



WR-10 Lens Corrected Antenna, 71 to 86 GHz, 36 dBi Gain

Description:

Model SAL-7138633602-10-S1 is a 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 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 side lobe levels. The lens corrected antenna is equipped with a WR-10 waveguide with a UG-387/U-M as its input port. It supports linear polarized waveforms.



Features:

- Center Fed
- Low Side Lobes
- Linear 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°	
Side Lobes, E-Plane		-17 dB	
Side Lobes, H-Plane		-20 dB	
Polarization		Linear	
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

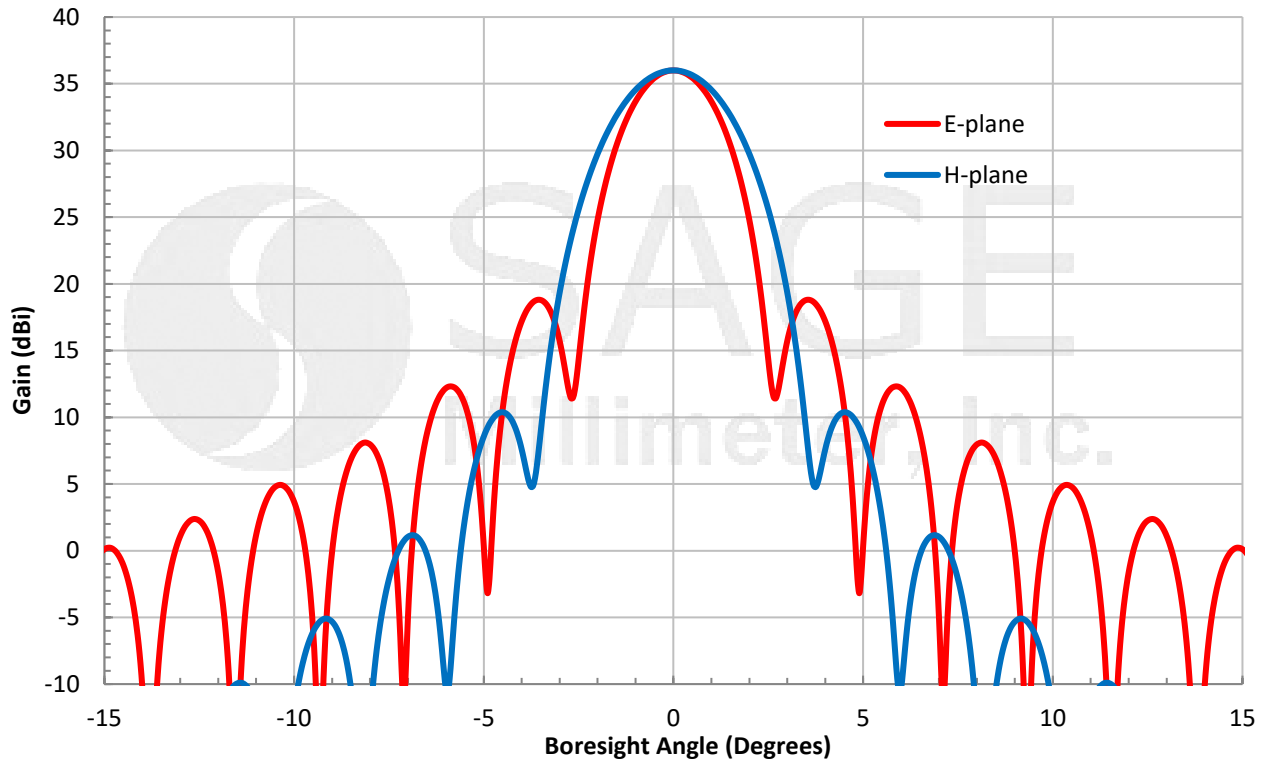
Parameter	Connector
Antenna Port	WR-10 Waveguide with UG-387/U-M Flange
Horn Material	Aluminum
Finish	Gold Plated
Weight	12 Oz
Lens Diameter	4"
Dimensions	6.61" (L) x 4.60" (Ø)
Outline	AL-RW36-125



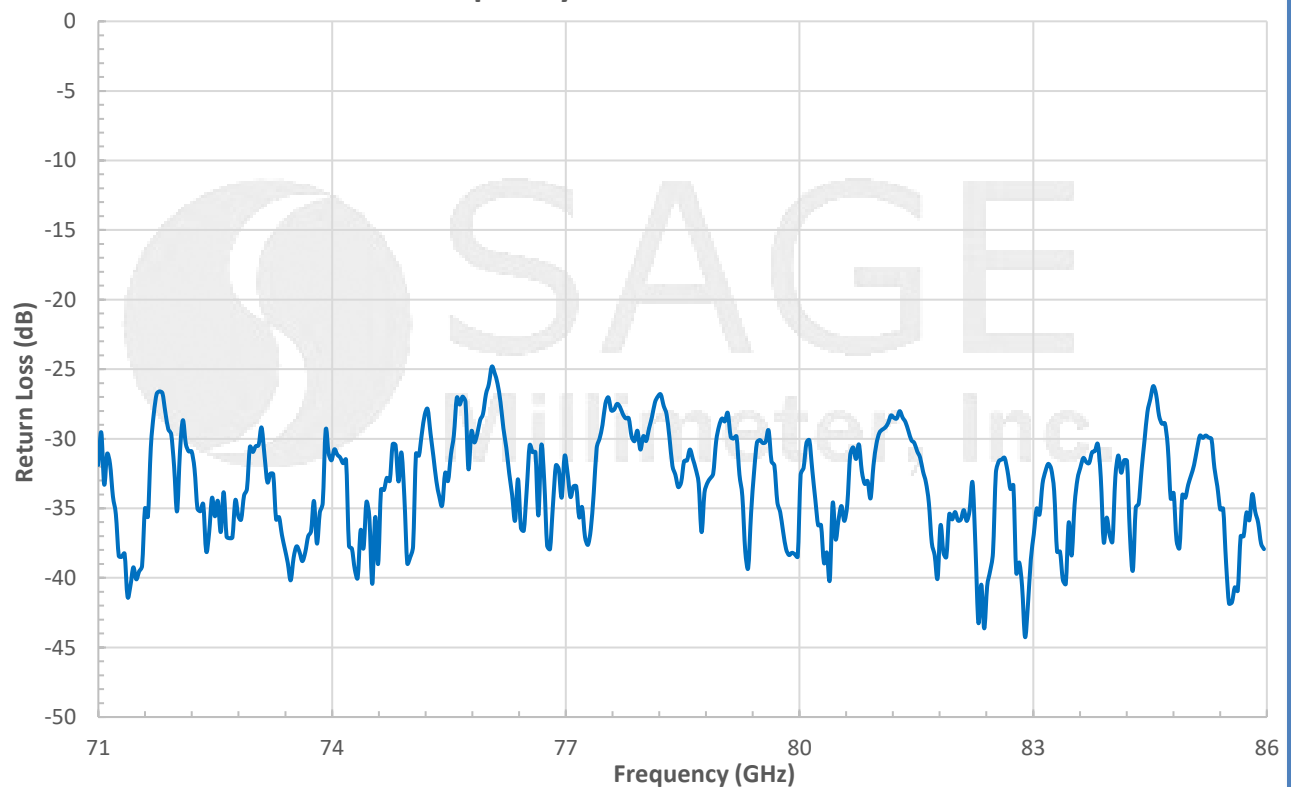


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Simulated Antenna Pattern @ 78.5 GHz



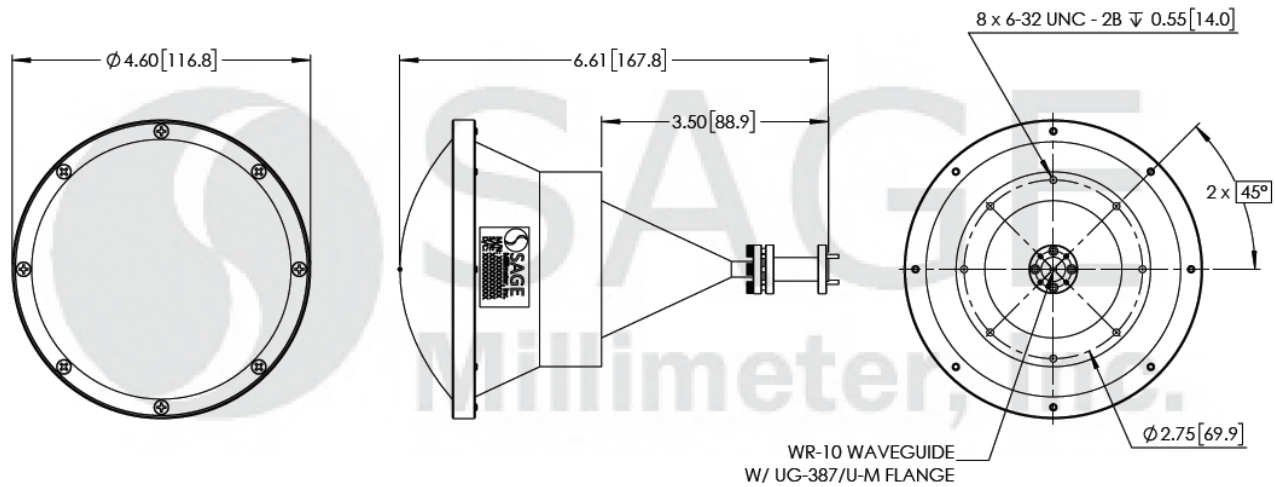
Measured Return Loss vs. Frequency





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



Note:

- Return Loss data presented is collected from a sample lot. Actual data may vary slightly.
- All testing was performed under +25 °C room temperature.
- Antenna pattern data presented is simulated. Actual data may vary, slightly.
- 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.

