SAC-2507-22-S2-RH-599

Q Band Conical Horn Antenna, 25 dBi Gain, RH, Weather-resistant

SAC-2507-22-S2-RH-599 is a right hand circular polarized, weather resistant, Q-band conical horn antenna that operates from 37.5 to 42.5 GHz. The antenna offers 25 dBi nominal gain and a typical half power beamwidth of 9 degrees on the V-plane and H-plane. The horn also offers typical sidelobes of -28 dB on the H-plane and Vplane. A polarizer with 0.5 dB Axial ratio has been integrated with the horn. The input of this antenna is a WR-22 waveguide with UG-599/U flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	37.5 GHz		42.5 GHz
Gain		25 dBi	
3 dB Beamwidth, H-plane, V-plane		9°	
Sidelobes, H-plane, V plane		-28 dB	
Polarization		RHCP	
Axial Ratio		0.5 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-22 Waveguide
Flange Type	UG-599/U Flange
Material	Aluminum
Radome Material	PTFE
Finish	Clear chem film
Outline	AC-RQ3-22-AS-SVS

ECCN

EAR99

FEATURES

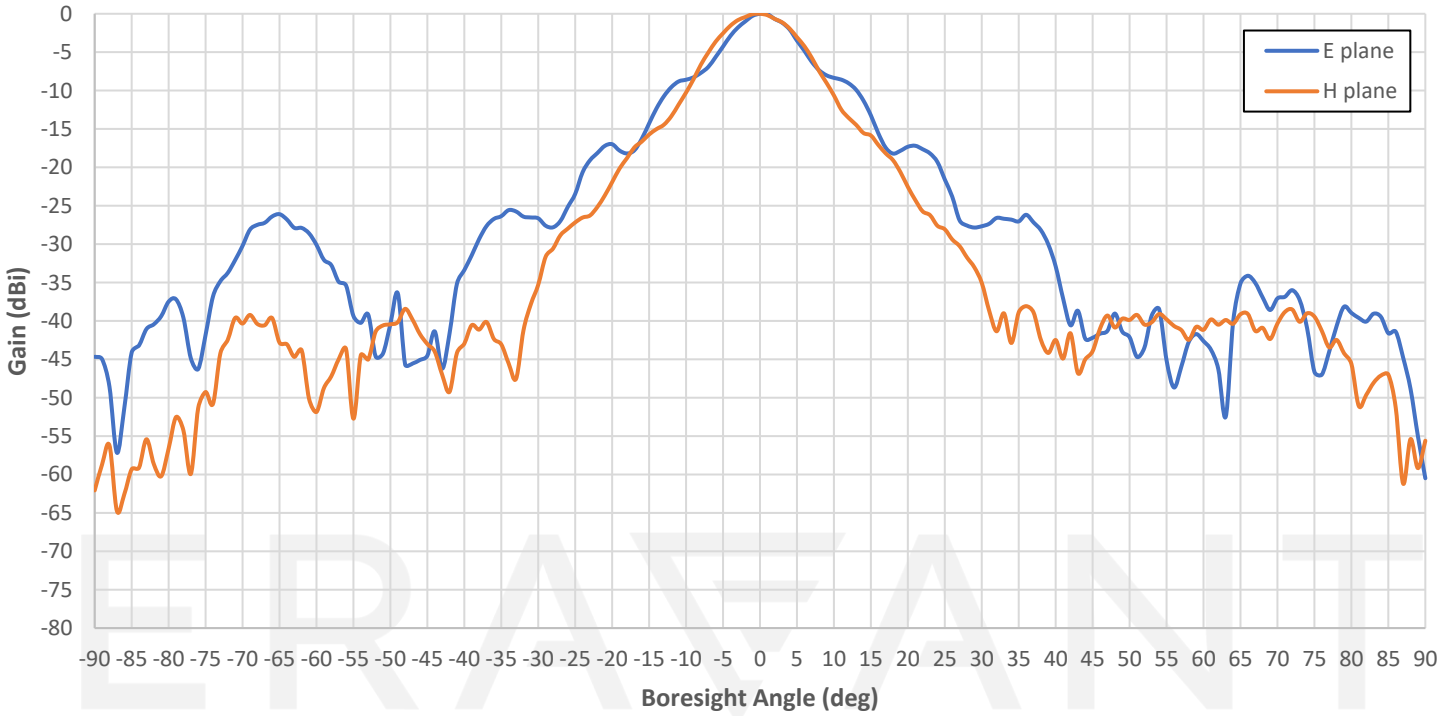
- Circular Polarized
- Precisely Machined
- High Return Loss
- Right hand Circular Polarized

APPLICATIONS

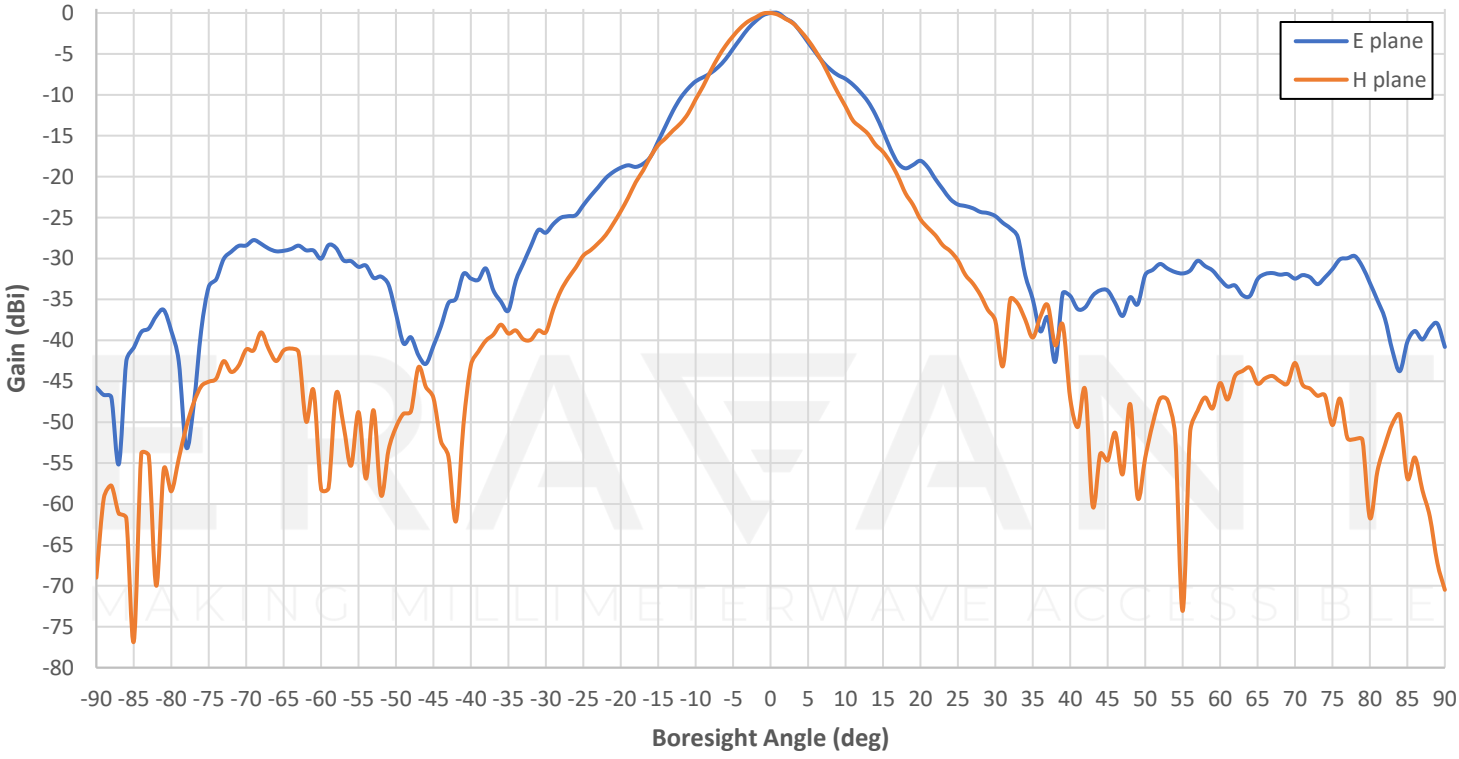
- Antenna Ranges
- Feed Horns
- System Setups

SUPPLEMENTAL DETAILS

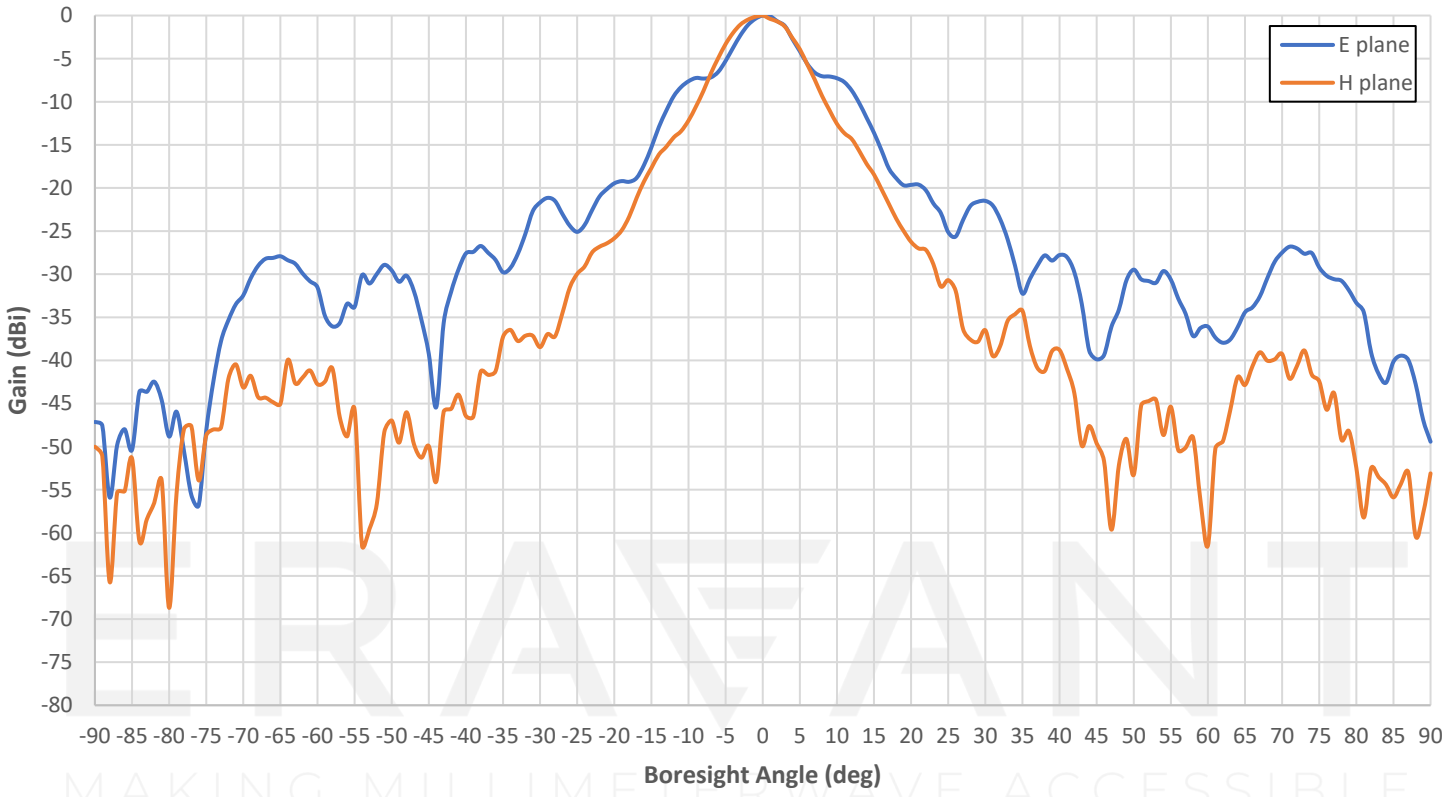
Measured Patterns @ 37 GHz



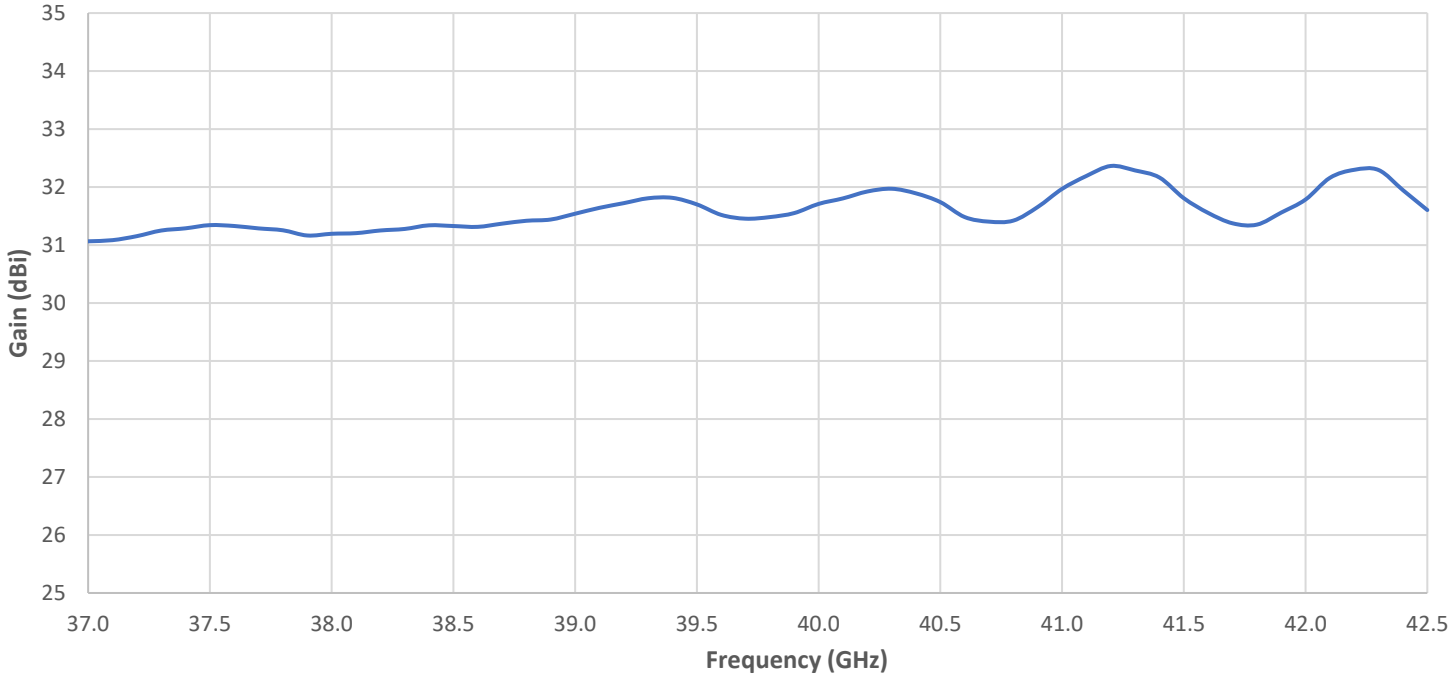
Measured Patterns @ 39.8 GHz



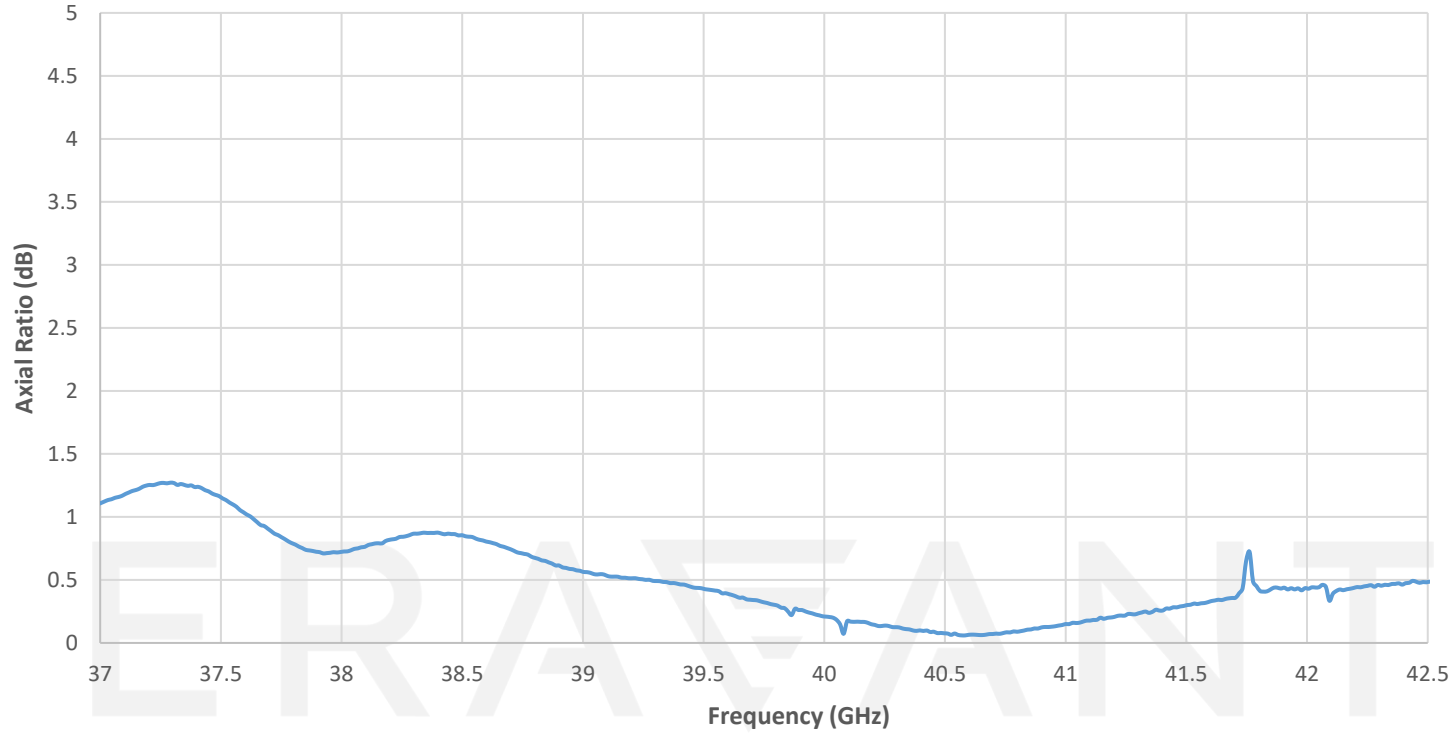
Measured Patterns @ 42.5 GHz



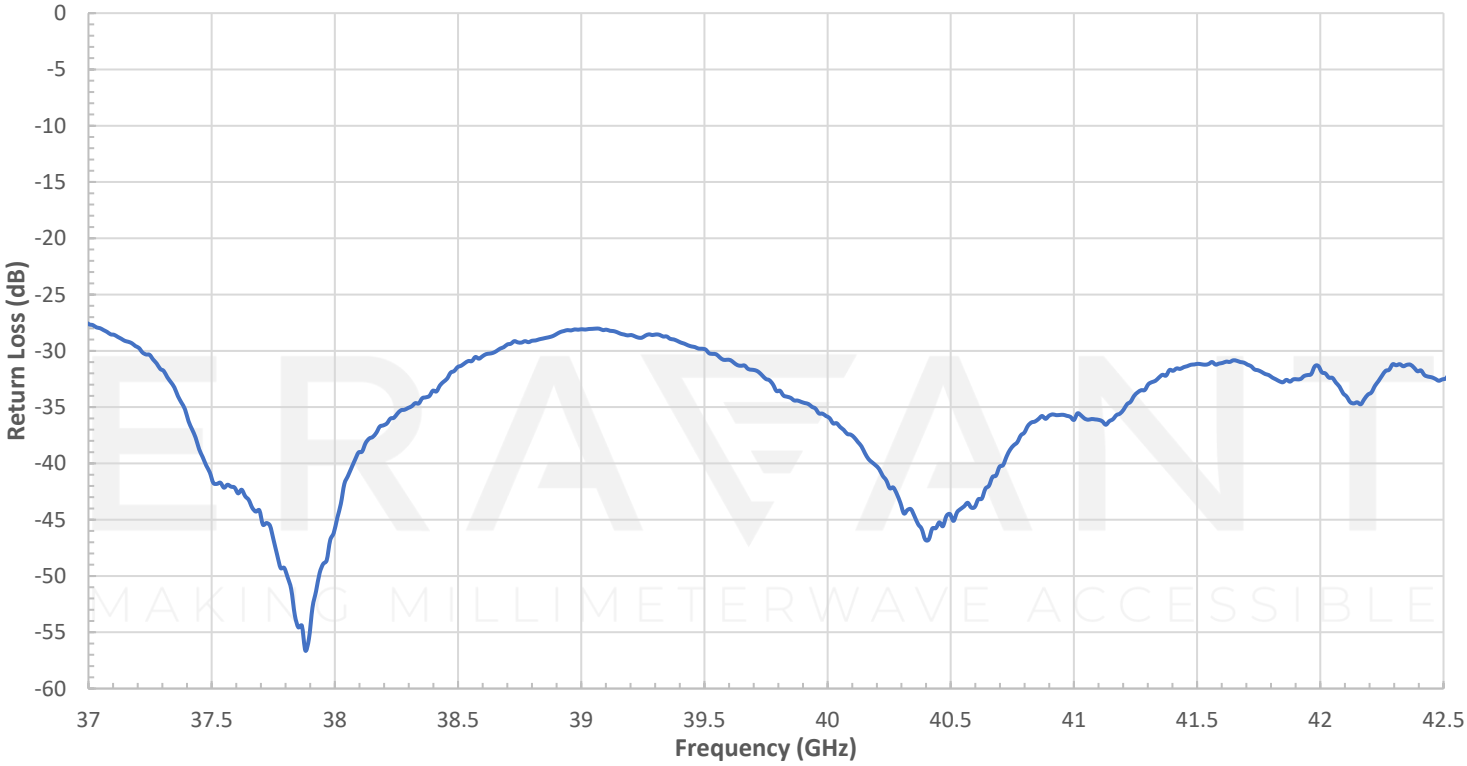
Measured Gain vs Frequency



Measured Axial Ratio vs Frequency

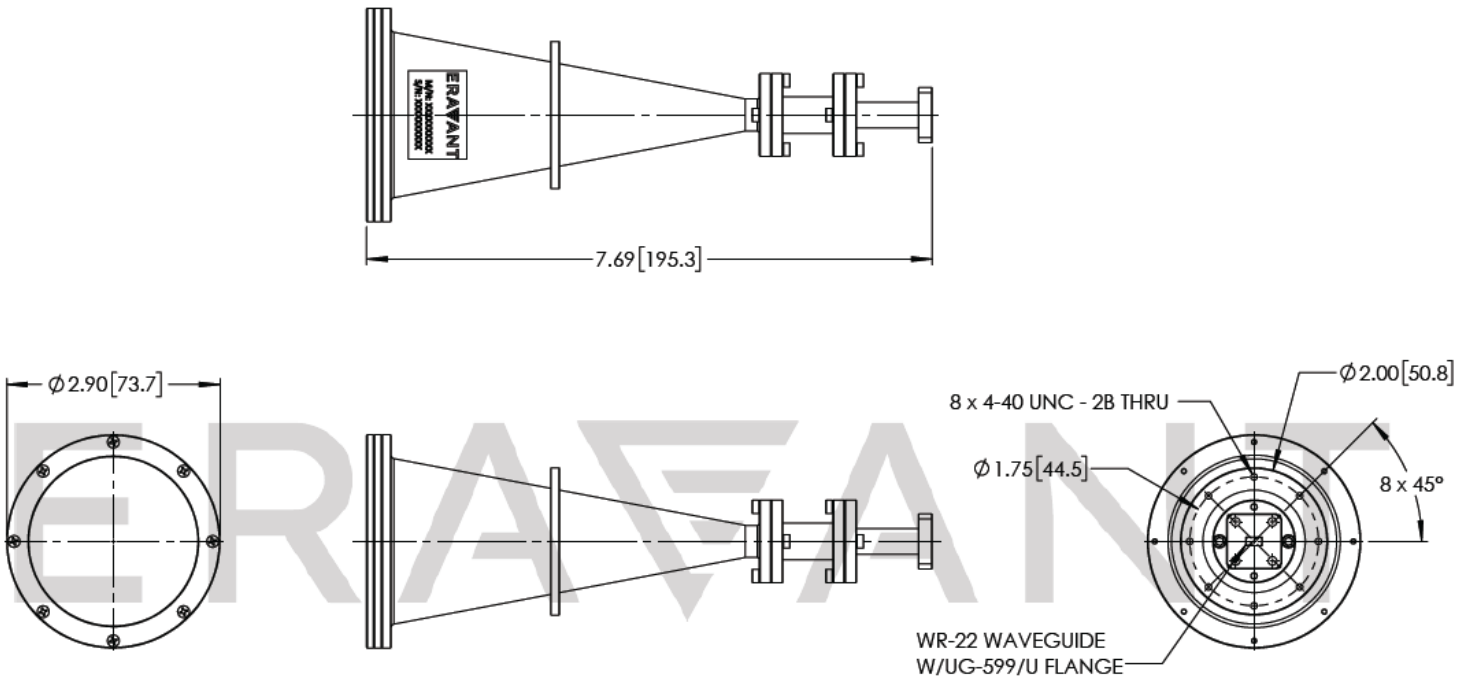


Measured Return Loss vs Frequency



Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- Data provided is simulated. Actual 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.