

WR-51, Square Horn Antenna, 15 dBi Gain

Description:

Model SAR-1532-510-S2 is a square horn antenna that operates from 15 GHz to 22 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 0.51" X 0.51" waveguide with standard flange.



Features:

- Square Waveguide Interface
- Precisely Machined
- Linear Polarization
- High Return Loss

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	15 GHz	18.5 GHz	22 GHz
Gain		15 dBi	
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

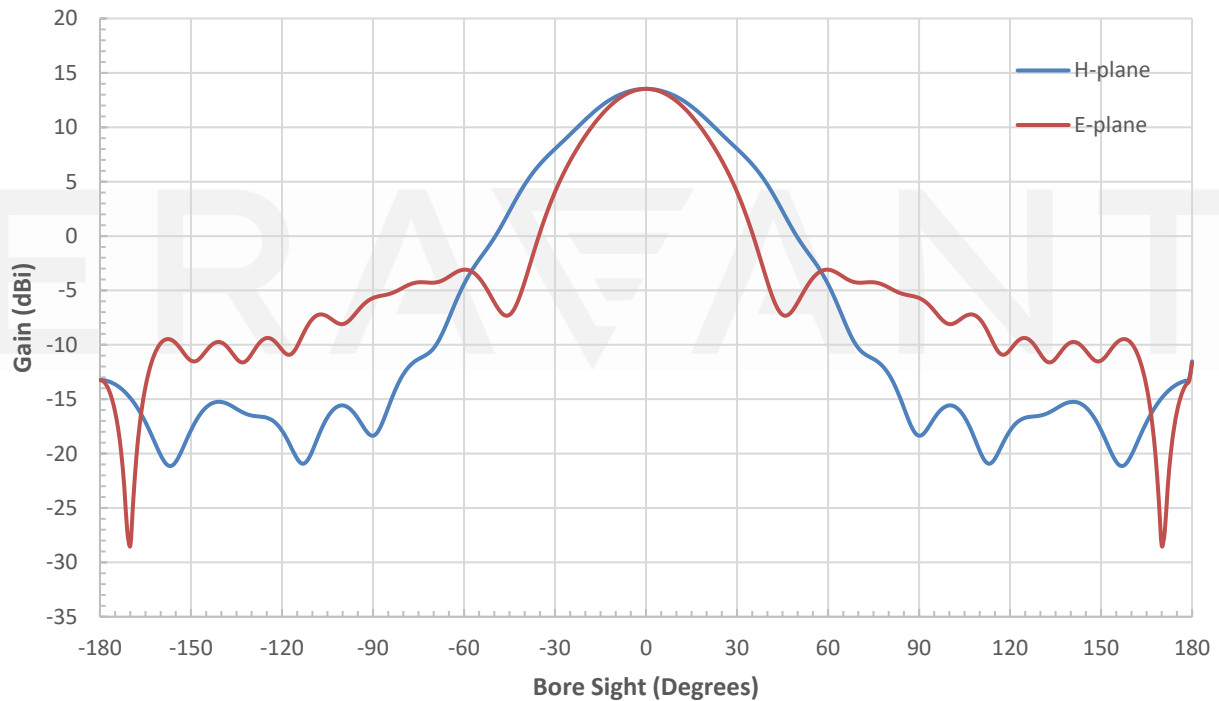
Mechanical Specifications:

Item	Specification
Antenna Port	0.51" x 0.51" Waveguide with Standard Flange
Material	Aluminum
Finish	Inside: Silver plated; Outside: Black Paint
Weight	2 Oz
Outline	AR-515-510

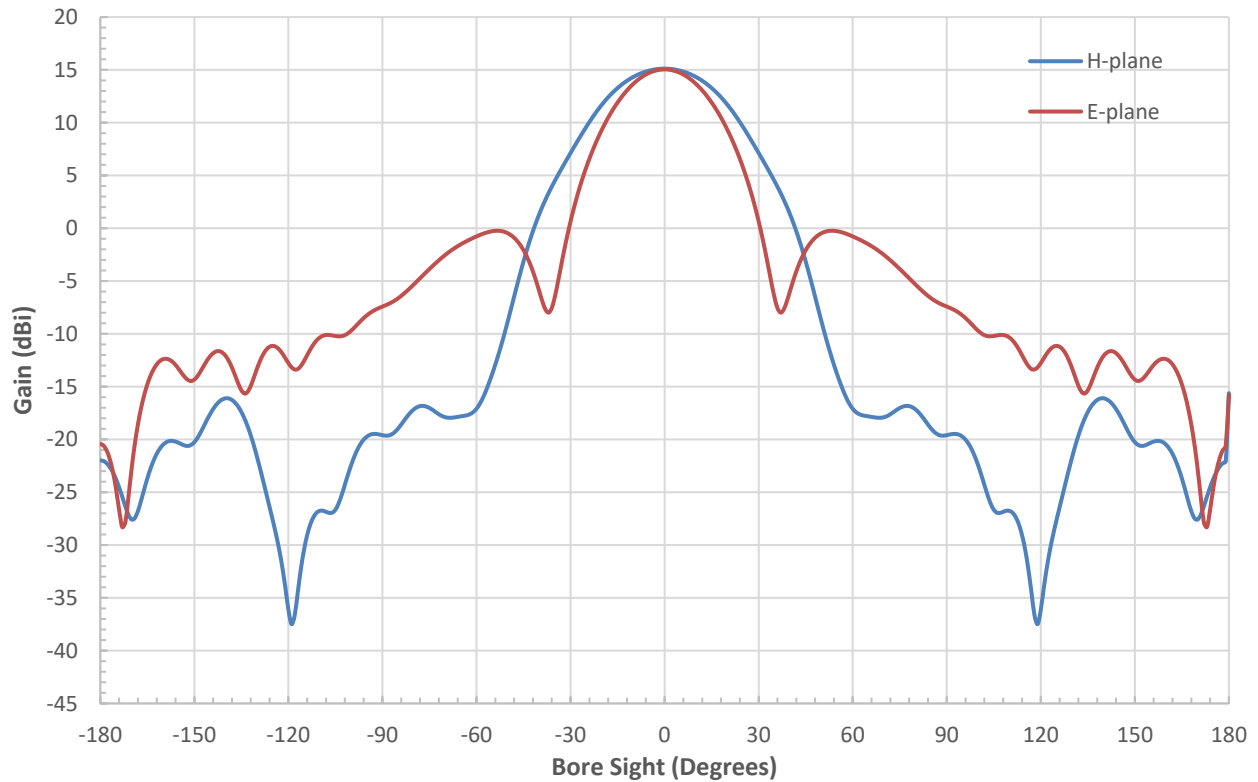


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Simulated Antenna Pattern at 15 GHz

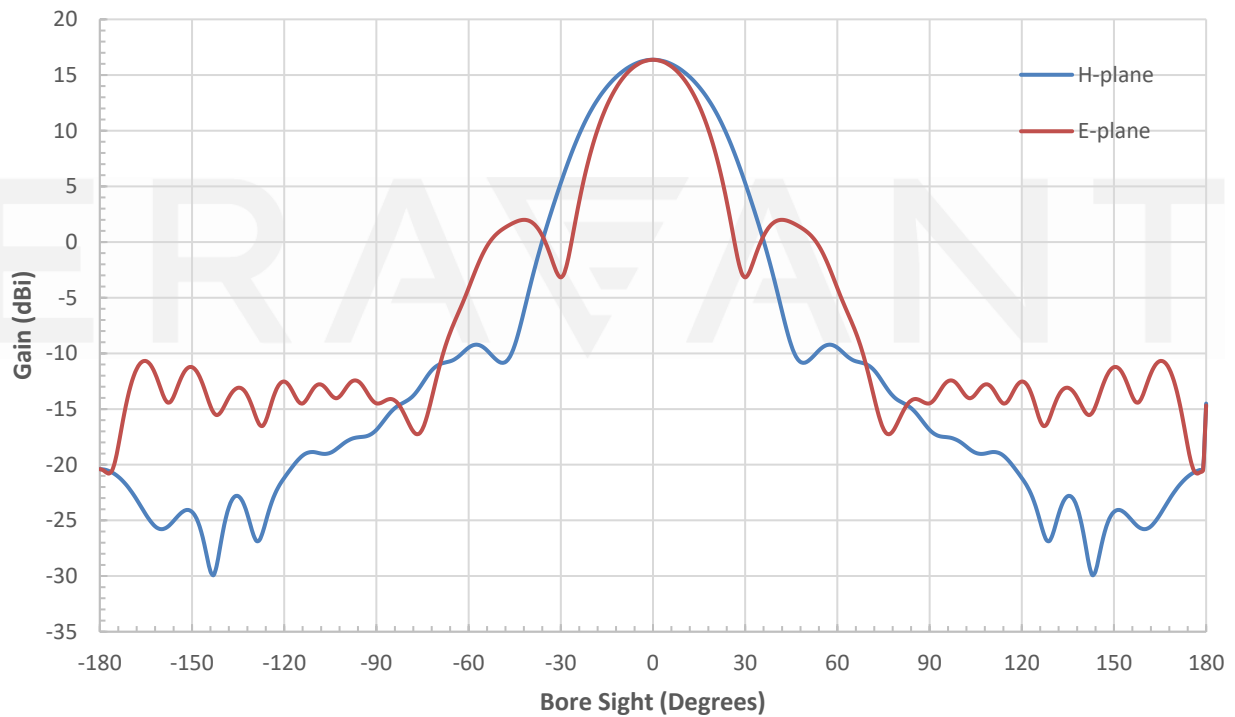


Simulated Antenna Pattern at 18.5 GHz

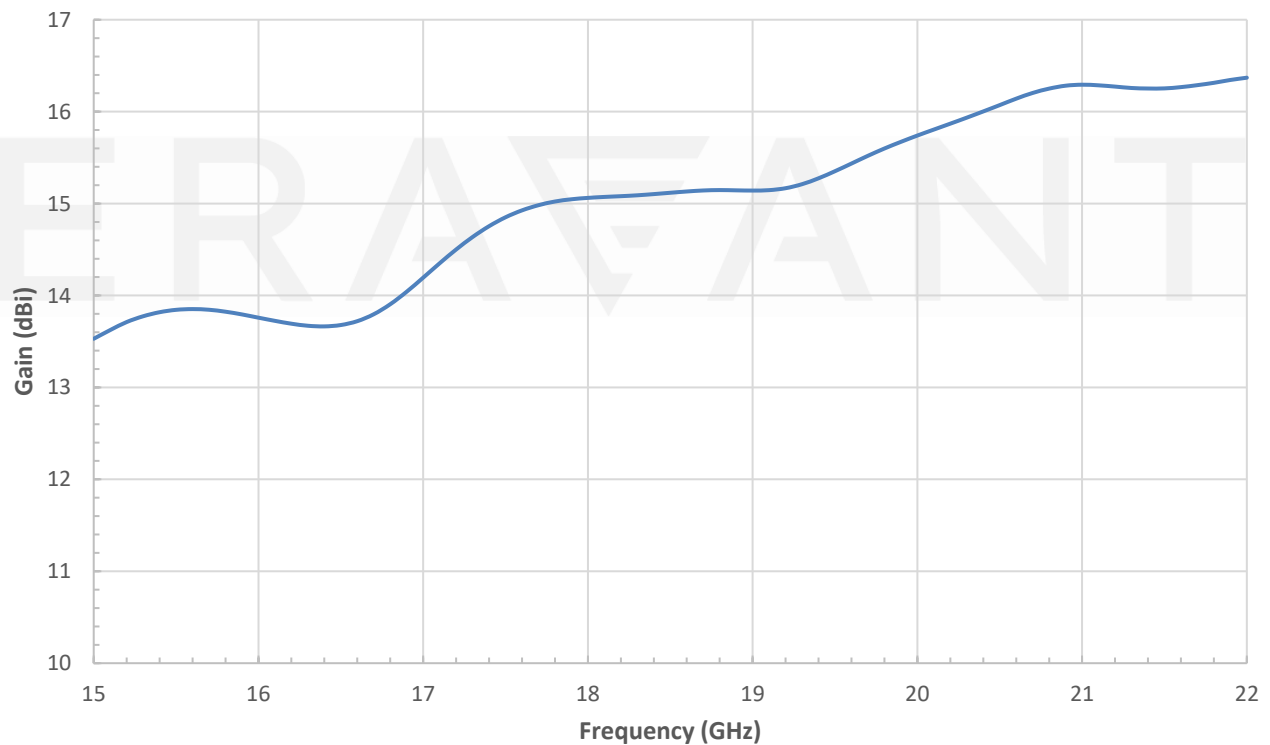


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Simulated Antenna Pattern at 22 GHz

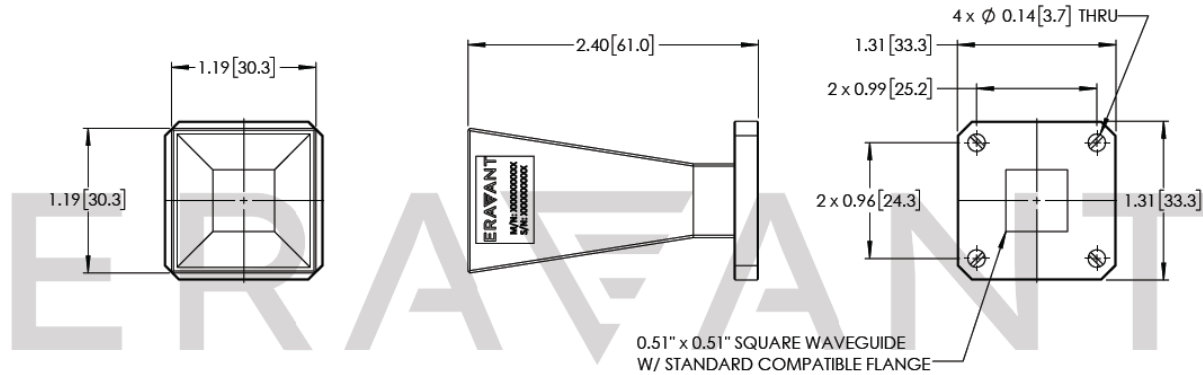


Simulated Gain vs Frequency



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



Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog [here](#).
- Eravant reserves the right to change the information presented without notice.

Caution:

- Due to the strong magnet base present on the mounting fixture, please keep this product at least 3 feet away from any microwave products containing ferrite devices.

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