

SAR-1532-100-S2

WR-10 Square Horn Antenna, 15 dBi Gain

SAR-1532-100-S2 is a square horn antenna operates from 75 GHz to 110 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 22 degrees on the E-plane and 32 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a 0.100" x 0.100" square waveguide with UG-387/U-M anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	75 GHz		110 GHz
Gain		15dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		22°	
3 dB Beamwidth, H-Plane		32°	
Sidelobes, E-Plane		-10 dB	
Sidelobes, H-Plane		-20 dB	
Return Loss		25 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Ports	0.100" x 0.100" Square Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.4 Oz
Size	0.62" (L) X 0.75" (Ø)
Outline	AR-W15-100-A

ECCN

EAR99

FEATURES

- Square Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss
- Compact Size

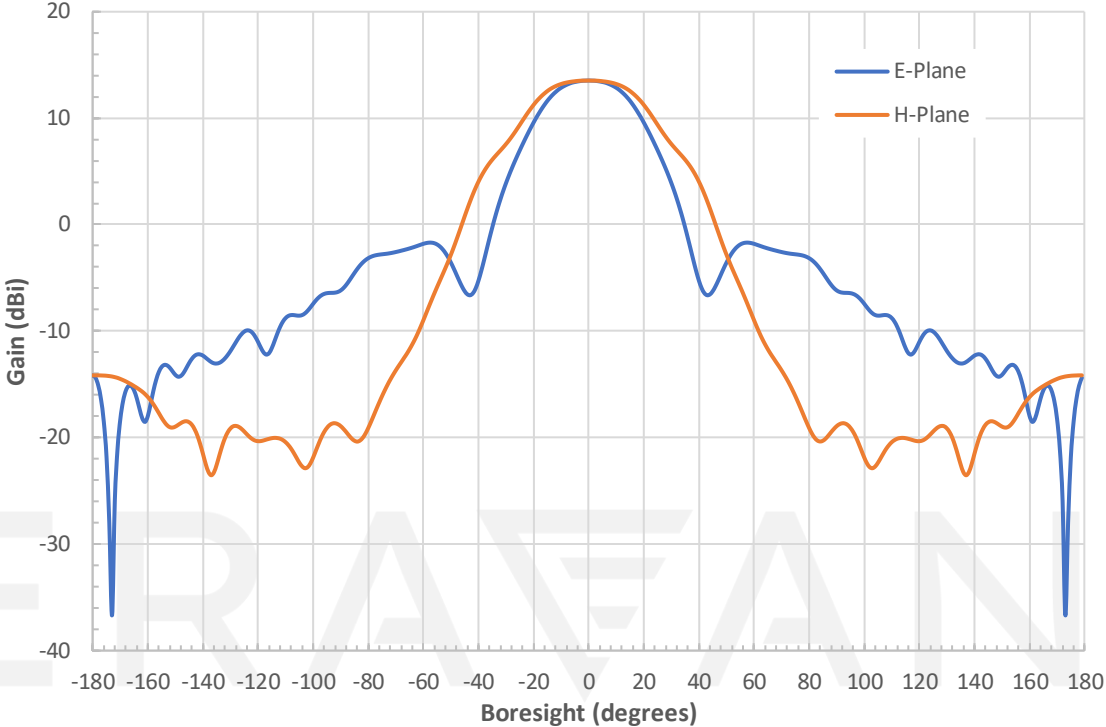
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

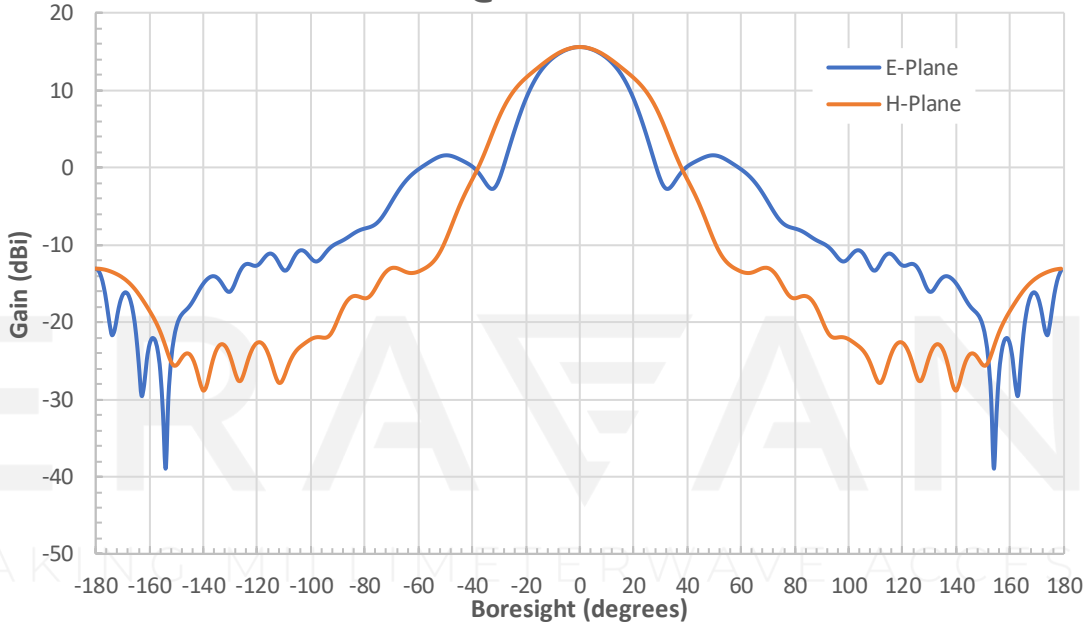
SUPPLEMENTAL DETAILS



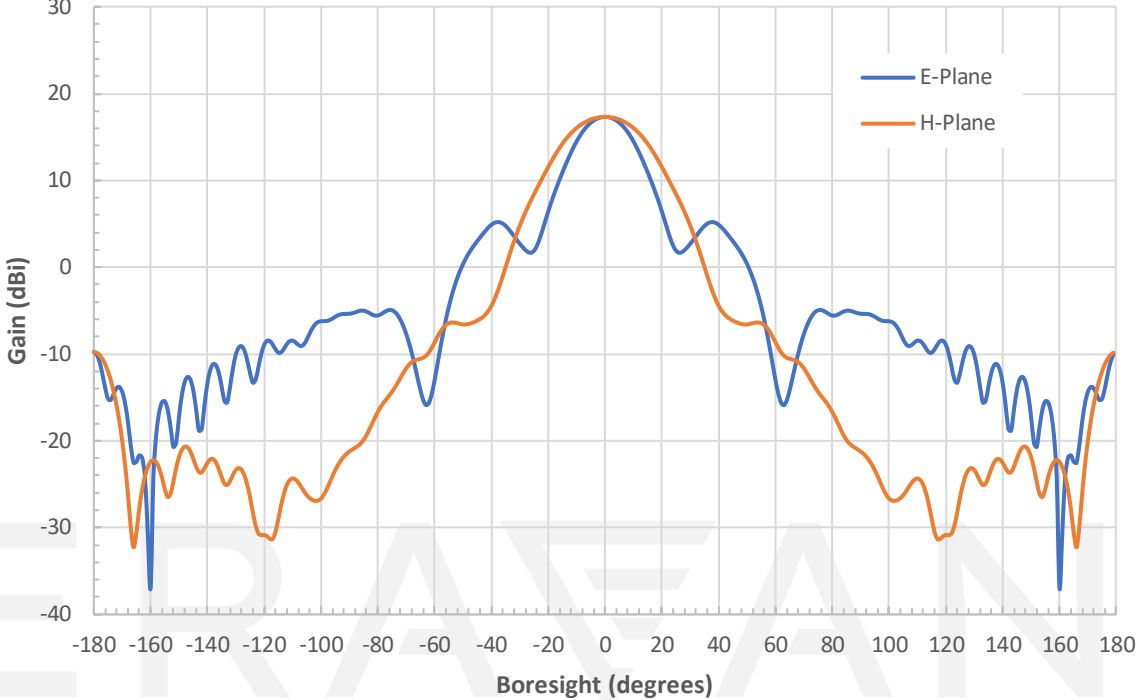
Simulated Antenna Patterns @ 75 GHz



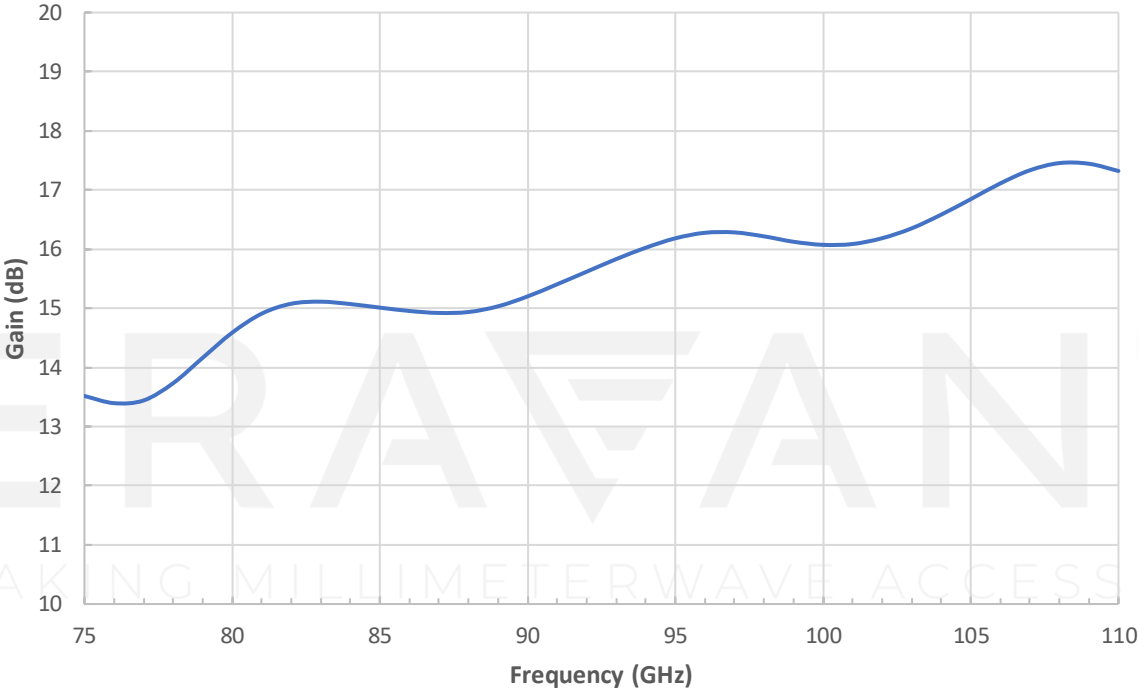
Simulated Antenna Patterns @ 92.5 GHz



Simulated Antenna Patterns @ 110 GHz

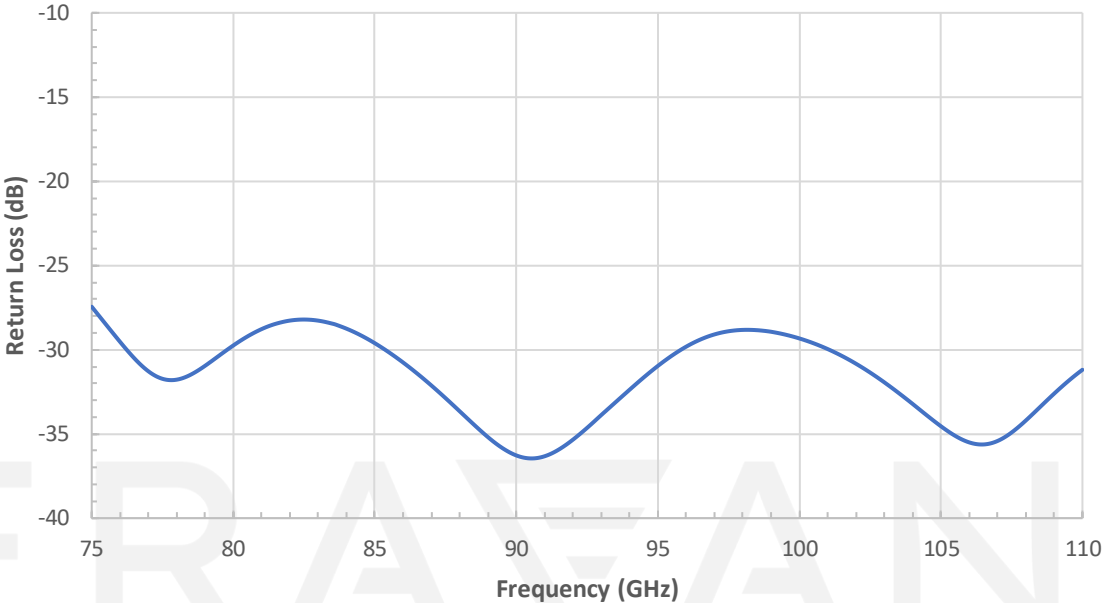


Simulated Gain vs. Frequency

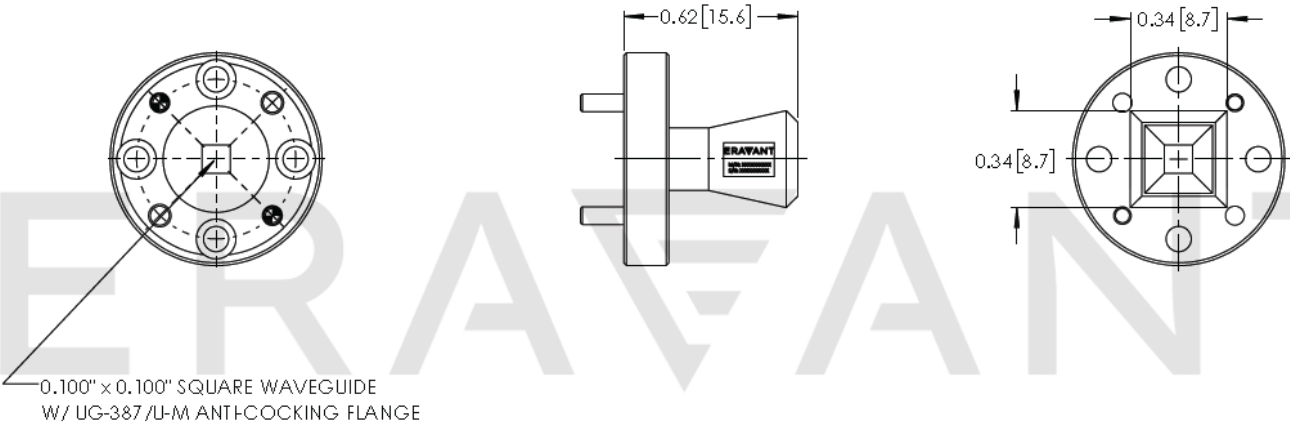


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Simulated Return Loss vs. Frequency



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](#).
- 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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