



## WR-34 Pyramidal Horn Antenna, 17 dBi Gain with 2.92 mm Coax Input

### Description:

Models SAR-1725-34KF-E2 and SAR-1725-34KM-E2 are pyramidal horn antennas with end launch (180°) 2.92 mm coax connectors to cover the frequency range of 22 GHz to 33 GHz. The antennas offer 17 dBi nominal gain and a typical half power beamwidth of 26 degrees on the E-plane and 24 degrees on the H-plane. The antennas support linear polarized waveforms. Right angle (90°) 2.92 mm connector configurations are available under models SAR-1725-34KF-R2 and SAR-1725-34KM-R2.



### Features:

- Inline Configuration
- Linear Polarization
- DC Short Circuit at Input

### Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	22 GHz		33 GHz
Gain		17 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		26°	
3 dB Beamwidth, H-Plane		24°	
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-36 dB	
Return Loss		20 dB	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

### Mechanical Specifications:

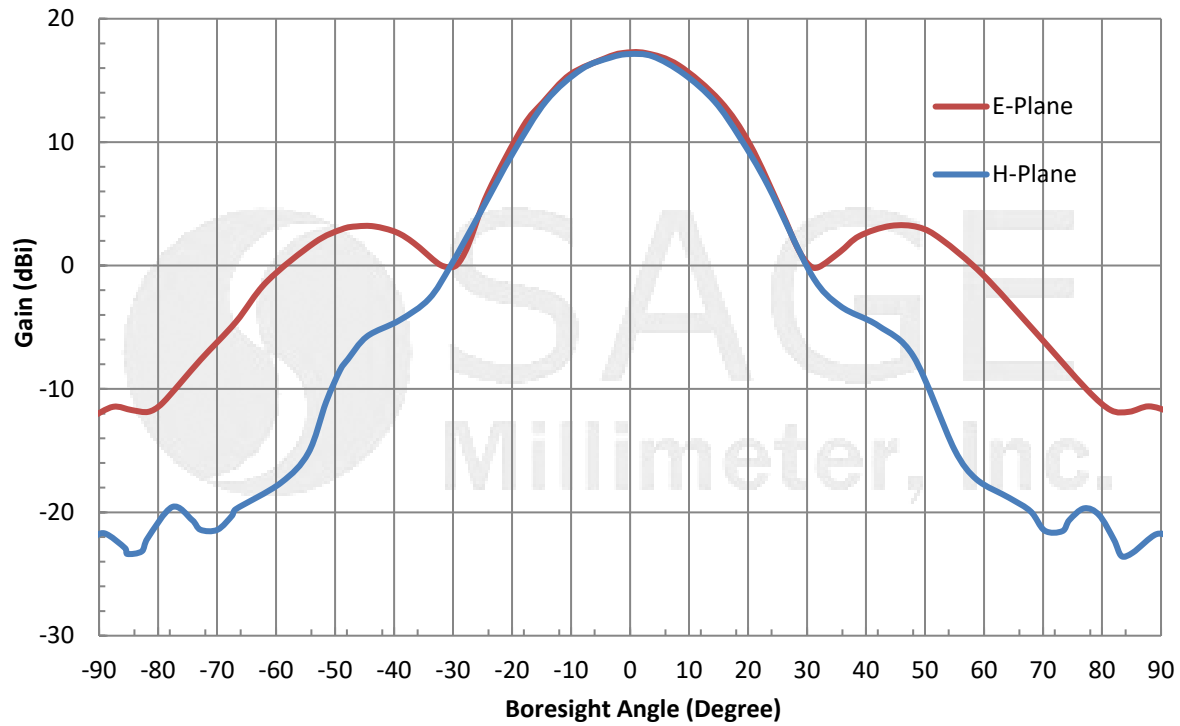
Item	Specification
Antenna Port (F)	2.92 mm Female for Model Number: SAR-1725-34KF-E2
Antenna Port (M)	2.92 mm Male for Model Number: SAR-1725-34KM-E2
Size	3.05" (L) X 1.30" (W) X 0.95" (H) For Model Number: SAR-1725-34KF-E2
Size	3.18" (L) X 1.30" (W) X 0.95" (H) For Model Number: SAR-1725-34KM-E2
Material	Aluminum
Connector Material	Stainless Steel
Finish	Gold Plated
Weight	1.0 Oz
Outline	AR-3C17-E



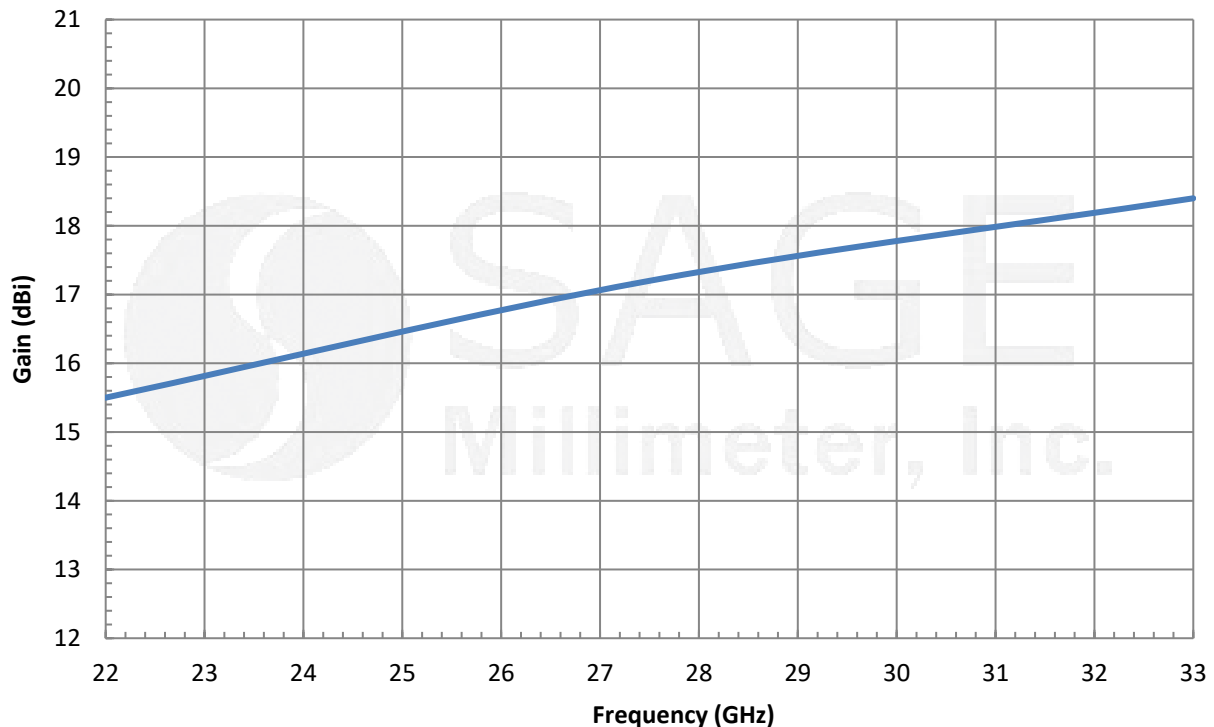


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### Typical Antenna Pattern @ 27.5 GHz



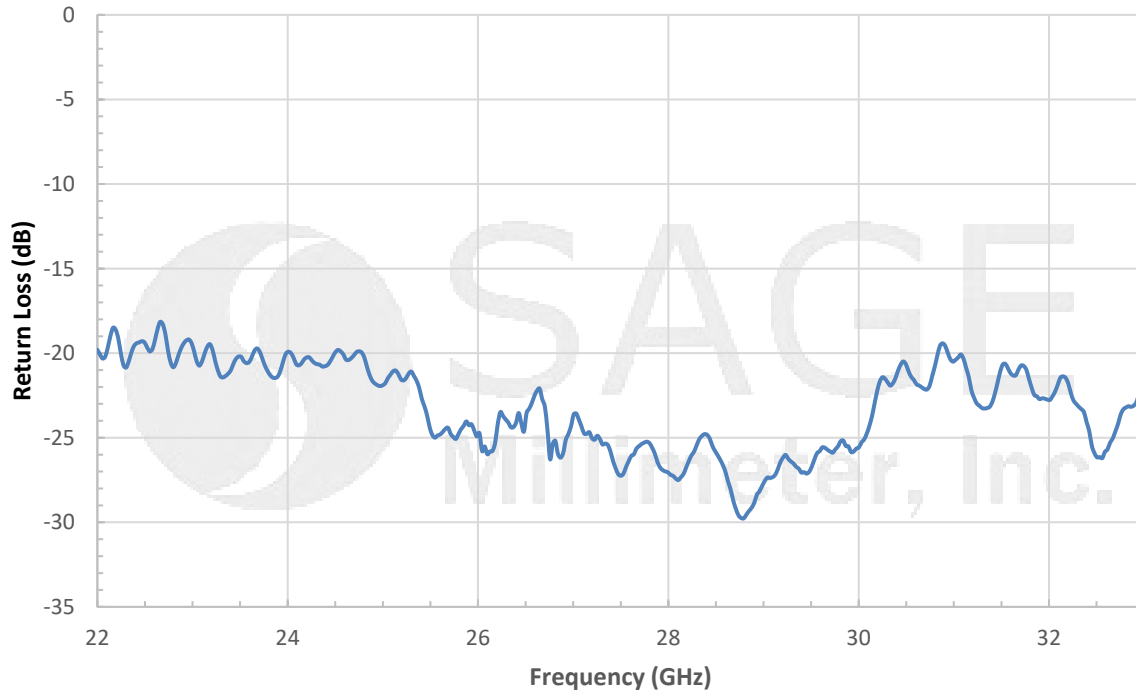
### Typical Gain vs. Frequency



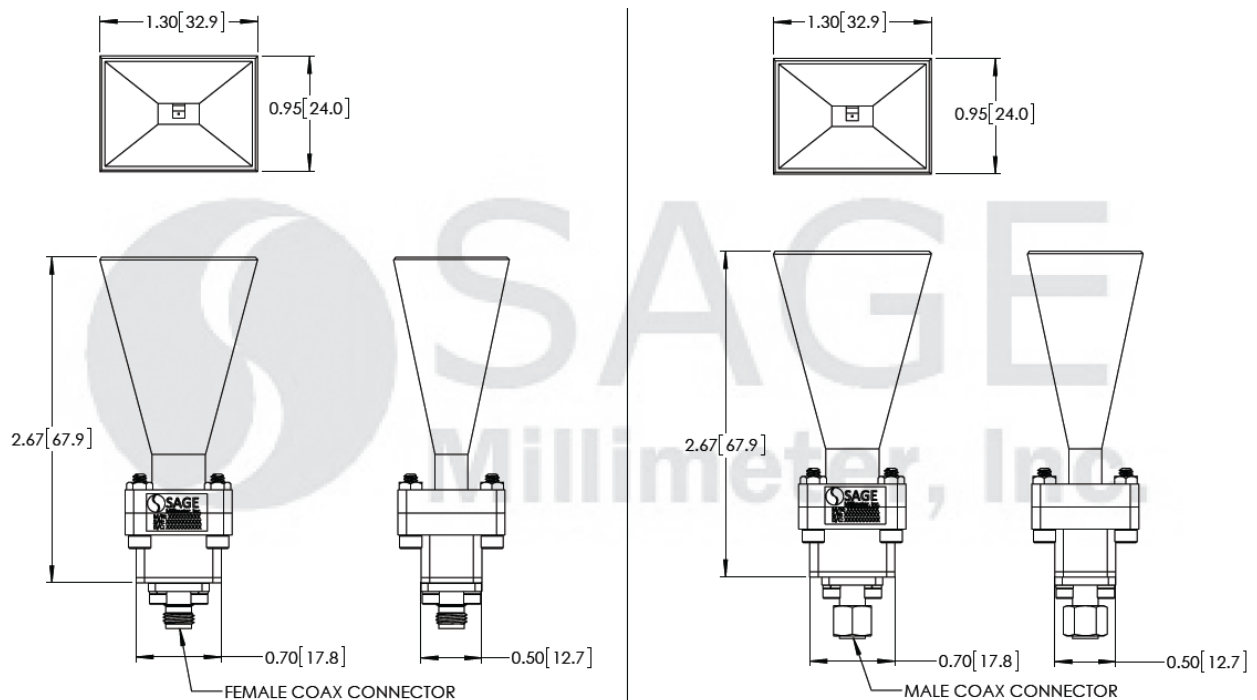


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### Typical Return Loss vs. Frequency



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





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### Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog [here](#).
- All testing was performed under 25°C case temperature.
- Eravant 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.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

