

SAH-1141741060-075-S1

D-Band Choke Flange Feed Horn Antenna, 110 to 170 GHz, 10 dBi Gain

SAH-1141741060-075-S1 is a D-band choke flange feed horn antenna that operates from 110 to 170 GHz. The antenna offers a nominal gain of 10 dBi, typical half power beamwidth in E and H plane of 60 degrees and typical side lobe levels of -30 dB for both E and H plane. The antenna port is a 0.075" diameter circular waveguide with a UG-387/U-M anti-cocking flange that supports both linear and circular polarized waveforms. A dual polarized configuration with an integrated orthomode transducer is available under the model **SAH-1141741060-075-S1-065-DP**.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	110 GHz		170 GHz
Gain		10 dBi	
3dB Beamwidth, E-Plane@140 GHz		60°	
3dB Beamwidth, H-Plane@140 GHz		60°	
Sidelobe Levels		-30 dB	
Return Loss		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	Ø0.075" Circular Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	1.0 Oz
Outline	AH-CD10-075-A-2

ECCN

EAR99

FEATURES

- Full Band Coverage
- Circular Waveguide Interface
- Low Sidelobe Level
- Linear and Circular Polarization

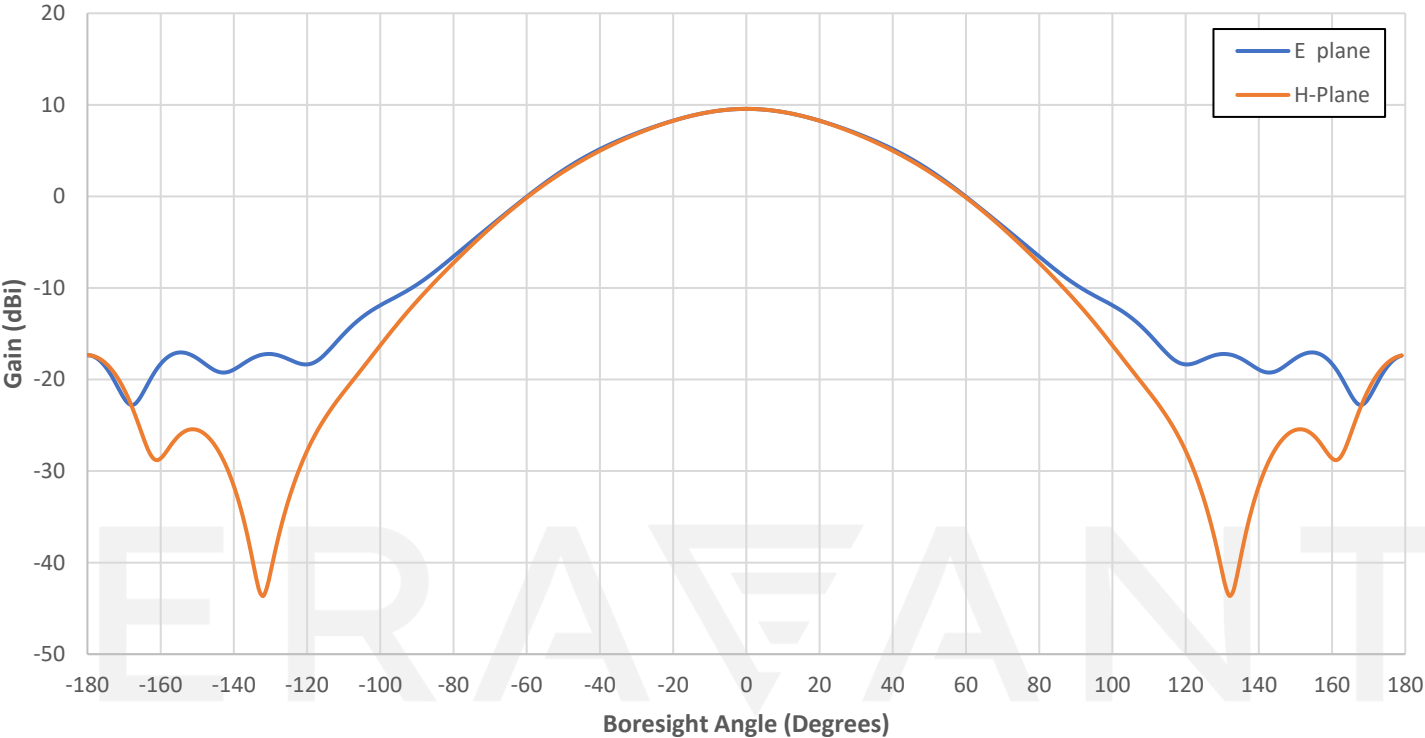
APPLICATIONS

- Feed Horn for Antenna Range Setups
- Rapid System Setups
- Engineering Setups

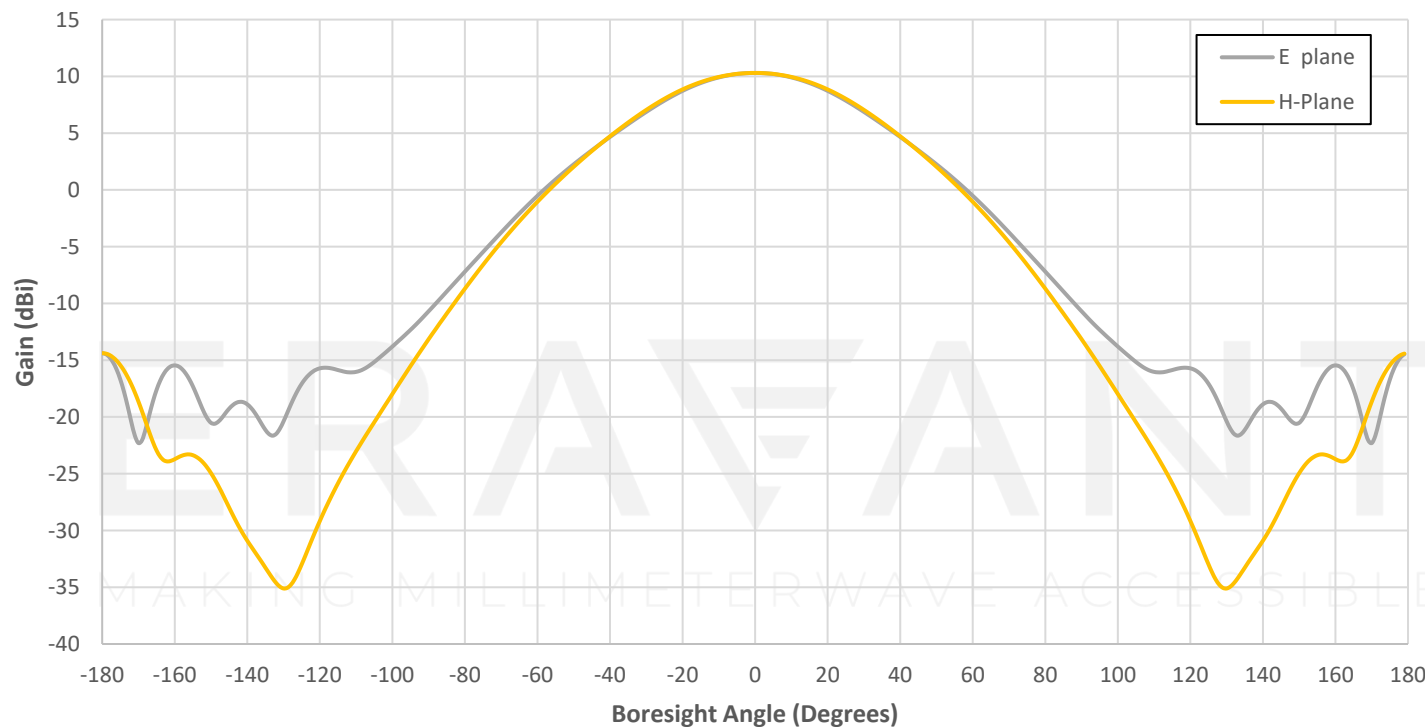
SUPPLEMENTAL DETAILS



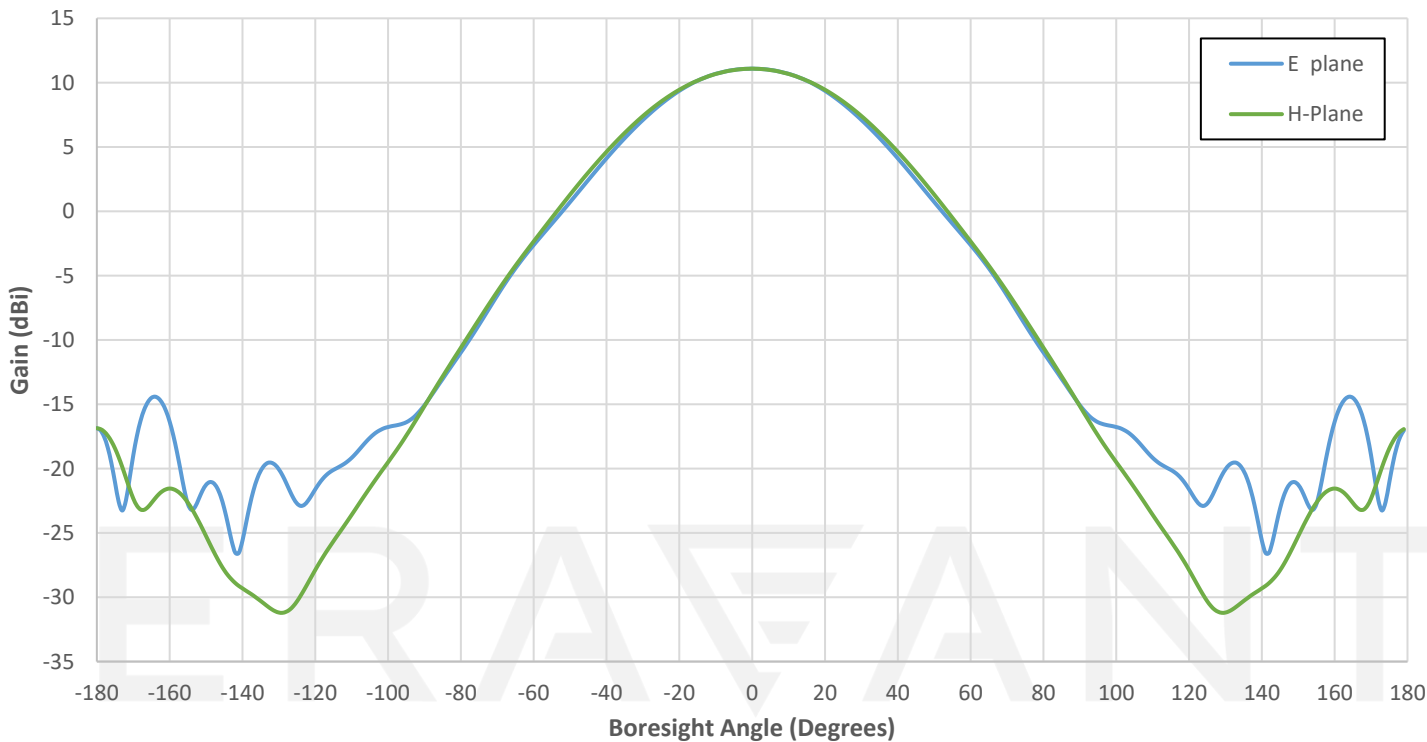
Simulated pattern at 110 GHz



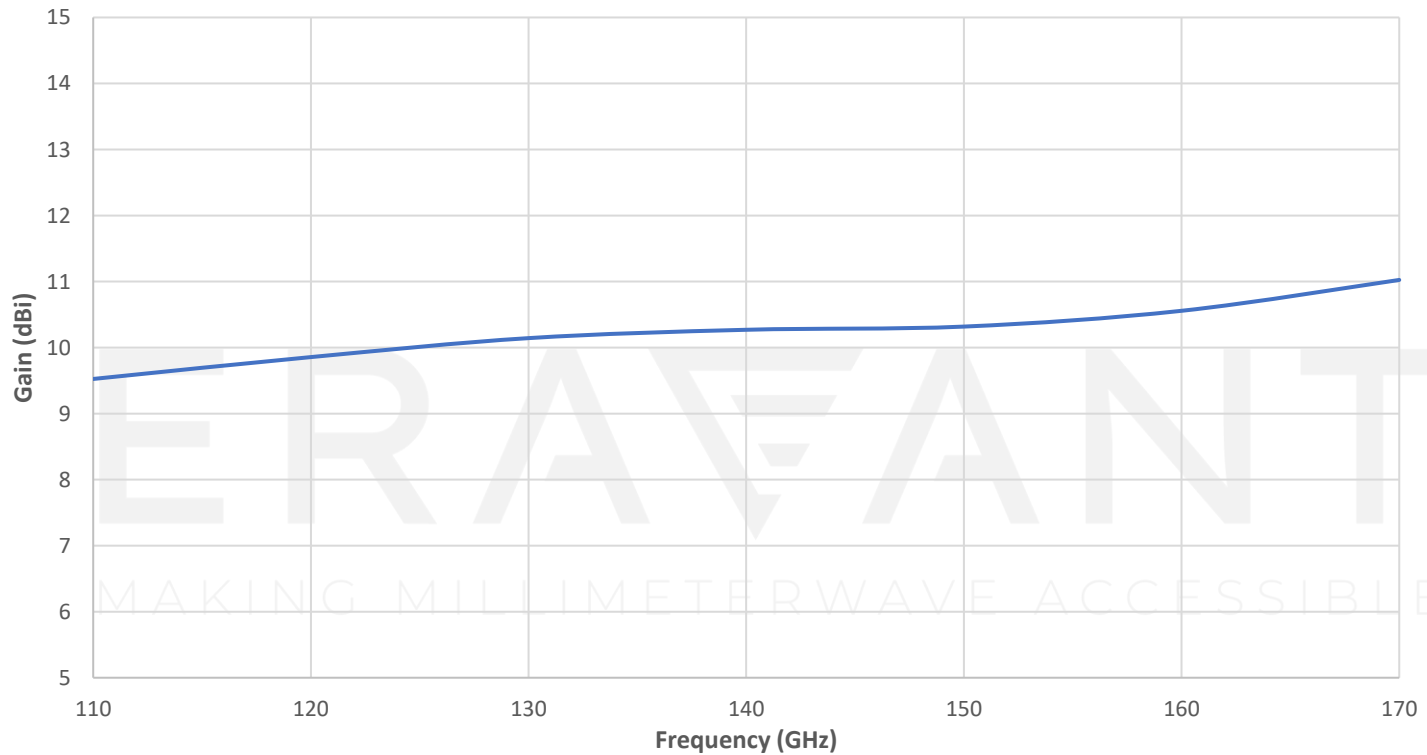
Simulated pattern at 140 GHz



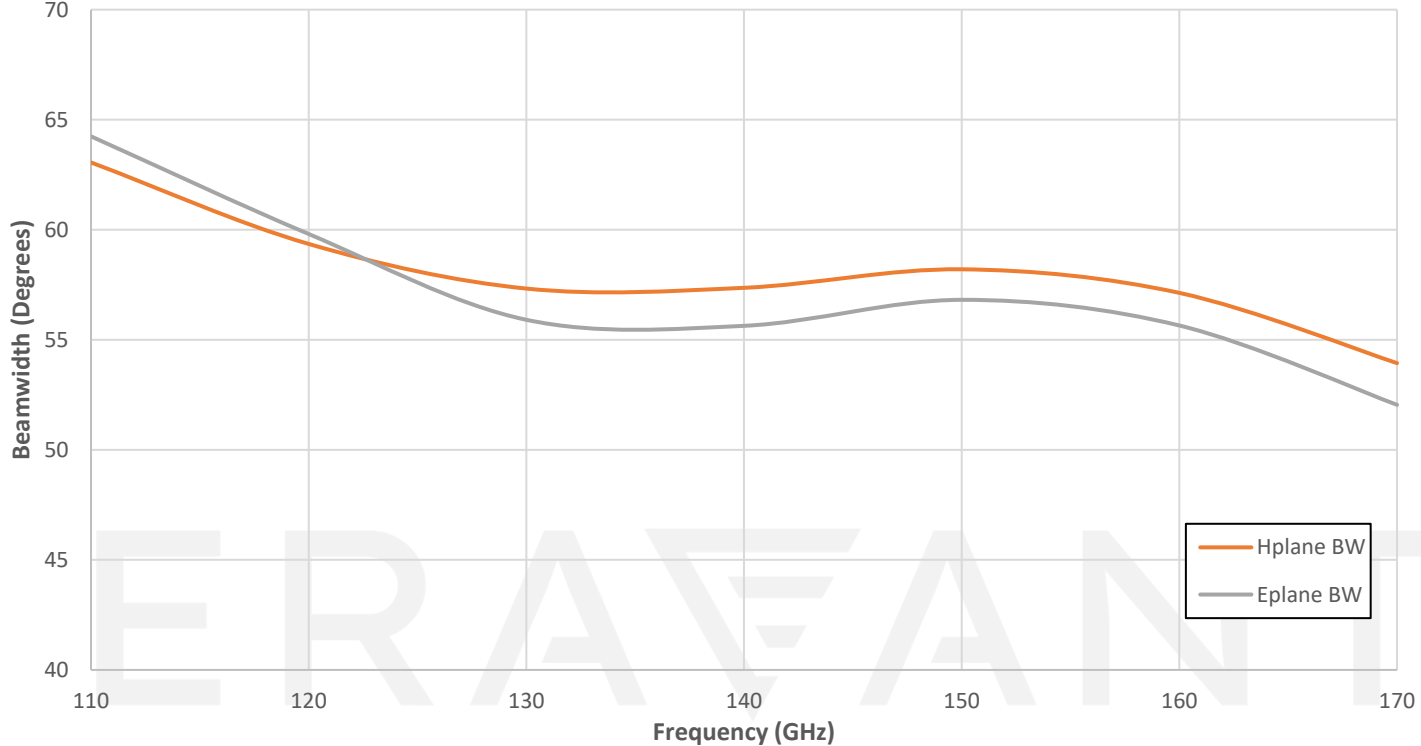
Simulated pattern at 170 GHz



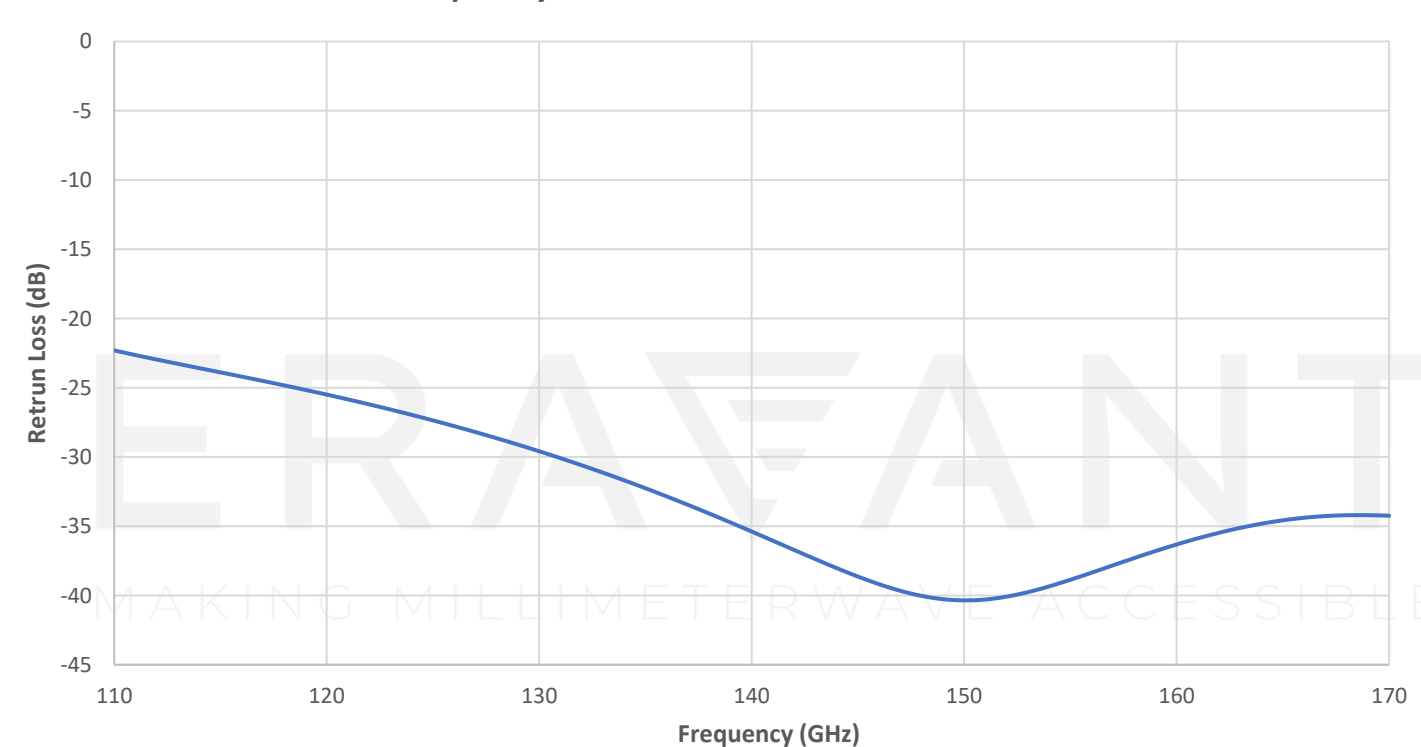
Simulated Gain vs Frequency



Simulated Beamwidth vs Frequency

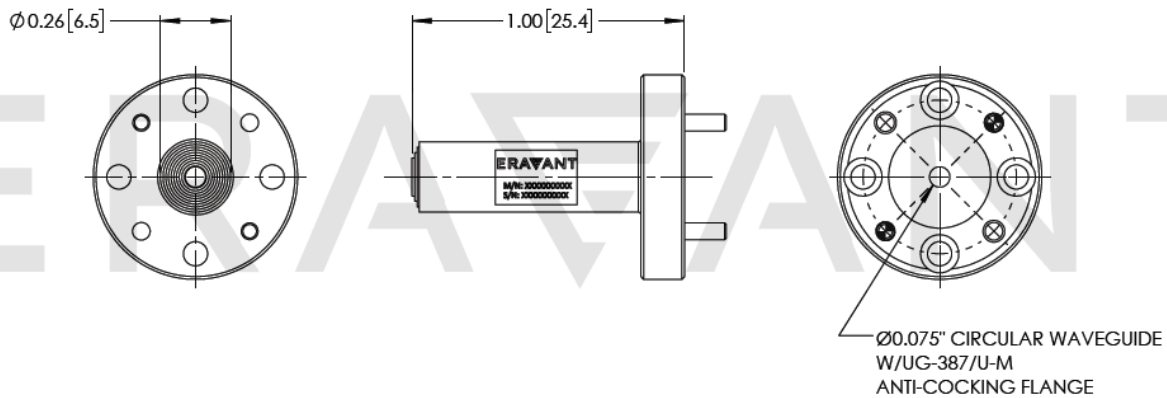


Simulated Return Loss vs Frequency



SAH-1141741060-075-S1

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



NOTE:

- Data provided is simulated. Actual data may vary slightly from unit to unit.
- 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.
- All testing is performed under +25 °C room temperature.

CAUTION:

- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.