

SAF-2433331628-328-S1-340-DP

WR-34 Dual Polarized Scalar Feed Horn Antenna

SAF-2433331628-328-S1-340-DP is a dual polarized, WR-34 scalar feed horn antenna assembly that covers several popular 5G bands in the frequency range of 24 to 33 GHz. The antenna features an integrated orthomode transducer (OMT) that provides high port isolation and cross-polarization cancellation and a scalar horn that provides low sidelobe levels. The OMT enables the antenna to separate a circular or elliptical polarized waveform into two linear, orthogonal waveforms or vice versa. The dual polarized horn also supports either vertical or horizontal polarized waveguide forms with more than 30 dB cross polarization rejections. At center frequency, the horn antenna exhibits 16 dB nominal gain and a typical half power beamwidth of 28 degrees. The antenna exhibits 45 dB typical port isolation between the horizontal and vertical ports. The horizontal and vertical ports are WR-34 waveguides with UG-1530/U flanges and 4-40 threaded holes.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	24 GHz		33 GHz
Gain		16 dB	
3 dB Beamwidth		28°	
Sidelobe Levels		-20 dB	
V and H Port Isolation		45 dB	
Cross Polarization Rejection		35 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Ports	WR-34 Waveguide with UG-1530/U Threaded Flange
Material	Aluminum
Finish	Gold Plated
Weight	7.4 Oz
Outline	AF-C316-328-340-DP

ECCN

EAR99

FEATURES

- 24 to 33 GHz Operations
- Linear and Circular Polarizations
- High Port Isolation
- High Crosspol Rejection

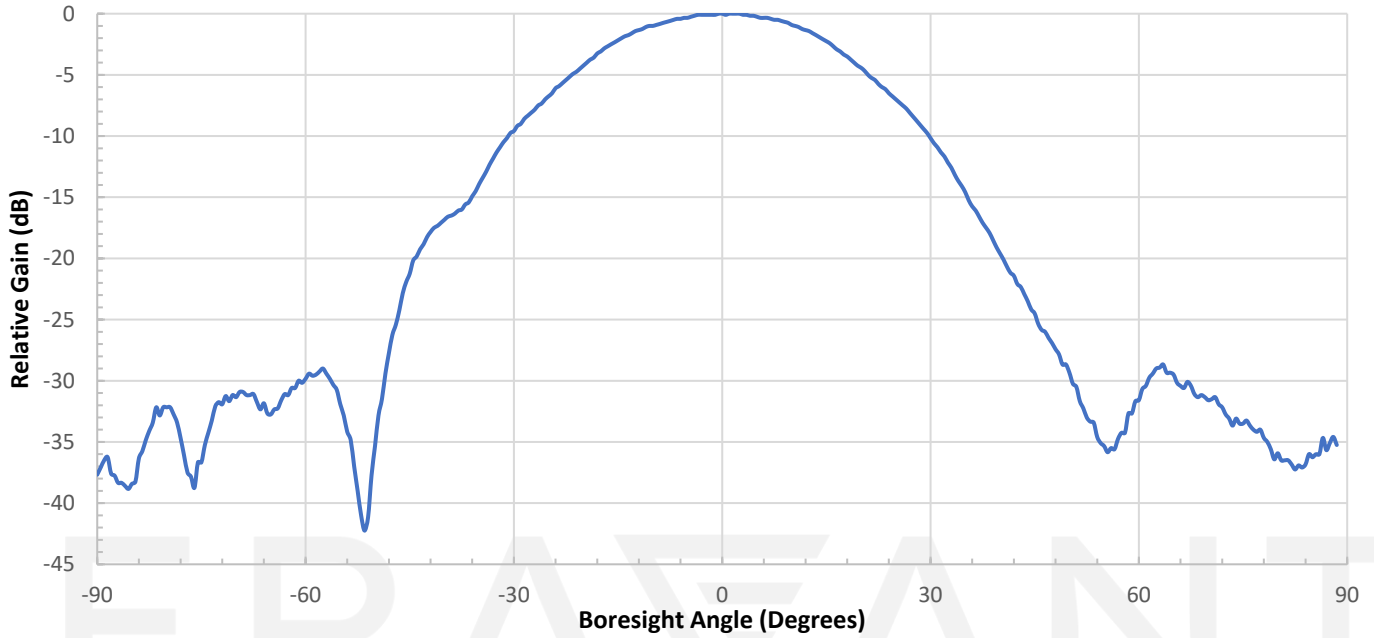
APPLICATIONS

- 5G Systems
- Radar Systems
- Communication Systems
- Circular and Linear Waveform Separation and Comination

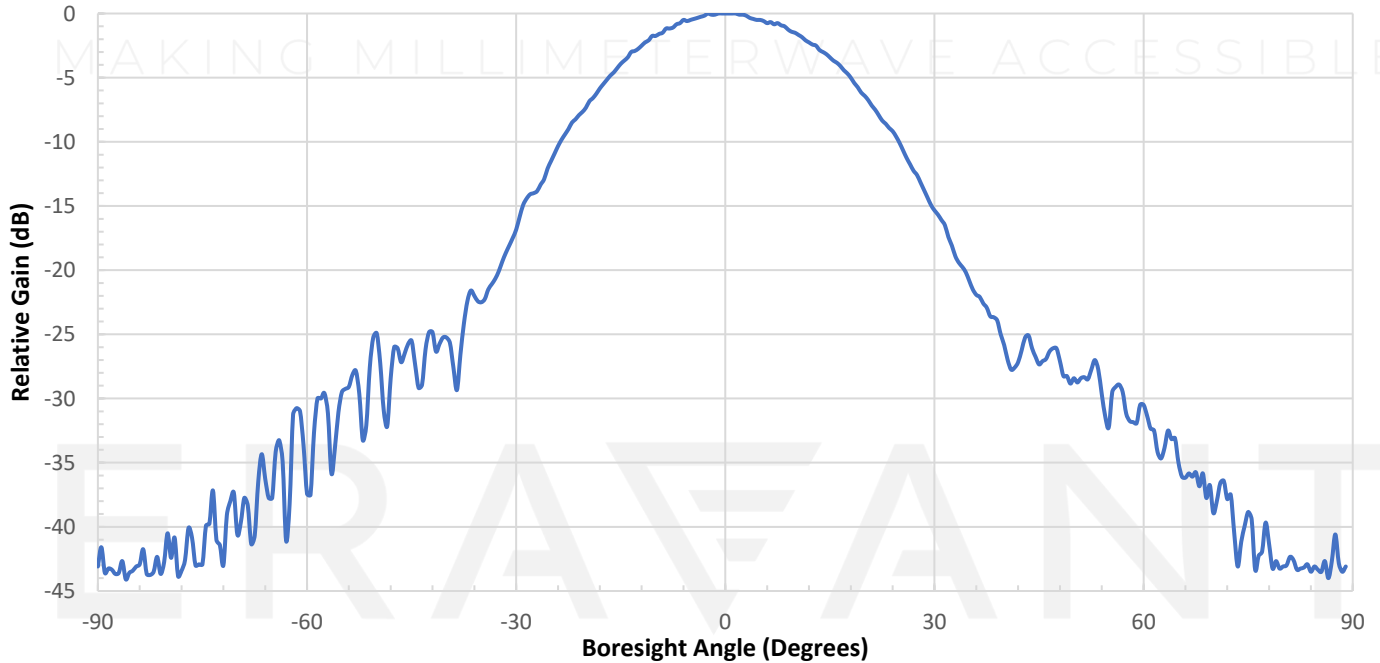
SUPPLEMENTAL DETAILS



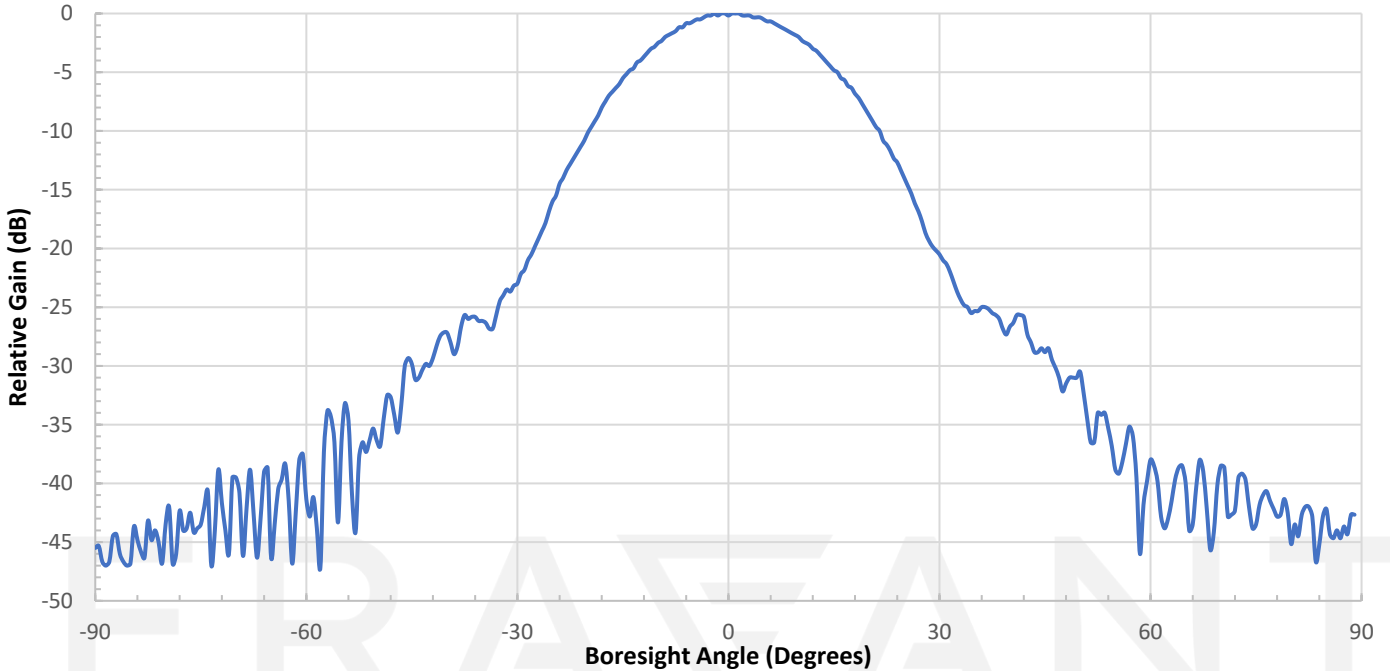
Typical Antenna Pattern @ 24 GHz



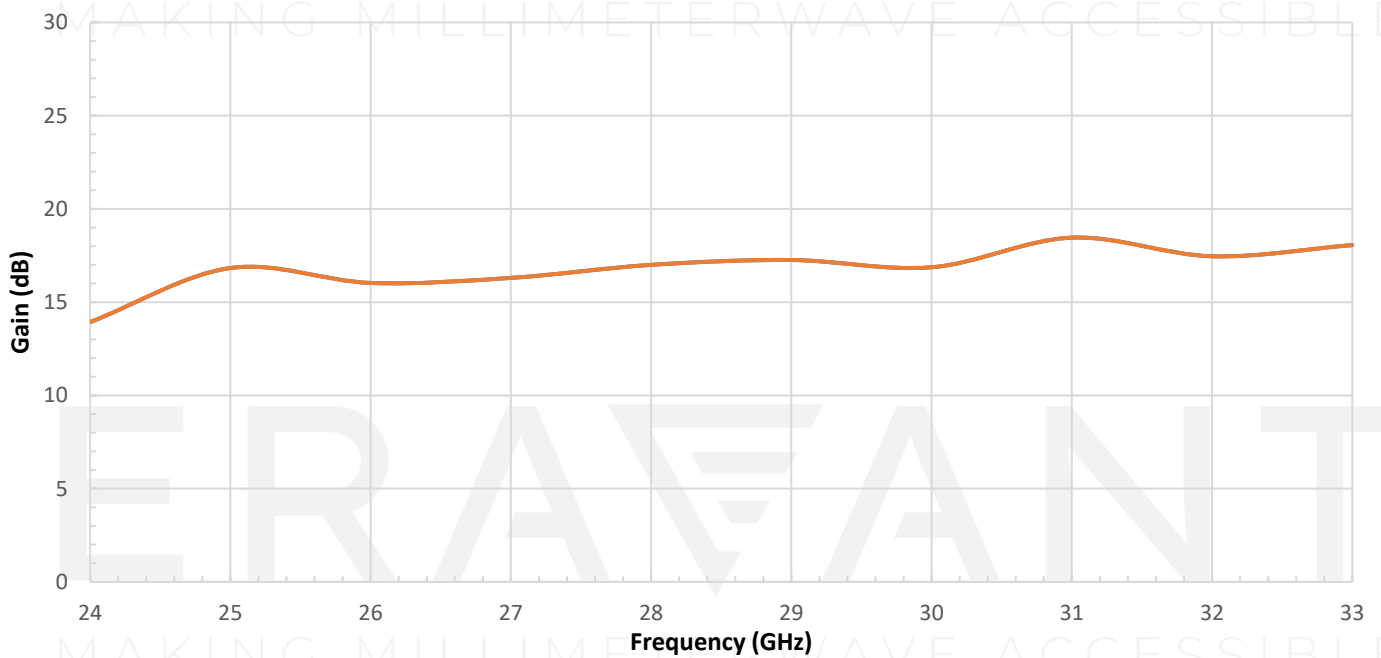
Typical Antenna Pattern @ 28.5 GHz



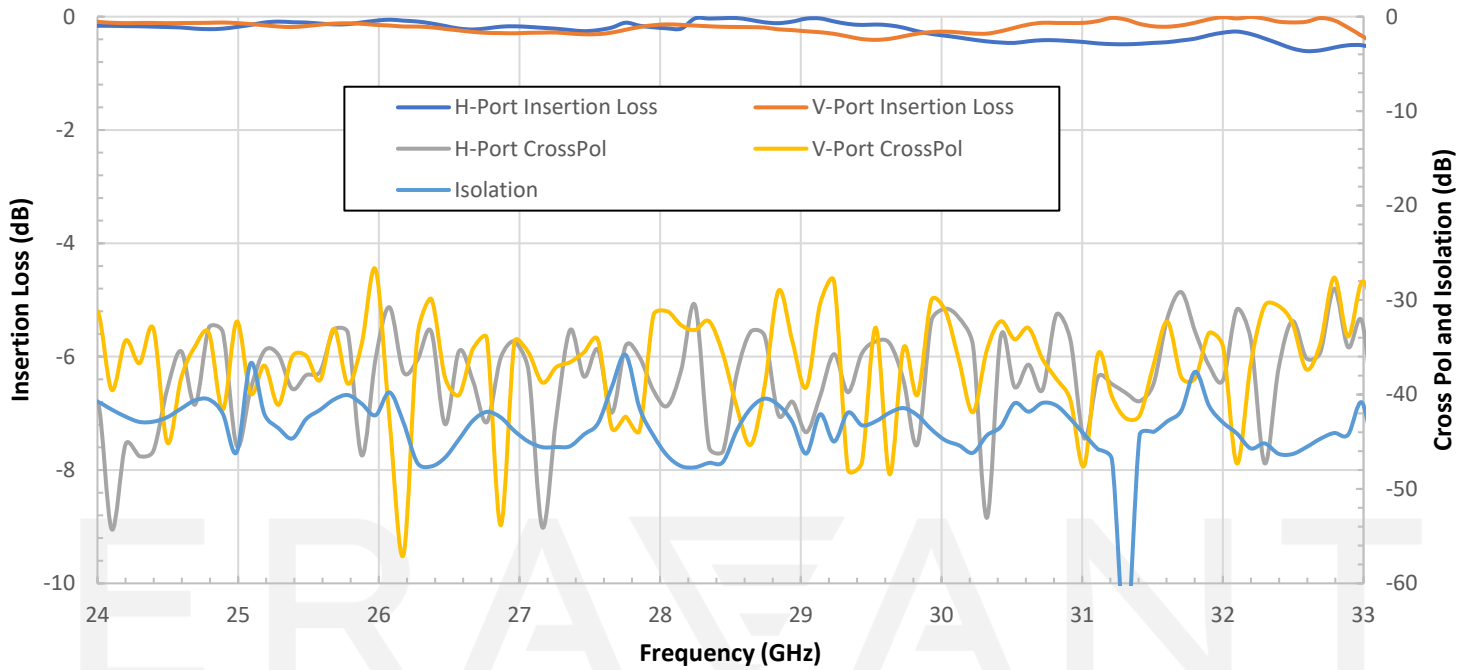
Typical Antenna Pattern @ 33 GHz



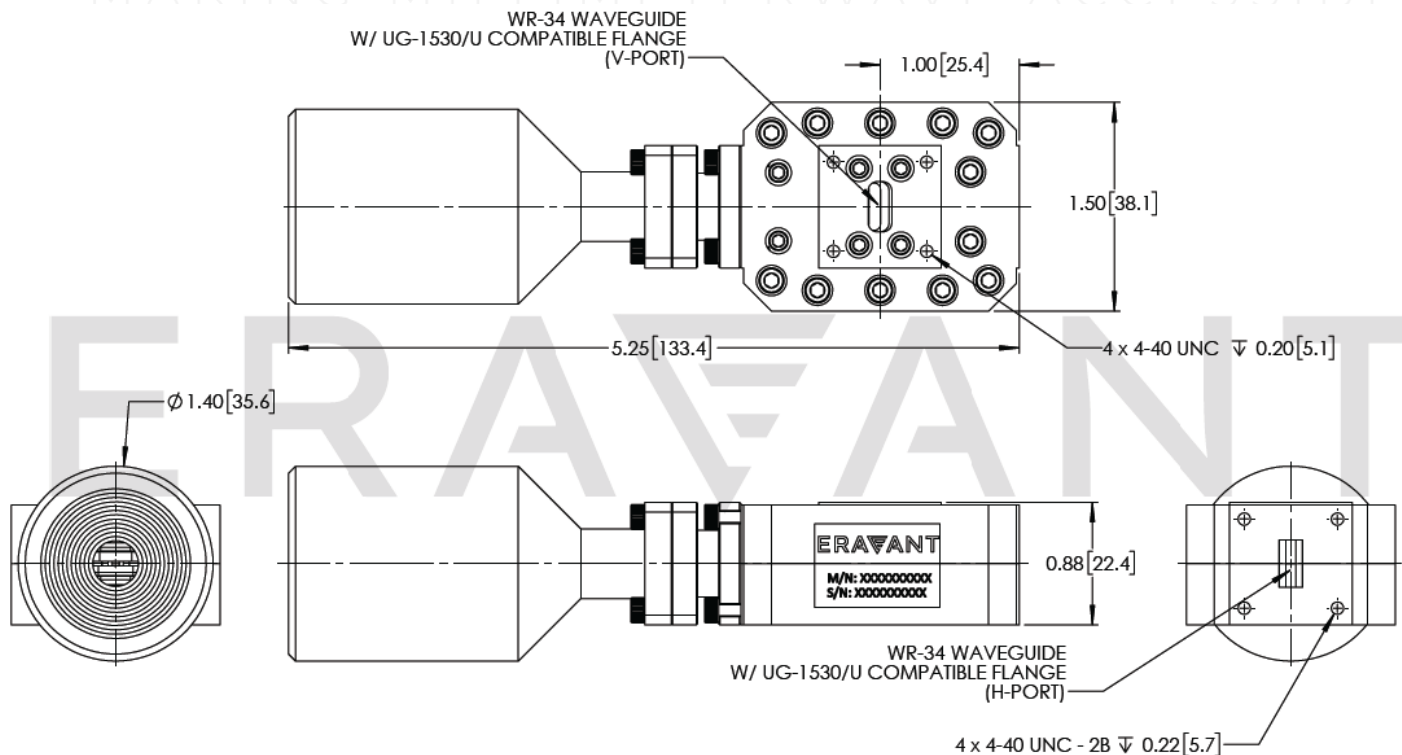
Typical Gain vs. Frequency



Typical Performance vs. Frequency



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



NOTE:

- All data provided 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.

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