
| Item | Specification |
|--------------|------------------------------------|
| Antenna Port | 0.125" Diameter Circular Waveguide |
| Flange Type | UG-387/U-M |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 1.7 Oz |
| Size | 2.00" (L) X 0.75" (Ø) |
| Outline | AF-CE17-125 |



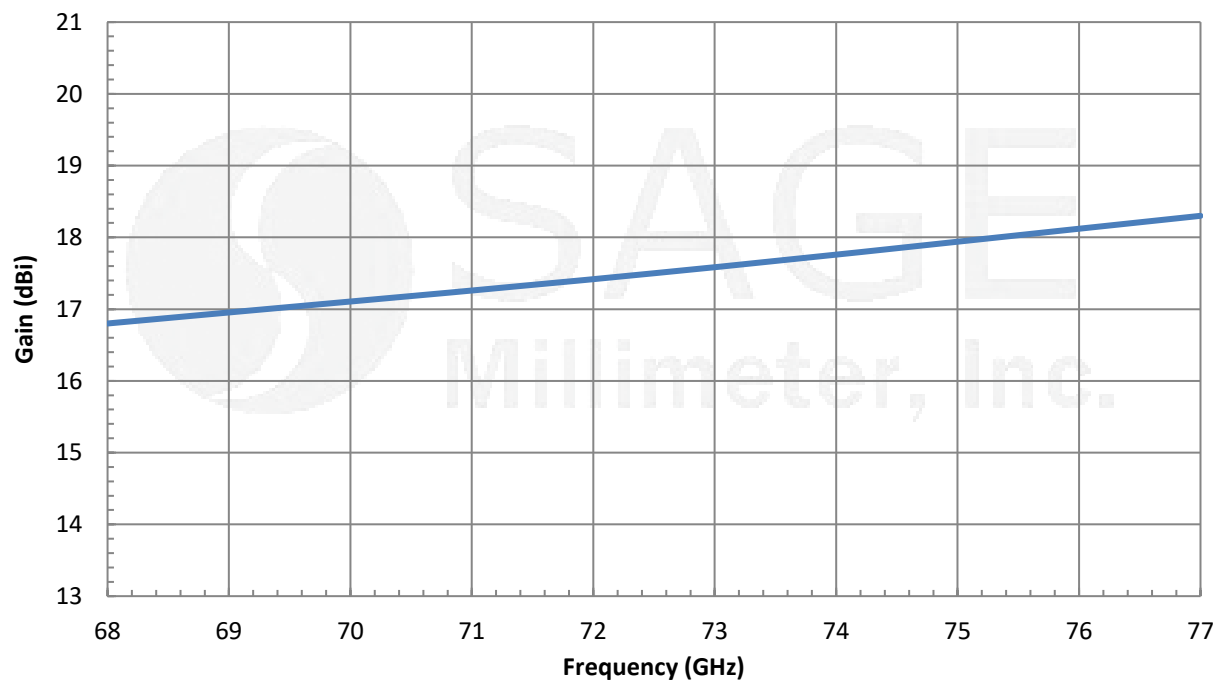


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Typical Antenna Patterns @ 72.5 GHz



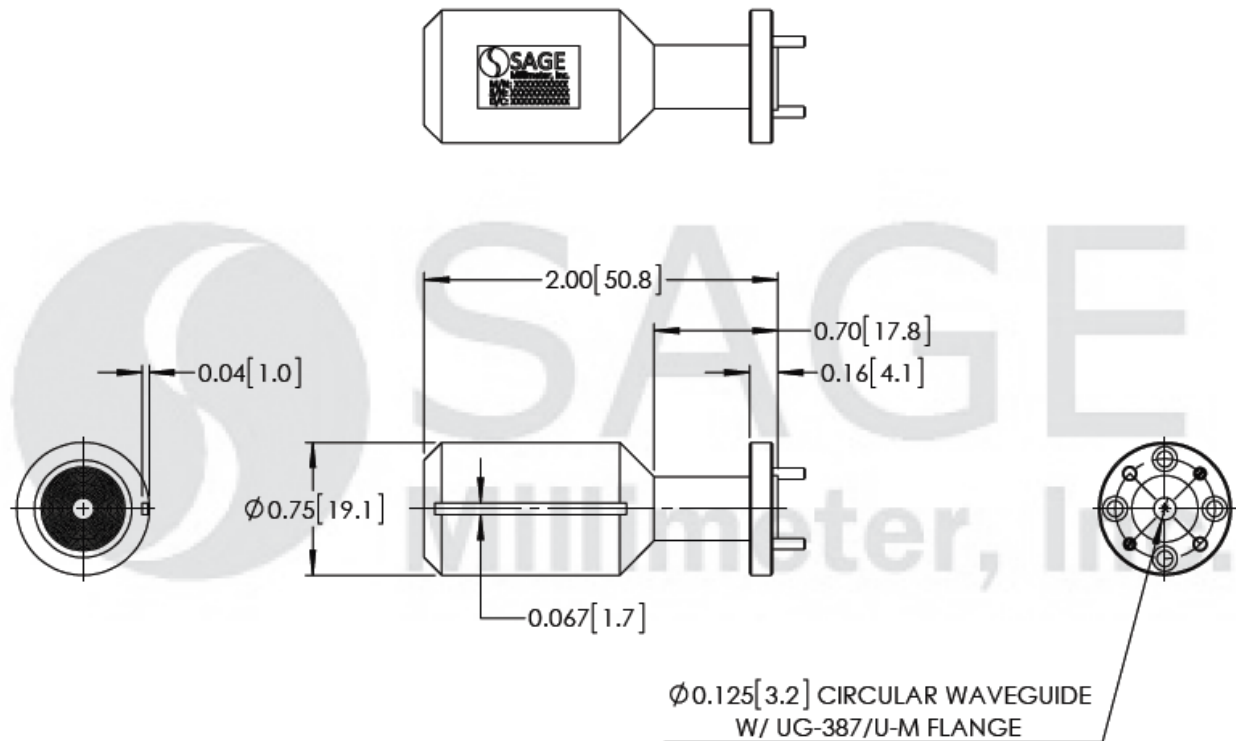
Typical Gain vs. Frequency





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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.

