



## WR-12 Pyramidal Horn Antenna, 23 dBi Gain

### Description:

**Model SAR-2309-12-S2** is an E-band pyramidal horn antenna that operates from 60 GHz to 90 GHz. The antenna offers 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 antenna supports linear polarized waveforms. The input of this antenna is a WR-12 waveguide with UG387/U flange.



### Features:

- Rectangular Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss

### Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain	21.5 dBi	23 dBi	24 dBi
Polarization	Linear		
3 dB Beamwidth, E-Plane		10°	
3 dB Beamwidth, H-Plane		11°	
Side Lobes, E -Plane		14 dB	
Side Lobes, H Plane		30 dB	
VSWR		1.15:1	

### Mechanical Specifications:

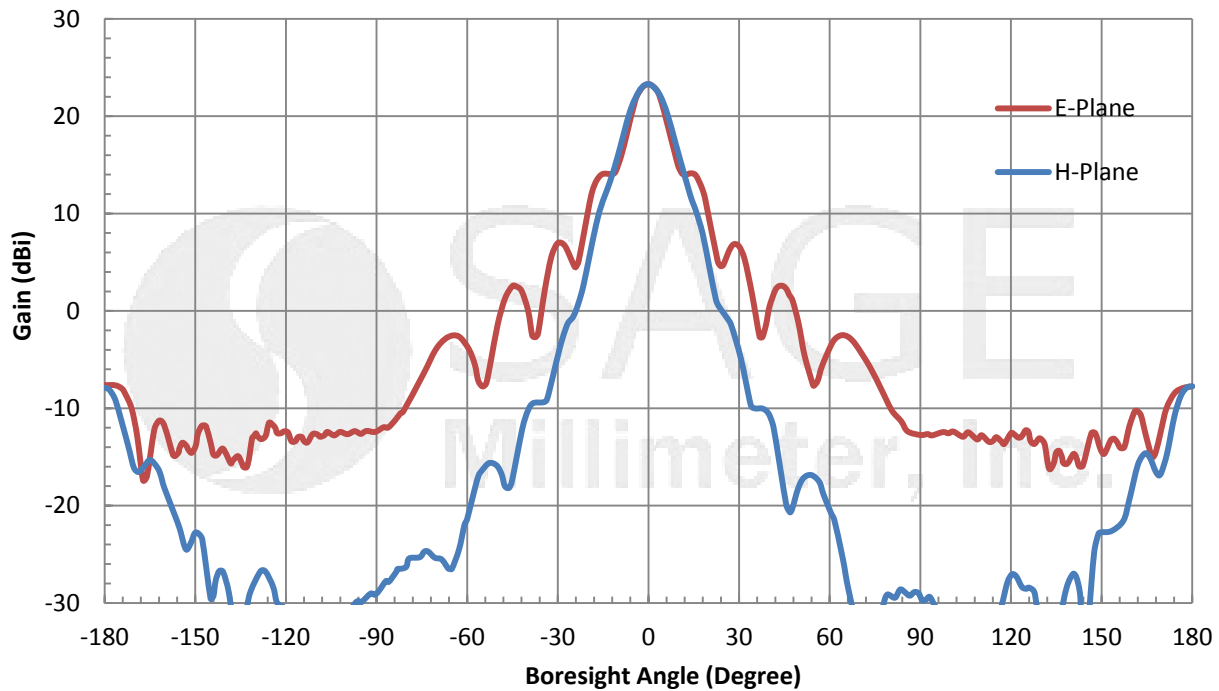
Item	Specification
Antenna Port	WR-12 Waveguide
Flange Type	UG-387/U Flange
Size	2.00" (L) X 0.98" (W) X 0.87" (H)
Material	Brass
Finish	Gold Plated
Weight	1.3 Oz
Outline	AR-E2



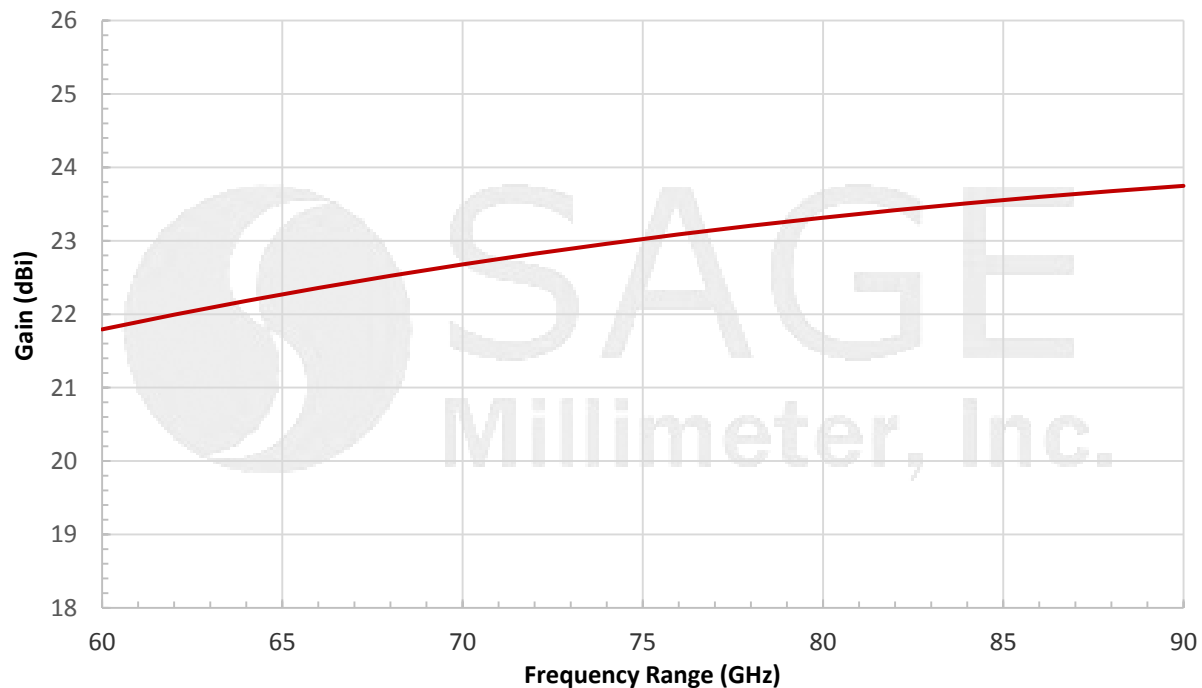


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### Typical Antenna Pattern @ 75 GHz



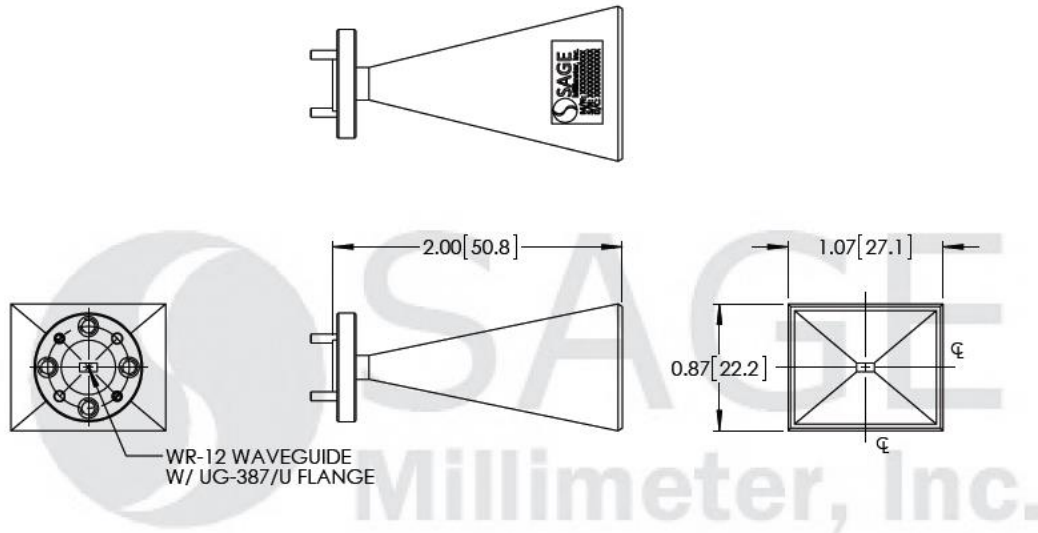
### Typical Gain vs. Frequency





## WR-12 Pyramidal Horn Antenna, 23 dBi Gain

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



**Note:**

- All data presented are simulated. Actual data may vary unit to unit.
- 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.

