SAL-7138633602-12-S1-2

E-Band Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain

SAL-7138633602-12-S1-2 is an E-band lens corrected antenna that operates from 71 to 86 GHz. At a center frequency of 78.5 GHz, the antenna delivers 36 dBi nominal gain, 2.0 degrees typical half power beamwidth on the E-plane, and 3.0 degrees typical half power beamwidth 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 standard WR-12 waveguide and UG-387/U anti-cocking flange as its input port. It supports linear polarized waveforms.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	71 GHz		86 GHz
Gain		36 dBi	
3 dB Beamwidth, E-Plane @ 75 GHz		2.0°	
3 dB Beamwidth, H-Plane @ 75 GHz		3.0°	
Sidelobes, E-Plane		-17 dB	
Sidelobes, H-Plane		-20 dB	
Polarization		Linear	
Return Loss		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Parameter	Connector
Antenna Port	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Lens Diameter	4”
Dimensions	5.00” (L) x 4.50” (Ø)
Horn Material	Aluminum
Finish	Gold Plated
Weight	9.6 Oz
Outline	AL-RE36-2

ECCN

EAR99

FEATURES

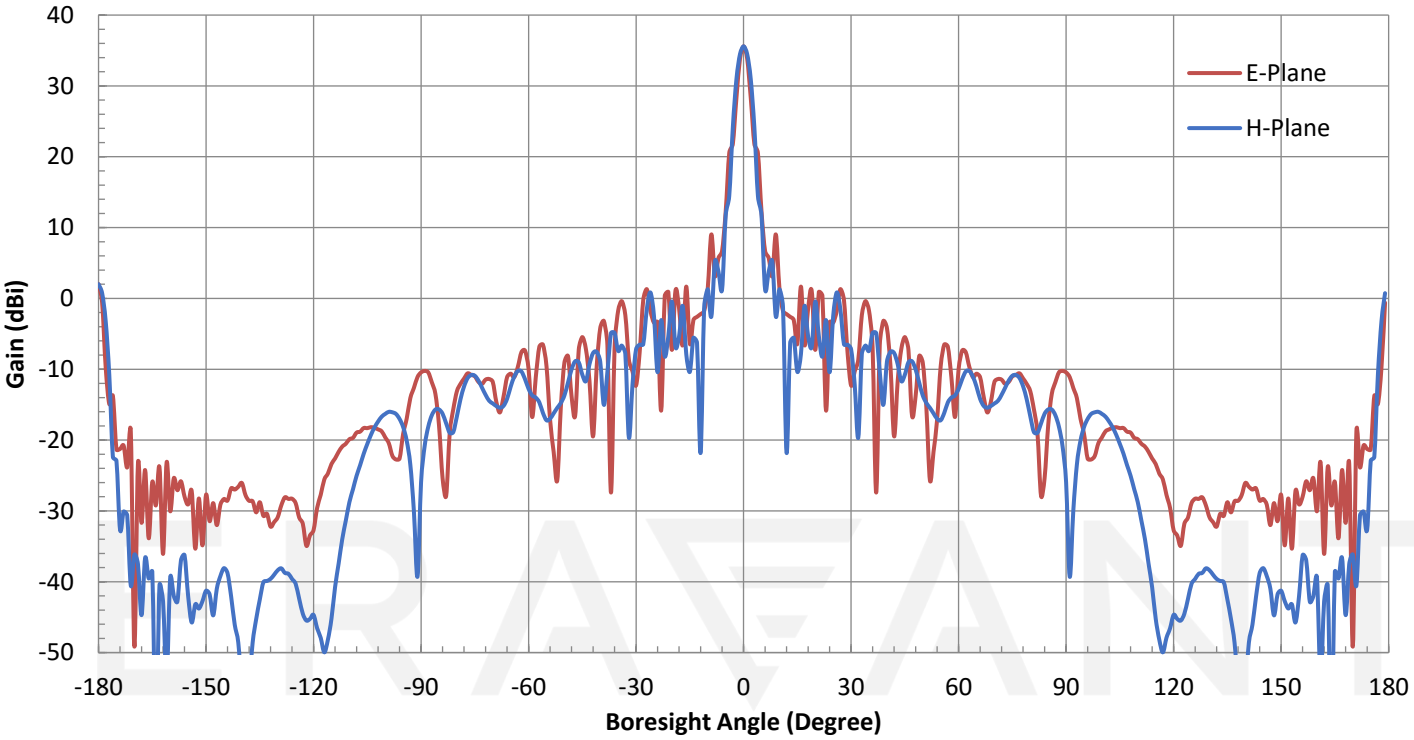
- Center Fed
- Low Sidelobes
- Low Cross Polarization

APPLICATIONS

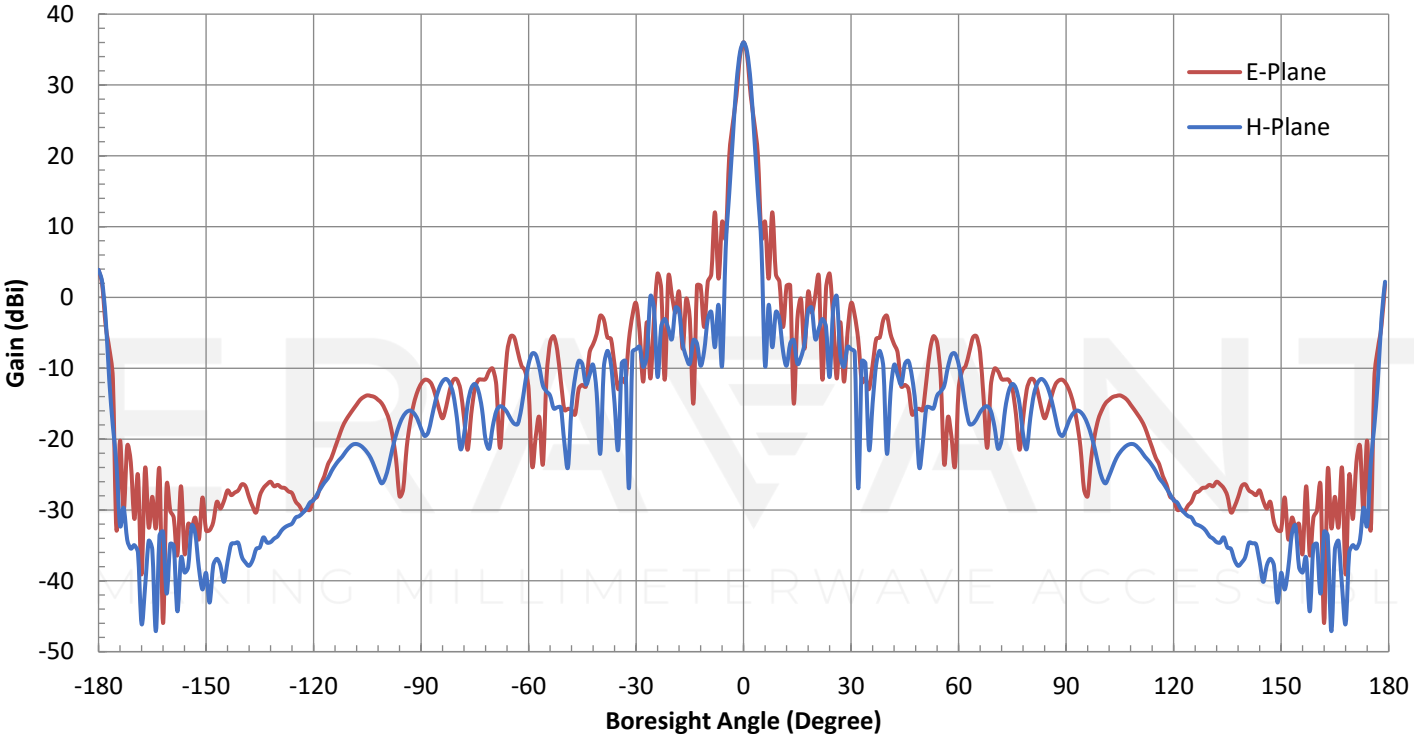
- Radar Systems
- Communication Systems
- Sensor Systems

SUPPLEMENTAL DETAILS

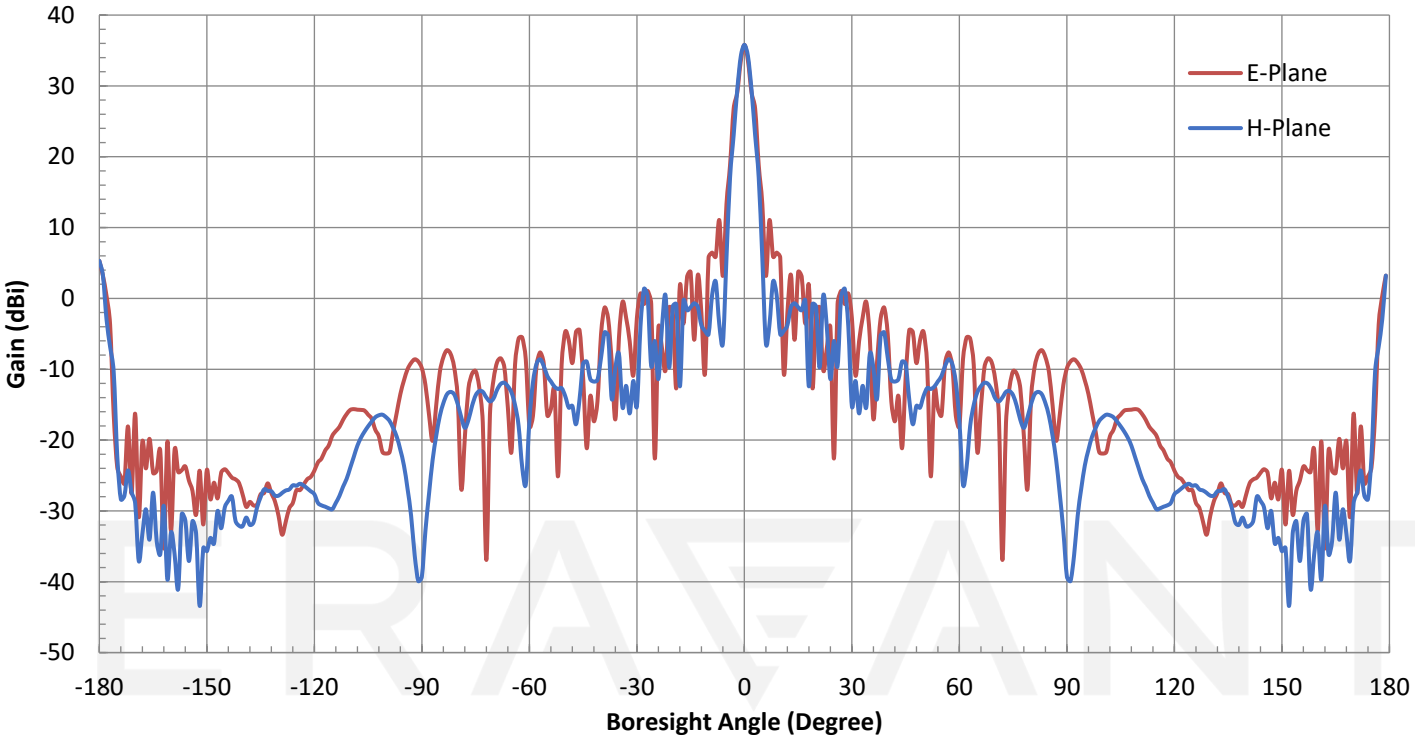
Simulated Antenna Pattern @ 71.0 GHz



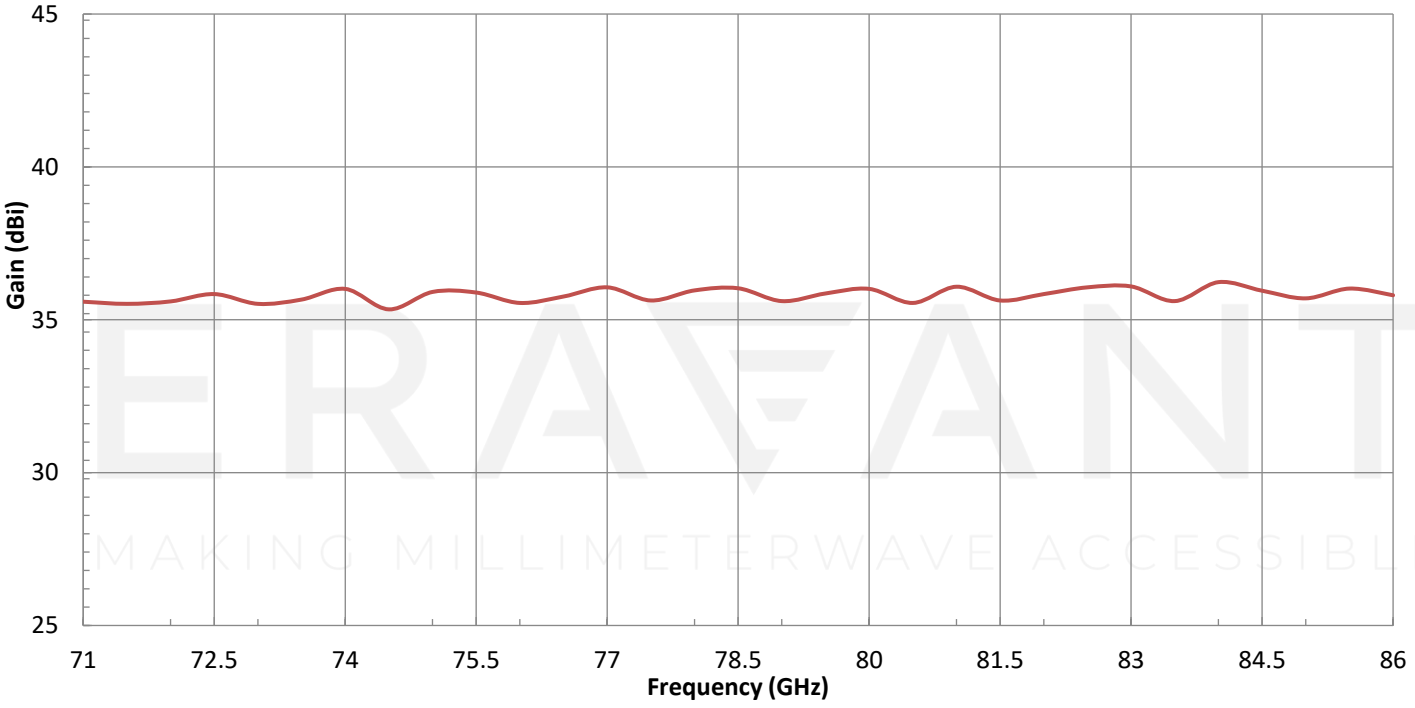
Simulated Antenna Pattern @ 78.5 GHz



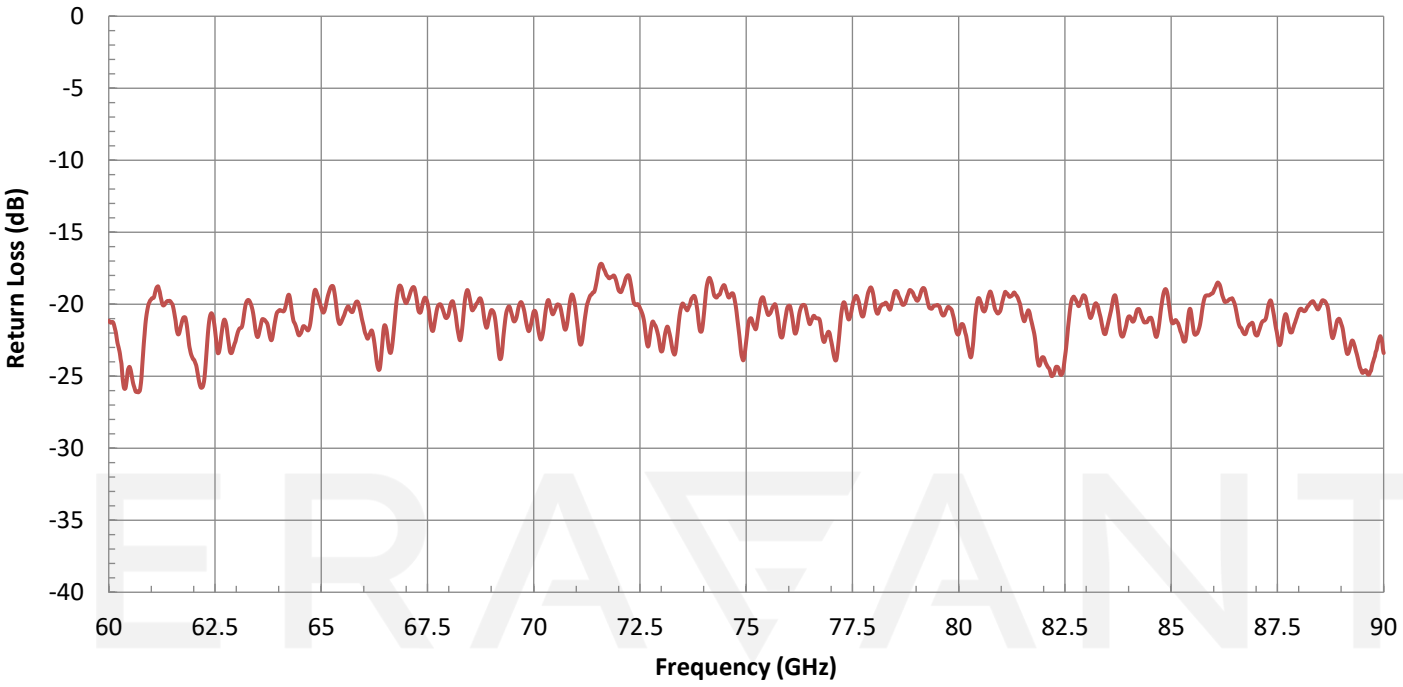
Simulated Antenna Pattern @ 86.0 GHz



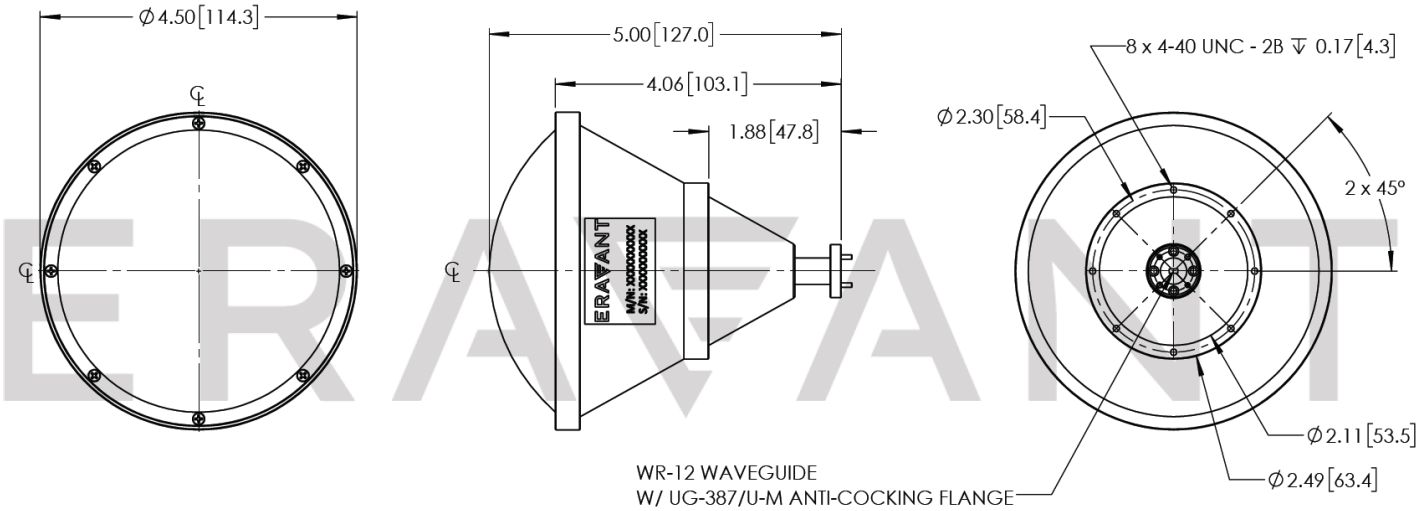
Simulated Gain vs. Frequency



Typical Return Loss vs. Frequency



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



NOTE:

- Antenna Patterns, and Gain are simulated. Actual data may vary.
- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.

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