



WR-28 Pyramidal Horn Antenna, 17 dBi Gain with 2.92 mm Coax Input

Description:

Models SAR-1725-28KF-R2 and SAR-1725-28KM-R2 are Ka-band pyramidal horn antennas with right angle (90°) 2.92 mm coax connectors to cover the frequency range of 26.5 GHz to 40 GHz. The antennas offer 17 dBi nominal gain and a typical half power beamwidth of 23 degrees on the E-plane and 24 degrees on the H-plane. The antennas support linear polarized waveforms. End launch (180°) 2.92 mm coax connectors are available under models SAR-1725-28KF-E2 and SAR-1725-28KM-E2.



Features:

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

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|----------|-----------|-----------|
| Frequency | 26.5 GHz | 33.25 GHz | 40 GHz |
| Gain | | 17 dBi | |
| Polarization | | Linear | |
| 3 dB Beamwidth, E-Plane | | 23° | |
| 3 dB Beamwidth, H-Plane | | 24° | |
| Sidelobes, E-Plane | | -12 dB | |
| Sidelobes, H-Plane | | -35 dB | |
| Return Loss | | 20 dB | |
| Power Handling | | | 50 W (CW) |
| Specification Temperature | | +25 °C | |
| Operating Temperature | -45 °C | | +85 °C |

Mechanical Specifications:

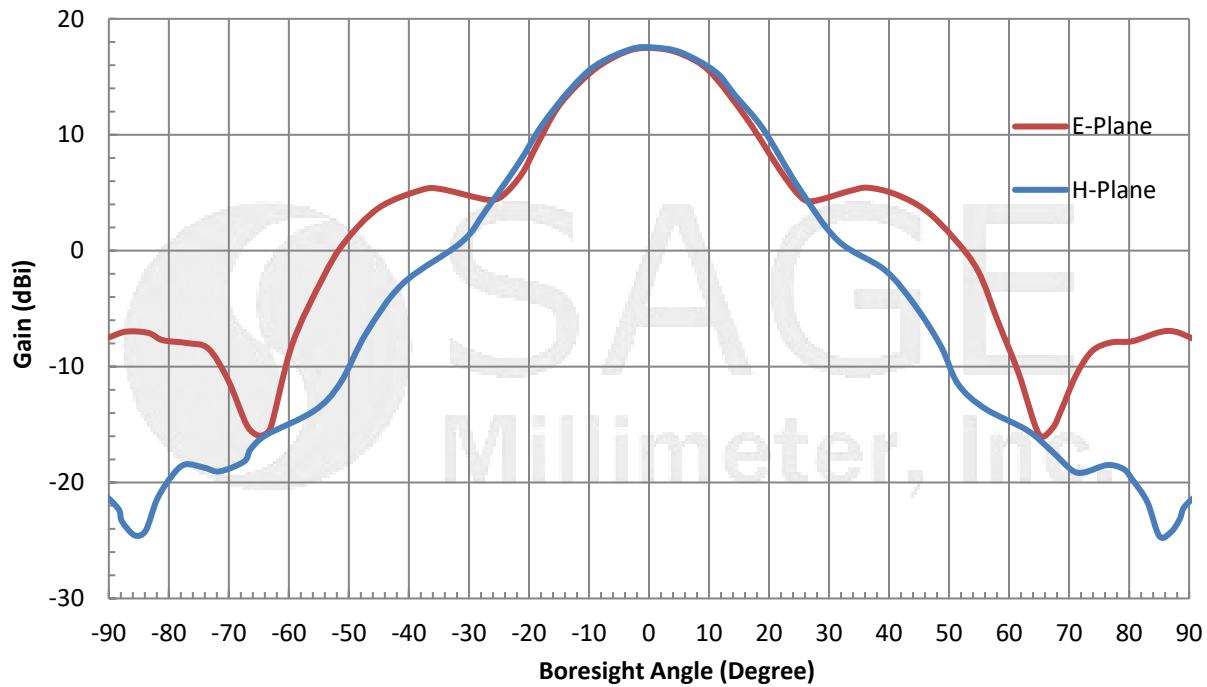
| Item | Specification |
|--------------------|--|
| Antenna Port (F) | 2.92 mm Female for Model Number : SAR-1725-28KF-R2 |
| Antenna Port (M) | 2.92 mm Male for Model Number : SAR-1725-282M-R2 |
| Size | 2.50" (L) X 1.08" (W) X 0.86" (H) |
| Material | Aluminum |
| Connector Material | Stainless Steel |
| Finish | Gold Plated |
| Weight | 0.8 Oz |
| Outline | AR-AK17-R |



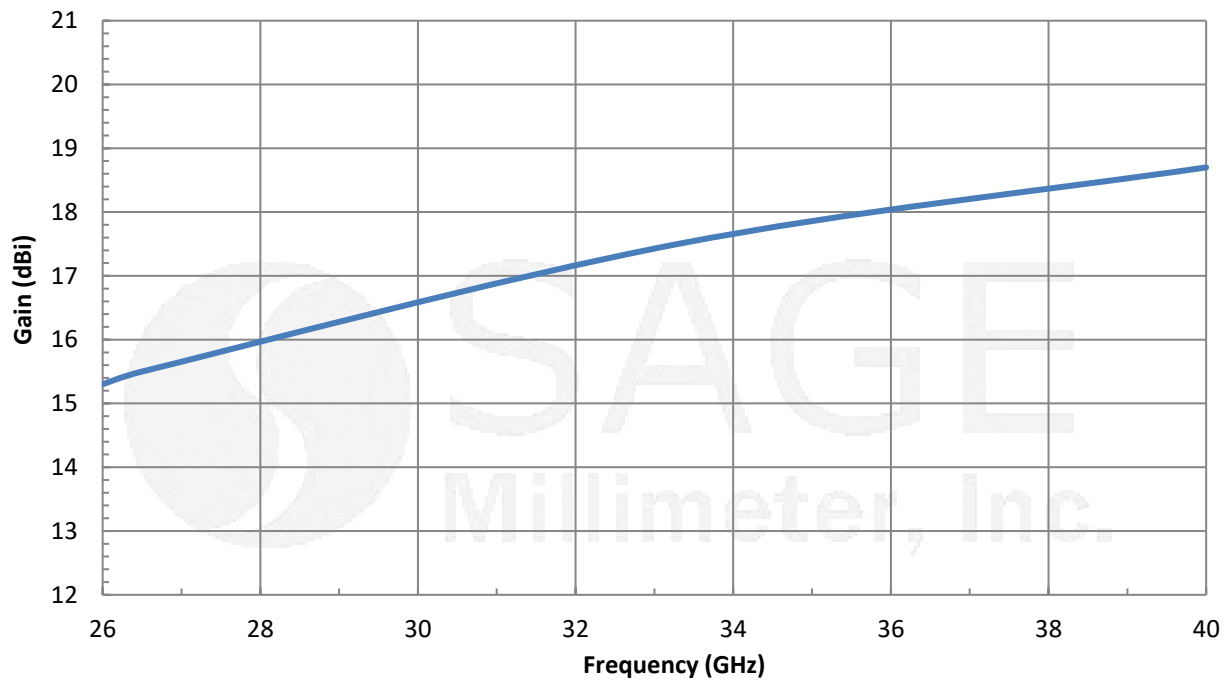


WR-28 Pyramidal Horn Antenna, 17 dBi Gain with 2.92 mm Coax Input

Typical Antenna Pattern @ 33.25 GHz



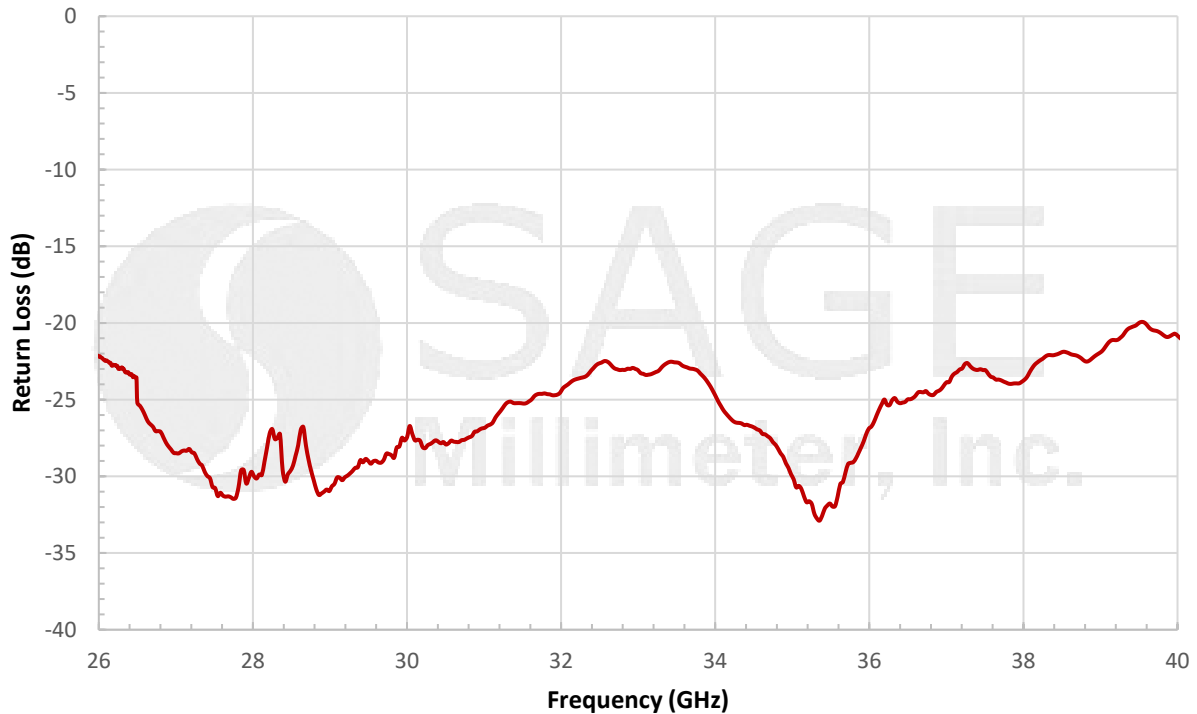
Typical Gain vs. Frequency



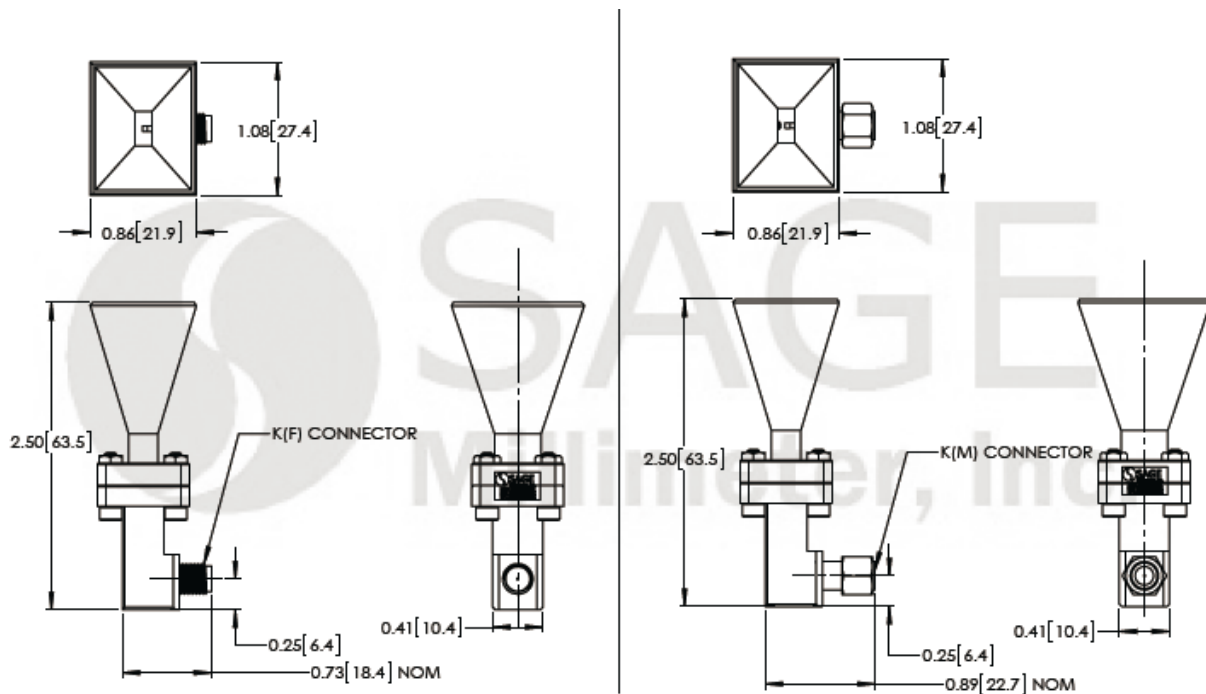


WR-28 Pyramidal Horn Antenna, 17 dBi Gain with 2.92 mm Coax Input

Typical Measured Return Loss vs. Frequency



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





WR-28 Pyramidal Horn Antenna, 17 dBi Gain with 2.92 mm Coax Input

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.**

