



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

Description:

Model SAR-1725-34KF-E2-WR is a pyramidal horn antenna with a end launch (180°) WR-34 waveguide to 2.92 mm (F) coax panel mount adapters to cover the frequency range of 22 GHz to 33 GHz. The antenna offers 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 antenna supports linear polarized waveforms. The model with 2.92 mm (M) coax panel mount adapter is offered under model number SAR-1725-34KM-E2-WR.



Features:

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

Applications:

- 5G Systems
- 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 | -40 °C | | +85 °C |

Mechanical Specifications:

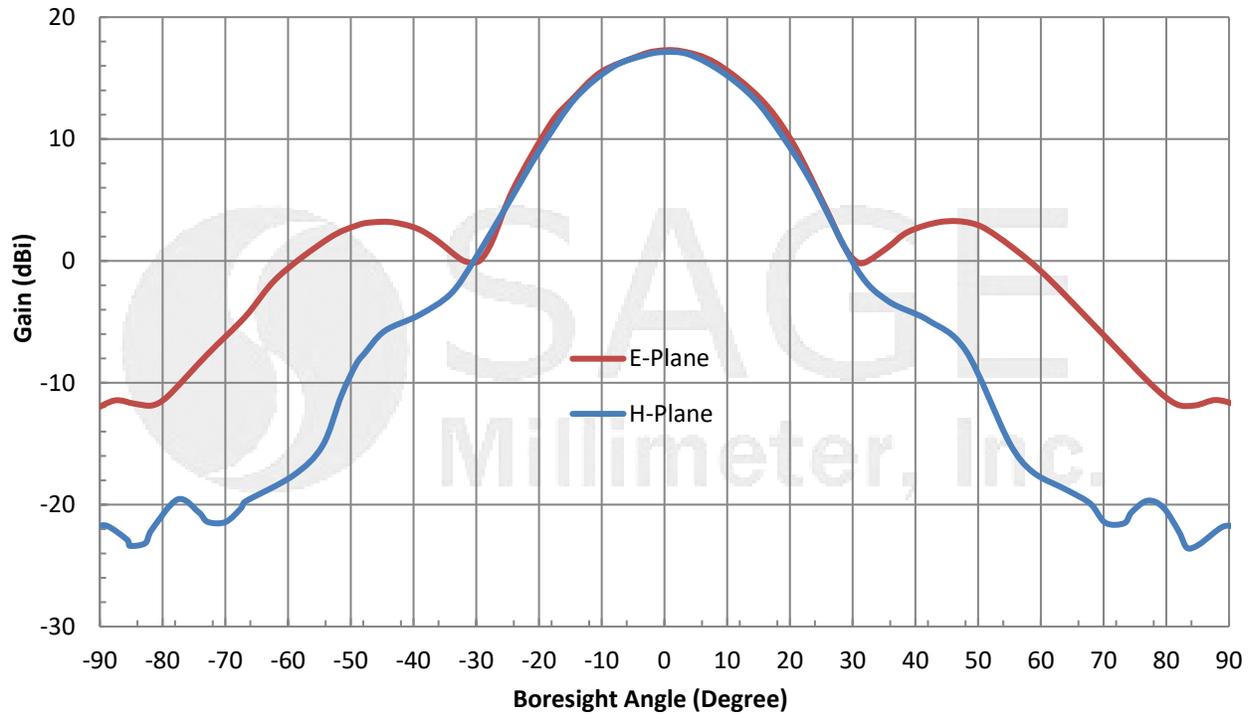
| Item | Specification |
|--------------------|--|
| Antenna Port (F) | 2.92 mm Female for Model Number: SAR-1725-34KF-E2-WR |
| Antenna Port (M) | 2.92 mm Male for Model Number: SAR-1725-34KM-E2-WR |
| Material | Aluminum |
| Connector Material | Stainless Steel |
| Finish | Gold Plated |
| Weight | 3.5 Oz |
| Size | 3.17" (L) X 1.45" (∅) |
| Outline | AR-3C17-E-WR |



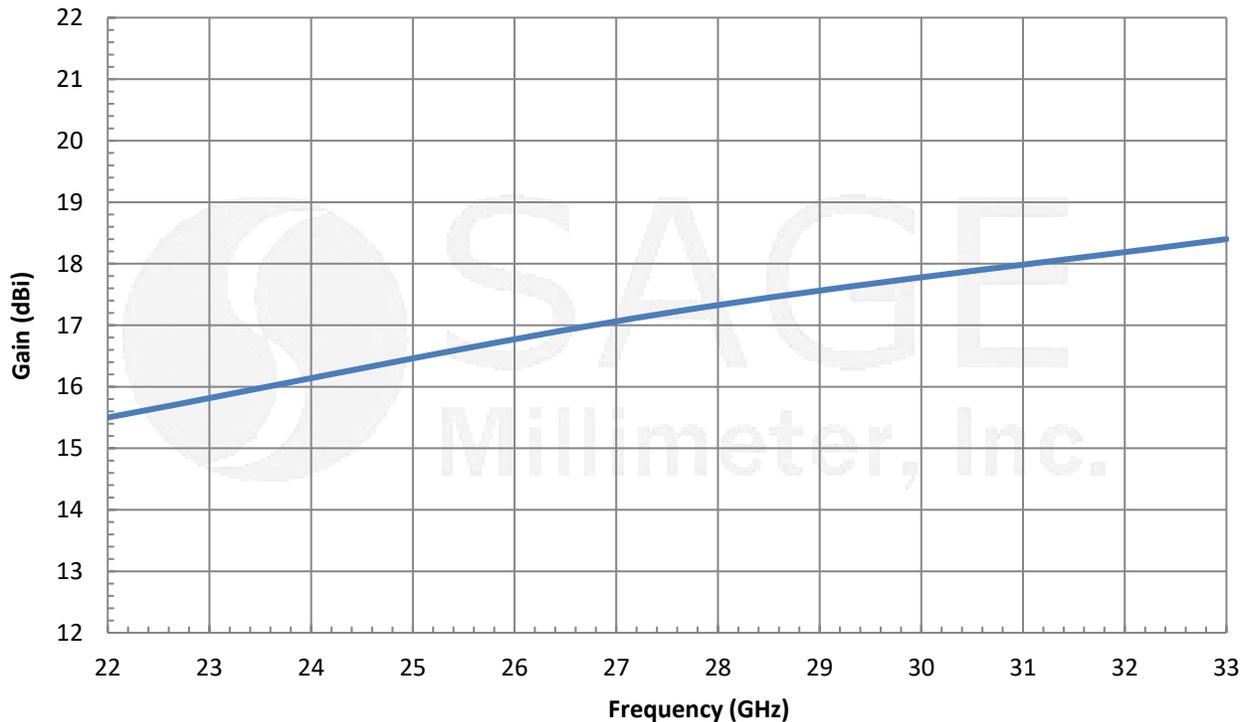


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Typical Antenna Pattern @ 27.5 GHz



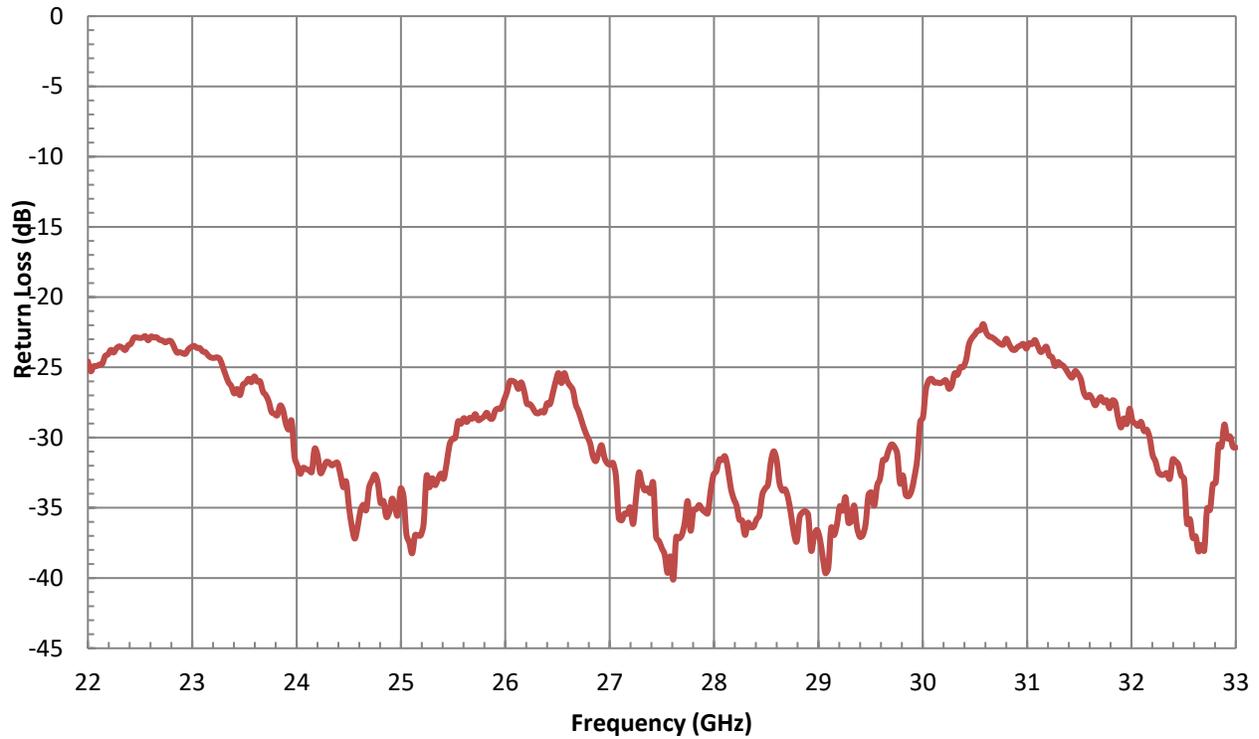
Typical Gain vs. Frequency



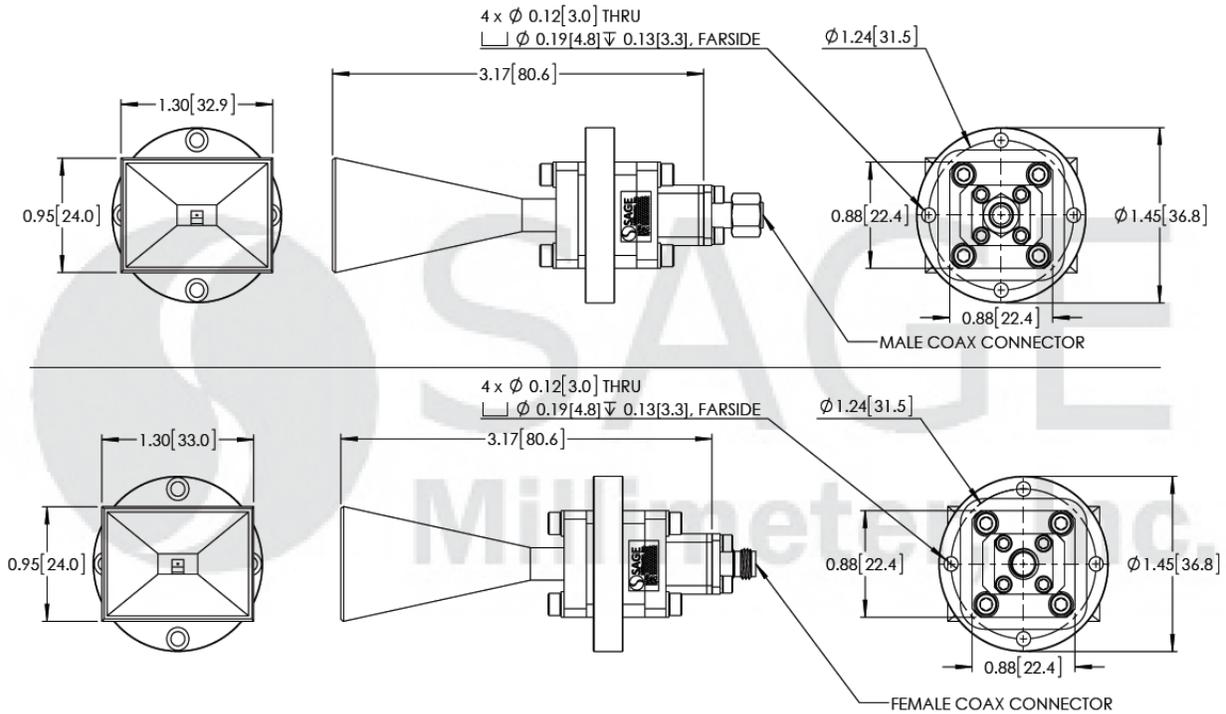


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Typical Return Loss vs. Frequency



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 room temperature.
- Eravant 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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

