

WR-12 Standard Gain Horn Antenna, 24 dBi Gain

Description:

Model SAZ-2410-12-S1 is a E-band standard gain horn antenna that operates from 60 GHz to 90 GHz. The antenna offers 24 dBi nominal gain, a typical half power beamwidth of 9.7 degrees on the E-plane and 11.0 degrees on the H-plane at the center frequency, respectively. The antenna supports linear polarized waveforms. The input of this antenna is a WR-12 waveguide with UG-387/U flange. The standard gain horn is offered for antenna range calibration purpose mainly, but it can be also used for general purpose system set ups.



Features:

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

Applications:

- Antenna Range
- Antenna Gain Measurements
- General System Setups
- Radar/Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain		24 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		9.7°	
3 dB Beamwidth, H-Plane		11.0°	
Sidelobes, E-Plane		-13 dB	
Sidelobes, H-Plane		-36 dB	
Return Loss		23 dB	
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

Mechanical Specifications:

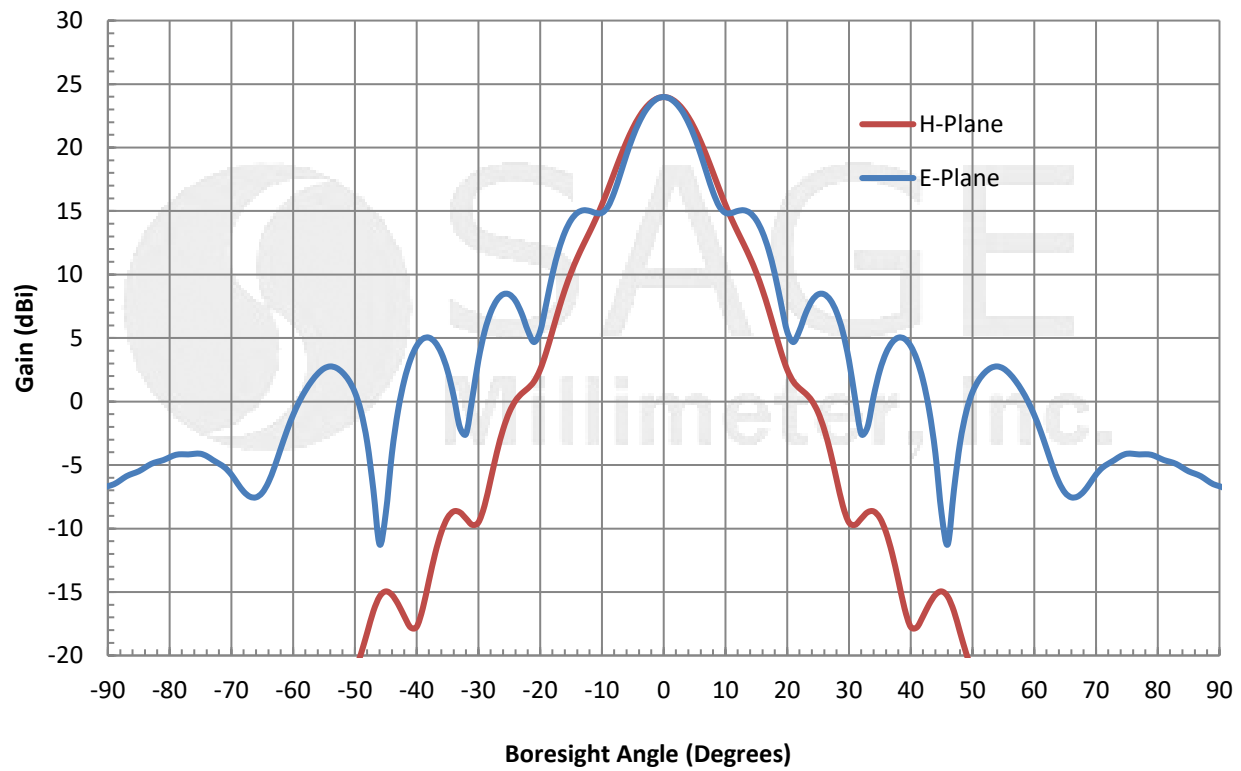
Item	Specification
Antenna Port	WR-12 Waveguide
Flange Type	UG-387/U Flange
Size	2.56" (L) X 1.20" (W) X 0.98" (H)
Material	Brass
Finish	Gold Plated
Weight	0.12 Oz
Outline	AZ-E24



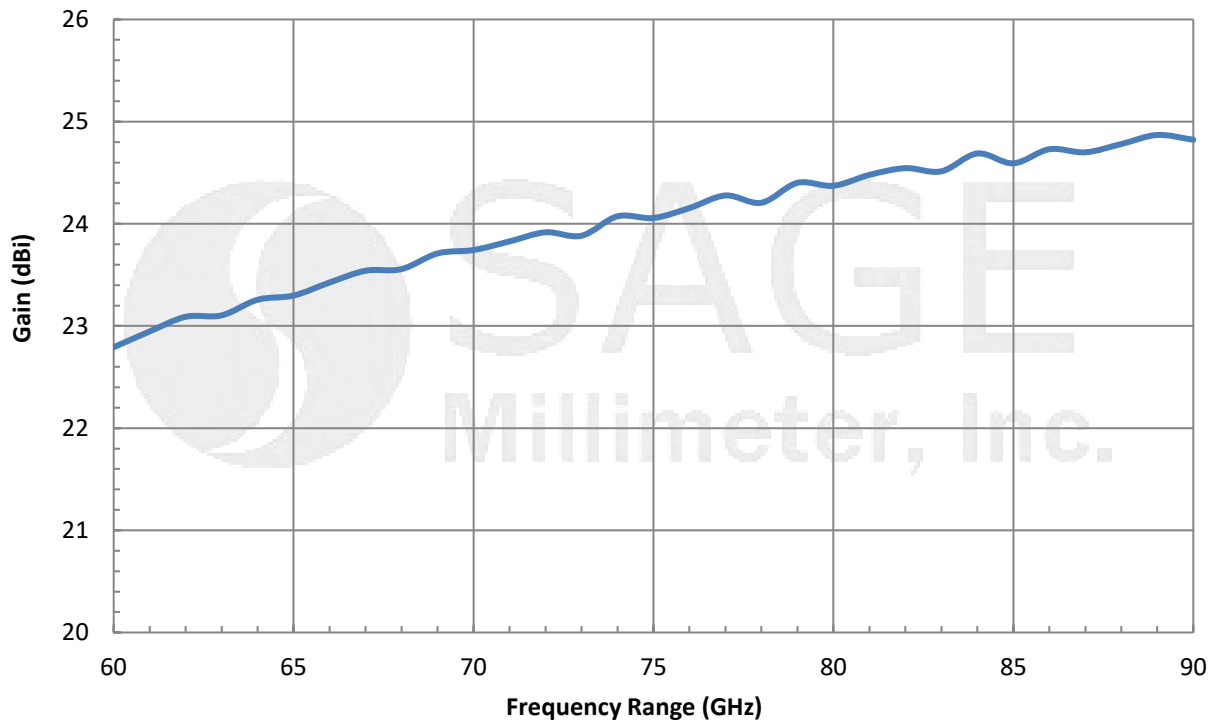


WR-12 Standard Gain Horn Antenna, 24 dBi Gain

Typical Antenna Patterns @ 75 GHz



Typical Gain vs. Frequency



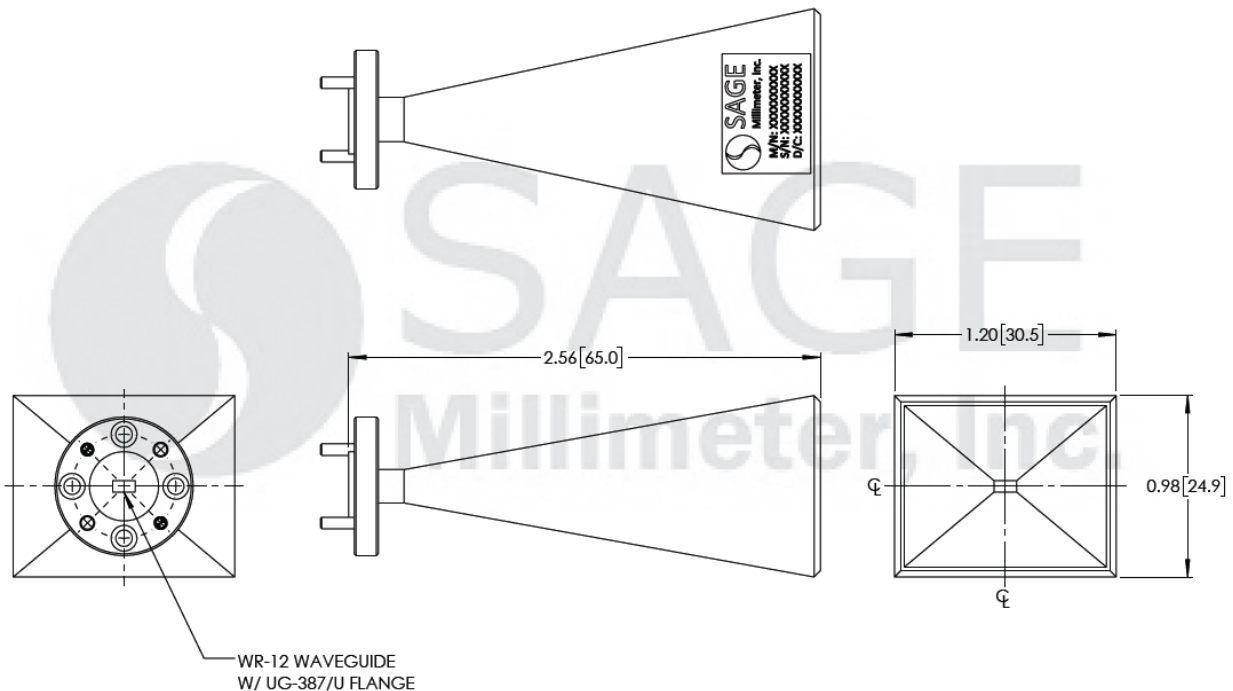


WR-12 Standard Gain Horn Antenna, 24 dBi Gain

Gain vs. Frequency in Tabular Format

Frequency (GHz)	Gain (dBi)	Frequency (GHz)	Gain (dBi)
60	22.79	76	24.15
61	22.95	77	24.28
62	23.09	78	24.21
63	23.10	79	24.40
64	23.26	80	24.37
65	23.30	81	24.48
66	23.43	82	24.54
67	23.54	83	24.51
68	23.56	84	24.69
69	23.71	85	24.59
70	23.74	86	24.73
71	23.83	87	24.70
72	23.92	88	24.78
73	23.88	89	24.87
74	24.07	90	24.82
75	24.06		

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





WR-12 Standard Gain Horn Antenna, 24 dBi Gain

Note:

- All data presented is simulated by full EM simulator. Actual data may vary, slightly.
- The purpose of the displaying the antenna and gain plots is for reference solely.
- The gain versus frequency data in tabular format is intended to be used for gain measurement purpose.
- SAGE Millimeter, Inc. 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.

