



Ka Band Slotted Waveguide Array Antenna, 35 GHz, 27 dBi, 16° x 2°

Description:

Model SAW-3533532716-28-L2-WR is a weather resistant Ka-band slotted waveguide array antenna that operates from 34.75 to 35.25 GHz. The antenna offers 27 dBi nominal gain and a typical half power beamwidth of 16 degrees on the E-plane and 2 degrees on the H-plane, respectively. Compared to microstrip antennas, the slotted waveguide array antenna offers higher aperture efficiency. The antenna also offers typical side lobes of -15 dB or better and supports linear, vertical polarized waveforms. The input of this antenna is a WR-28 waveguide with UG-599/U flange.



Features:

- Rectangular Waveguide Interface
- High Aperture Efficiency
- Flat and Low Profile
- Linear Polarization
- High Return Loss
- Weather resistance

Applications:

- Antenna Ranges
- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	34.75 GHz		35.25 GHz
Gain		27 dBi	
Polarization	Linear, Vertical		
3 dB Beamwidth, Vertical		16°	
3 dB Beamwidth, Horizontal		2°	
Side Lobe Level		-15 dB	
Return Loss		13 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

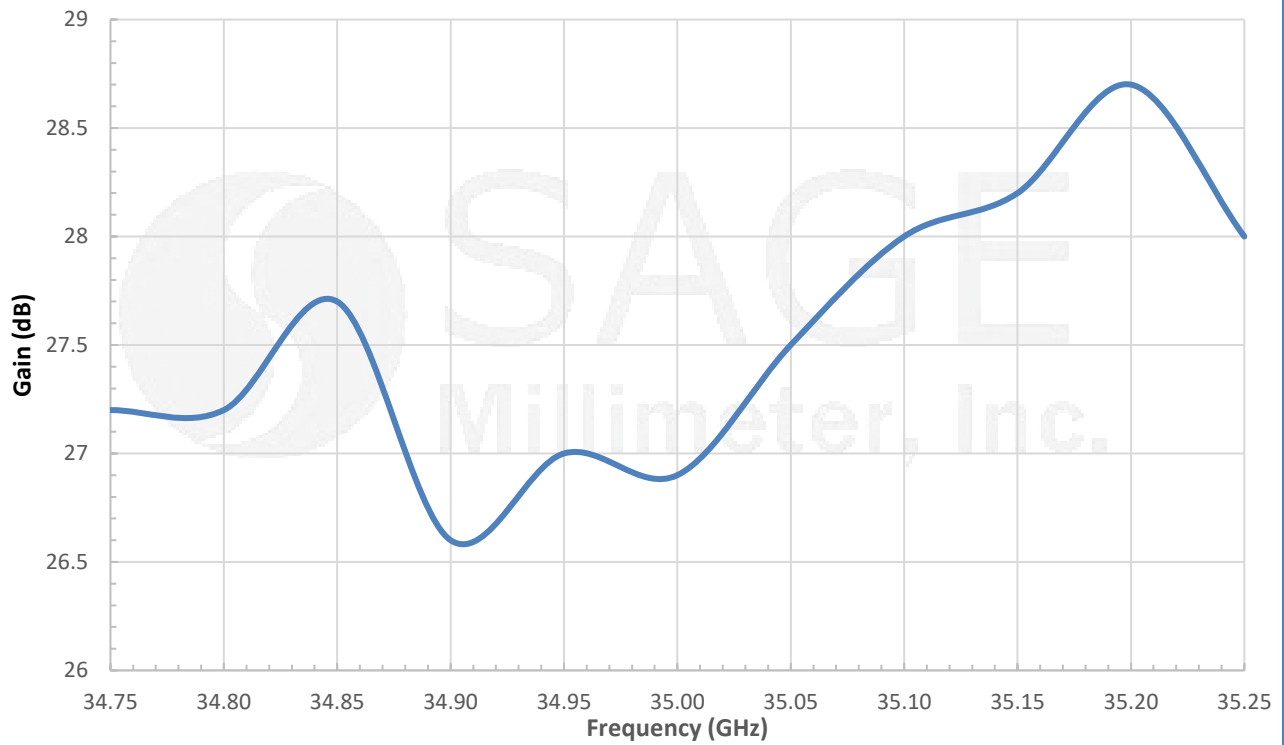
Item	Specification
Antenna Port	WR-28 Waveguide
Flange Type	UG-599/U Grooved Compatible Flange
Body Material	Aluminum
Body Surface Finish	Gold Plated
Radome Material	Clear LEXAN
Weight	10.0 lb
Size	11.84" (L) x 3.85" (W) x 0.93" (H)
Outline	AW-RA-0216



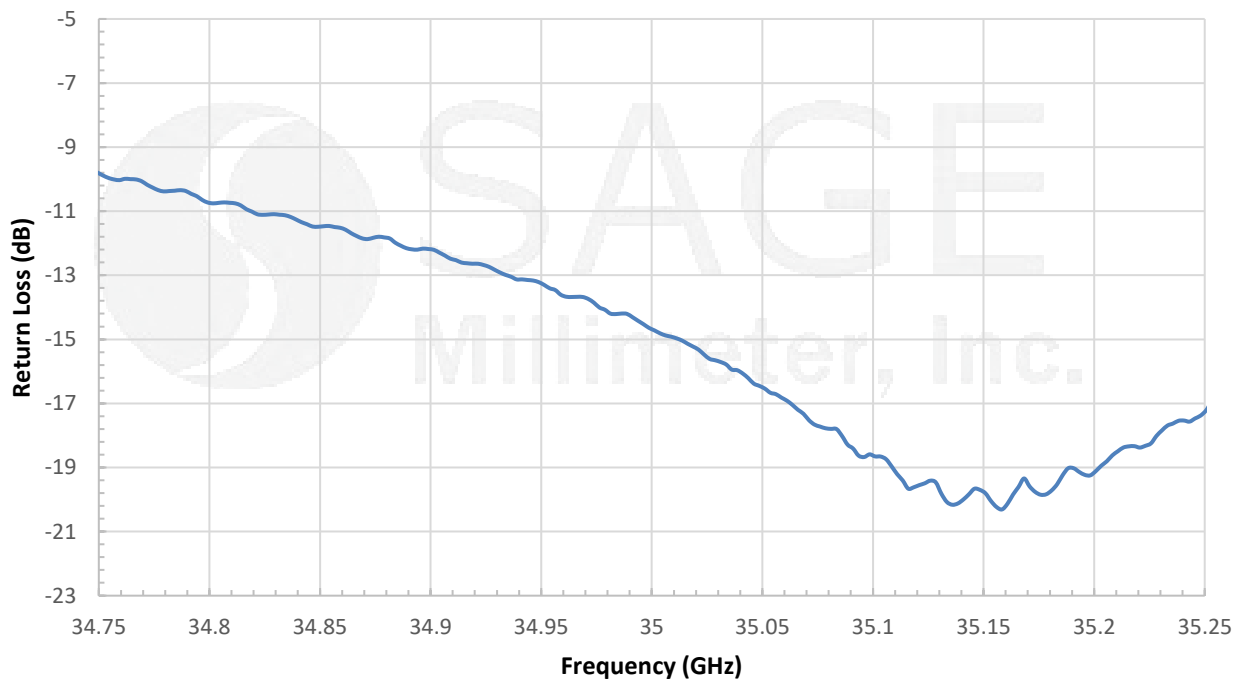


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Gain vs. Frequency for SAW-3533532716-28-L2-WR



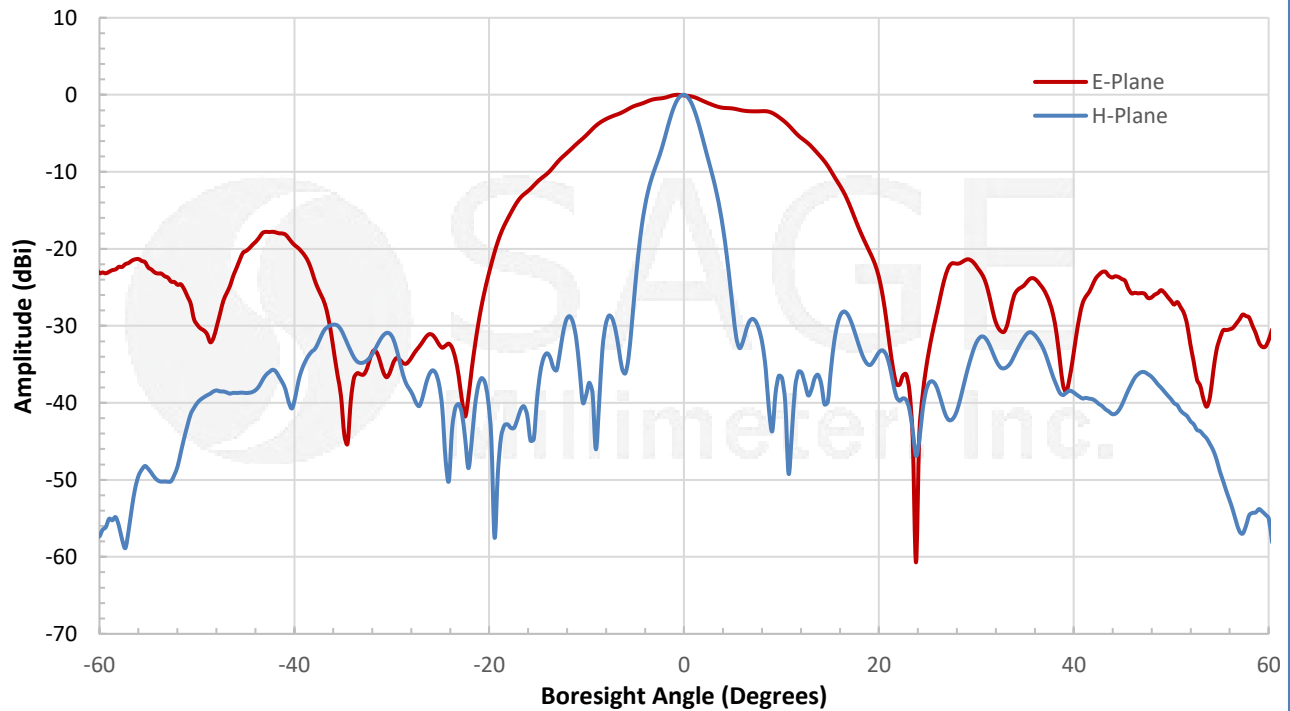
Return Loss vs. Frequency for SAW-3533532716-28-L2-WR



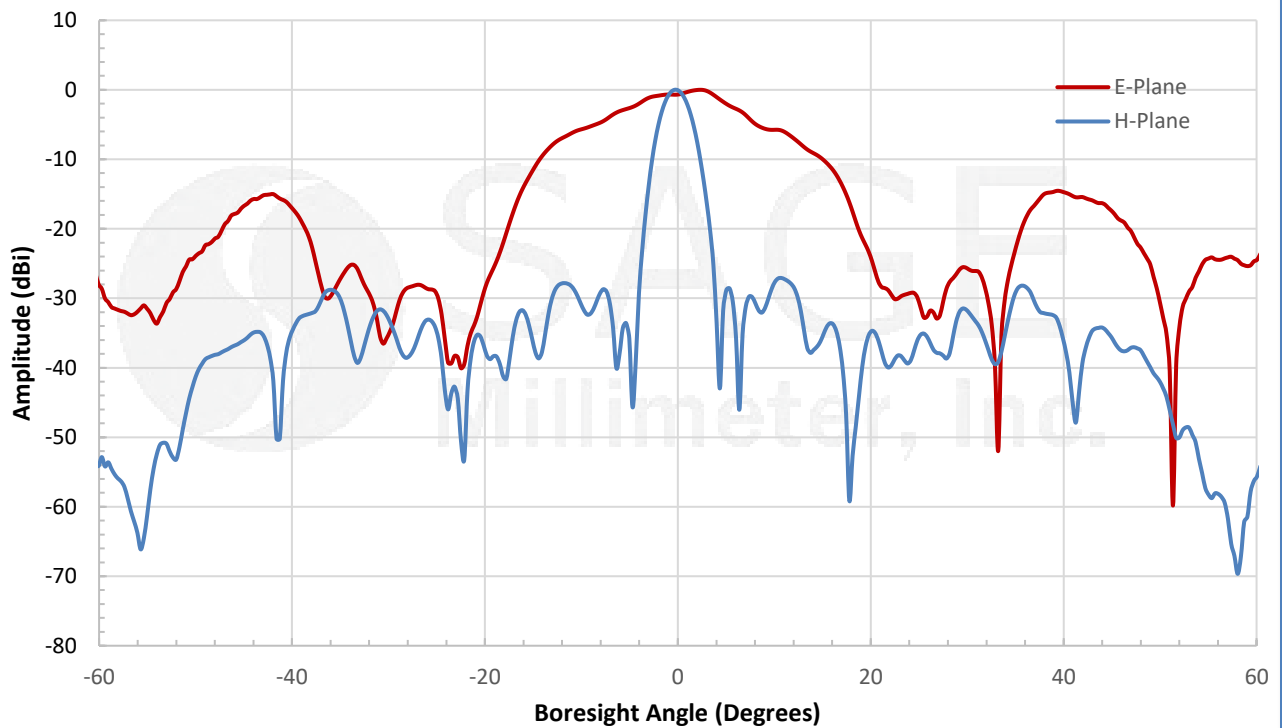


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Measured Antenna Patterns @ 34.75 GHz

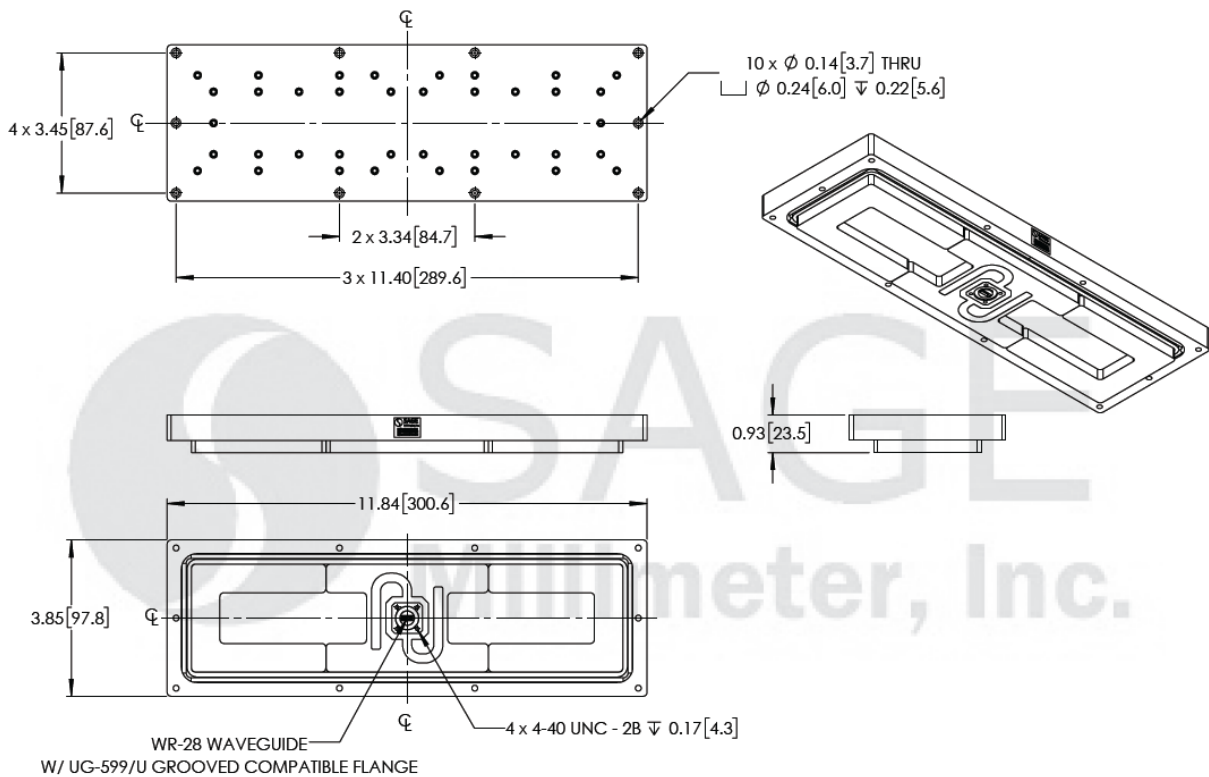
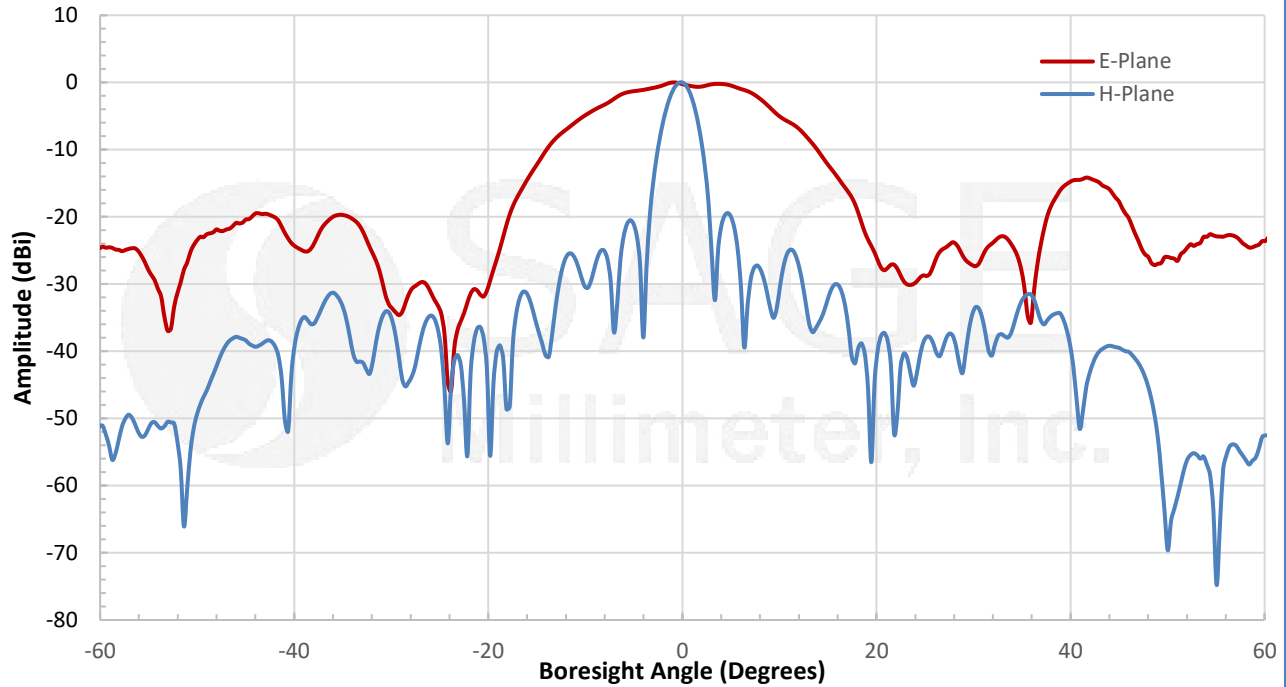


Measured Antenna Patterns @ 35.0 GHz



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Measured Antenna Patterns @ 35.25 GHz



Ka Band Slotted Waveguide Array Antenna, 35 GHz, 27 dBi, 16° x 2°

Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C room temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

