SAP-222M-E2

WR-22 Probe Antenna, 6.5 dBi Gain with 2.4 mm Coax Input

SAP-222M-E2 is a W-band probe antenna with a end launch (180°) 1 mm (F) coax connector to cover the frequency range of 33 GHz to 50 GHz. The antenna offers 6.5 dBi nominal gain and 115 degrees typical half power beamwidth on the E-plane and 60 degrees typical half power beamwidth on the H-plane. The antenna supports linear polarized waveforms. The right angle (90°) versions are offered under model number SAP-222F-R2 and SAP-222M-R2.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz		50 GHz
Gain		6.5 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		115°	
3 dB Beamwidth, H-Plane		60°	
Sidelobes, E-Plane		-10 dB	
Sidelobes, H-Plane		-14 dB	
Return Loss		20 dB	
Power Handling			40 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Ports	2.4 mm Male
Material	Brass
Connector Material	Stainless Steel
Finish	Gold Plated
Weight	1.6 Oz
Size	2.87” (L) x 1.13” (Ø)
Outline	AP-RQC-E

ECCN

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FEATURES

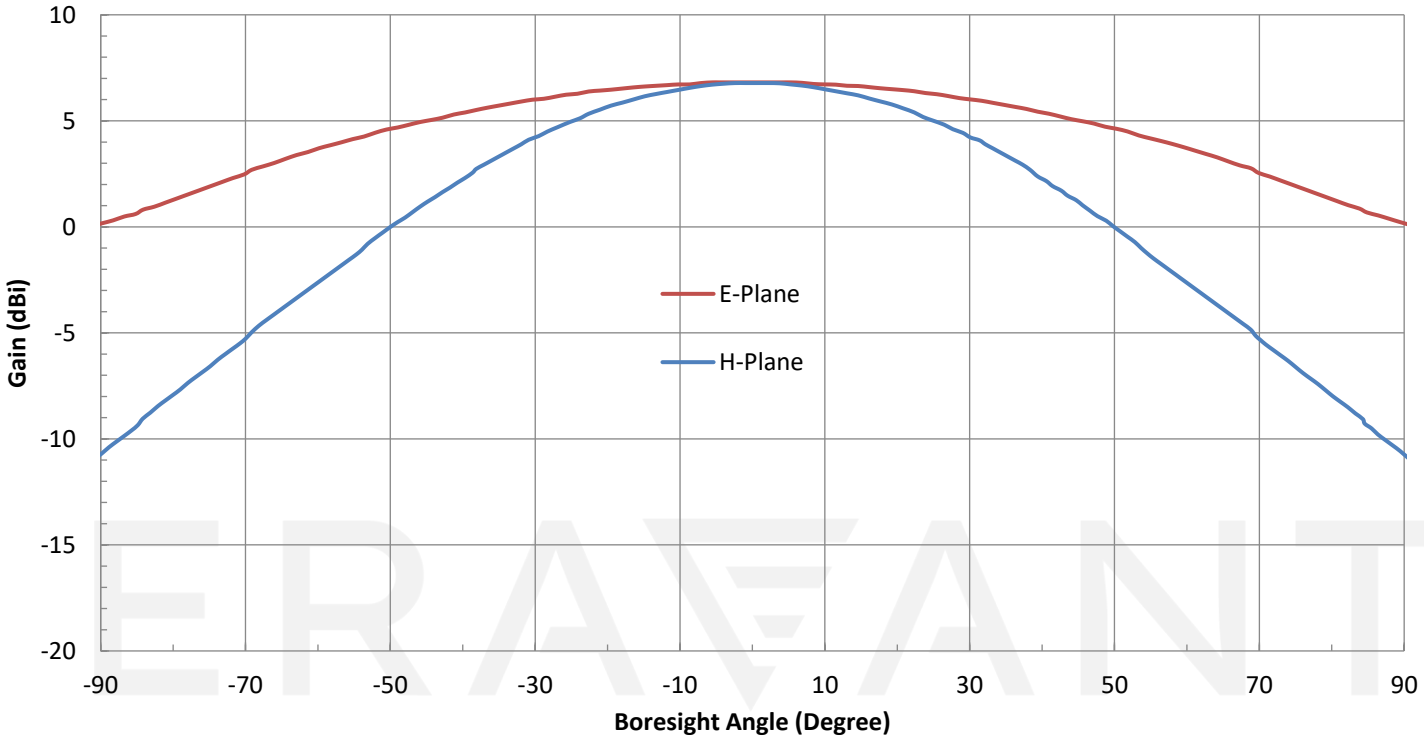
- Inline Configuration
- Linear Polarization

APPLICATIONS

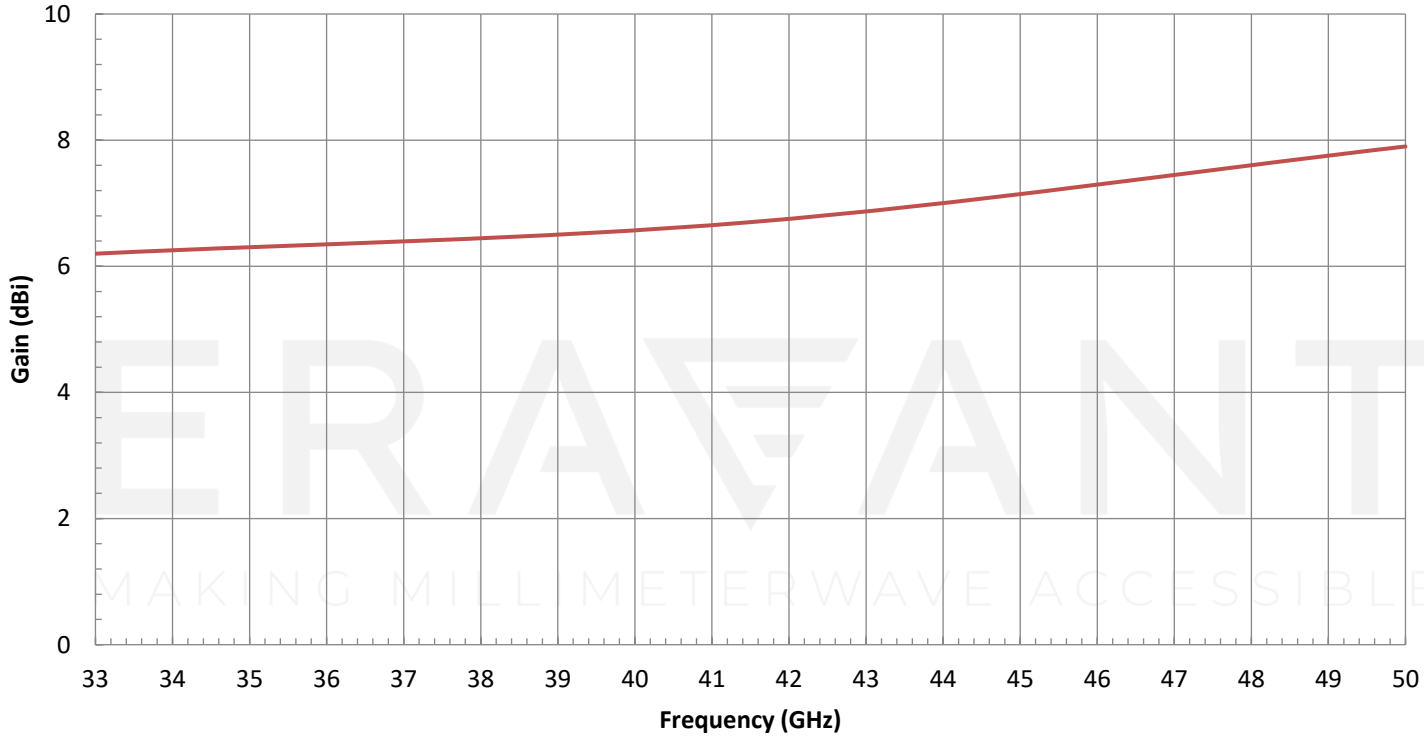
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

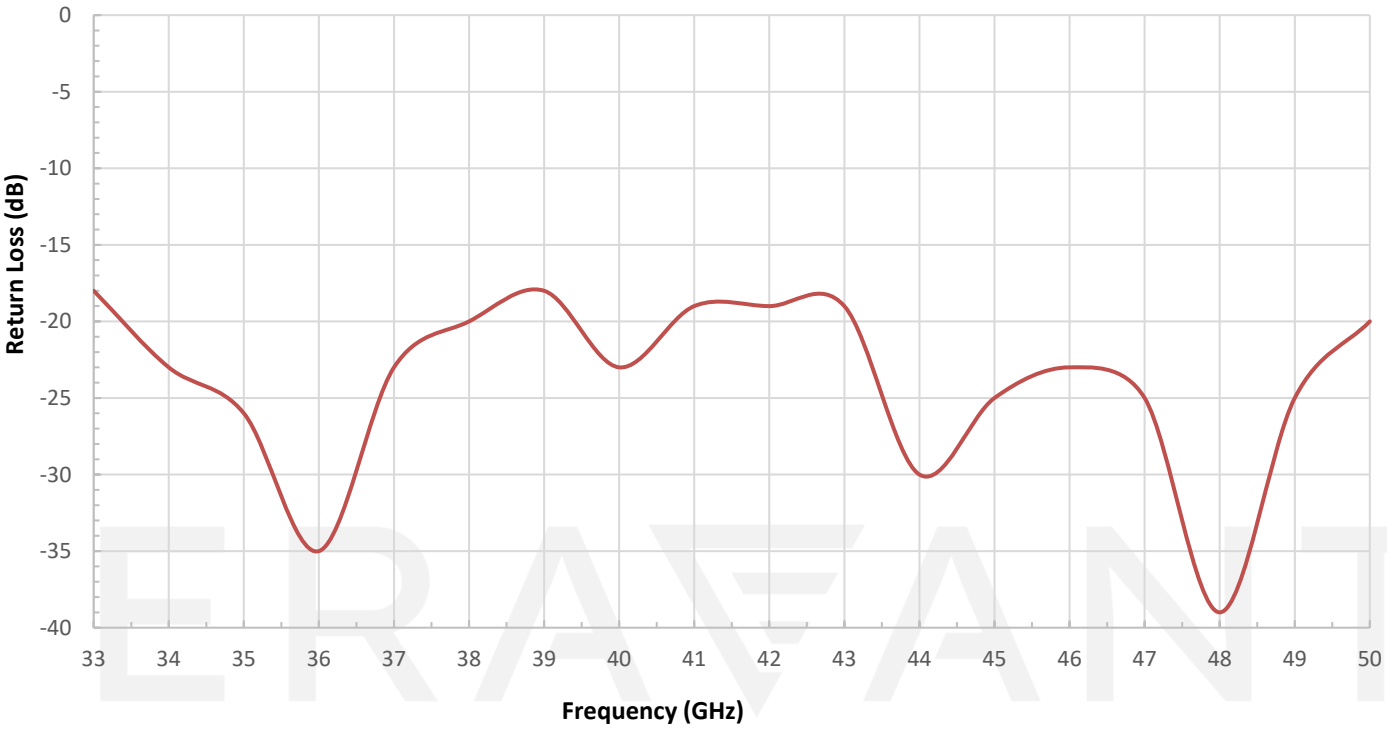
Typical Antenna Pattern @ 41.5 GHz



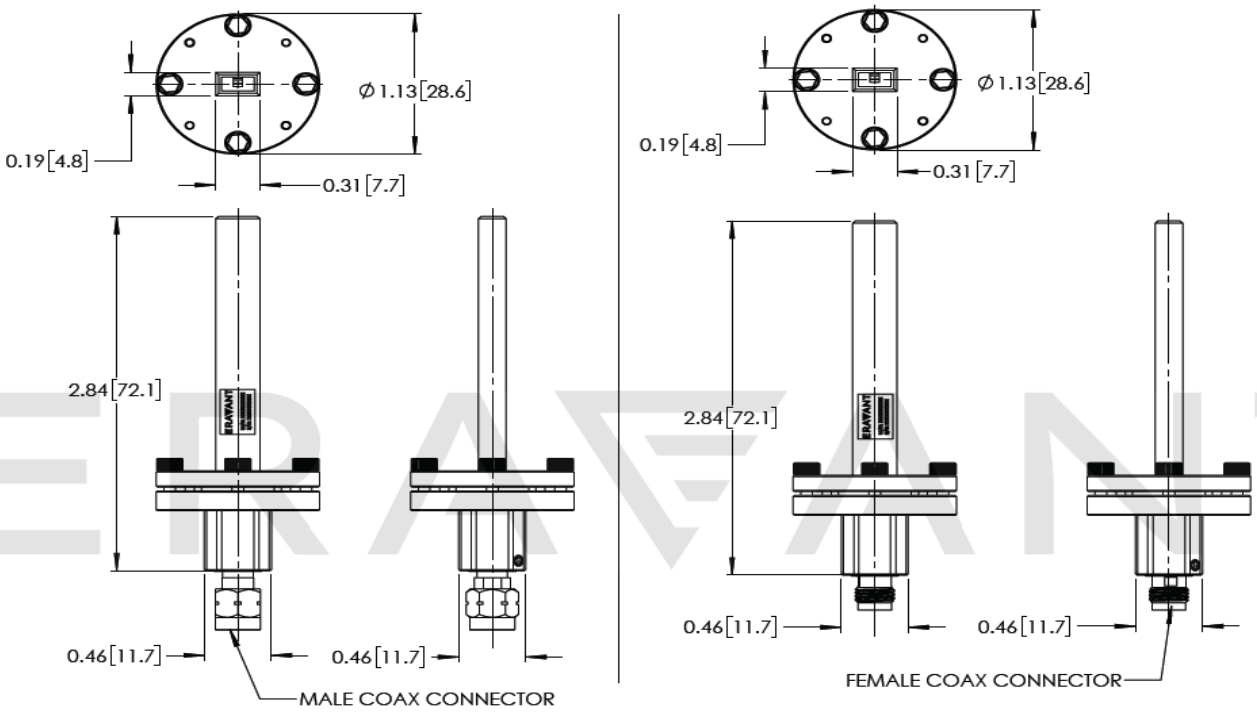
Typical Gain vs. Frequency



Typical Return Loss vs. Frequency



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



NOTE:

- 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.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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.
- 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.

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