

SAY-9231144017-10-S1

W-Band Cassegrain Antenna, 92 to 114 GHz, 6", 40 dBi Gain

SAY-9231144017-10-S1 is a W-band Cassegrain antenna that offers a nominal gain of 40 dBi and a typical half power beamwidth of 1.3 degrees from 92 to 114 GHz. The aluminum reflector offers a lightweight and rugged mechanical structure and is treated with a chem film conversion coating for corrosion resistance. A corrugated scalar feed horn is used to provide optimal feed efficiency, low side lobes, high cross-pol rejection, and uniform illumination. The antenna port is a WR-10 waveguide with UG-387/U-M anti-cocking flange and can support linear polarized waveforms. Other port configurations, such as circular waveguide port, are available under different model numbers.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	92 GHz		114 GHz
Gain		40 dBi	
3 dB Beamwidth		1.3°	
Sidelobes		-15 dB	
Return Loss		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-10 Waveguide with UG 387/U-M Anti-Cocking Flange
Reflector Diameter	6"
Reflector Material	Aluminum
Finish	Chem Film
Outline	AY-RW39-06-A

ECCN

EAR99

FEATURES

- Linear Polarization
- Low Side Lobe Levels
- High Cross-Polarization

APPLICATIONS

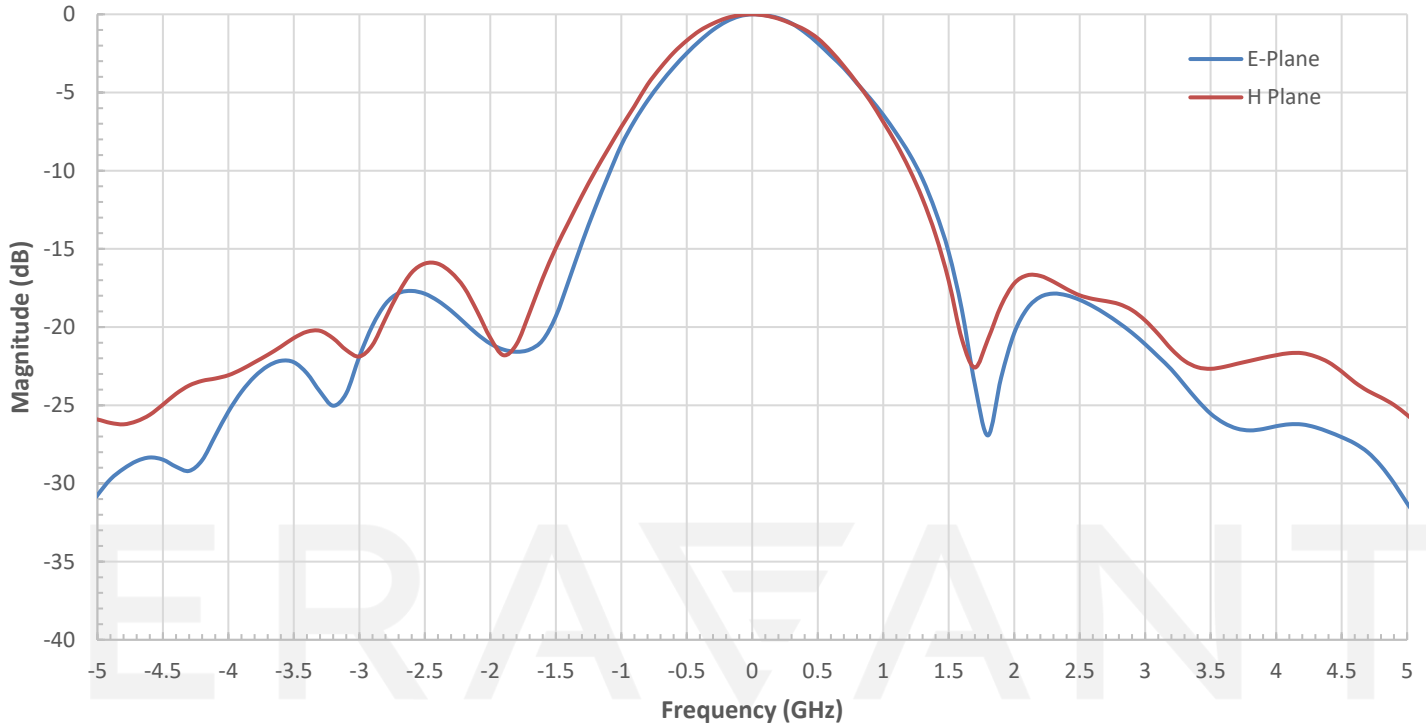
- Radar Communication System
- EW Systems

SUPPLEMENTAL DETAILS

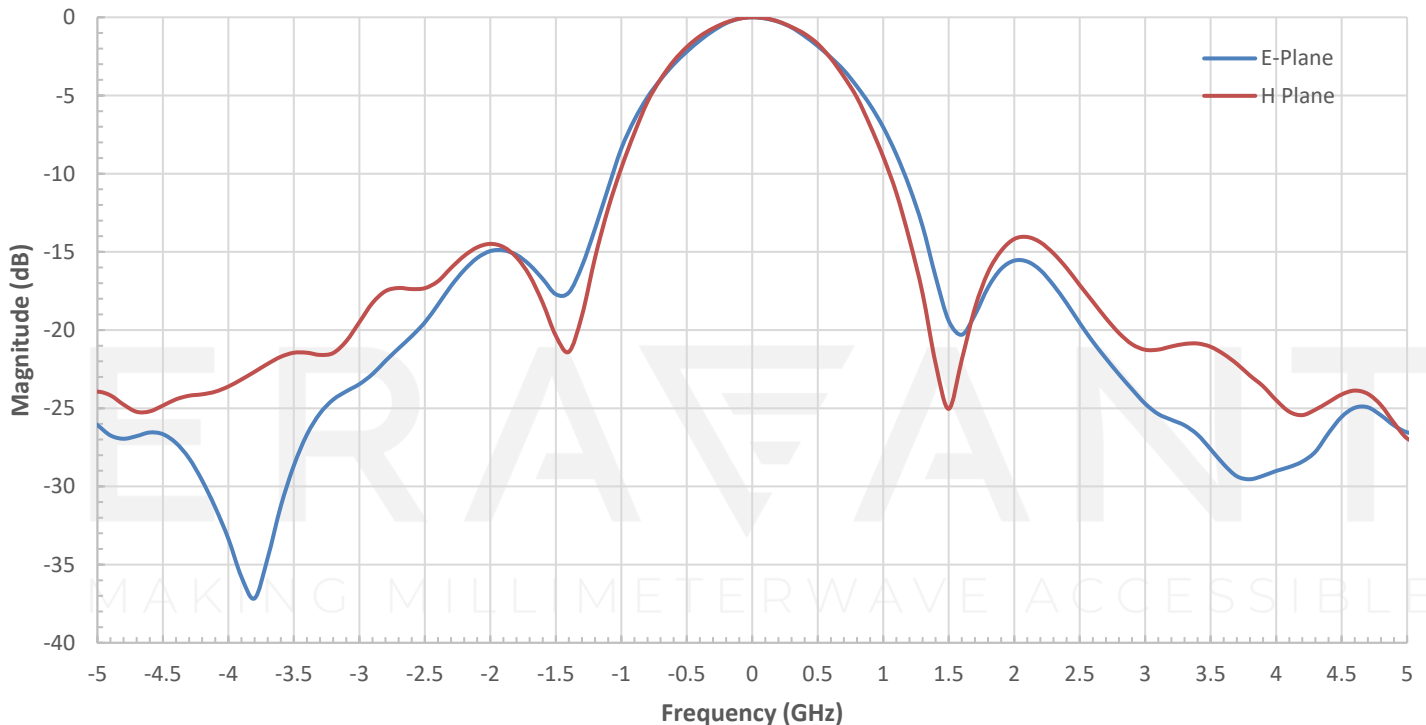


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Measured Patterns @ 92 GHz

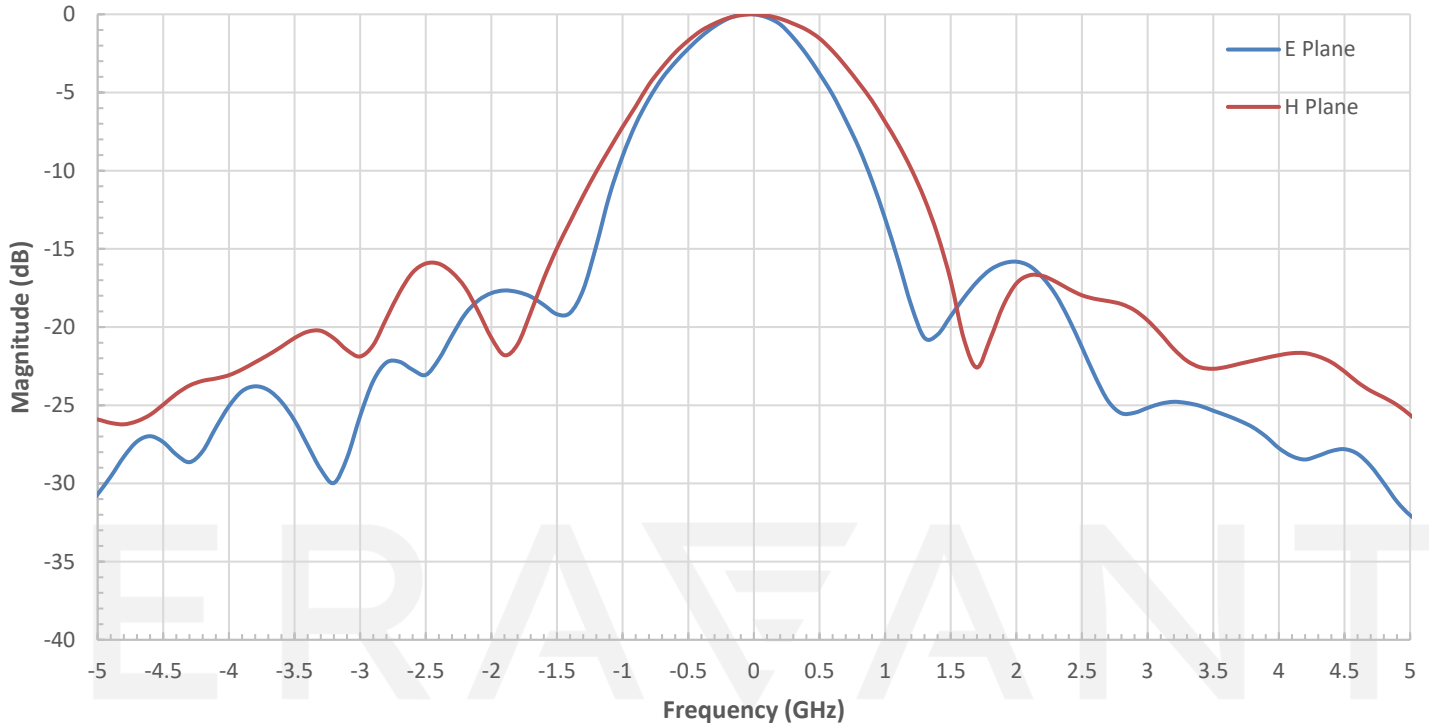


Measured Patterns @ 103 GHz

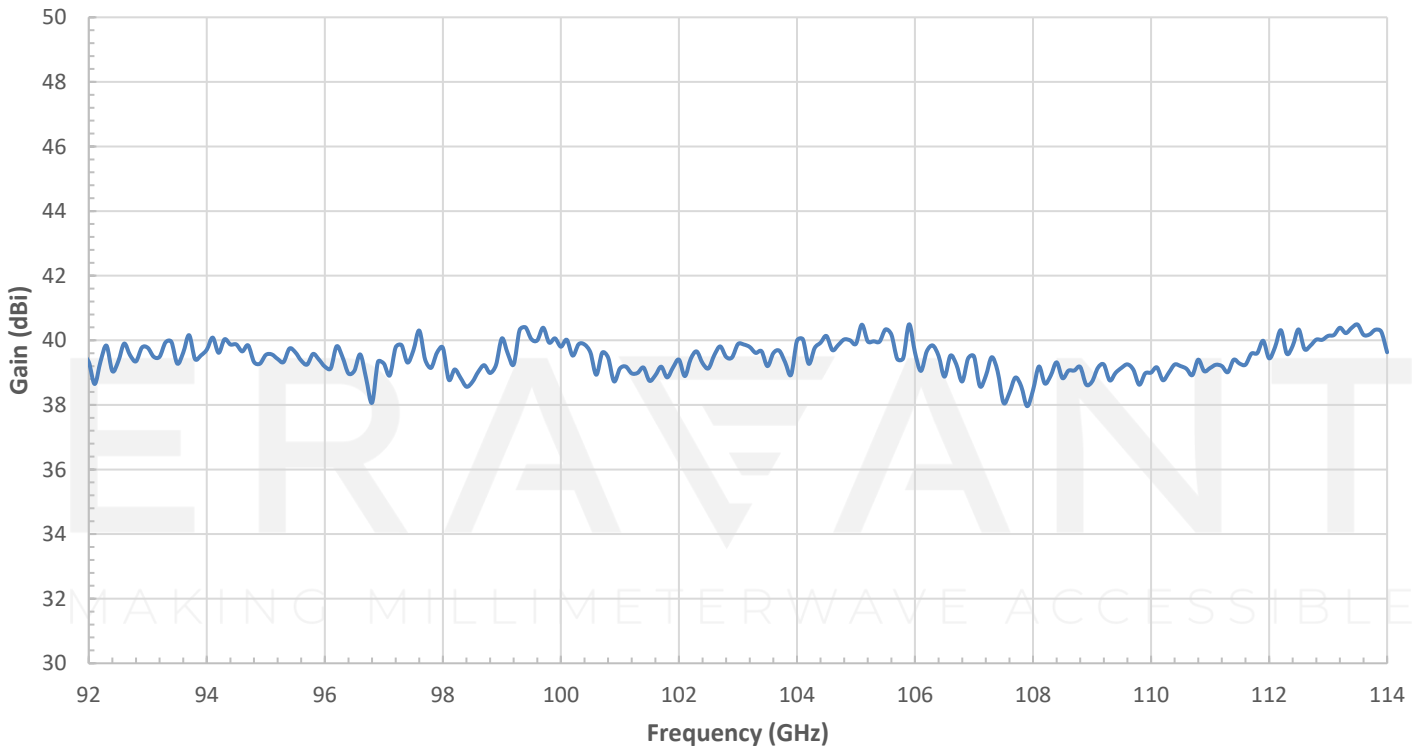


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Measured Patterns @ 114 GHz

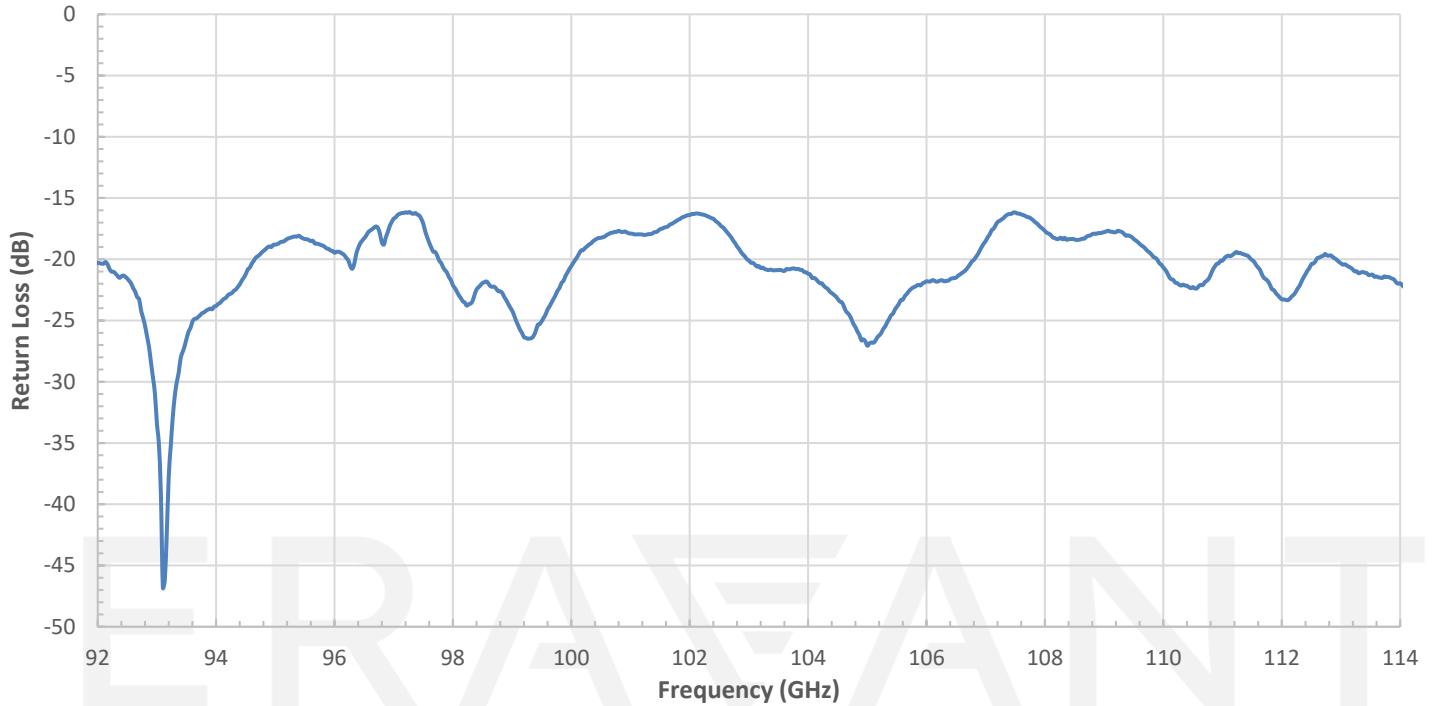


Measured Gain vs Frequency

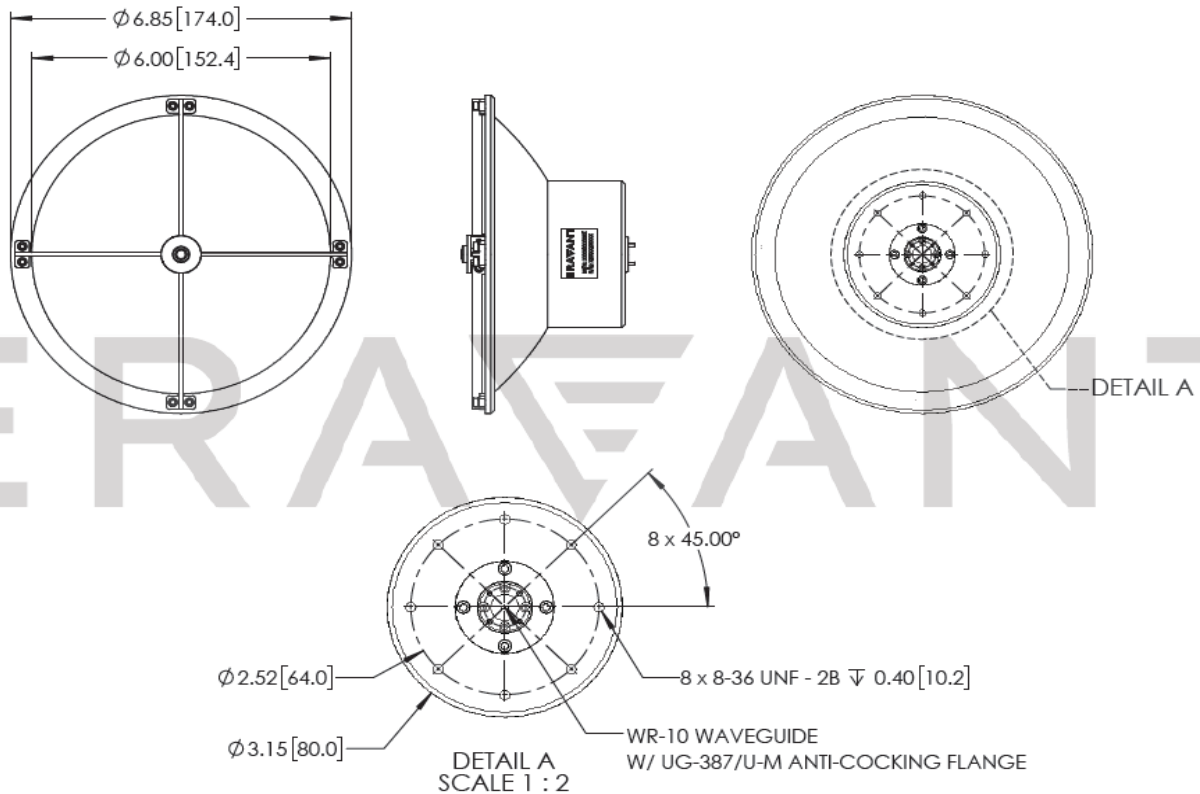


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Measured Return Loss



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



NOTE:

- Data is collected from a sample lot. Actual measured data may slightly vary from unit to unit.
- 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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