

SAR-1340-12-S2

WR-12 Rectangular Horn Antenna, 13 dBi Gain

SAR-1340-12-S2 is an E-band rectangular horn antenna that operates from 60 GHz to 90 GHz. The antenna offers 13 dBi nominal gain and a typical half power beamwidth of 39 degrees on E-plane and 41 degrees on H-plane, respectively. The antenna supports linear polarized waveforms. The input of this antenna is a WR-12 waveguide with UG-387/U anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	60 GHz	77 GHz	90 GHz
Gain	11 dBi	13 dBi	15 dBi
Polarization	Linear		
3 dB Beamwidth, E-Plane	48°	39°	33°
3 dB Beamwidth, H-Plane	50°	41°	34°
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-30 dB	
Return Loss		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-12 Waveguide
Flange Type	UG-387/U Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.32 Oz
Size	0.60" (L) X 0.35" (W) X 0.29" (H)
Outline	AR-E13-A

ECCN

EAR99

FEATURES

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

APPLICATIONS

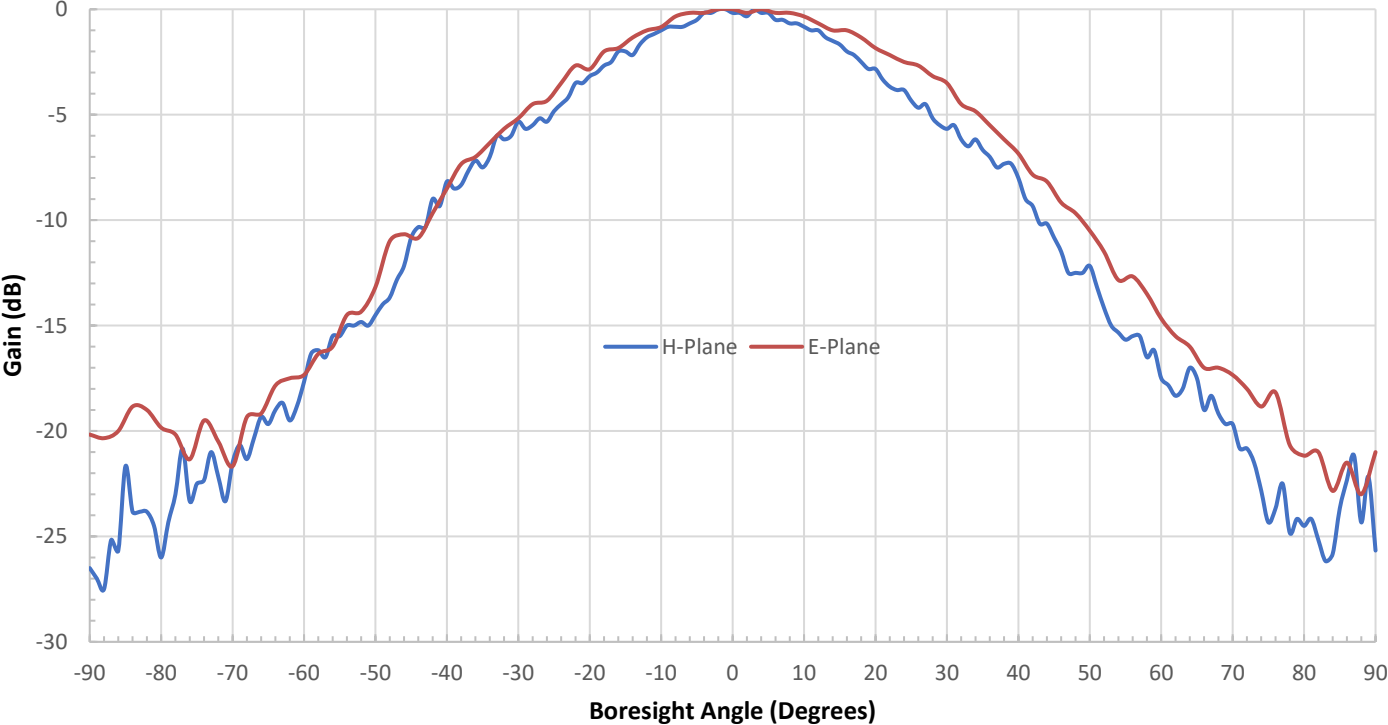
- 5G Systems
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

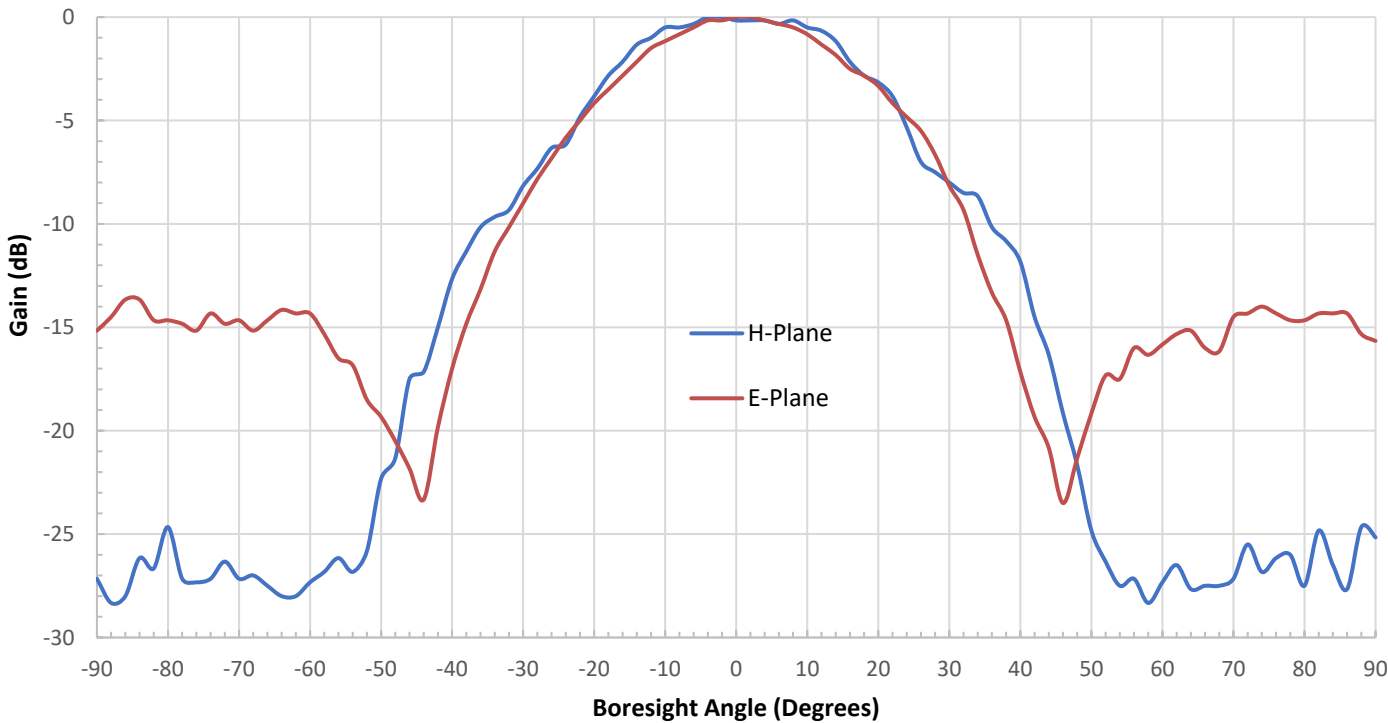


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Typical Antenna Pattern @ 60 GHz

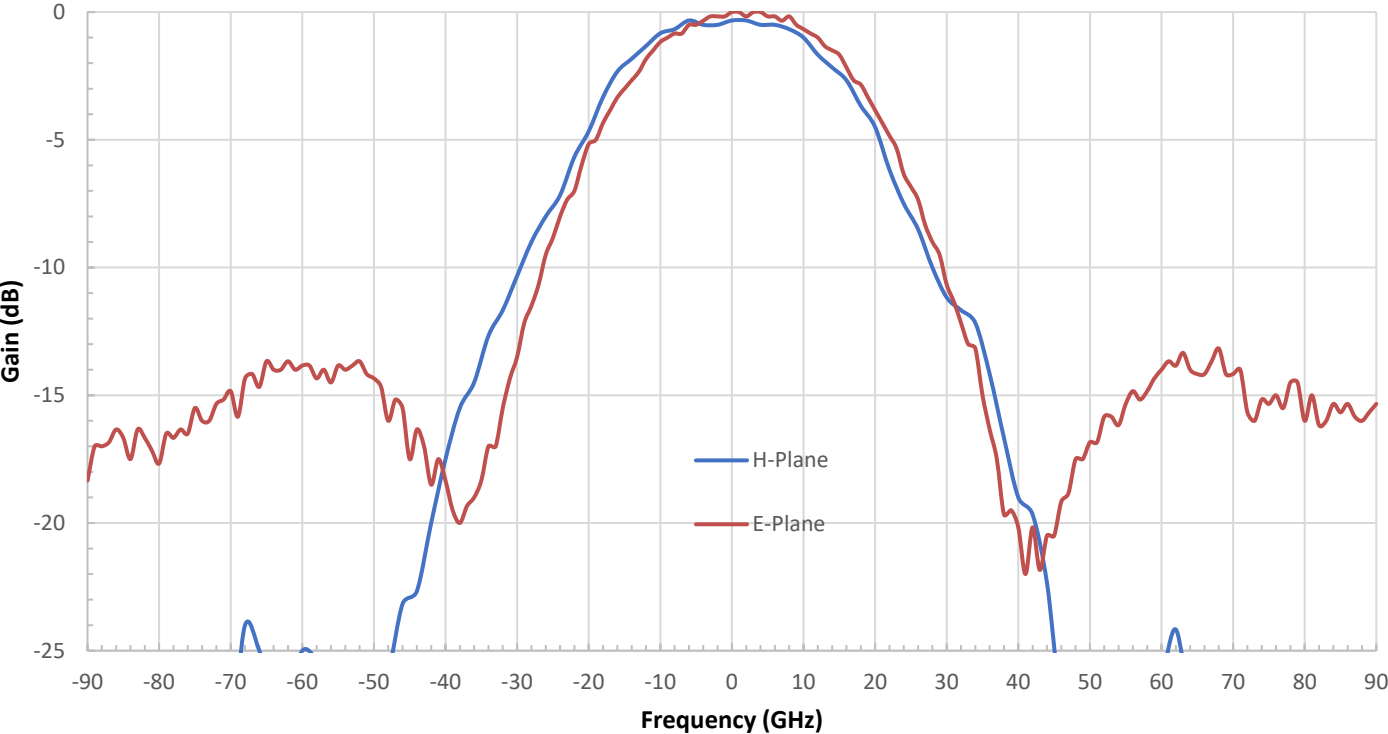


Typical Antenna Pattern @ 77 GHz

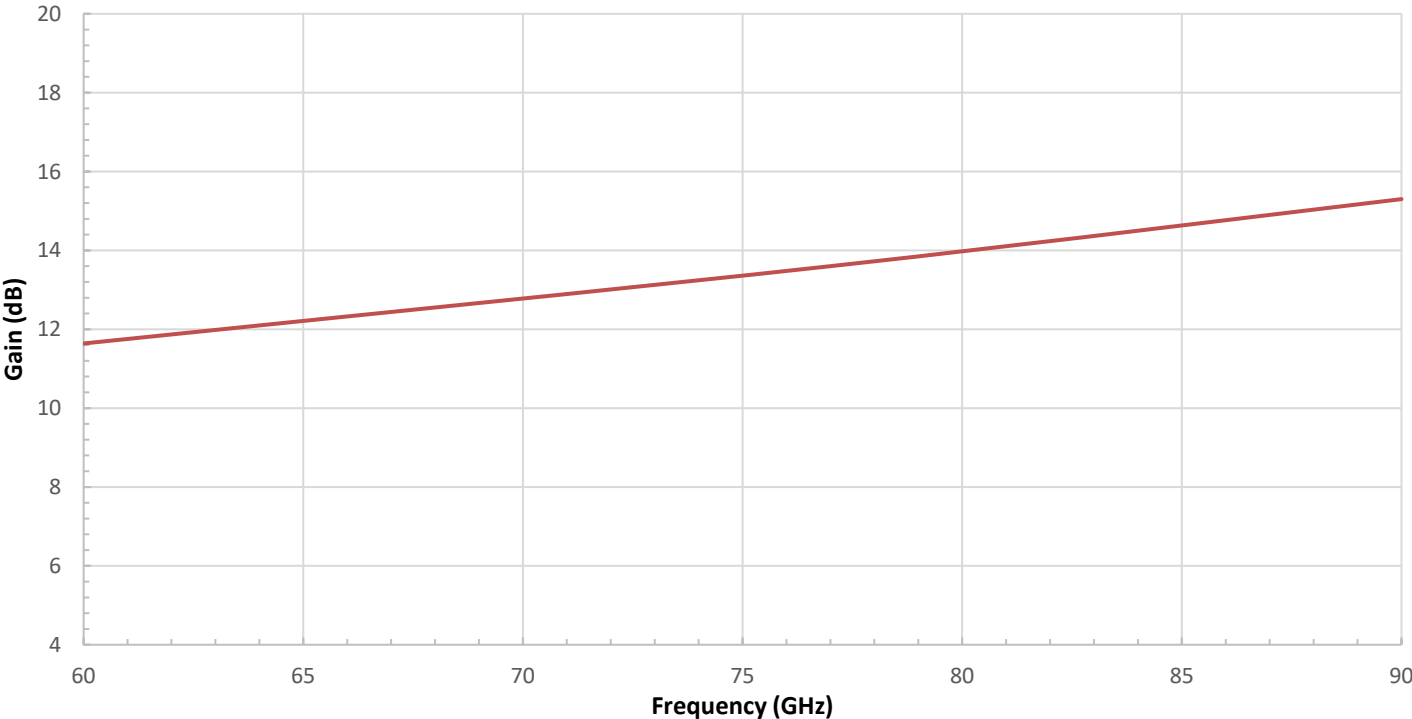


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Typical Antenna Pattern @ 90 GHz

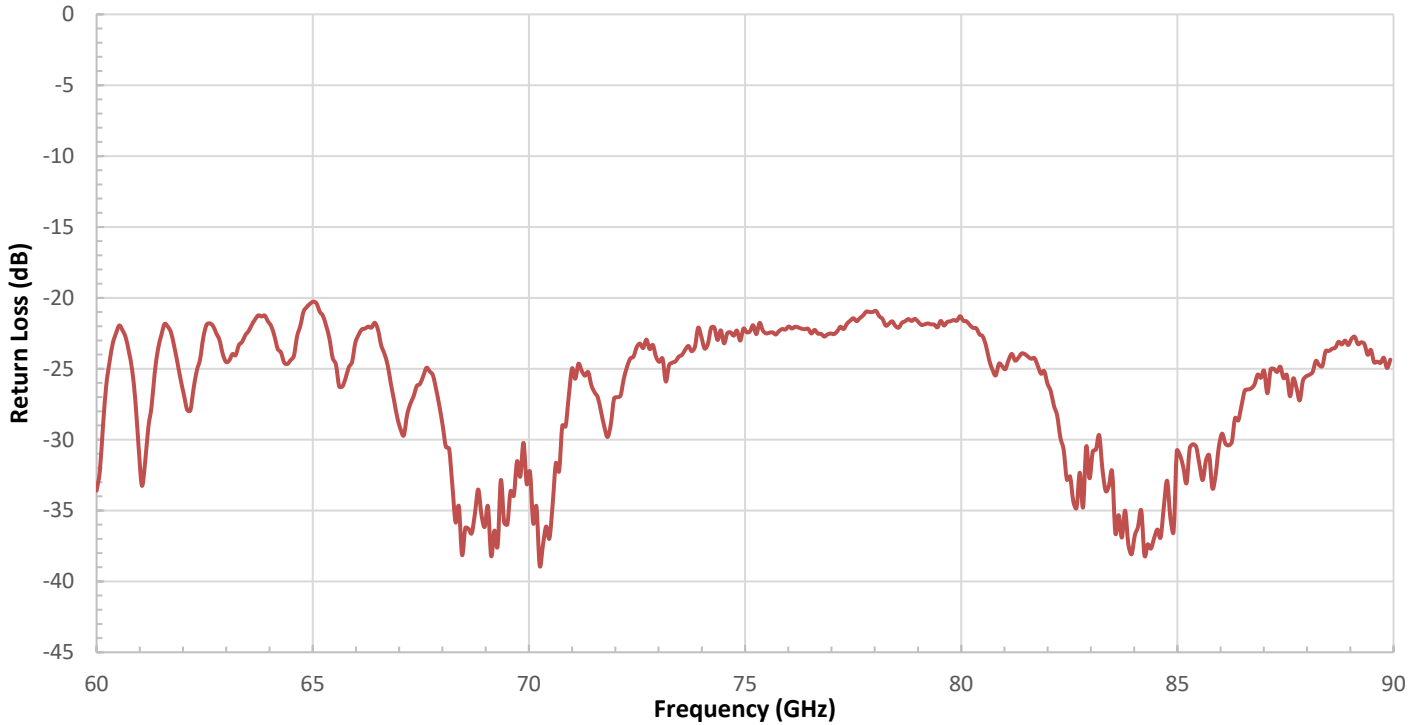


Typical Gain vs. Frequency

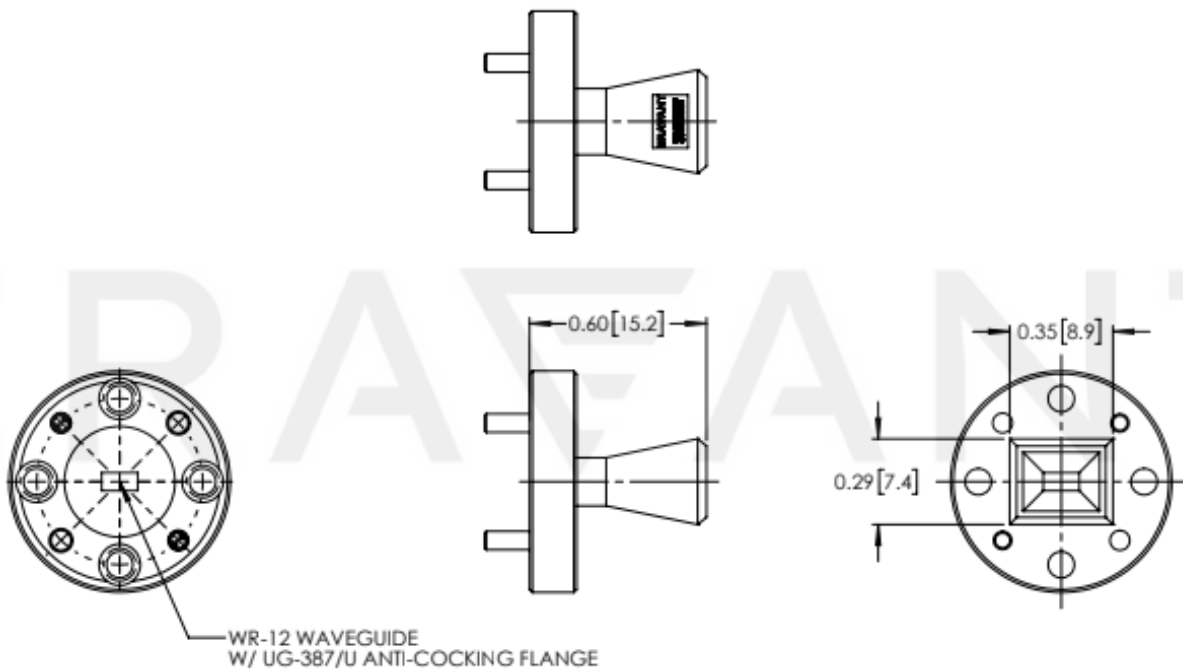


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Typical Return Loss vs. Frequency



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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