

WR-12 Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain

Description:

Model SAL-7138633602-125-S1-WPC is a lens corrected antenna that operates from 71 to 86 GHz. At the frequency of 78.5 GHz, the antenna delivers 36 dBi nominal gain, and a typical half-power beamwidth of 2 degrees E-plane and 3 degrees on the H-plane. The antenna employs a low loss lens to offer excellent aperture efficiency and low sidelobe levels. The lens corrected antenna is equipped with a 0.125" diameter circular waveguide as its input port. It supports both linear and circular polarized waveforms. The model with WR-12 waveguide is offered under model number **SAL-7138633602-12-S1**.



Features:

- Center Fed
- Low Sidelobes
- Linear and Circular Polarized Waveforms

Applications:

- Radar Systems
- Communication Systems
- Sensor Systems

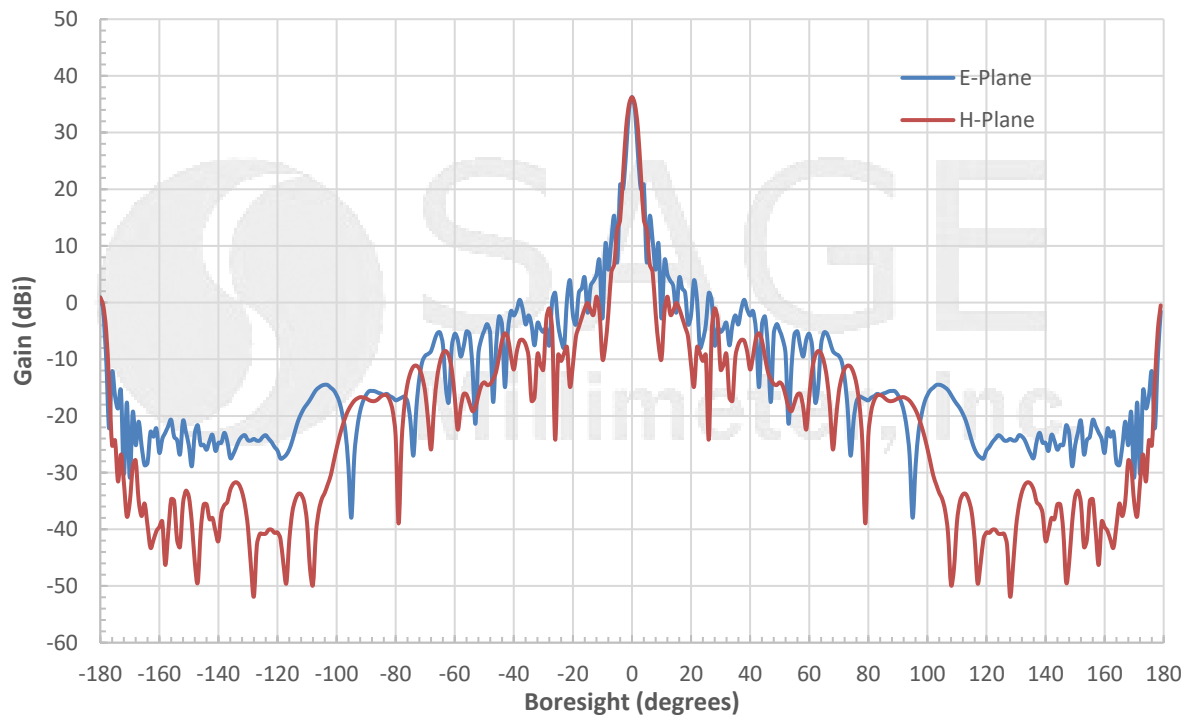
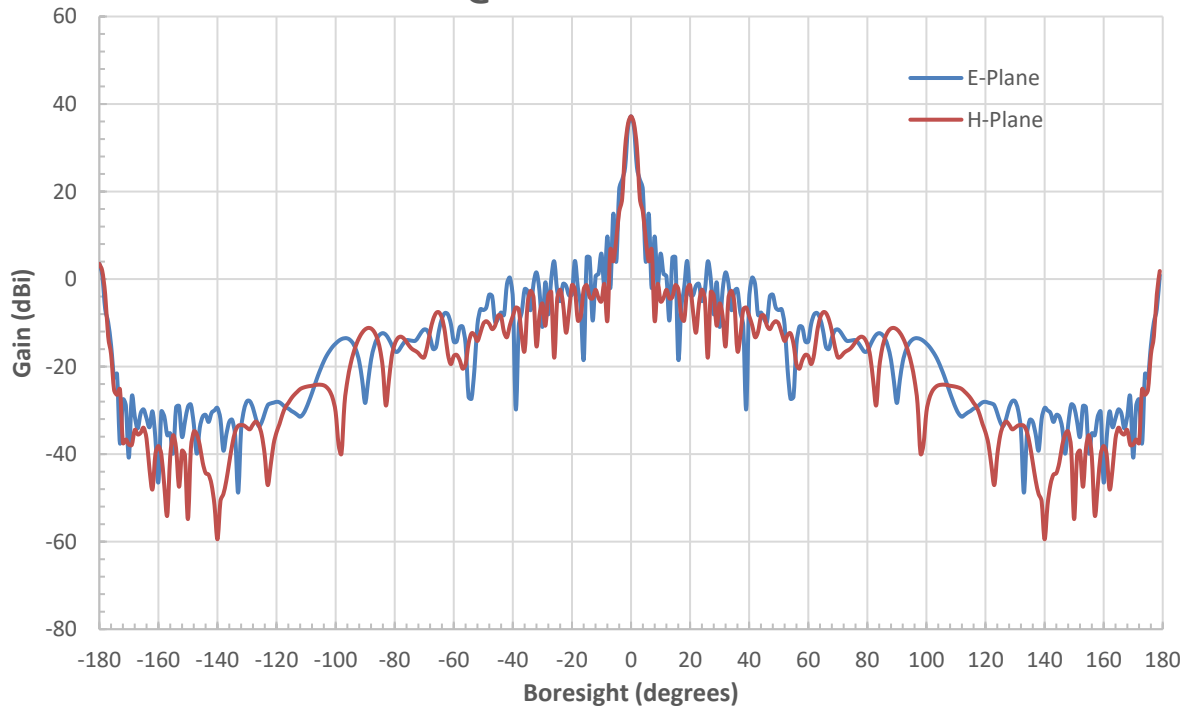
Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	71 GHz		86 GHz
Gain		36 dBi	
3 dB Beamwidth, E-Plane		2°	
3 dB Beamwidth, H-Plane		3°	
Sidelobes, E-Plane		-17 dB	
Sidelobes, H-Plane		-20 dB	
Polarization	Linear and Circular		
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

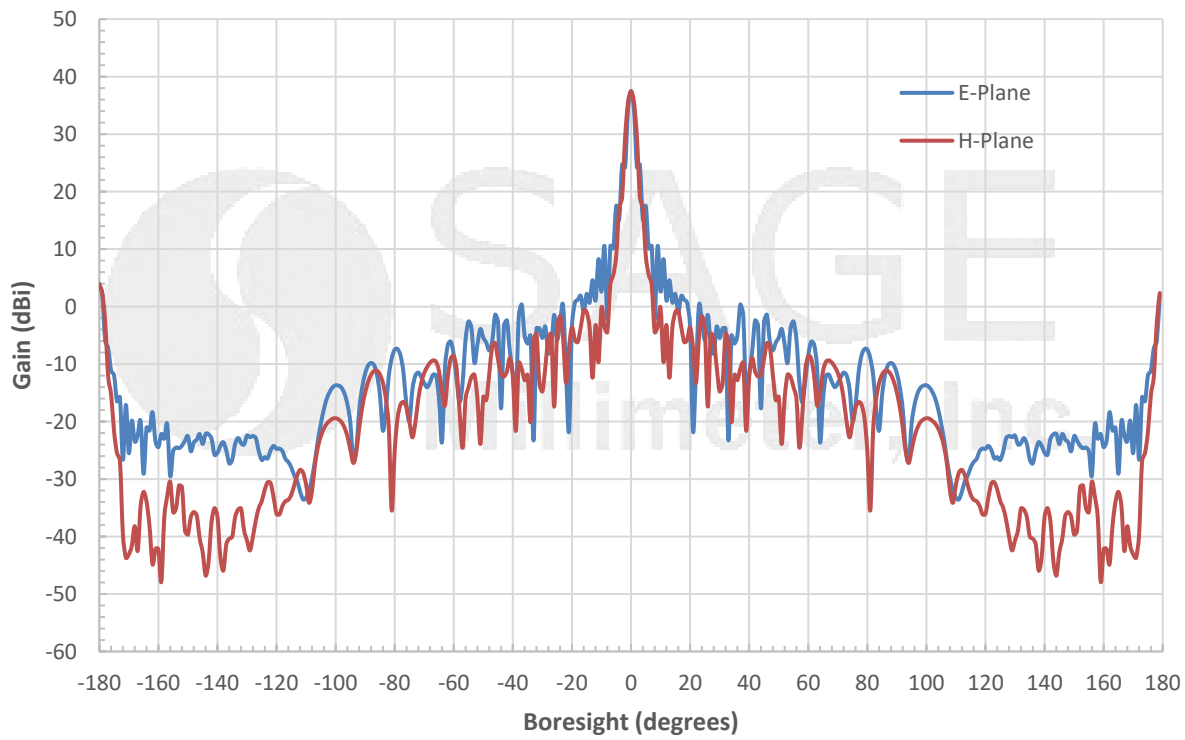
Parameter	Connector
Antenna Port	0.125" Diameter Circular Waveguide with UG-387/U-M Flange
Horn Material	Aluminum
Finish	Gold Chem Film
Weight	10.6 Oz
Lens Diameter	4"
Dimensions	5.55" (L) x 4.50" (Ø)
Outline	AL-CE36-125



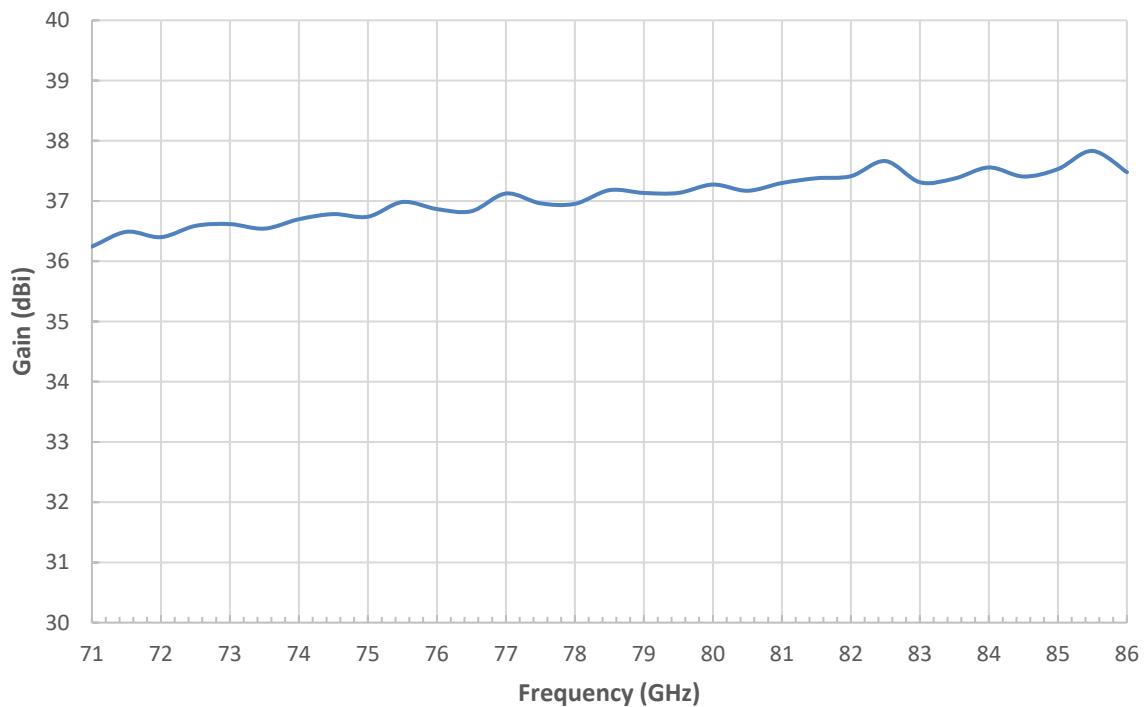
WR-12 Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain**Simulated Antenna Patterns @ 71 GHz****Simulated Antenna Patterns @ 78.5 GHz**

WR-12 Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain

Simulated Antenna Patterns @ 86 GHz

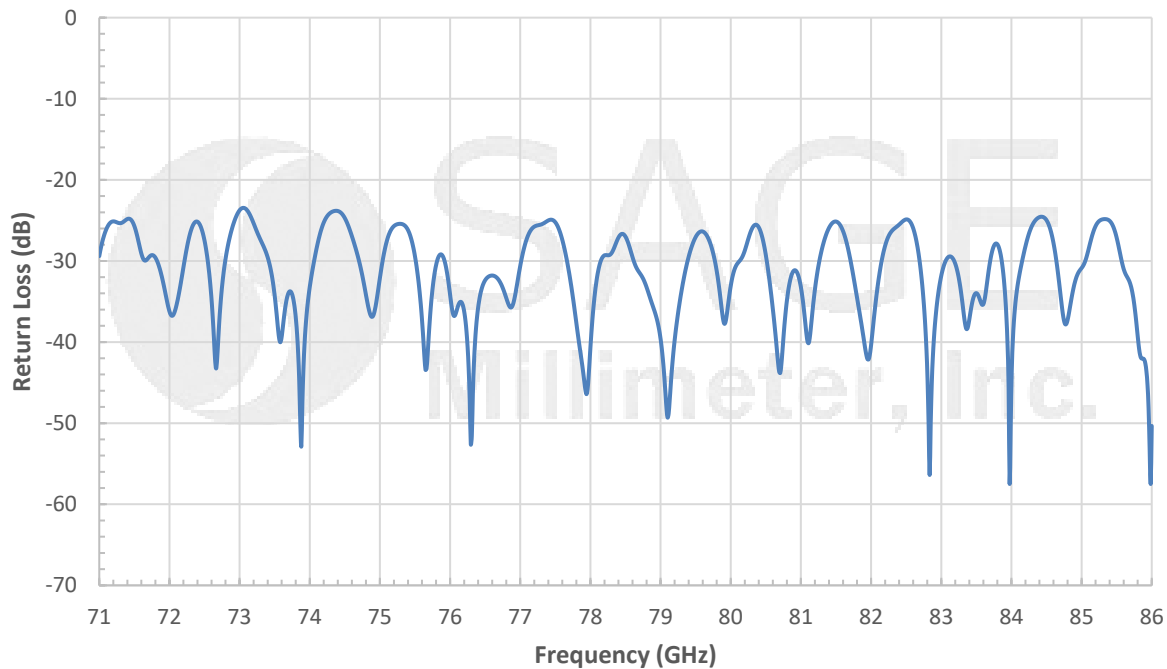


Simulated Gain vs. Frequency

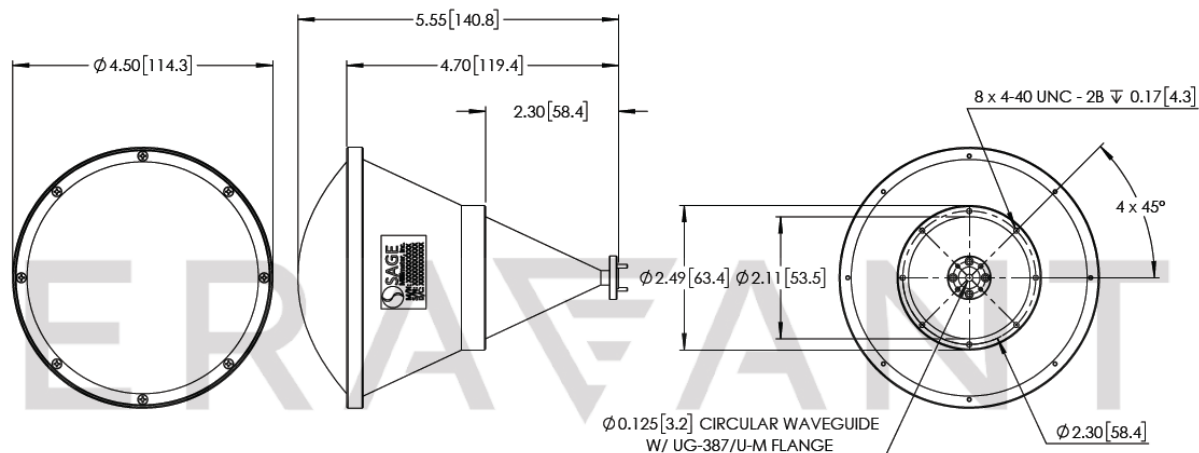


WR-12 Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain

Simulated Return Loss vs. Frequency



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



Note:

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

