

High-Gain Lens Horn Antenna

WR-2.8/260-400GHz/48dBi Gain

Model:TLHGLA-260400-48-2.8

The TLHGLA-260400-48-2.8 consists of a rectangular waveguide feed with a high-quality standard flange, which radiates electromagnetic waves to a plano-convex polytetrafluoroethylene (PTFE) lens. The lens is used for phase collimation and achieving excellent performance with minimal size. The lens adopts an optimized hyperbolic design to minimize aberrations. The entire system is enclosed in an aluminum cylinder, providing high ruggedness. One side of the cylinder is flat, allowing the antenna to stand upright on flat surfaces.

Features:

- Operating Frequency 260 to 400GHz
- Nominal IF Gain: 48dBi Typ
- High Return Loss

Applications:

- Radar/Communication Systems
- Antenna Gain Measurements
- System Setups

Electrical Characteristics:

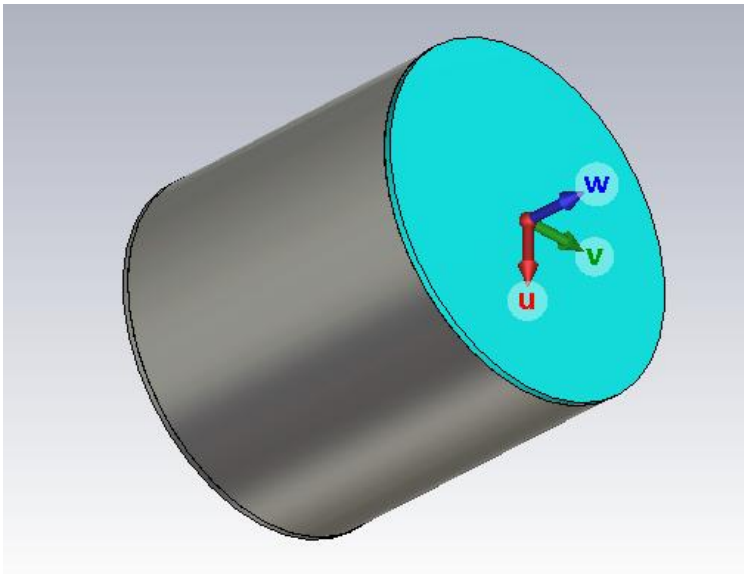
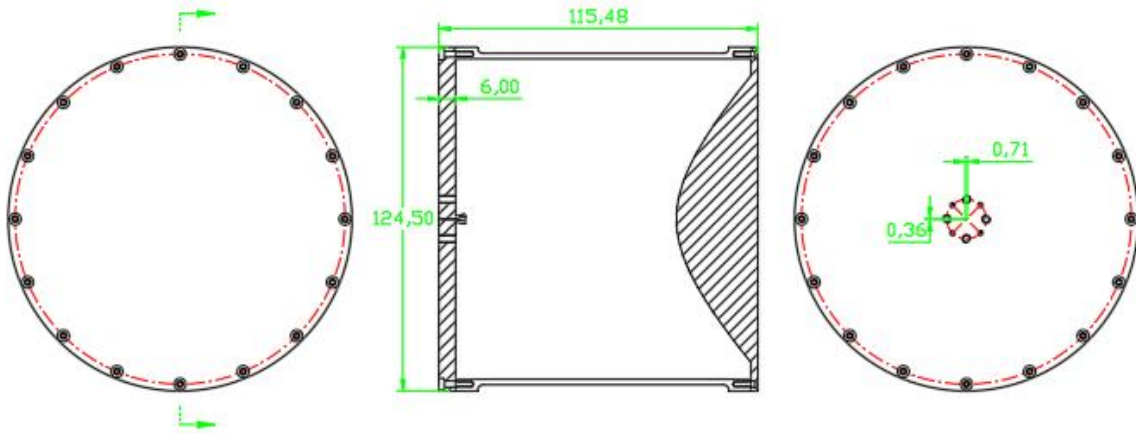
Parameter	Min	Typ	Max	Units
Frequency Range	260		400	GHz
Gain		48		dBi
Input Return Loss		-20		dB
Sidelobe		-20		dB
Antenna Beamwidth	0.6			°

Envrionmental And Physical Characteristics:

Description	Parameter	Units
Material	Aluminium	
Connectors	WR-2.8/UG-387/U	
Size	115.48*ø124.5	mm

Outline Drawing:

Unit:mm



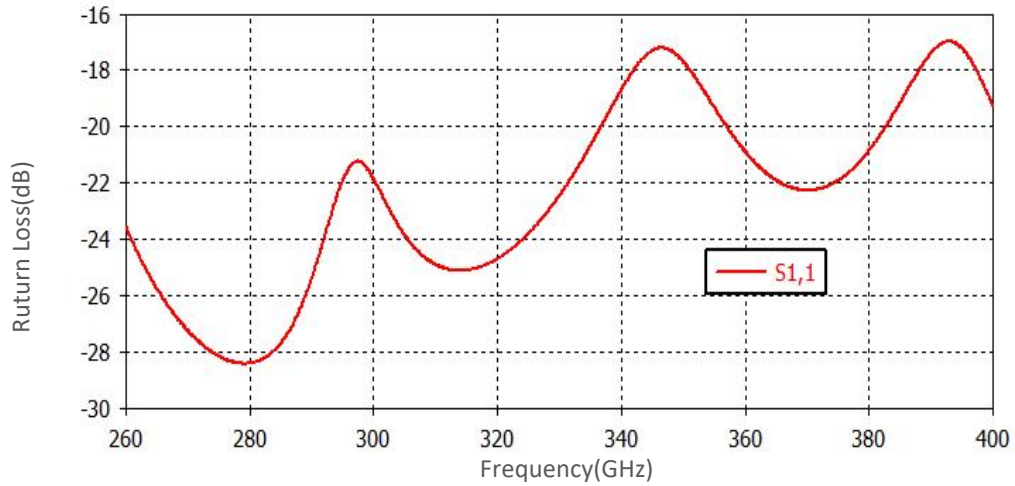
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Ordering Information:

Base Number	Description	Revision
TLHGLA-260400-48-2.8	High-Gain Lens Horn Antenna, 260-400GHz, Gain: 48dBi Typ	Rev.1.0

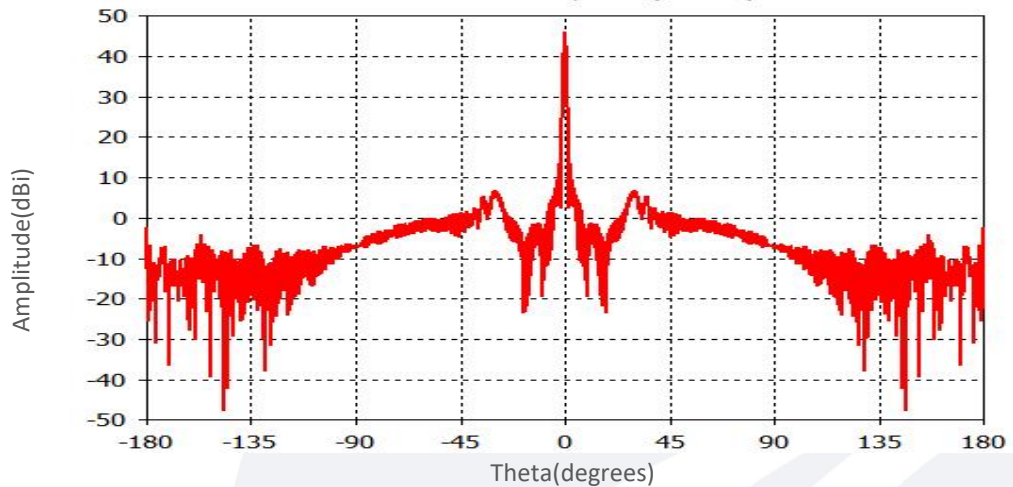
Typical Performance Data:

Return Loss vs Frequency



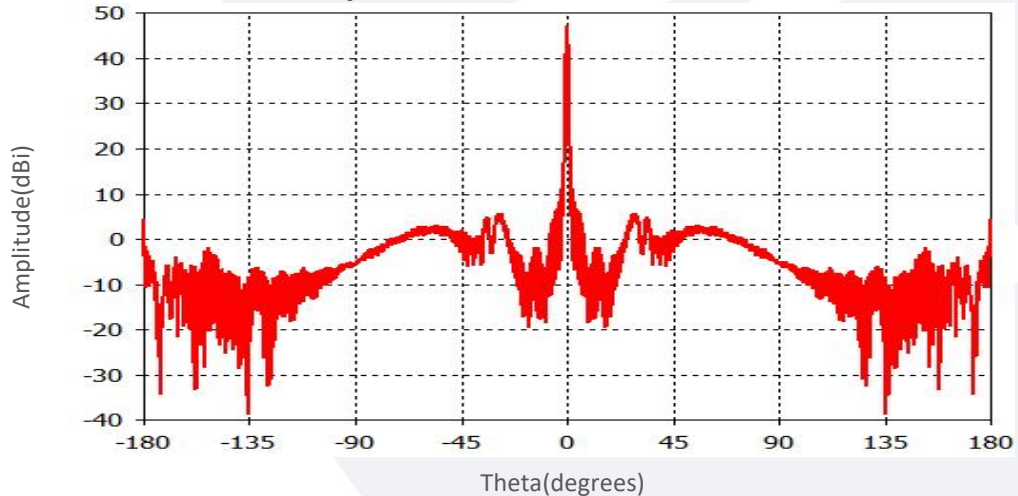
260GHz:

Amplitude vs Theta@Gain=46.3dBi



280GHz:

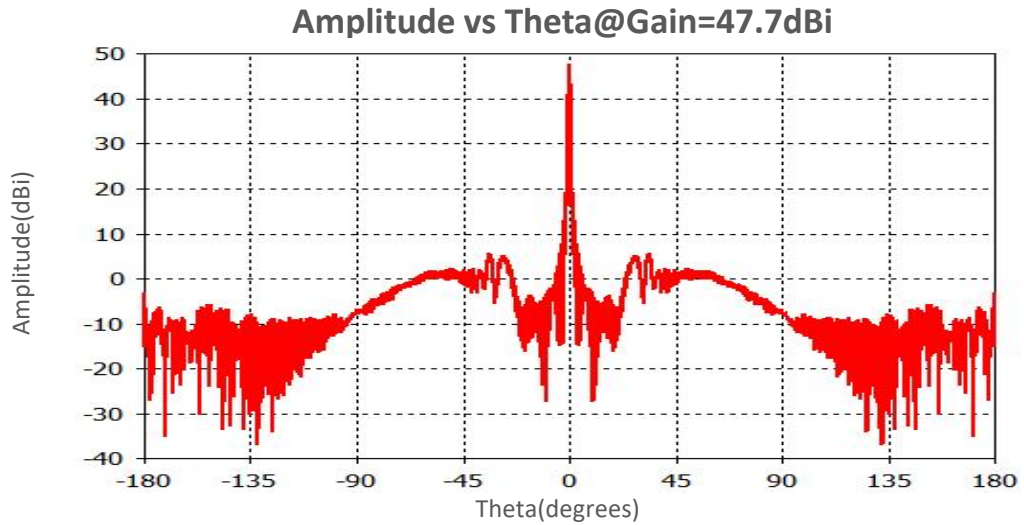
Amplitude vs Theta@Gain=47.4dBi



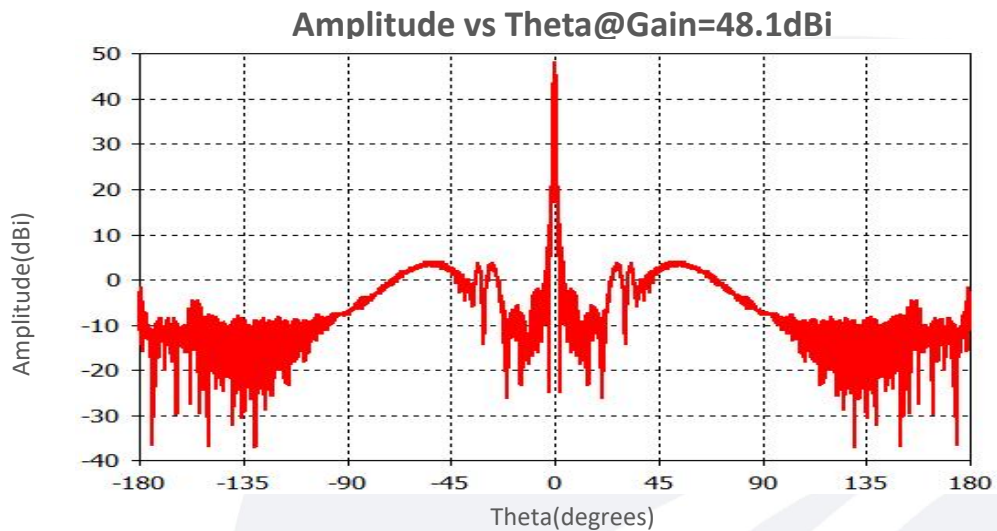
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

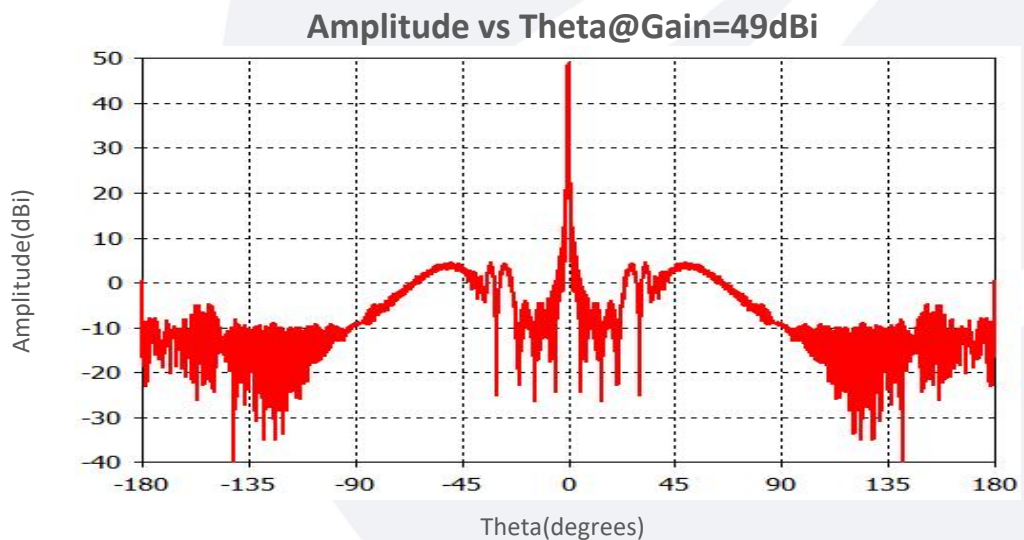
300GHz:



320GHz:



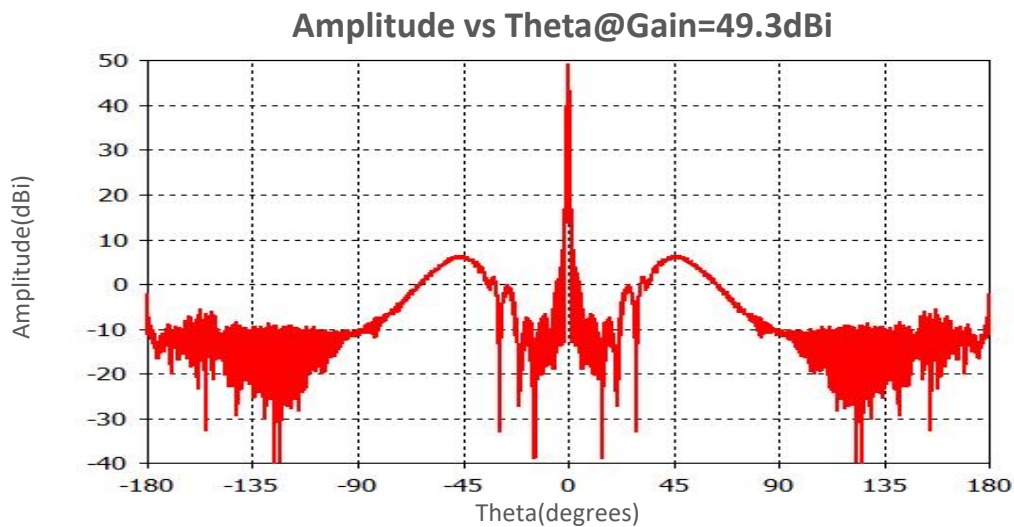
340GHz:



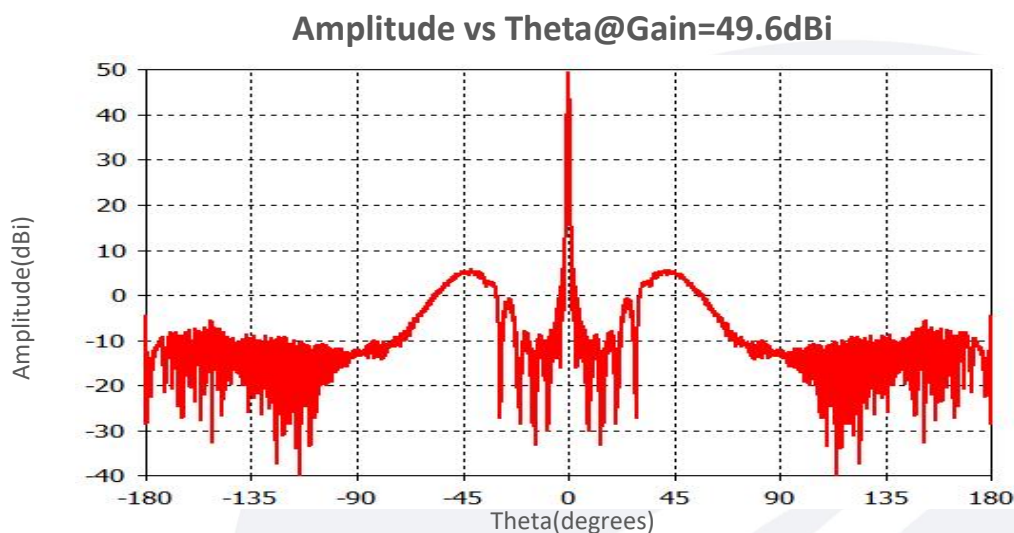
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

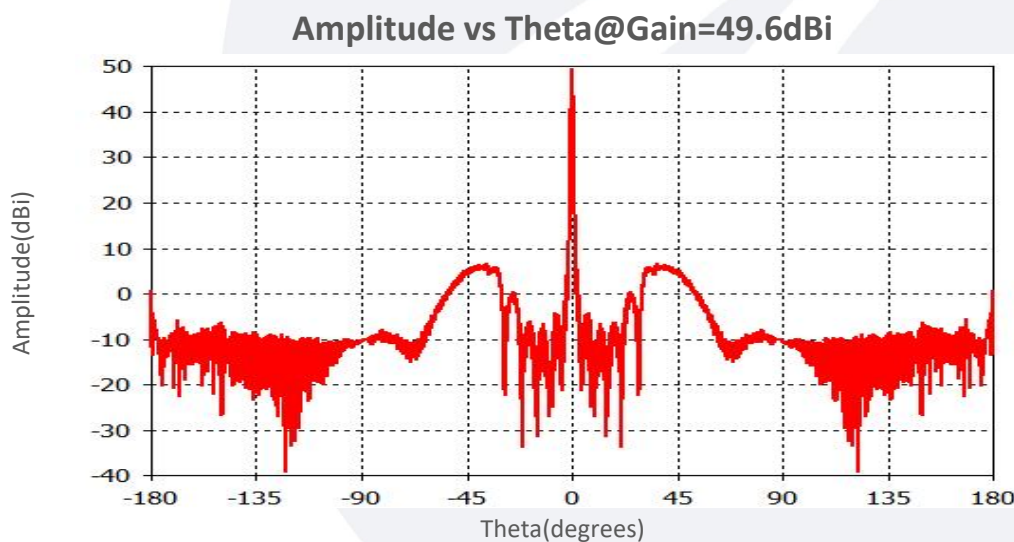
360GHz:



380GHz:



400GHz:



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