



WR-28 Pyramidal Horn Antenna, 23 dBi Gain with 2.92 mm Coax Input

Description:

Models SAR-2309-28KF-E2 and SAR-2309-28KM-E2 are Ka-band pyramidal horn antennas with end launch (180°) 2.92 mm coax connectors to cover the frequency range of 26.5 GHz to 40 GHz. The antennas offer 23 dBi nominal gain and a typical half power beamwidth of 10 degrees on the E-plane and 11 degrees on the H-plane. The antennas support linear polarized waveforms. Right angle (90°) 2.92 mm coax connector configurations are available under models SAR-2309-28KF-R2 and SAR-2309-28KM-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 | 26.5 GHz | | 40 GHz |
| Gain | | 23 dBi | |
| Polarization | | Linear | |
| 3 dB Beamwidth, E-Plane | | 10° | |
| 3 dB Beamwidth, H-Plane | | 11° | |
| Side Lobes, E-Plane | | -12 dB | |
| Side Lobes, H-Plane | | -33 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-2309-28KF-E2 |
| Antenna Port (M) | 2.92 mm Male for Model Number: SAR-2309-28KM-E2 |
| Material | Aluminum |
| Connector Material | Stainless Steel |
| Finish | Gold Plated |
| Weight | 1.5 Oz |
| Size | 4.89" (L) X 2.30" (W) X 1.86" (H) |
| Outline | AR-AC2-E |

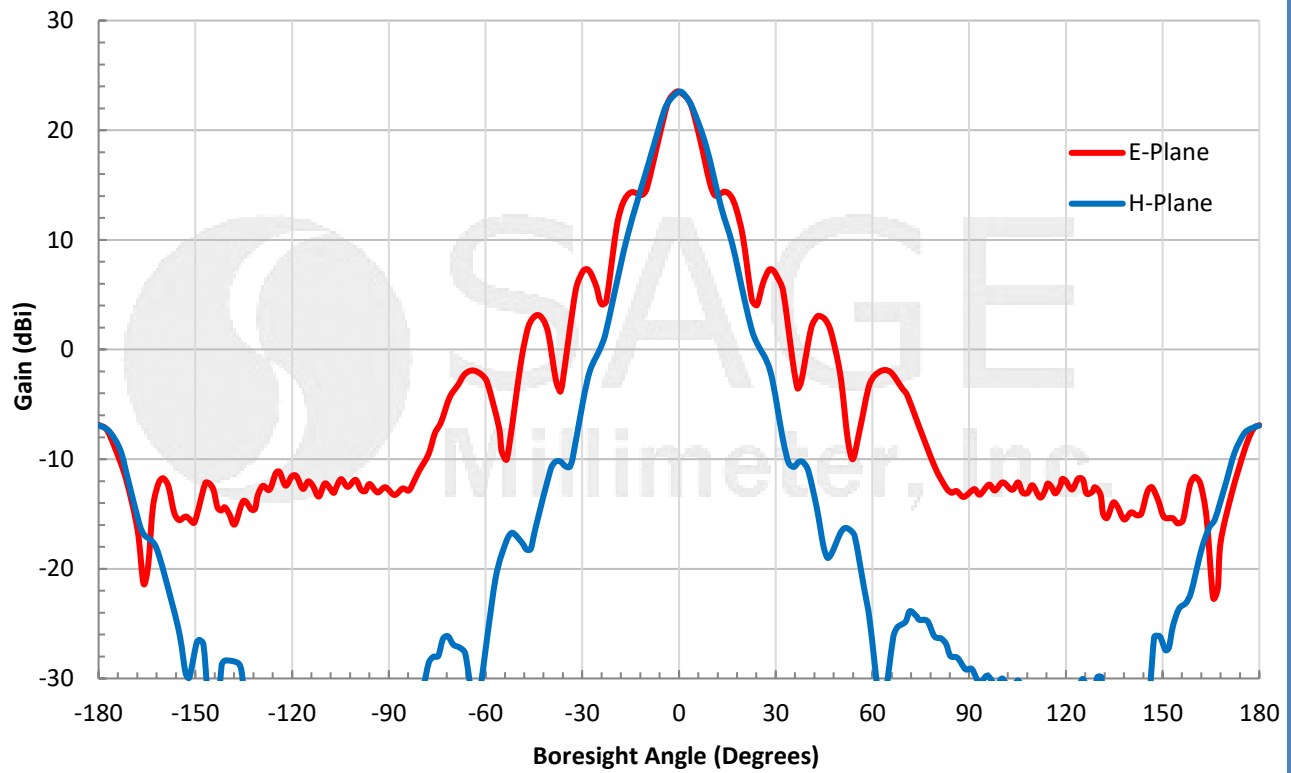


www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

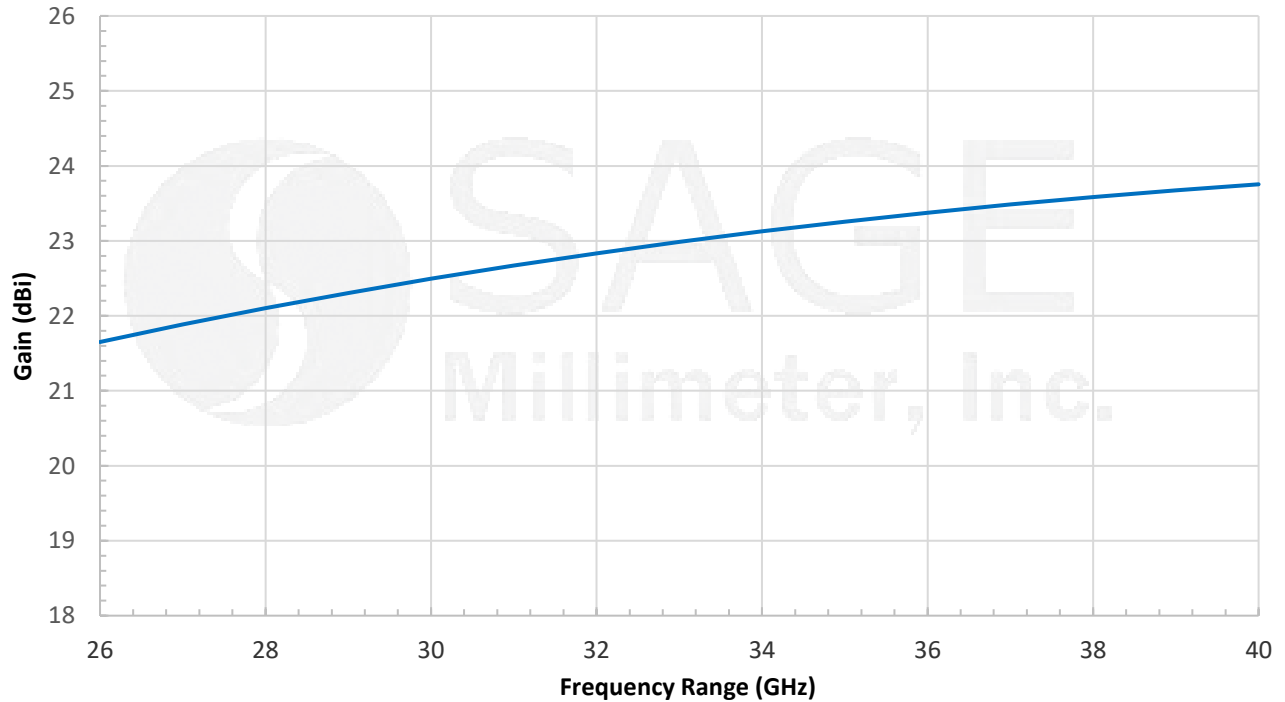


WR-28 Pyramidal Horn Antenna, 23 dBi Gain with 2.92 mm Coax Input

Simulated Antenna Patterns @ 33.25 GHz



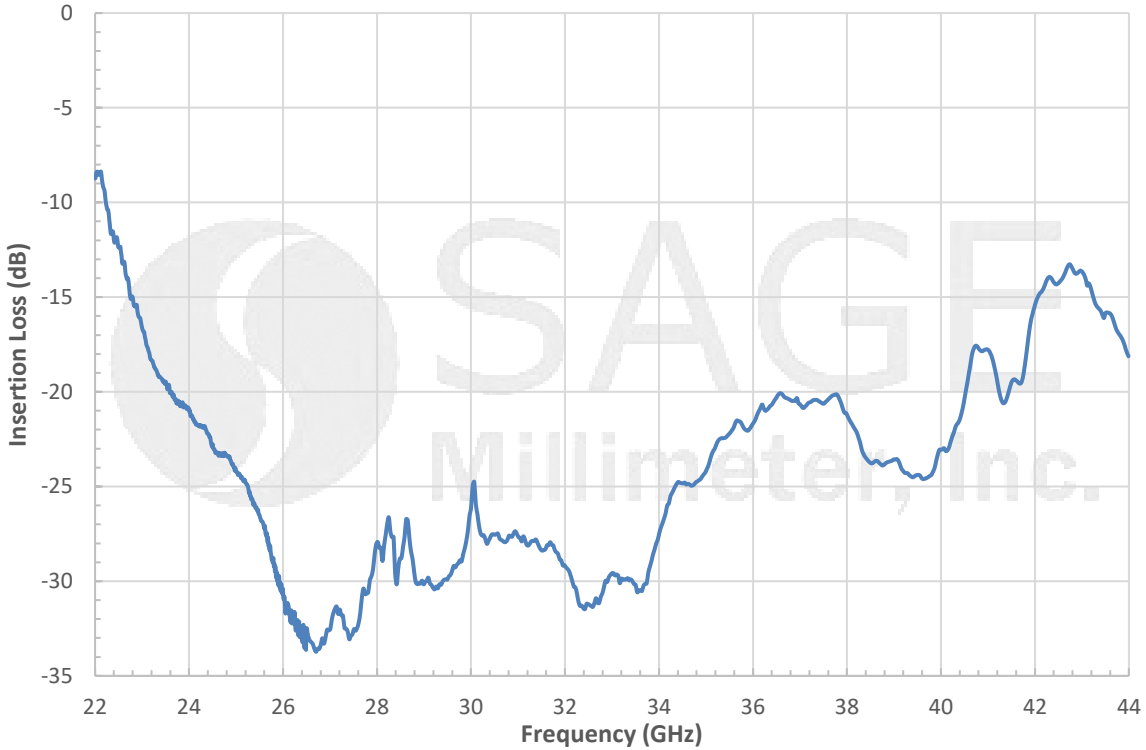
Simulated Gain vs. Frequency



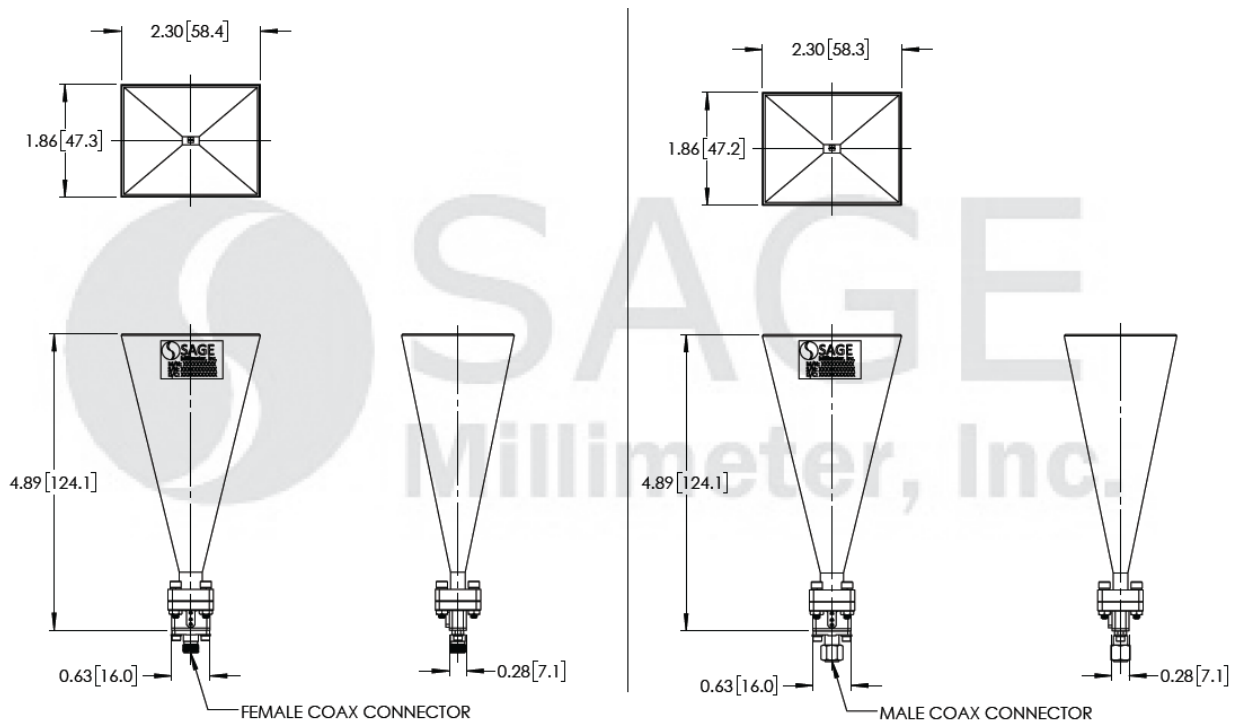


WR-28 Pyramidal Horn Antenna, 23 dBi Gain with 2.92 mm Coax Input

Typical Performance vs. Frequency



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



WR-28 Pyramidal Horn Antenna, 23 dBi Gain with 2.92 mm Coax Input

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 horn antenna will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.4 inch-pounds (0.90 ± 0.02 Nm) should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

