SAR-2013-34KF-E2 & SAR-2013-34KM-E2

WR-34 Pyramidal Horn Antenna, 20 dBi Gain with 2.92 mm Coax Input

SAR-2013-34KF-E2 & SAR-2013-34KM-E2 are pyramidal horn antennas with end launch (180°) 2.92 mm coax connectors to cover the frequency range of 22 GHz to 33 GHz. The antennas offer 20 dBi nominal gain and a typical half power beamwidth of 14 degrees on the E-plane and 16 degrees on the H-plane. The antennas support linear polarized waveforms. Right angle (90°) 2.92 mm coax connector configurations are available under models SAR-2013-34KF-R2 and SAR-2013-34KM-R2.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	22 GHz		33 GHz
Gain		20 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		14°	
3 dB Beamwidth, H-Plane		16°	
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-30 dB	
Return Loss		20 dB	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port (F)	2.92 mm Female for Model Number: SAR-2013-34KF-E2
Antenna Port (M)	2.92 mm Male for Model Number: SAR-2013-34KM-E2
Material	Aluminum
Connector Material	Stainless Steel
Finish	Gold Plated
Weight	1.3 Oz
Outline	AR-3C1-E

ECCN

EAR99

FEATURES

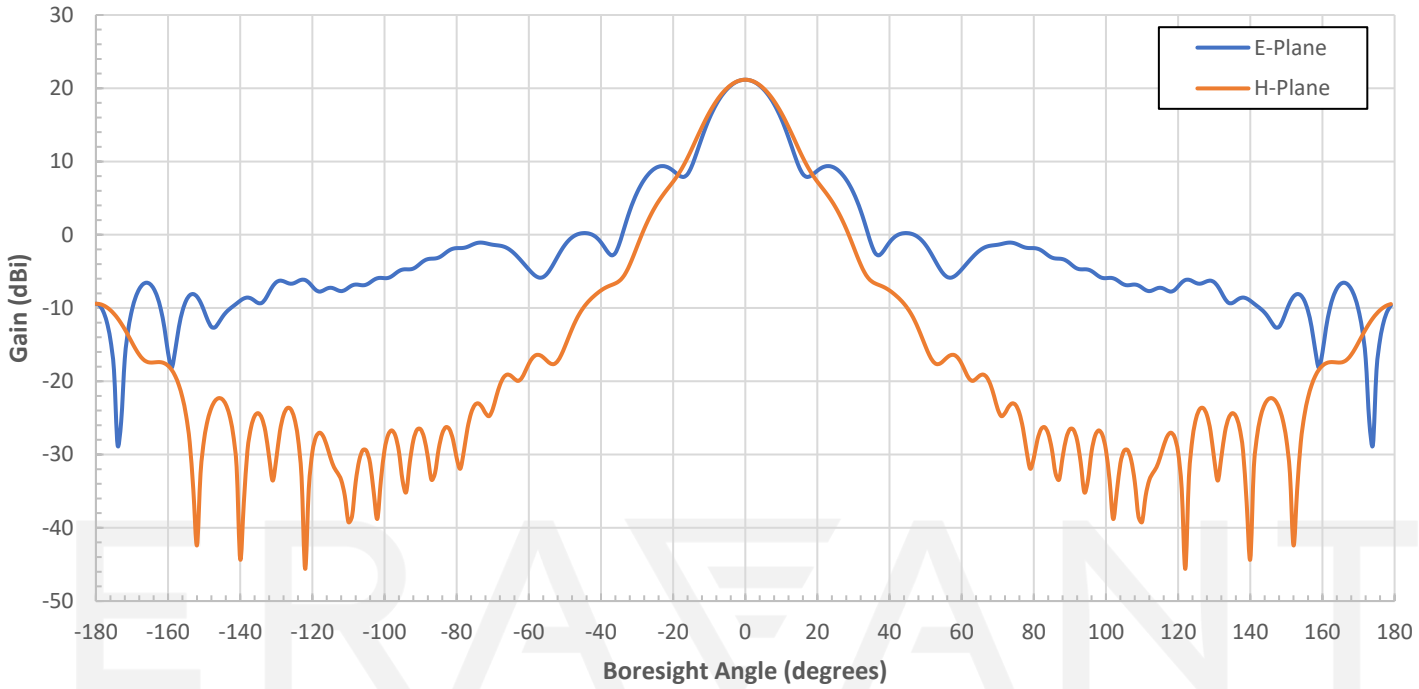
- Inline Configuration
- Linear Polarization
- DC Short Circuit at Input

APPLICATIONS

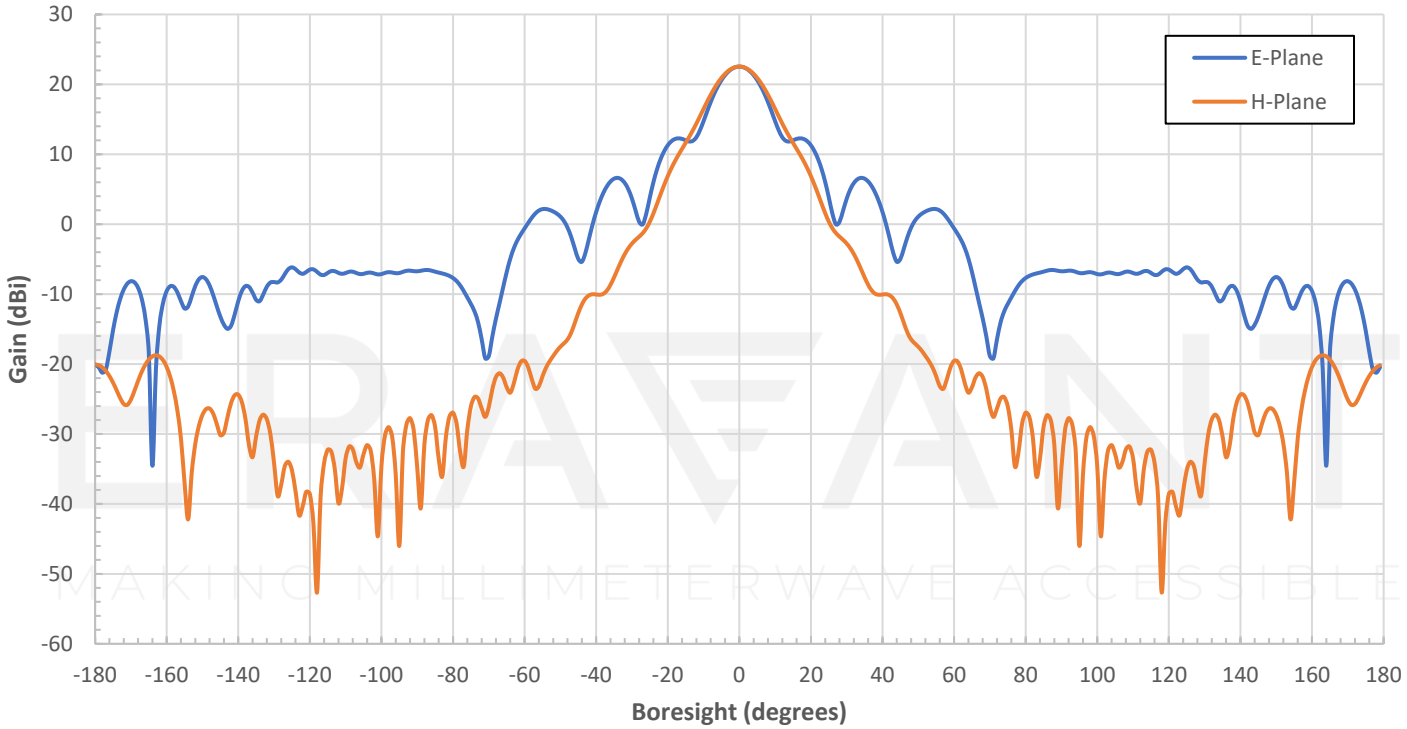
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

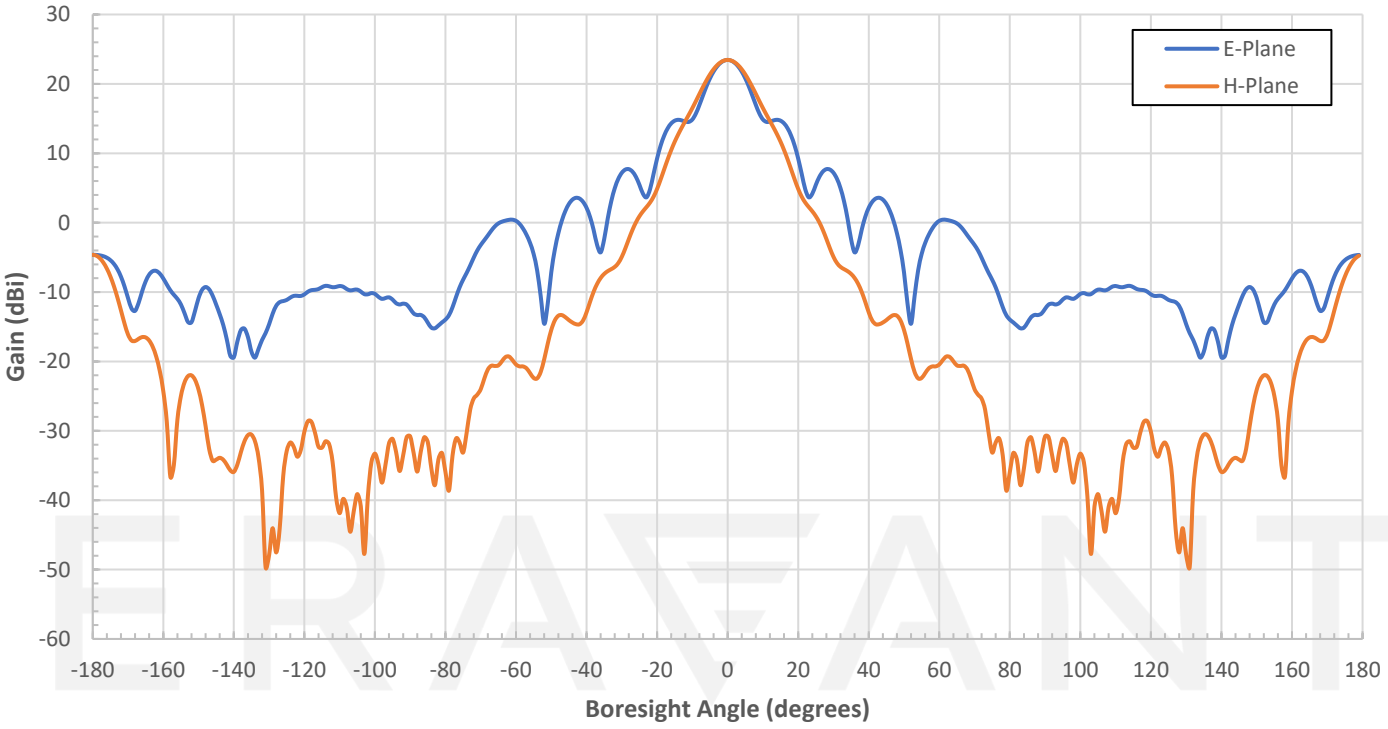
Simulated Antenna Patterns @ 22 GHz



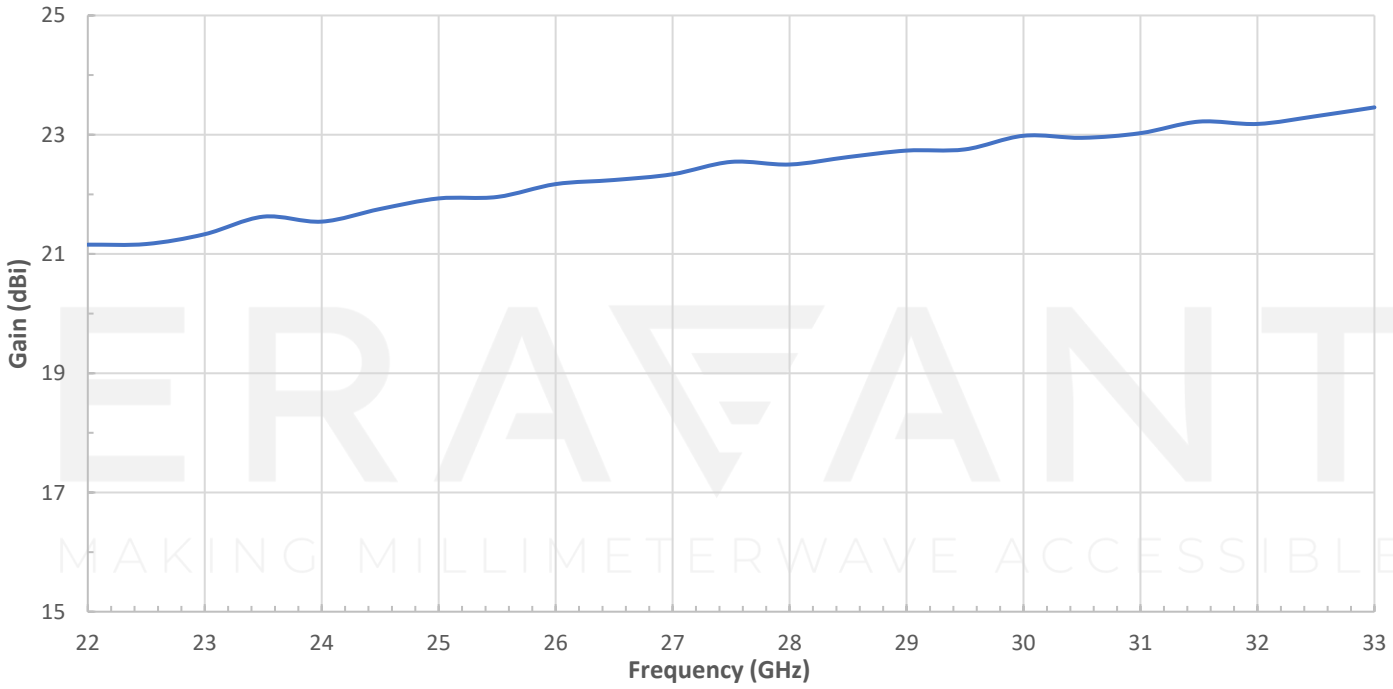
Simulated Antenna Patterns @ 27.5 GHz



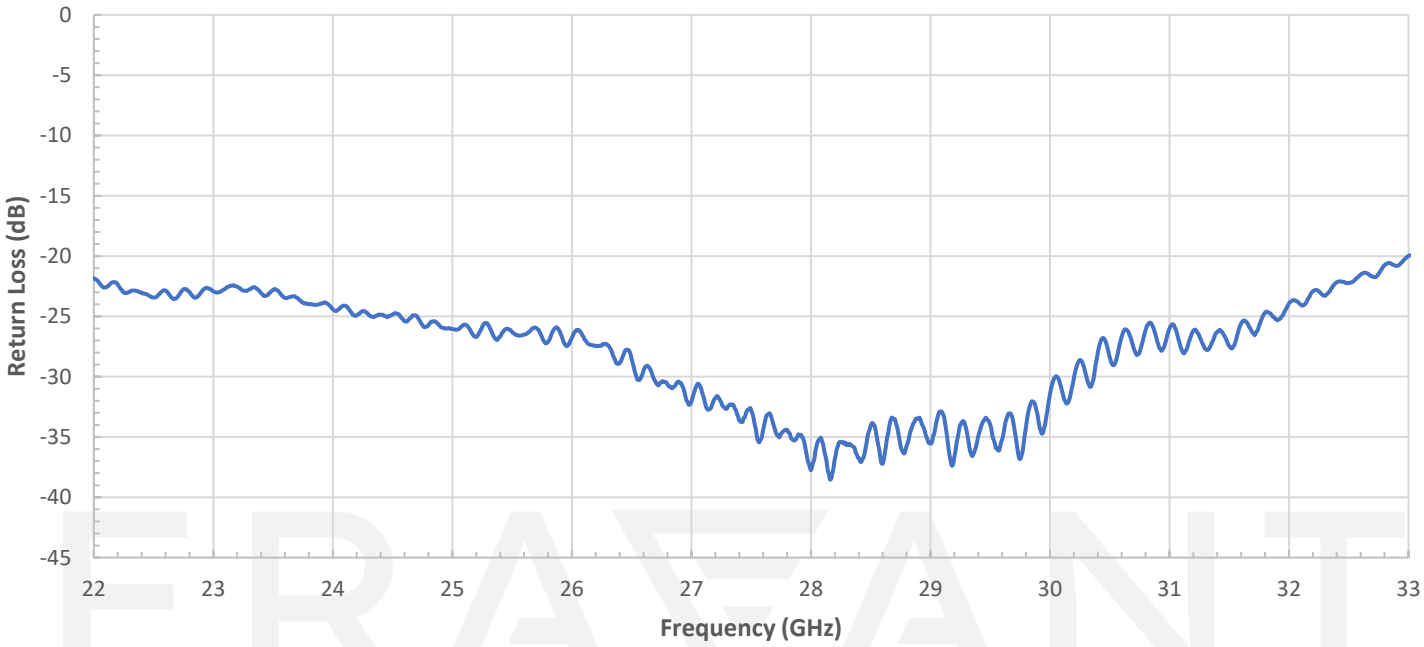
Simulated Antenna Patterns @ 33 GHz



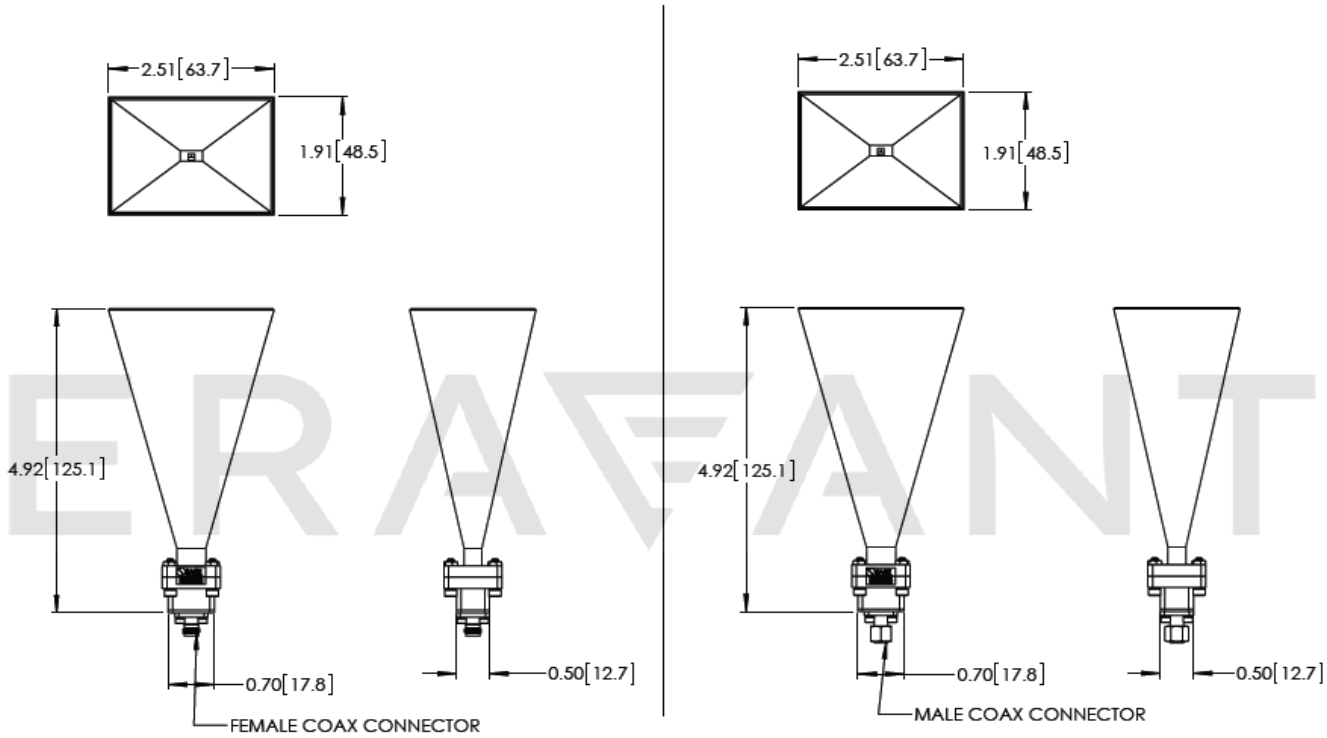
Simulated Gain vs. Frequency



Measured Return loss vs Frequency



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



NOTE:

- 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.
- Proper torque, 8.0 ± 0.4 inch-pounds (0.90 ± 0.02 Nm) should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

ERAVANT
MAKING MILLIMETERWAVE ACCESSIBLE