

WR-42, Square Horn Antenna, 15 dBi Gain

Description:

Model SAR-1532-420-S2 is a square horn antenna that operates from 18 GHz to 26.5 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 0.42" X 0.42" waveguide with UG-595/U-M 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	18 GHz	22.25 GHz	26.5 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

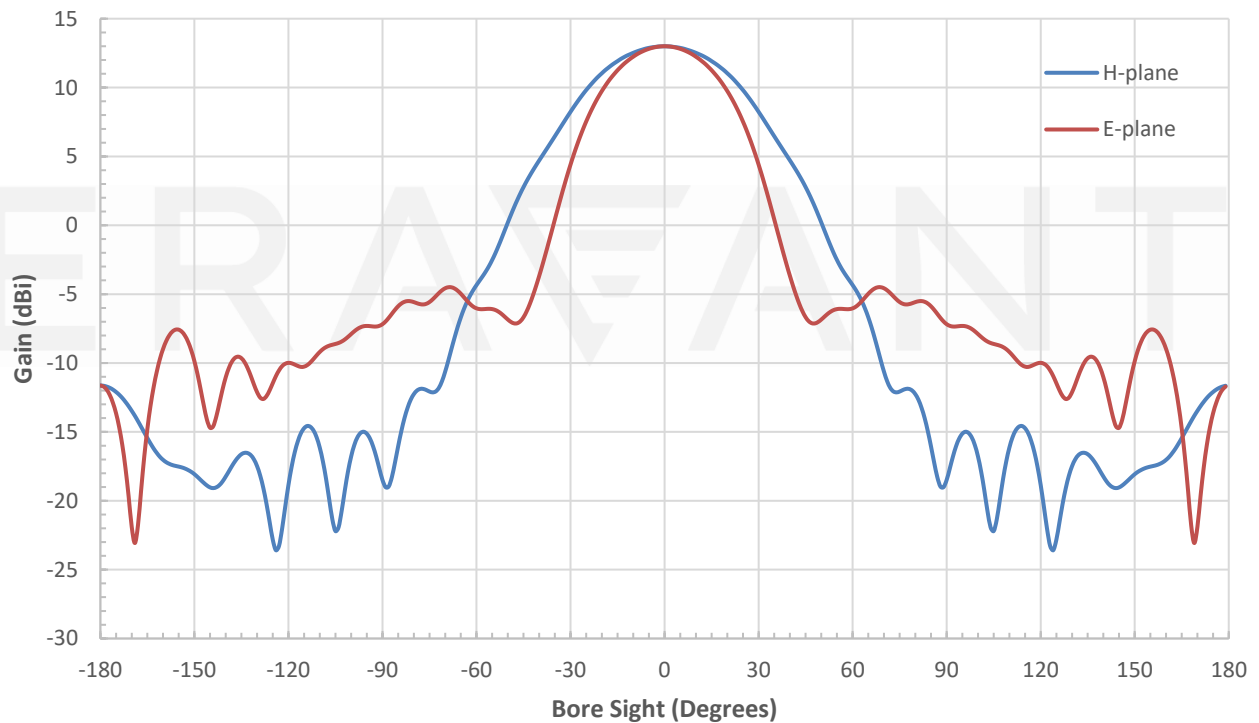
Mechanical Specifications:

Item	Specification
Antenna Port	0.42" x 0.42" Waveguide with UG-595/U-M Flange
Material	Aluminum
Finish	Inside: Silver Plated, outside: Black Painted
Weight	1 Oz
Outline	AR-K15-420

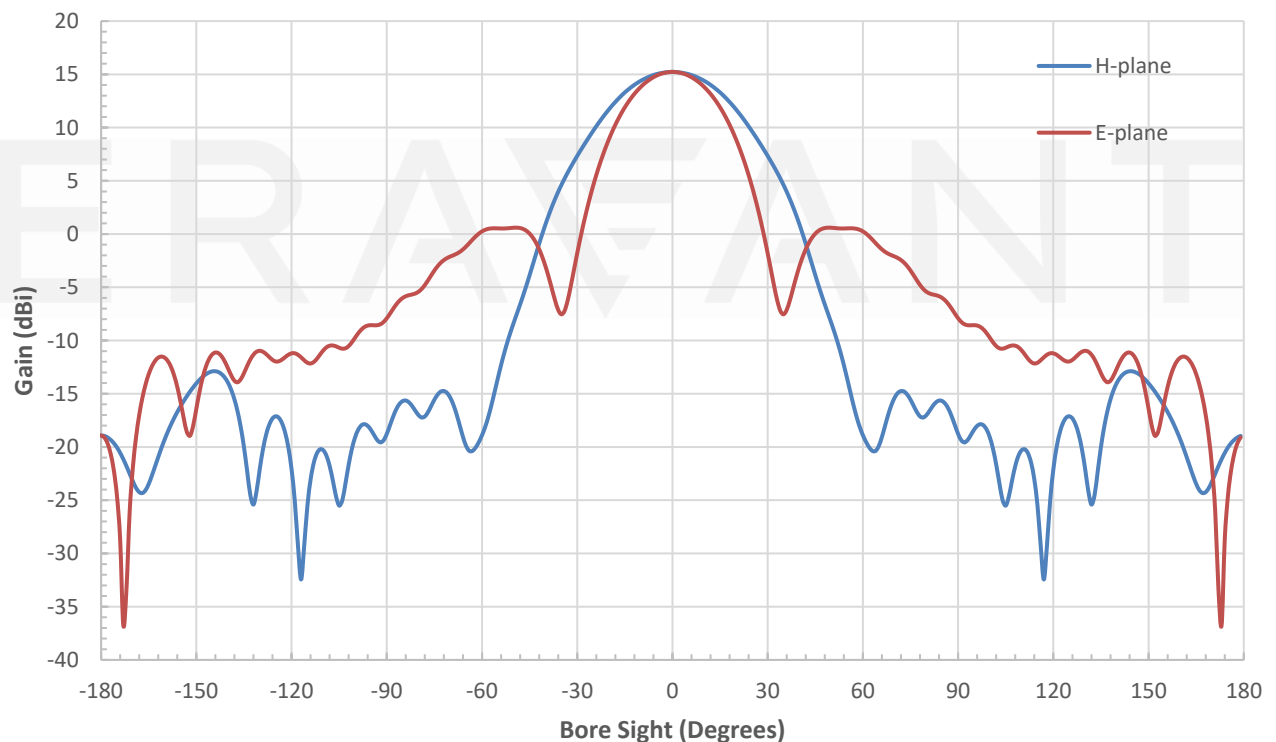


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Simulated Antenna Pattern at 18 GHz

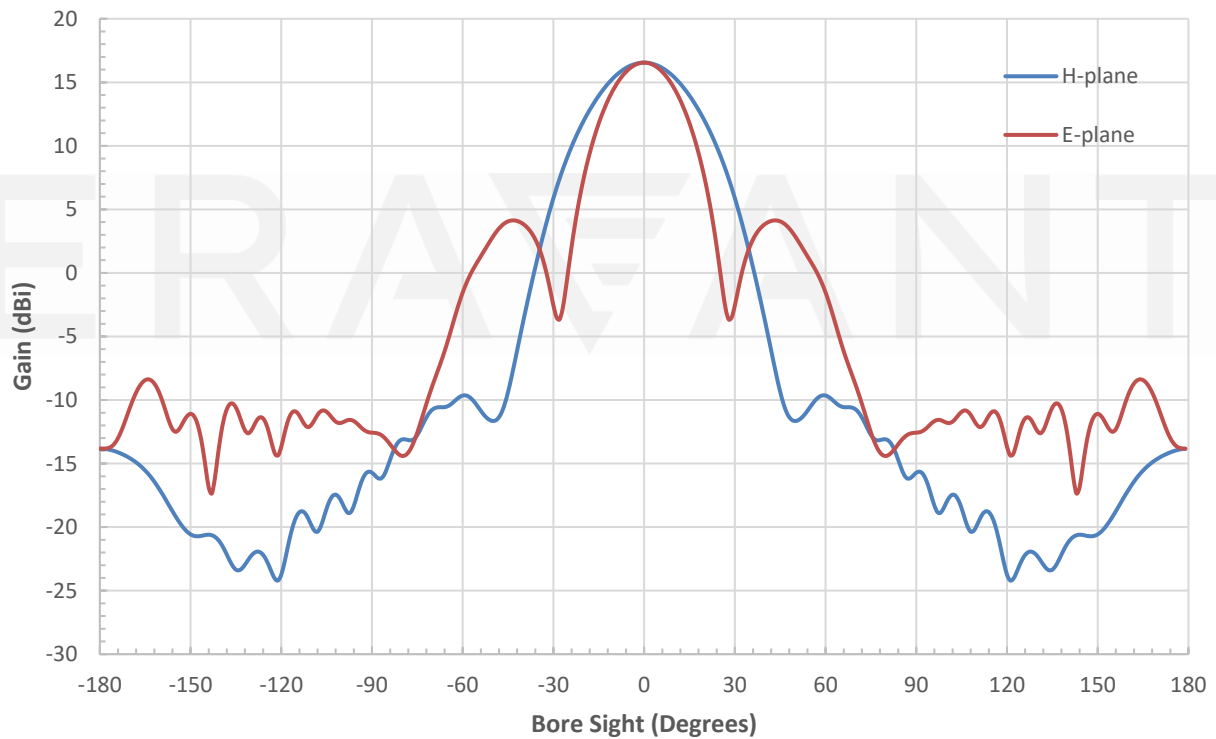


Simulated Antenna Pattern at 22.25 GHz

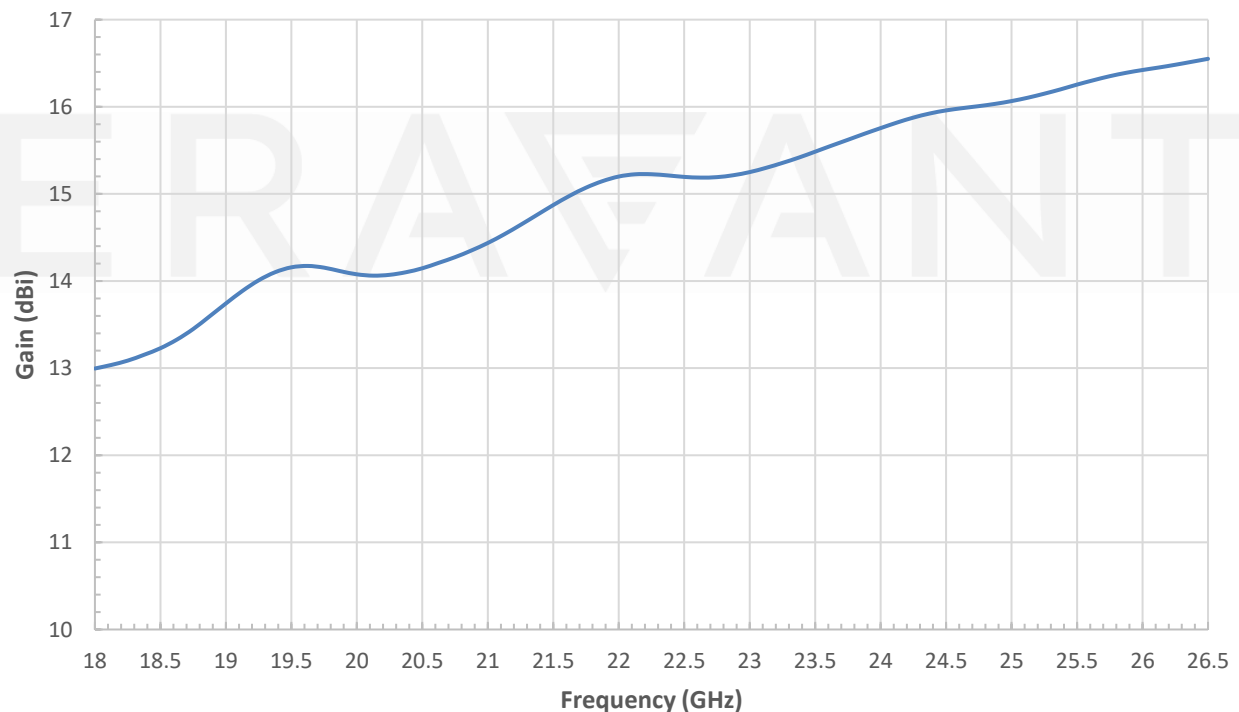


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Simulated Antenna Pattern at 26.5 GHz

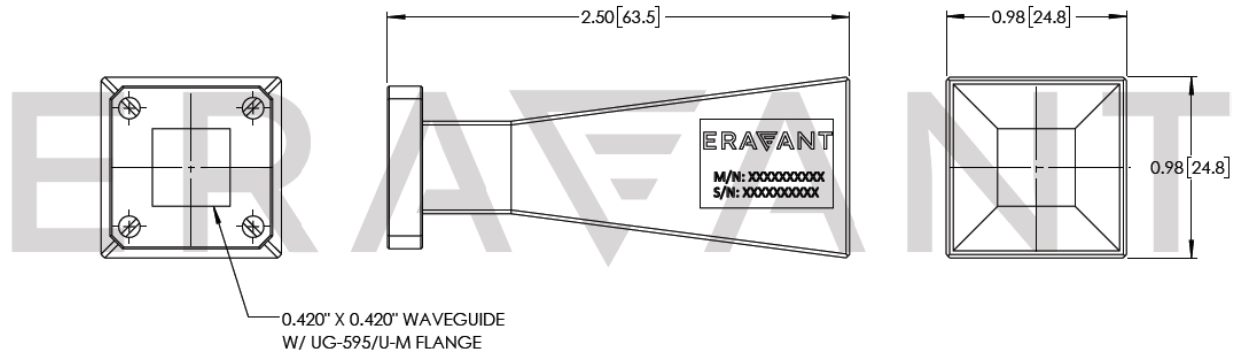


Simulated Gain Vs Frequency



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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

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

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