

SAL-1441443015-06-S1-RL

D-Band Rectangular Lens Corrected Antenna, 137 to 143 GHz, 30 dBi Gain

SAL-1441443015-06-S1-RL is a D-band rectangular lens corrected antenna that operates from 137 to 143 GHz. At a center frequency of 140 GHz, the antenna delivers 30 dBi nominal gain, 15 degrees typical half power beamwidth on the E-plane, and 2 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-06 waveguide and UG-387/U-M anti-cocking flange as its input port. It supports linear polarized waveforms.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	137 GHz	140 GHz	143 GHz
Gain		30 dBi	
3 dB Beamwidth, E-Plane		15°	
3 dB Beamwidth, H-Plane		2°	
Sidelobes, E-Plane		-12 dB	
Sidelobes, H-Plane		-20 dB	
Polarization		Linear	
Return Loss		14 dB	
Specification Temperature		+25°	
Operating Temperature	-45°		+85°

Mechanical Specifications:

Item	Specification
Antenna Port	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Chem Film
Weight	2.8 oz
Outline	AL-RD30-A-RL

ECCN

EAR99

FEATURES

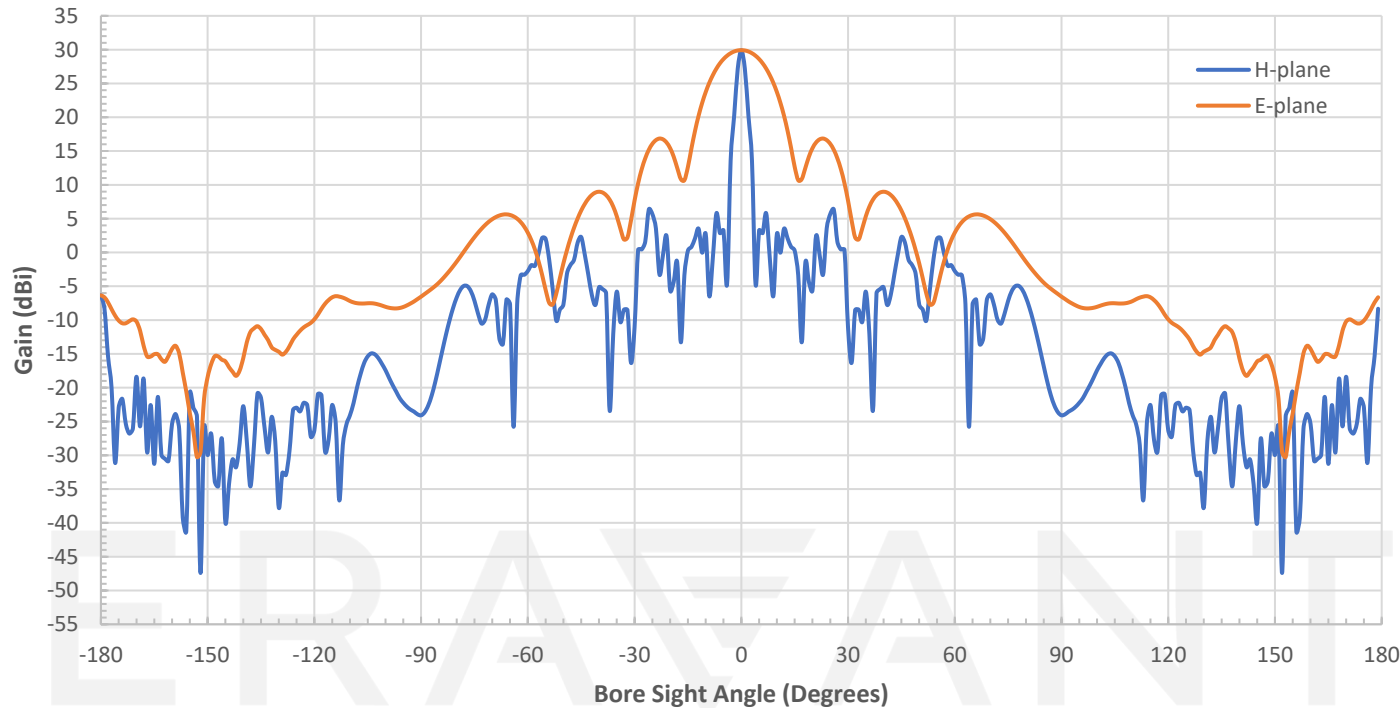
- Center Fed
- Low Sidelobes
- Low Cross Polarization

APPLICATIONS

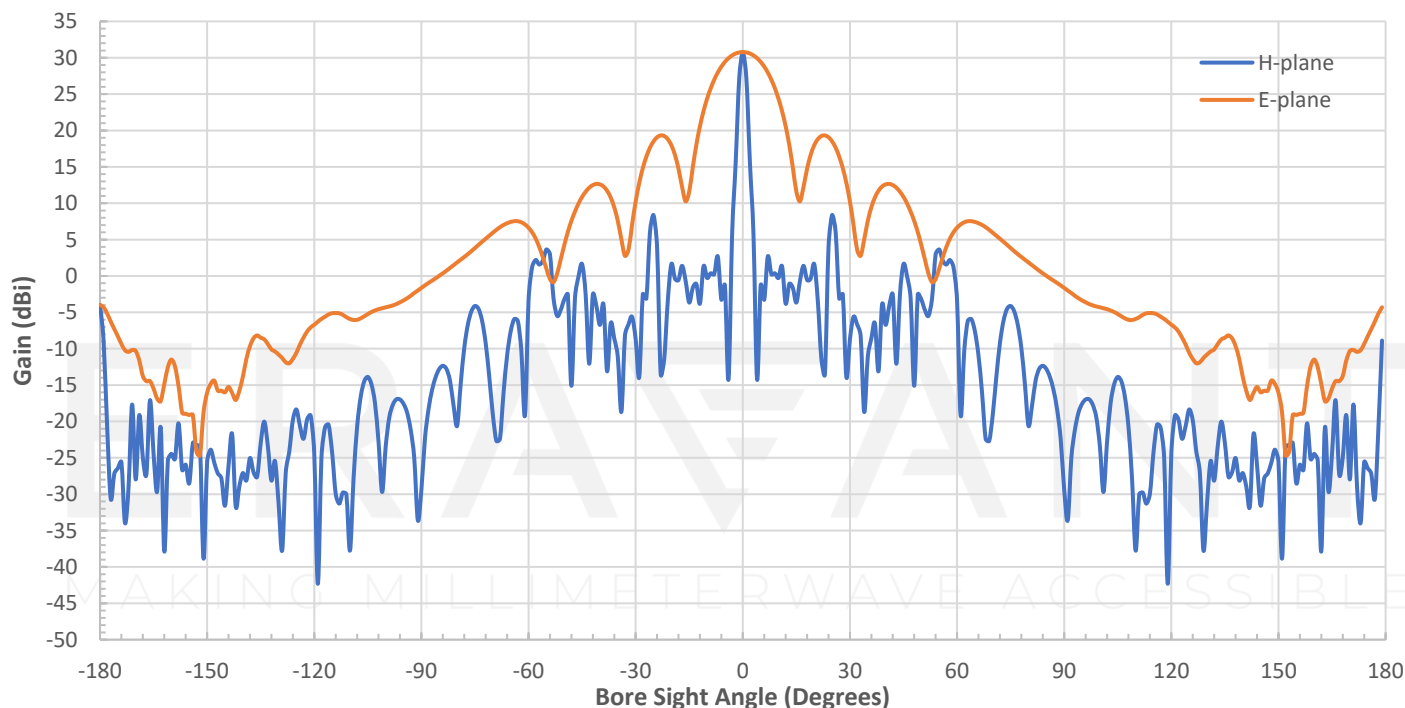
- Radar Systems
- Communication Systems
- Sensor Systems



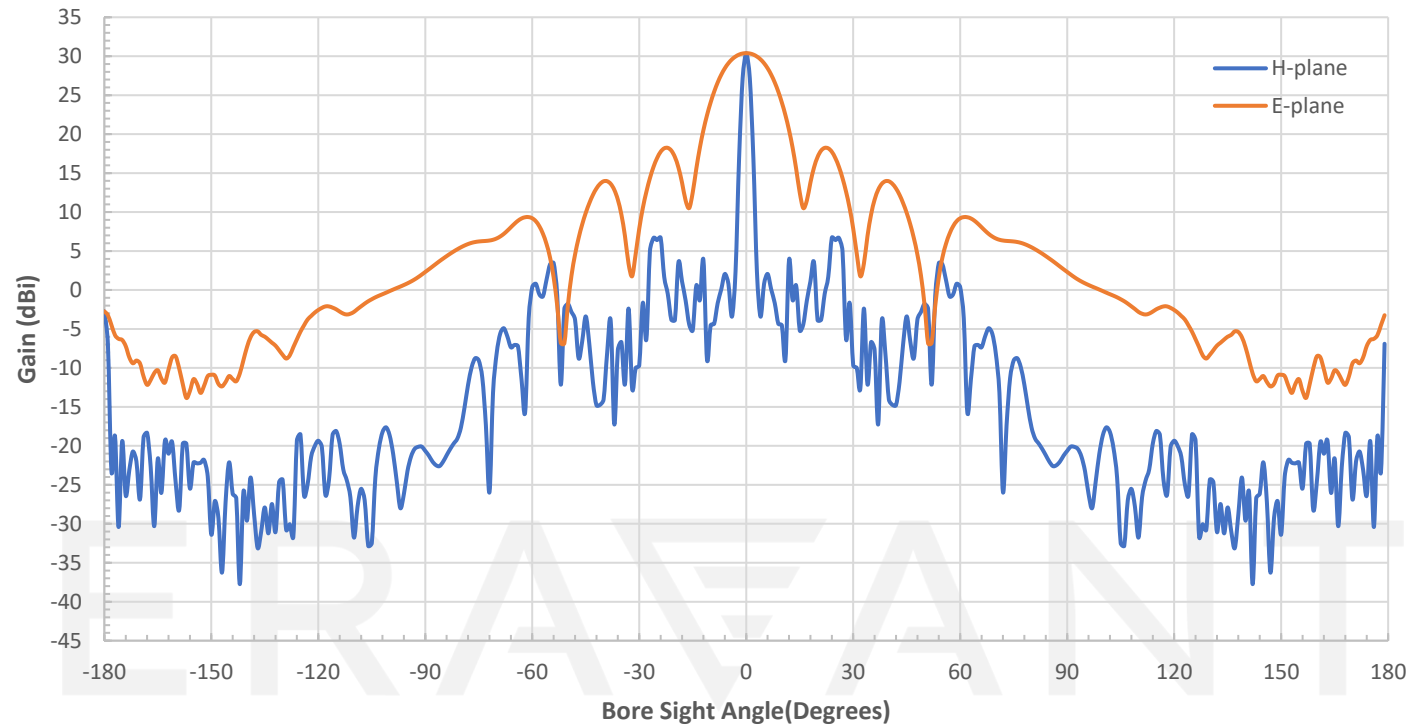
Simulated Antenna Pattern at 137 GHz



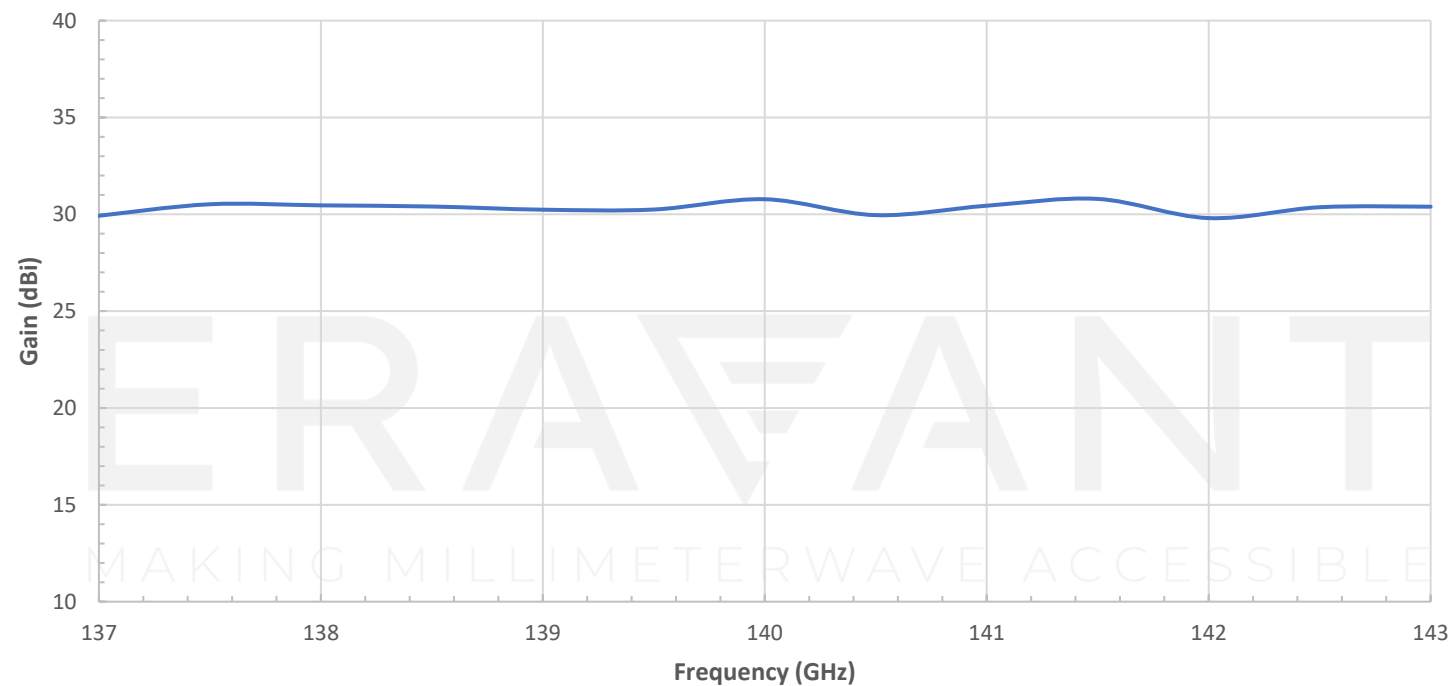
Simulated Antenna Pattern at 140 GHz



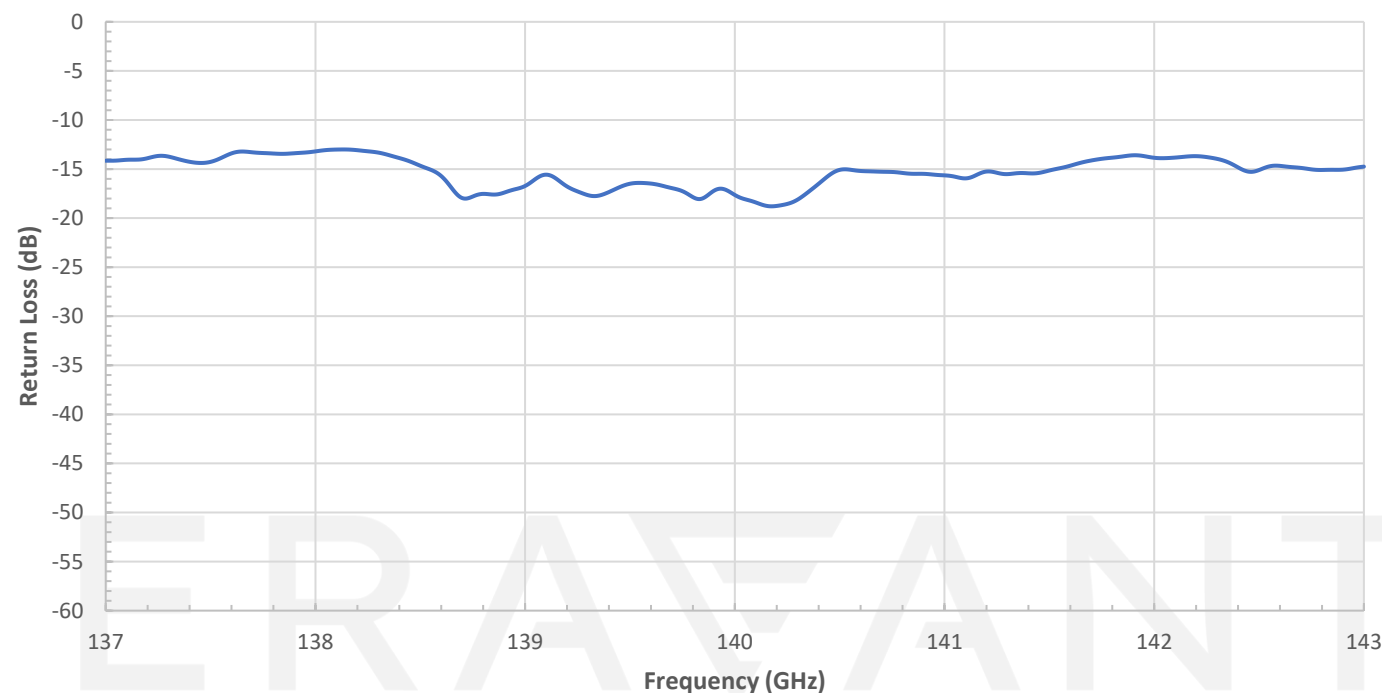
Simulated Antenna Pattern at 143 GHz



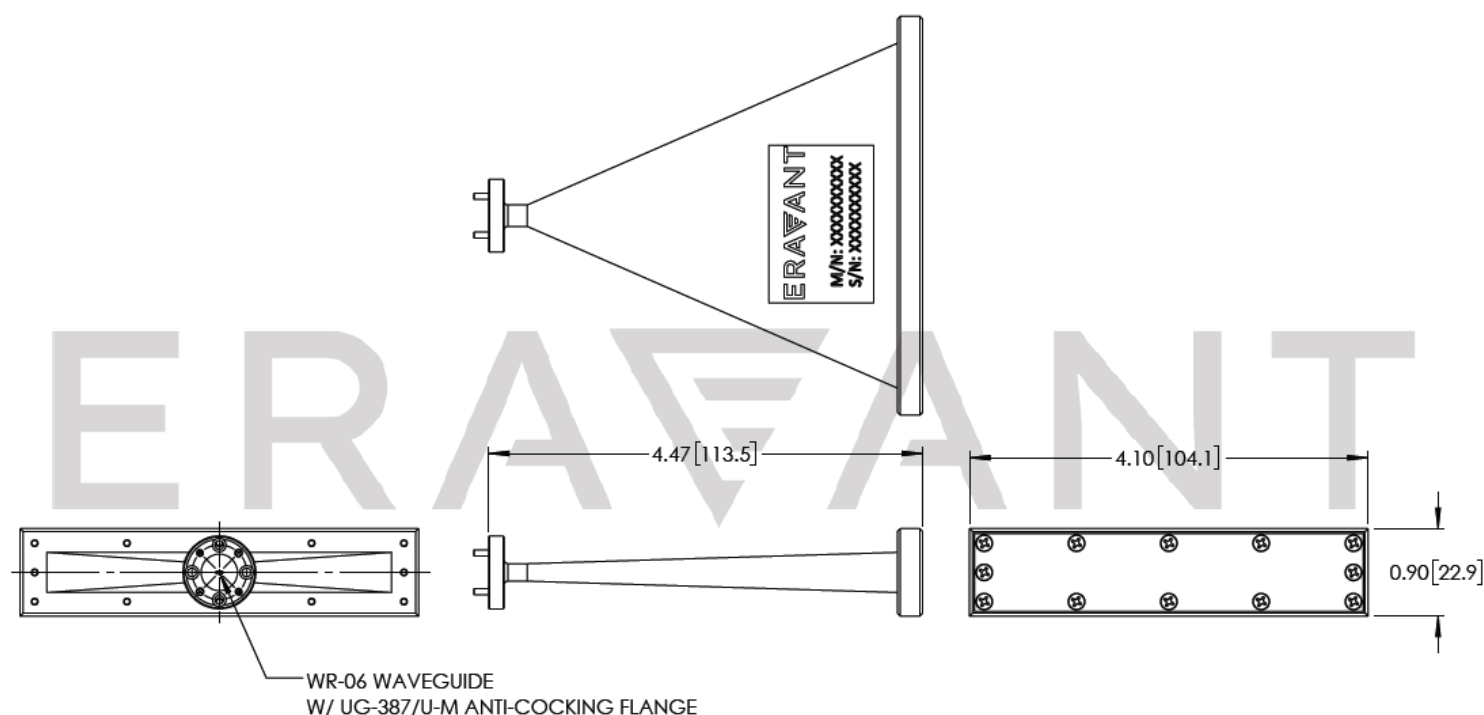
Simulated Gain Vs Frequency



Simulated Return Loss Vs Frequency



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



NOTE:

- Test data provided is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- 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.

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