SAR-2510-75NF-R3 & SAR-2510-75NM-R3

WR-75 Pyramidal Horn Antenna, 25 dBi Gain with N Type Coax Input

SAR-2510-75NF-R3 & SAR-2510-75NM-R3 are X-Ku-band pyramidal horn antenna with a right angle (90°) N type coax connector to cover the frequency range of 9.84 GHz to 15.0 GHz. The antenna offers 25 dBi nominal gain and a typical half-power beamwidth of 9 degrees on the E-plane and 11 degrees on the H-plane. The antenna supports linear polarized waveforms.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	9.84 GHz		15 GHz
Gain		25 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		9°	
3 dB Beamwidth, H-Plane		11°	
Sidelobes, E-Plane		-13 dB	
Sidelobes, H-Plane		-36 dB	
Return Loss		18 dB	
Power Handling			50 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	N Type Female for Model Number: SAR-2510-75NF-R3
	N Type Male for Model Number: SAR-2510-75NM-R3
Material	Aluminum
Connector Material	Stainless Steel
Finish	Anti-Corrosion Paint
Weight	3.38 lbs
Size	22.95” (L) X 7.87” (W) X 6.10” (H)
Outline	AR-7C3-R-H1

ECCN

EAR99

FEATURES

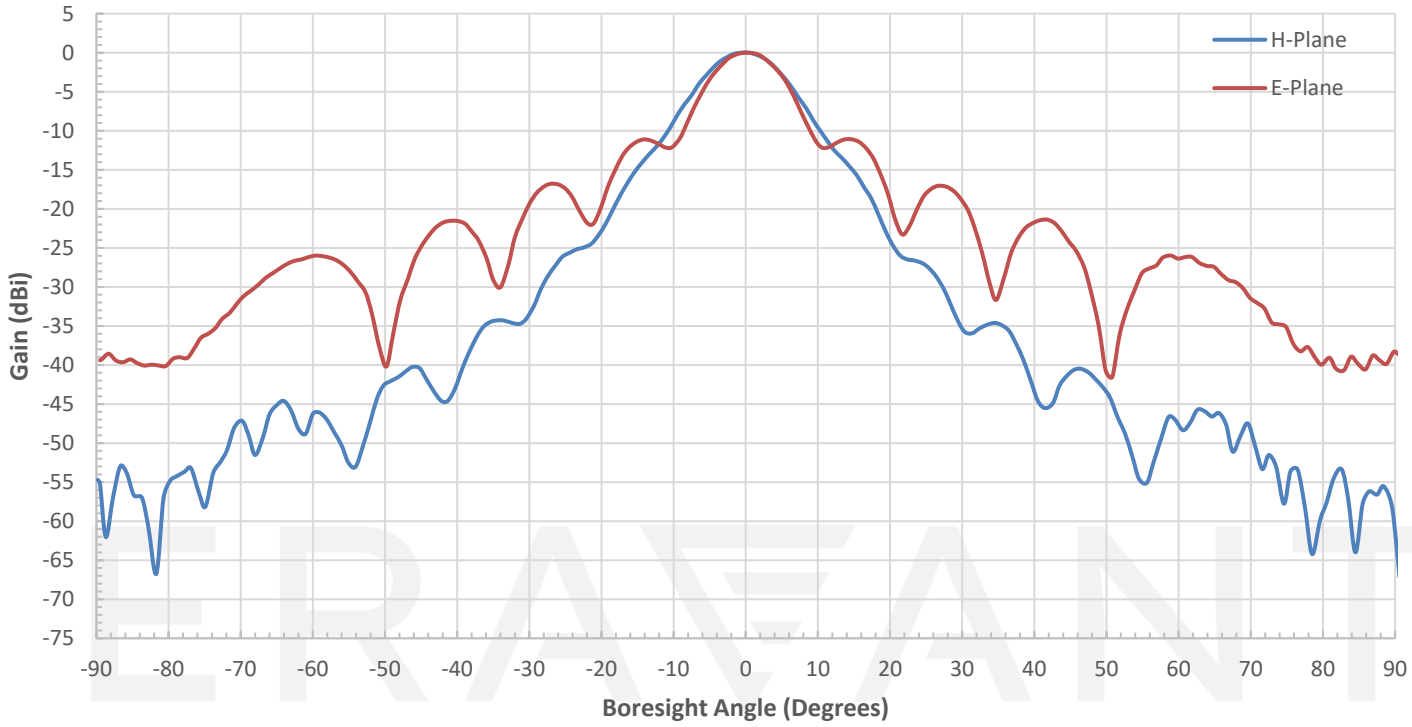
- Inline Configuration
- Linear Polarization
- DC Short Circuit at Input

APPLICATIONS

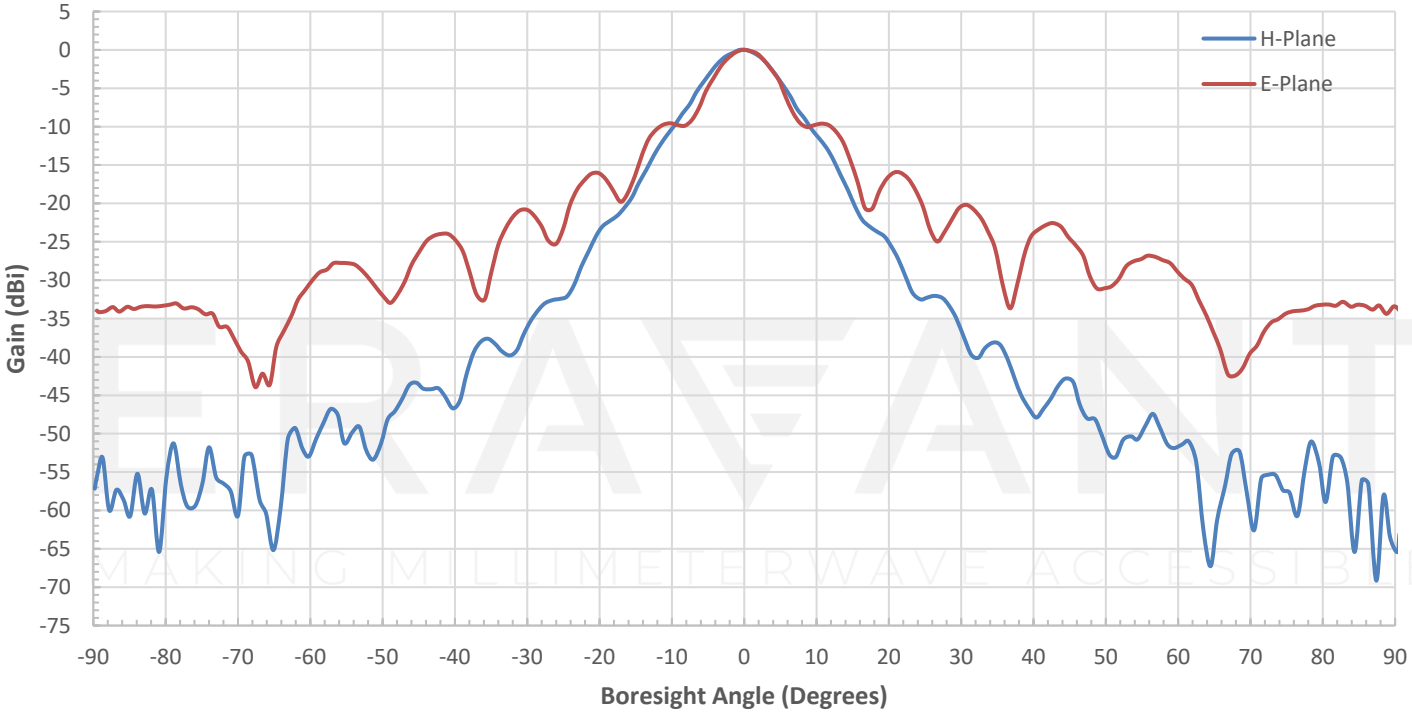
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

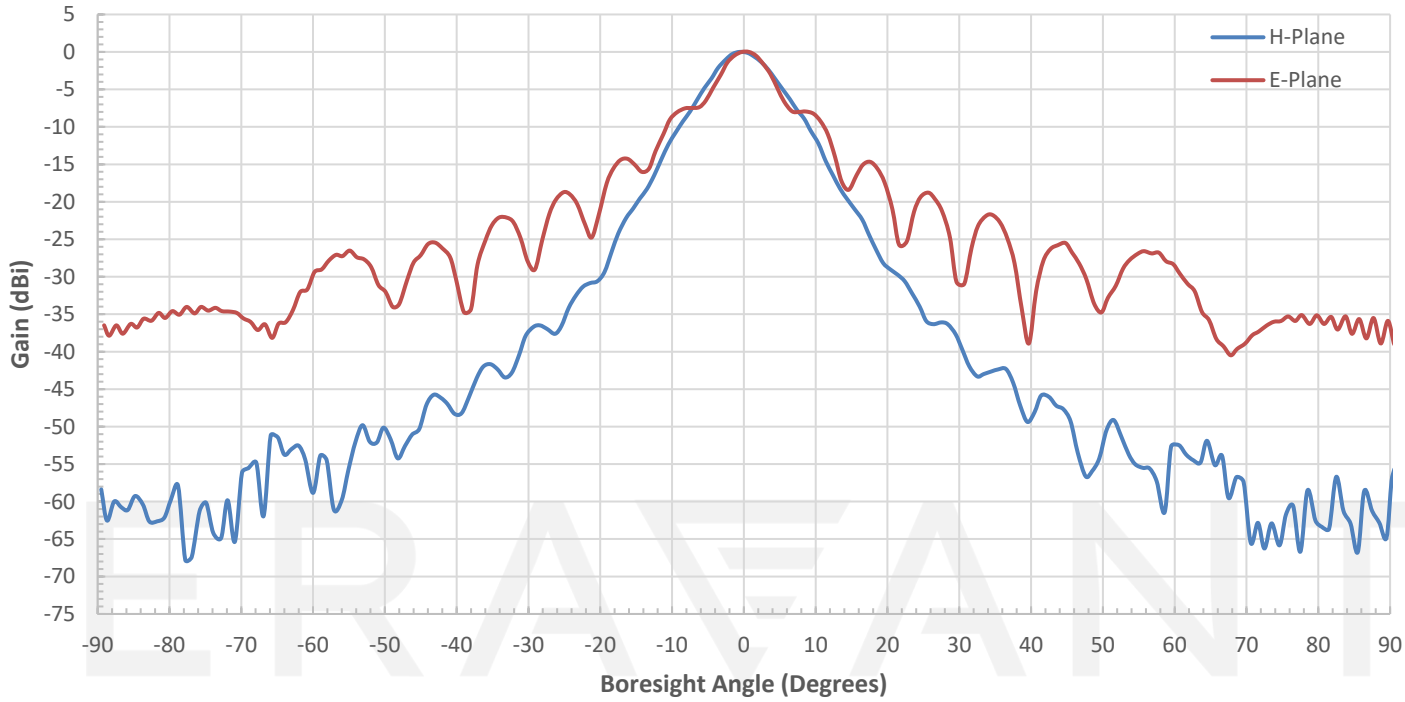
Simulated Antenna Patterns @ 10 GHz



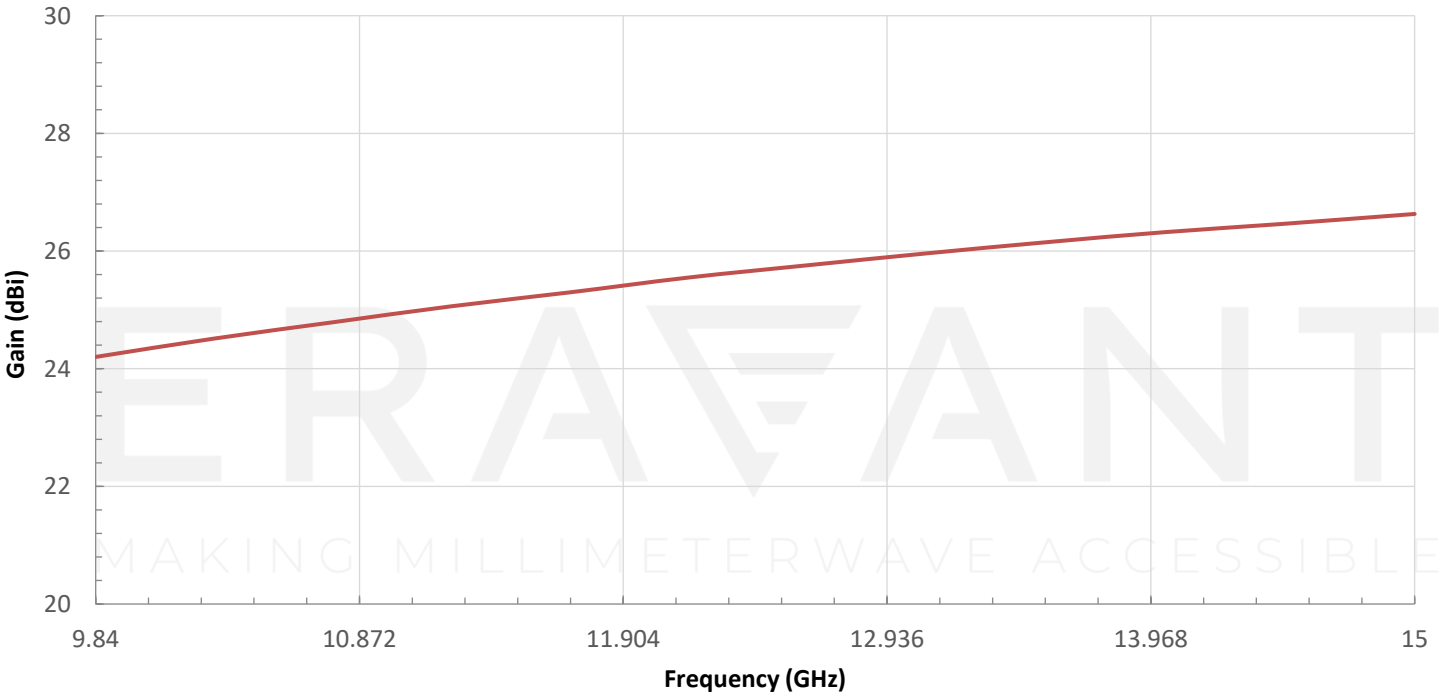
Simulated Antenna Patterns @ 12.5 GHz



Simulated Antenna Patterns @ 15 GHz



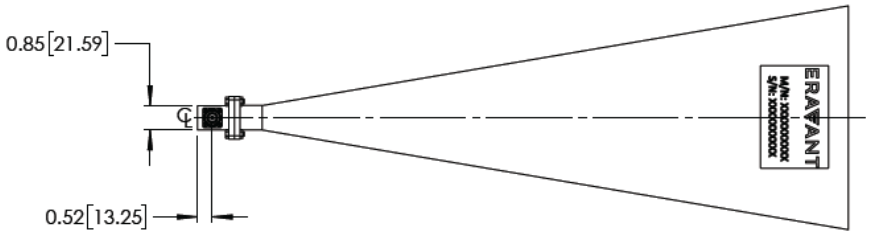
Measured Gain vs. Frequency

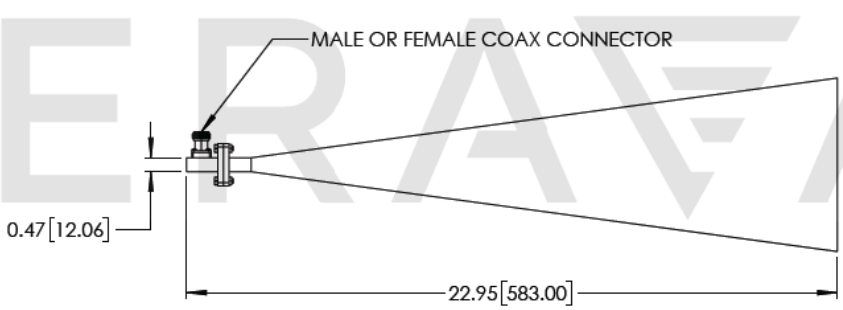


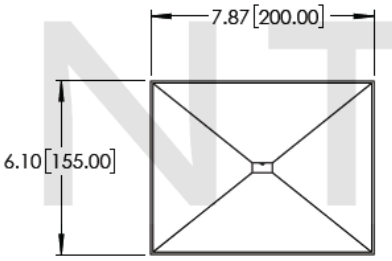
Measured Gain vs Frequency in Tabular Format:

Frequency (GHz)	Gain (dBi)	Frequency (GHz)	Gain (dBi)
9.84	24.20	12.63	25.76
10.30	24.51	13.09	25.96
10.77	24.79	13.56	26.15
11.23	25.06	14.02	26.32
11.70	25.30	14.48	26.46
12.16	25.55	15.00	26.63

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.
- 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.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.