SAR-1532-28-S2

Rev 1.3

WR-28 Pyramidal Horn Antenna, 15 dBi Gain

Description:

Model SAR-1532-28-S2 is a Ka-band pyramidal horn antenna that operates from 26.5 GHz to 40 GHz. The antenna offers 15 dBi typical gain and a typical half power beamwidth of 33 degrees on both E-plane and H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-28 waveguide with UG-599/U flange.

Features:

- Rectangular Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		15 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		33°	
3 dB Beamwidth, H-Plane		33°	
Sidelobes, E-Plane		-13 dB	
Sidelobes, H-Plane		-20 dB	
Return Loss		20 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 Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.20” (L) X 0.81” (W) X 0.62” (H)
Outline	AR-A15

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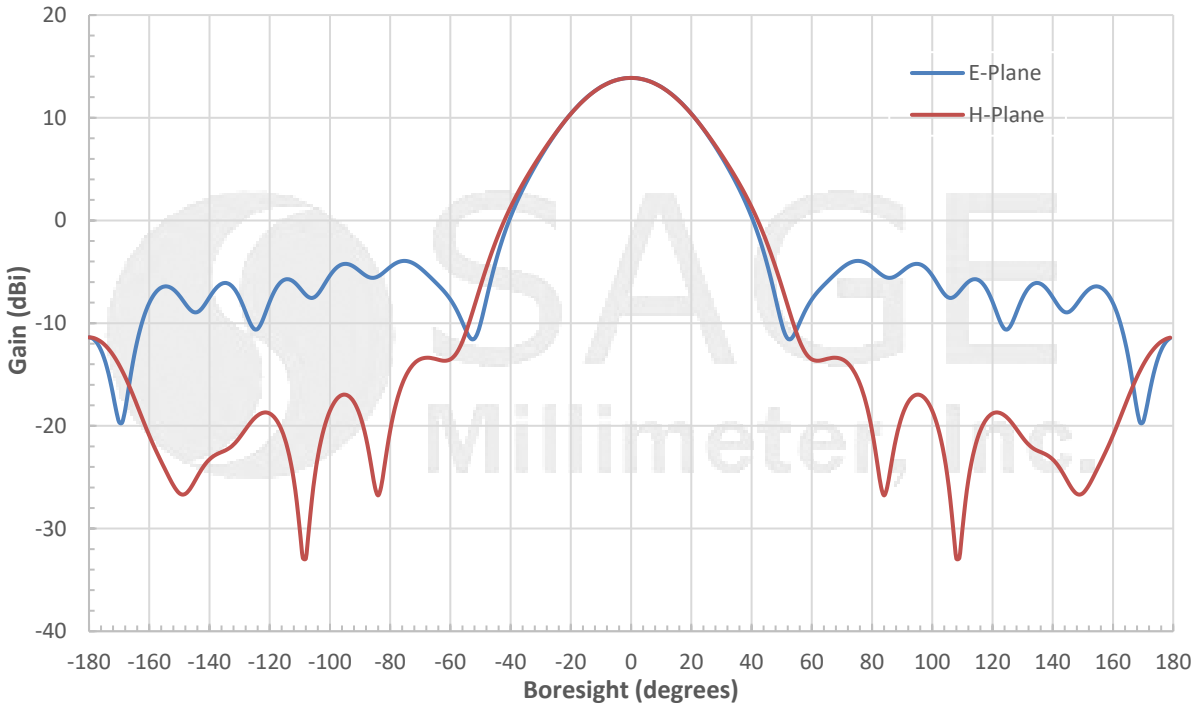
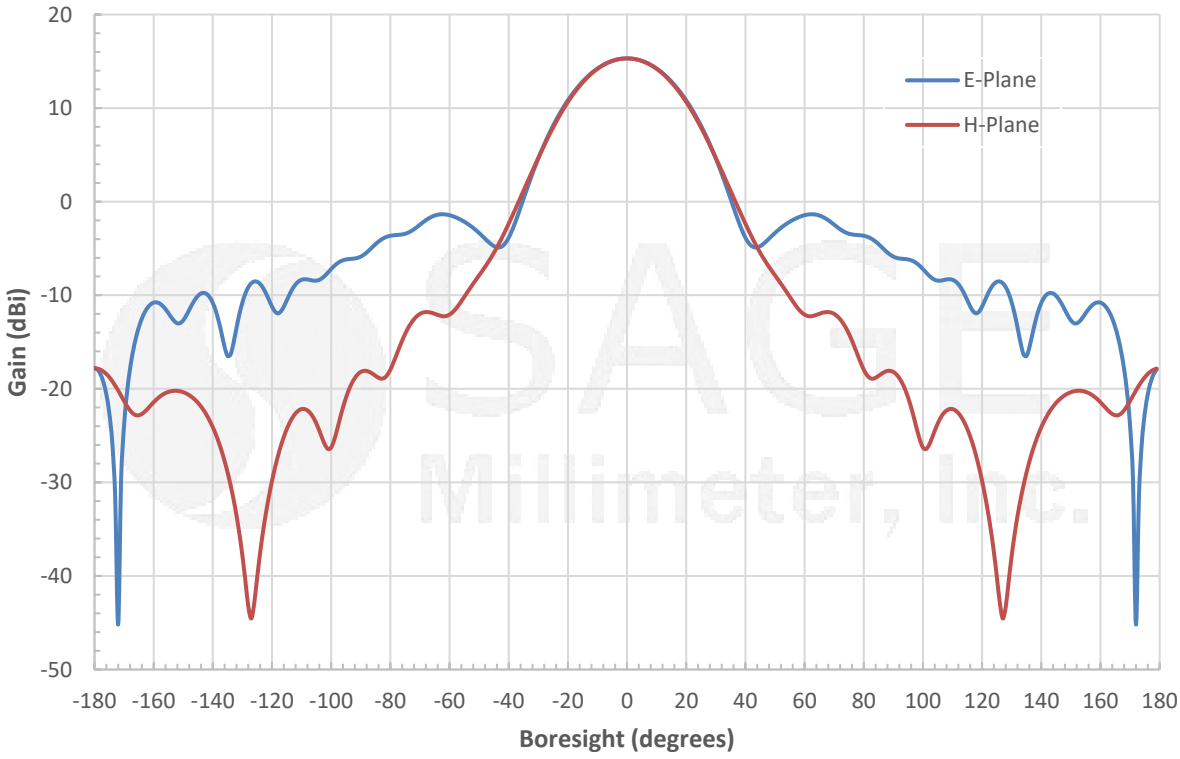
WR-28 Pyramidal Horn Antenna, 15 dBi Gain

Simulated Antenna Patterns @ 26.5 GHz



Simulated Antenna Patterns @ 33.25 GHz



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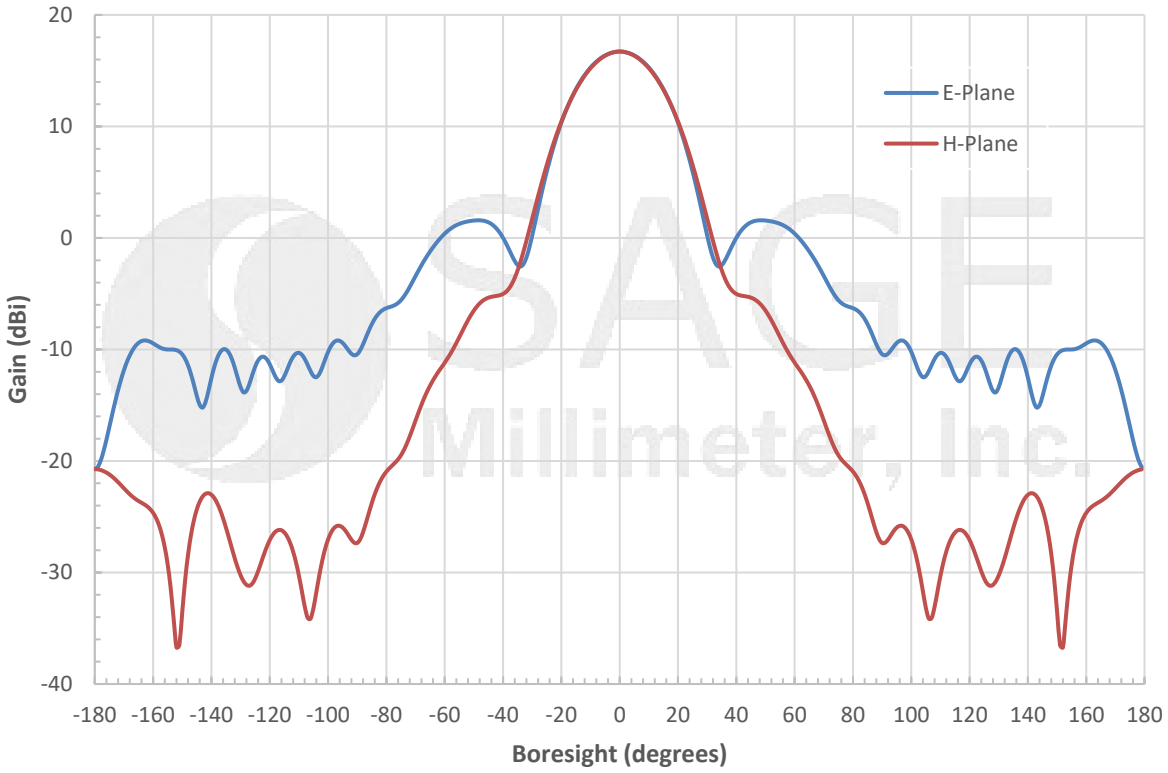
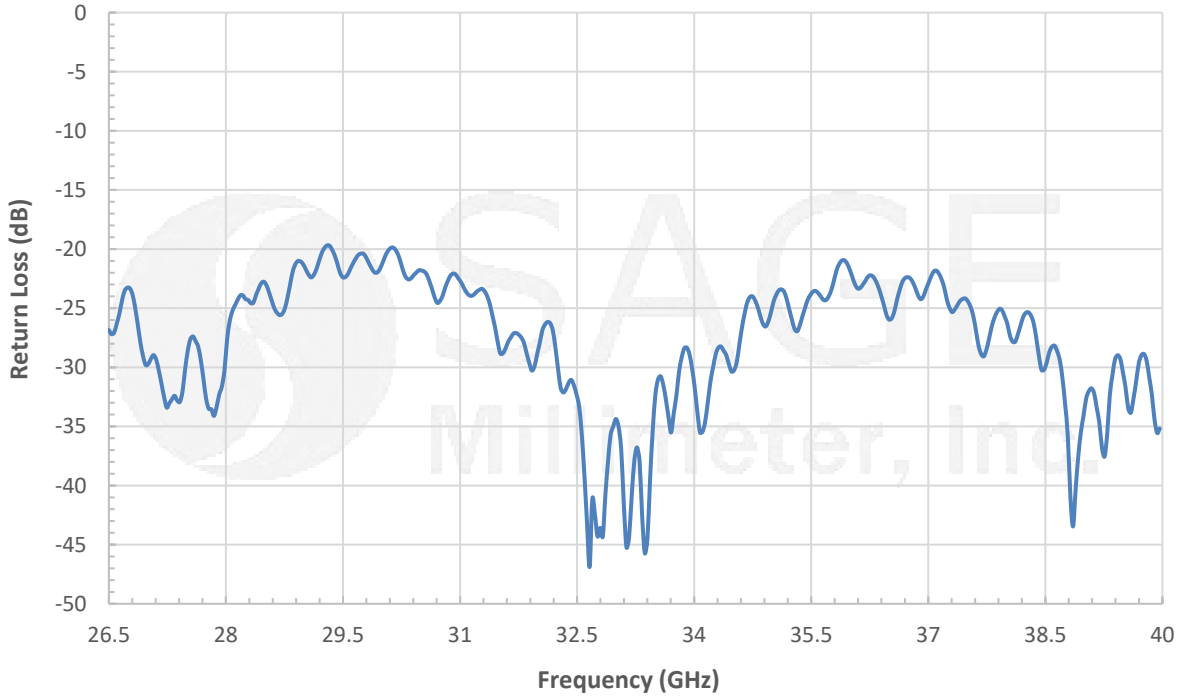
Simulated Antenna Patterns @ 40 GHz



Measured Return Loss vs. Frequency



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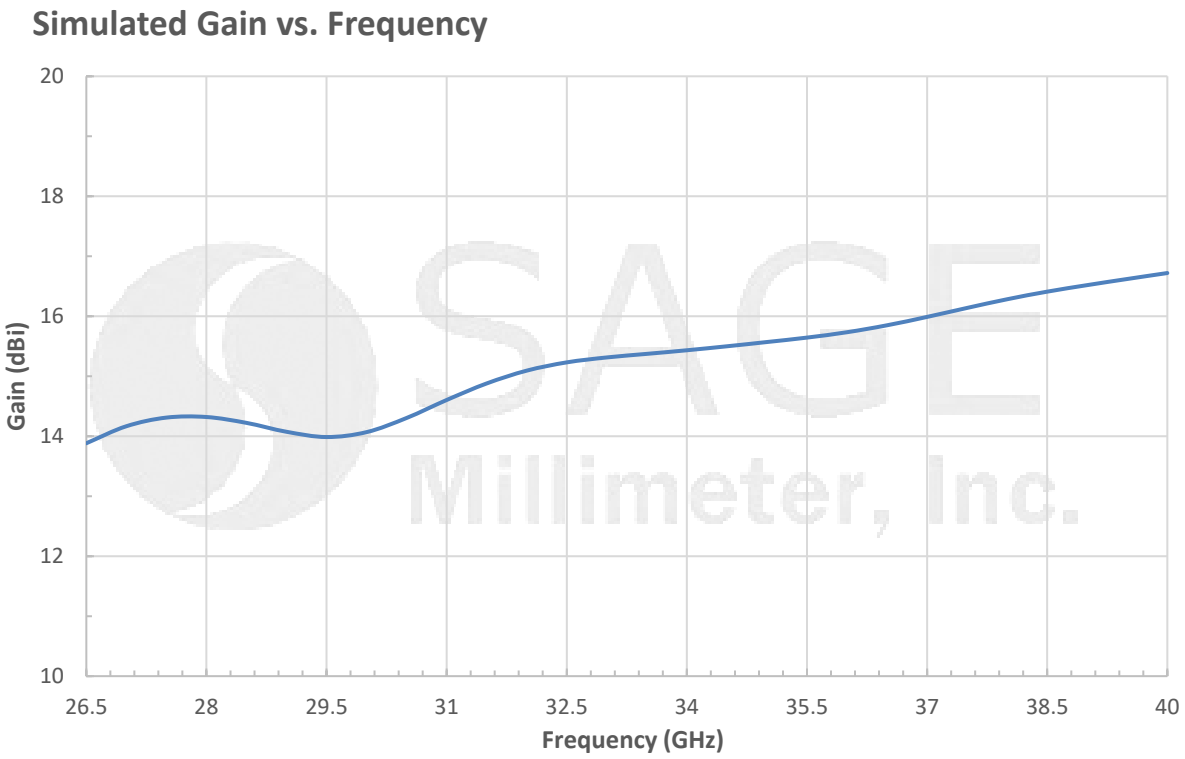
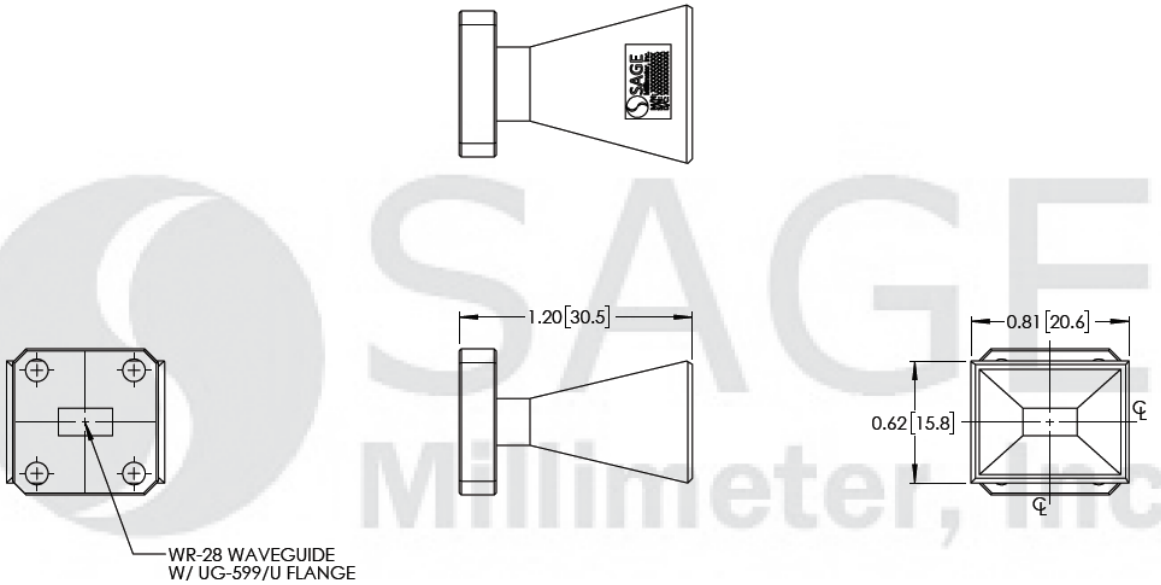


Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog here.
- All testing was performed under +25°C room temperature
- Eravant 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.

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