

SAR-1532-42-S2

WR-42 Pyramidal Horn Antenna, 15 dBi Gain

SAR-1532-42-S2 is a K-band pyramidal horn antenna that operates from 18.0 GHz to 26.5 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 32 degrees on the both the E-plane and H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-42 waveguide with UG-595/U flange. Other antennas with different gain and antenna ports are offered under different model numbers.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	18.0 GHz		26.5 GHz
Gain		15 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		32°	
3 dB Beamwidth, H-Plane		32°	
Sidelobes, E-Plane		-15 dB	
Sidelobes, H-Plane		-24 dB	
Return Loss		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-42 Waveguide with UG-595/U Flange
Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	2.00" (L) x 0.91" (H) x 1.21" (W)
Outline	AR-K15

ECCN

EAR99

FEATURES

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

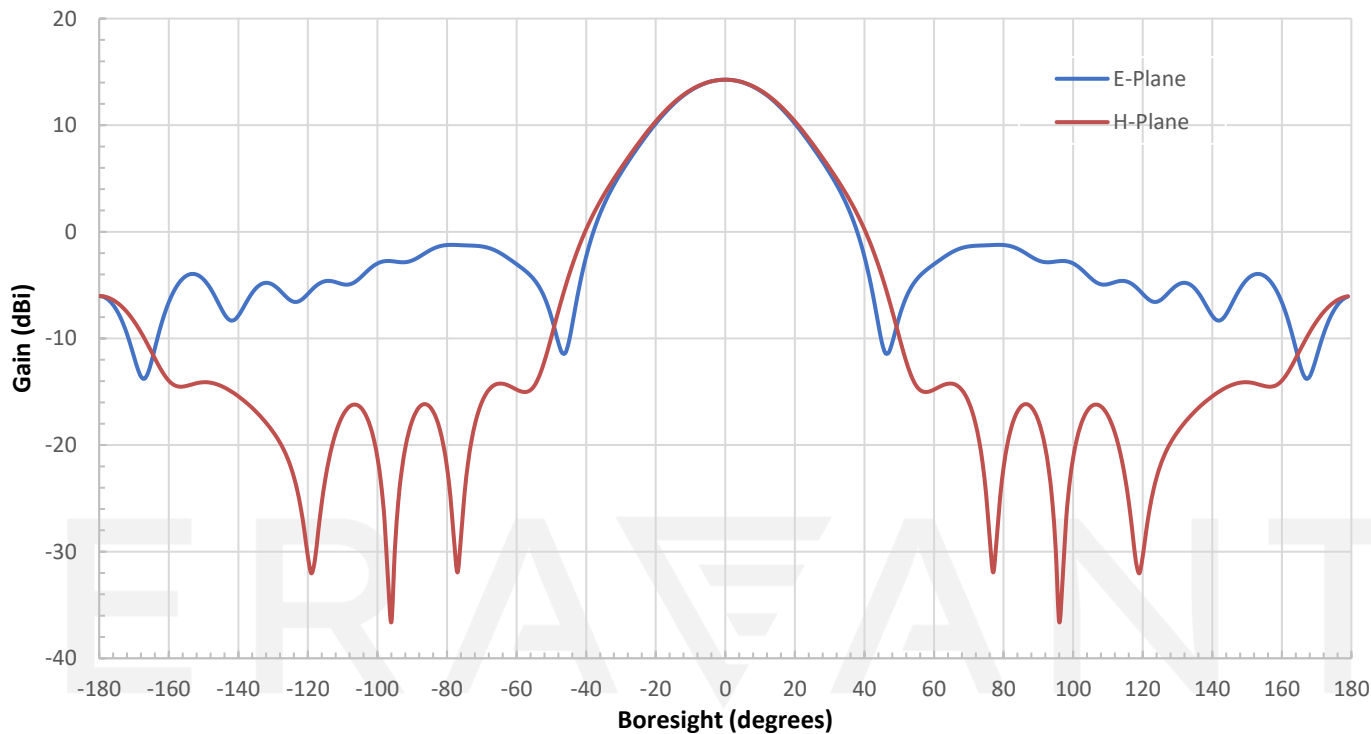
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

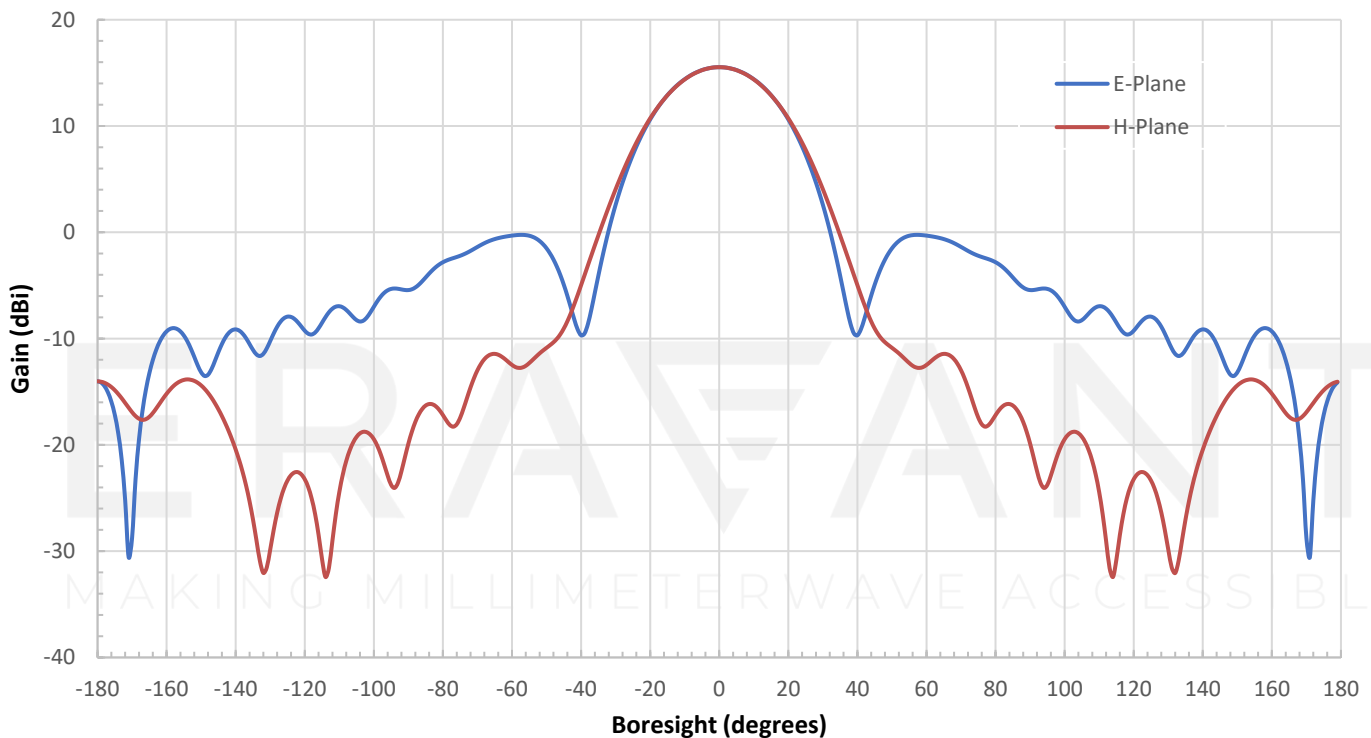
SUPPLEMENTAL DETAILS



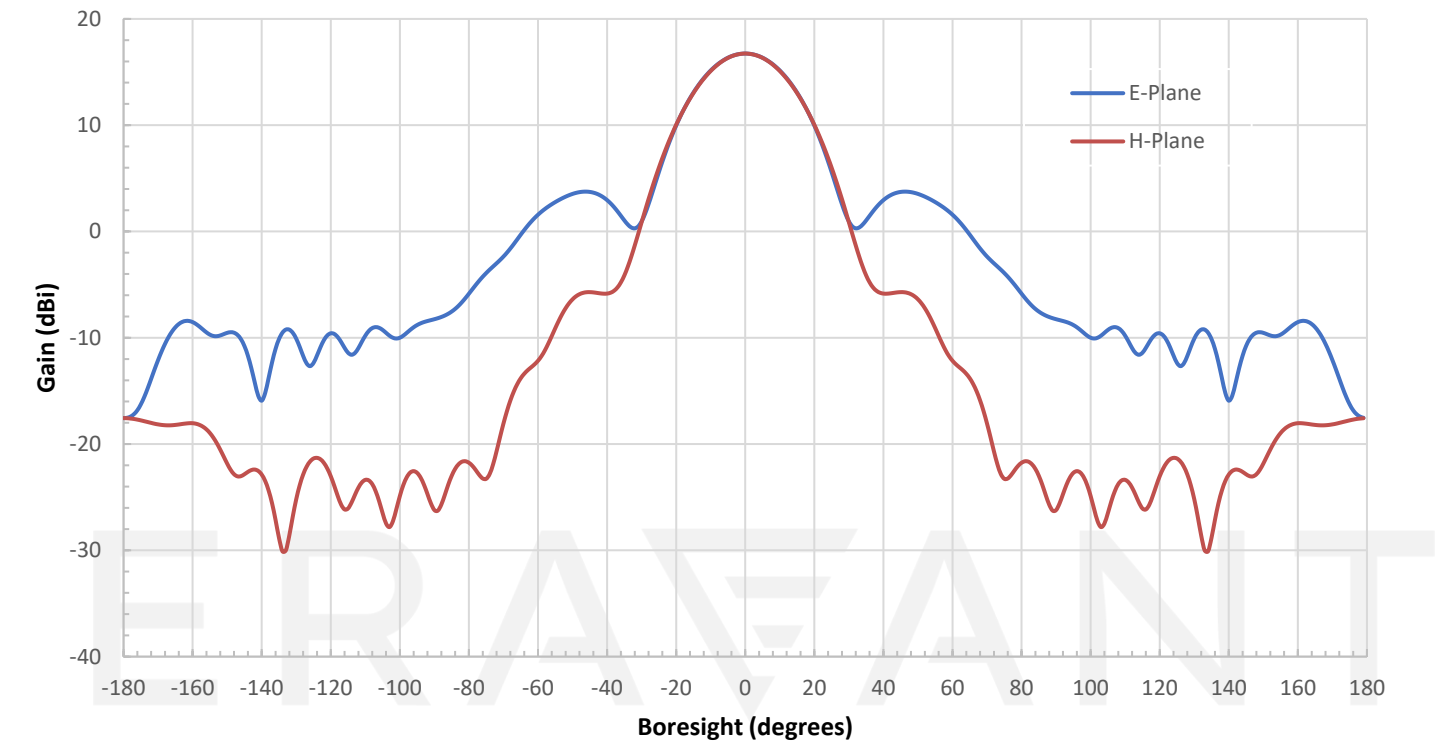
Simulated Antenna Patterns @ 18 GHz



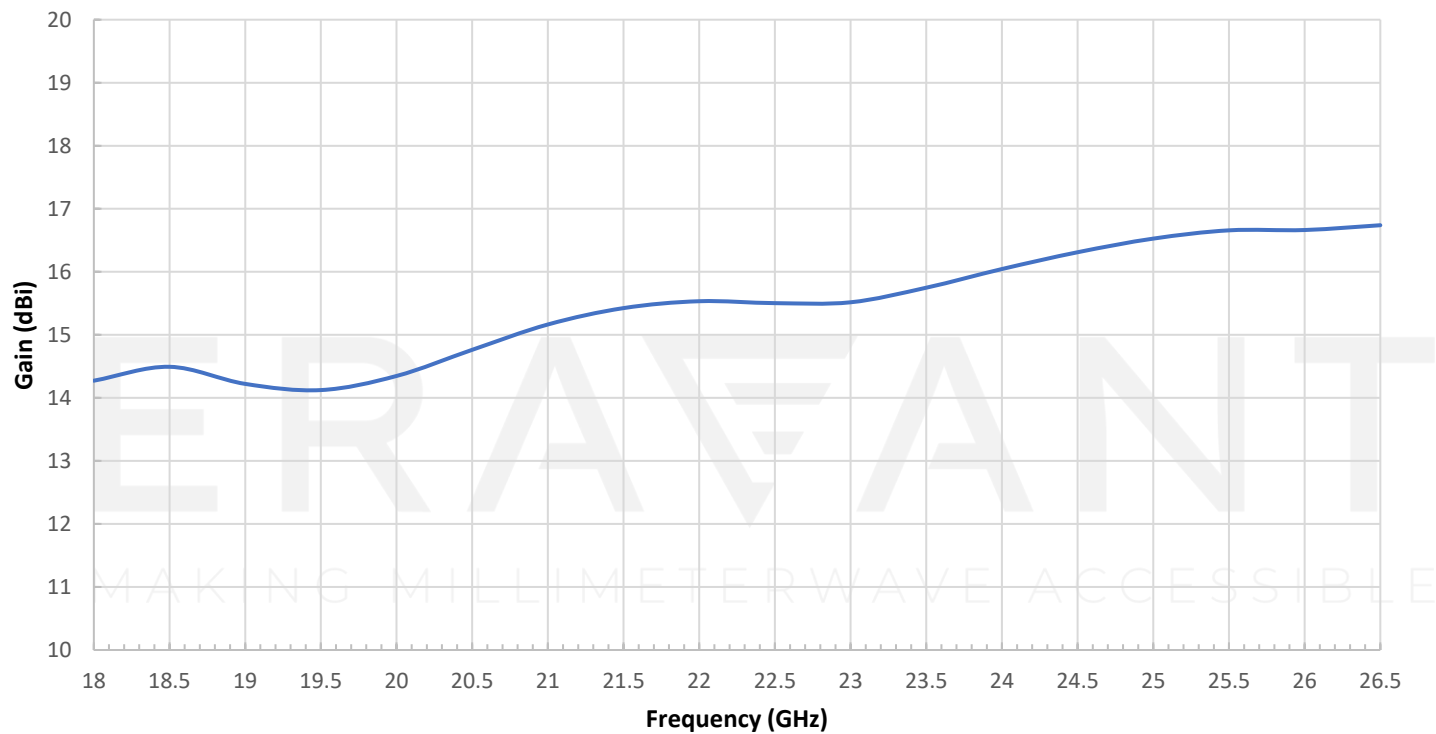
Simulated Antenna Patterns @ 22.25 GHz



Simulated Antenna Patterns @ 26.5 GHz

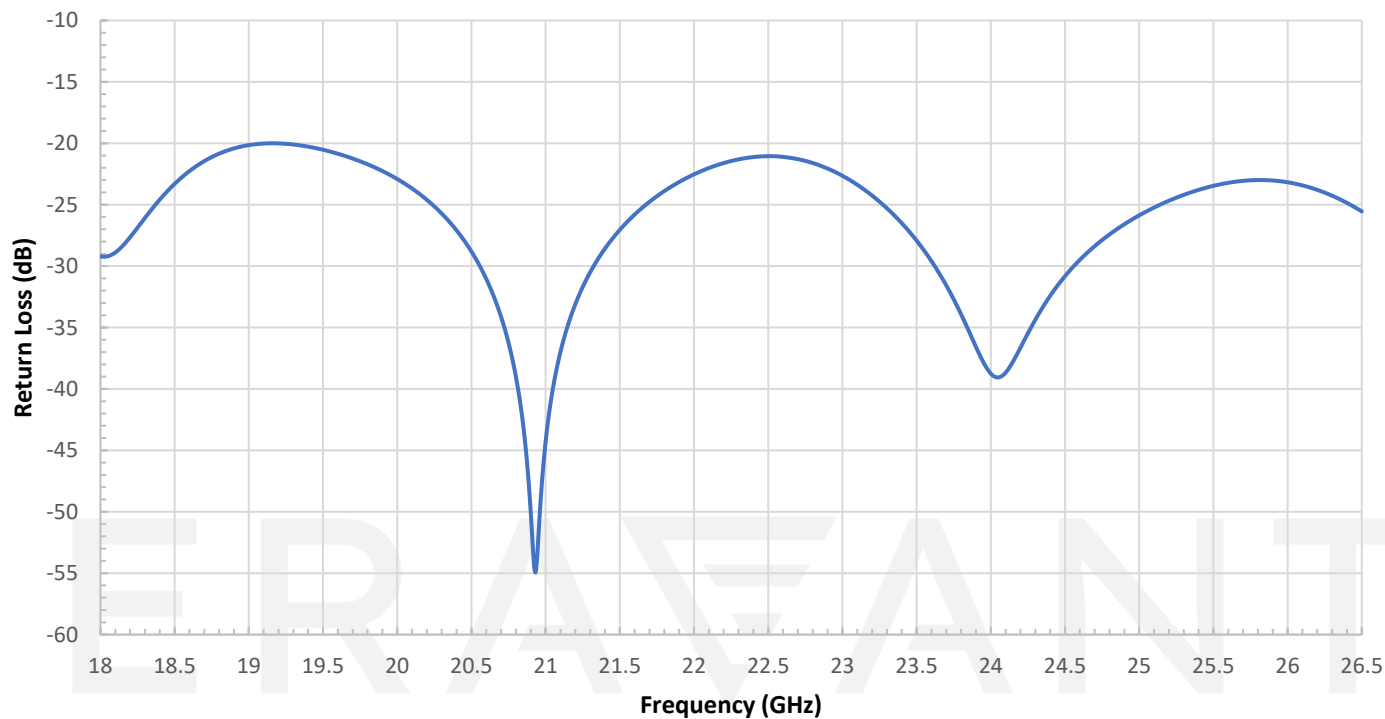


Simulated Gain vs. Frequency

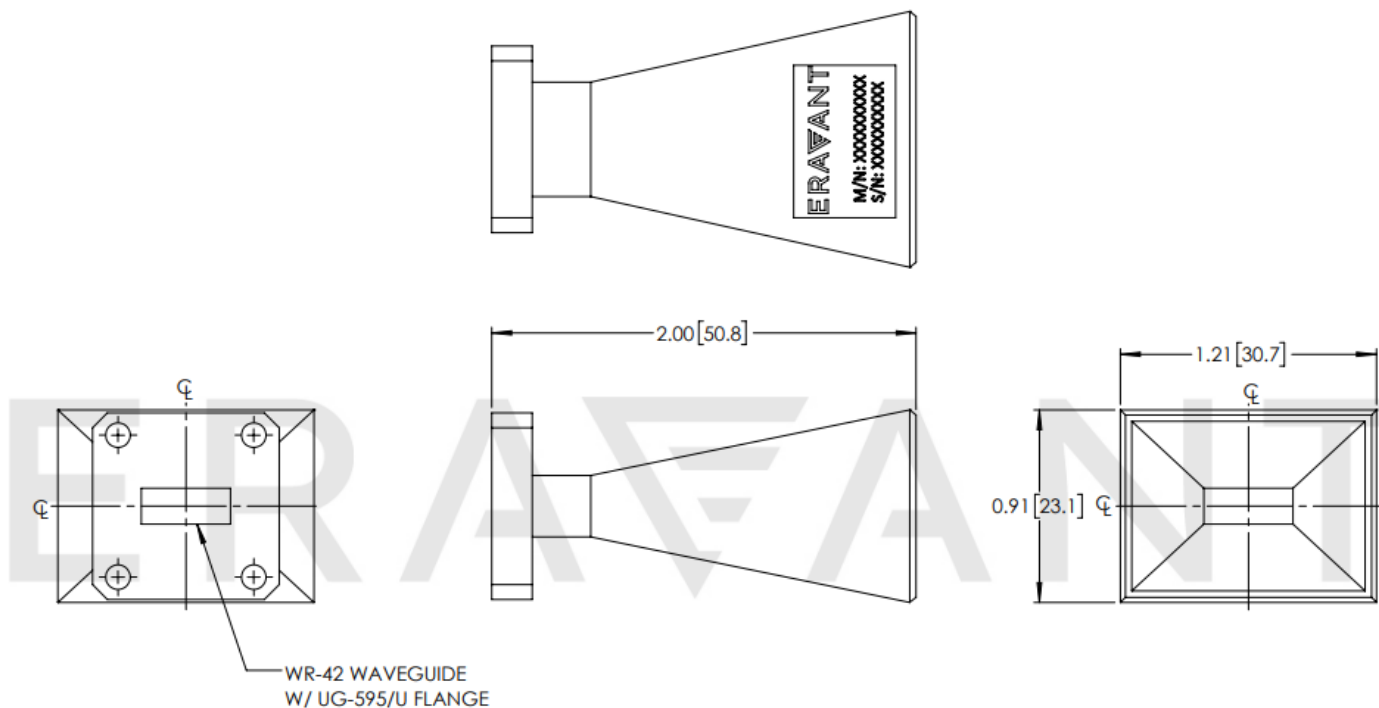


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Simulated Return Loss vs. Frequency



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



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:

- 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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