

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

电气特性 Electrical Characteristics:

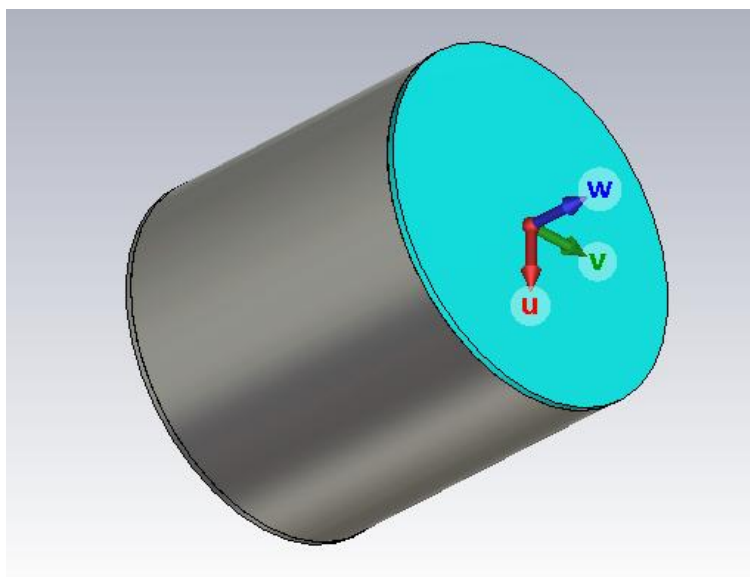
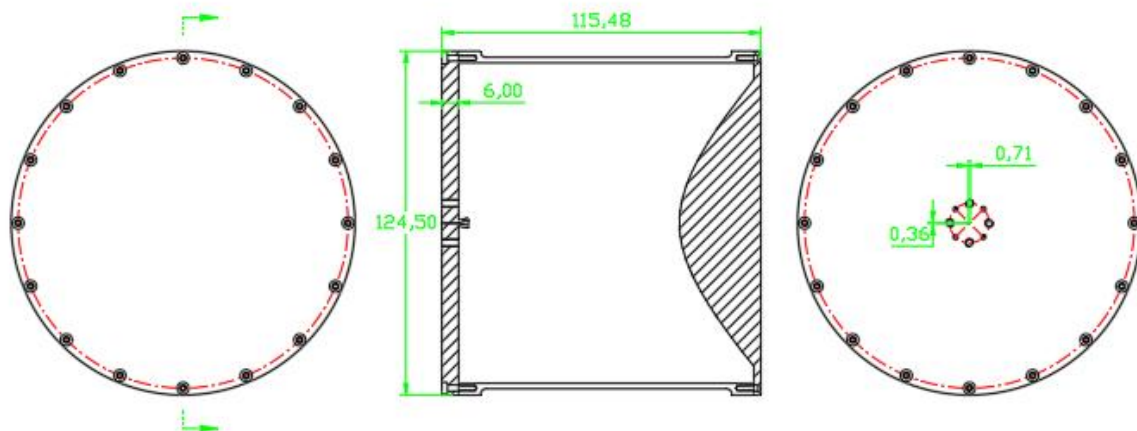
参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency Range	260		400	GHz
增益 Gain		48		dBi
输入回波损耗 Input Return Loss		-20		dB
旁瓣 Sidelobe		-20		dB
波束宽度 Antenna Beamwidth	0.6			°

环境和机械特性 Envriionmental And Physical Characteristics:

类型 Description	参数 Parameter	单位 Units
材质 Material	Aluminium	
接口 Connectors	WR-2.8/UG-387/U	
尺寸 Size	115.48*ø124.5	mm

外形图 Outline Drawing:

Unit:mm



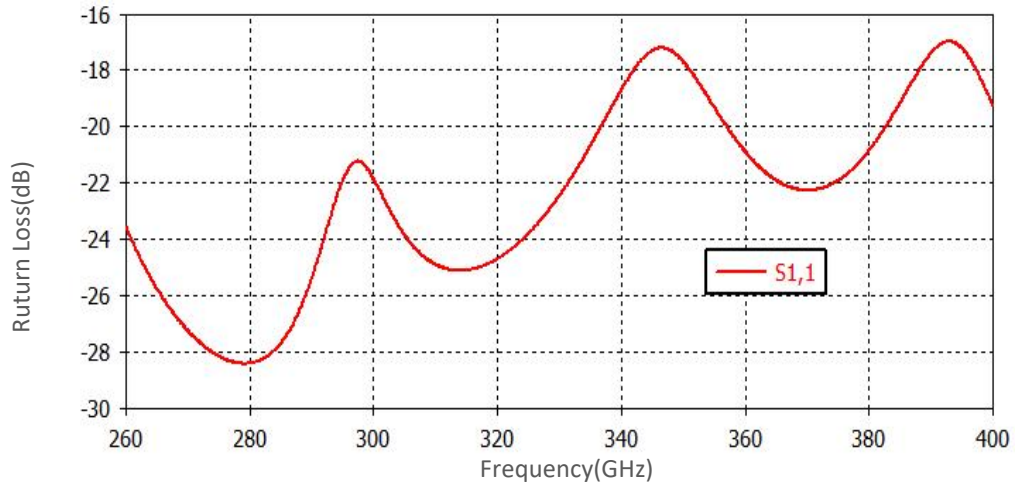
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

订货信息 Ordering Information:

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

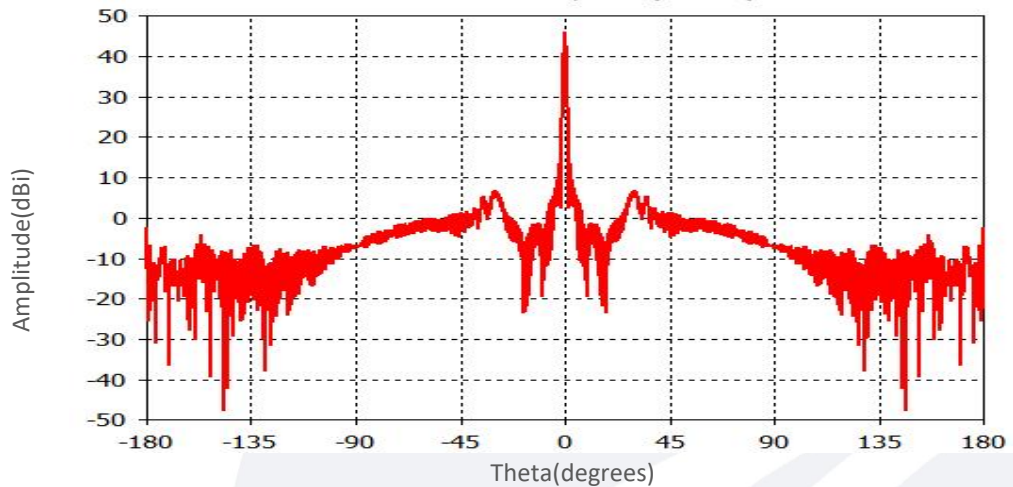
典型曲线 Typical Performance Data:

Return Loss vs Frequency



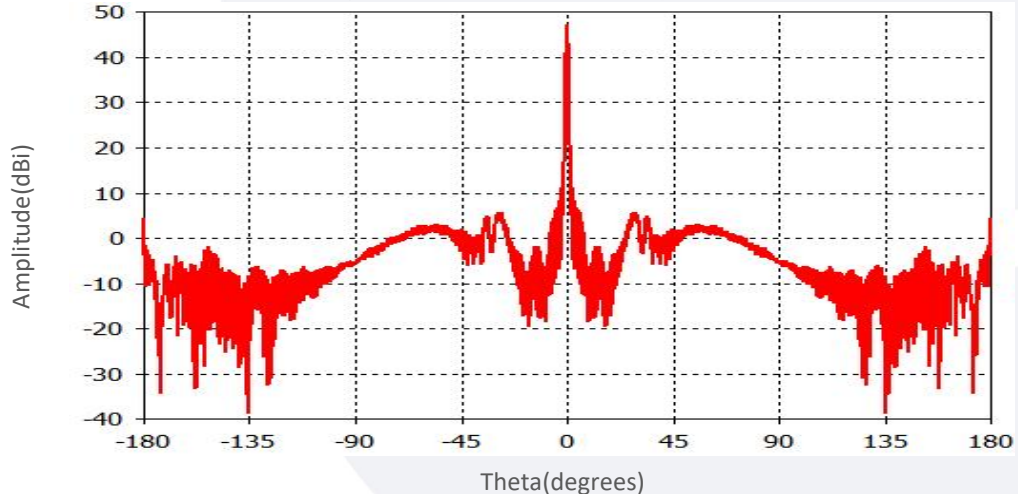
260GHz:

Amplitude vs Theta@Gain=46.3dBi



280GHz:

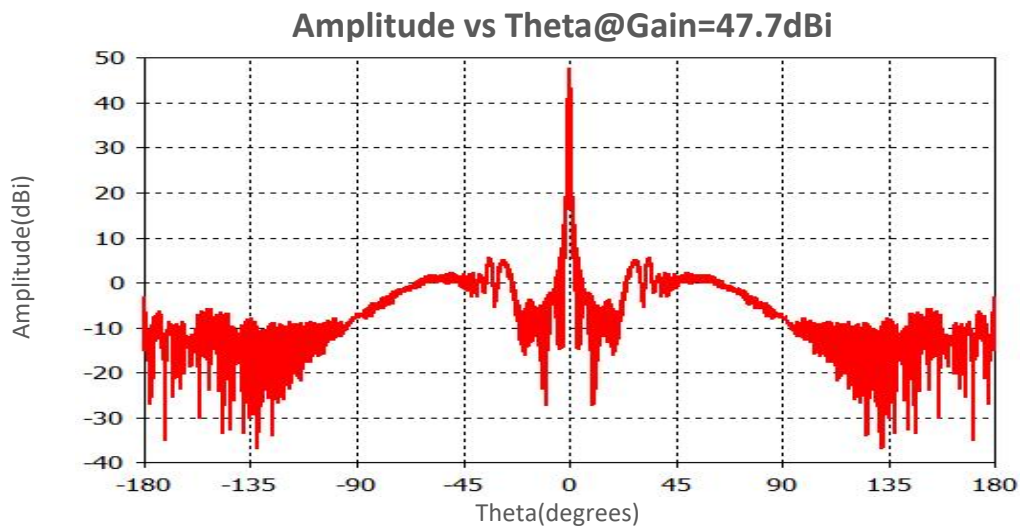
Amplitude vs Theta@Gain=47.4dBi



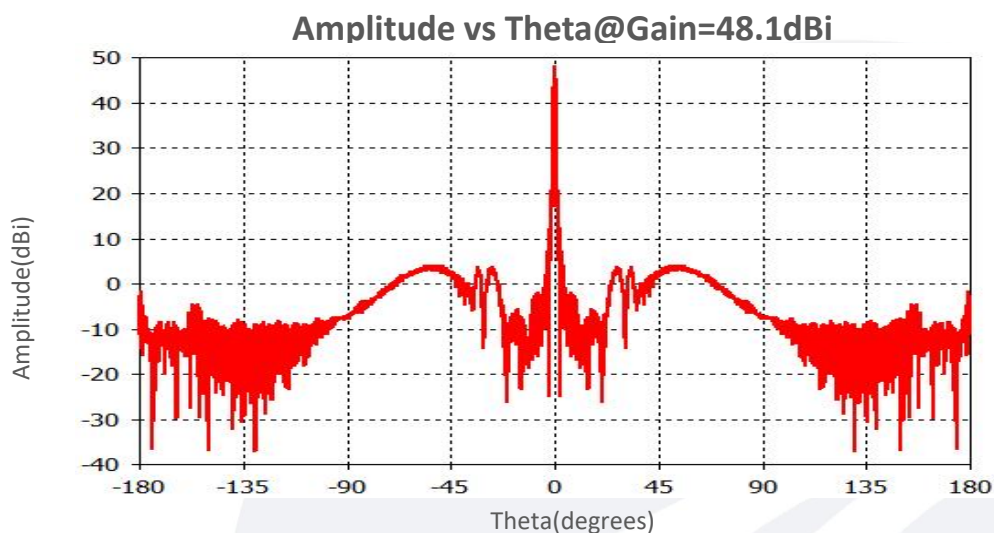
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

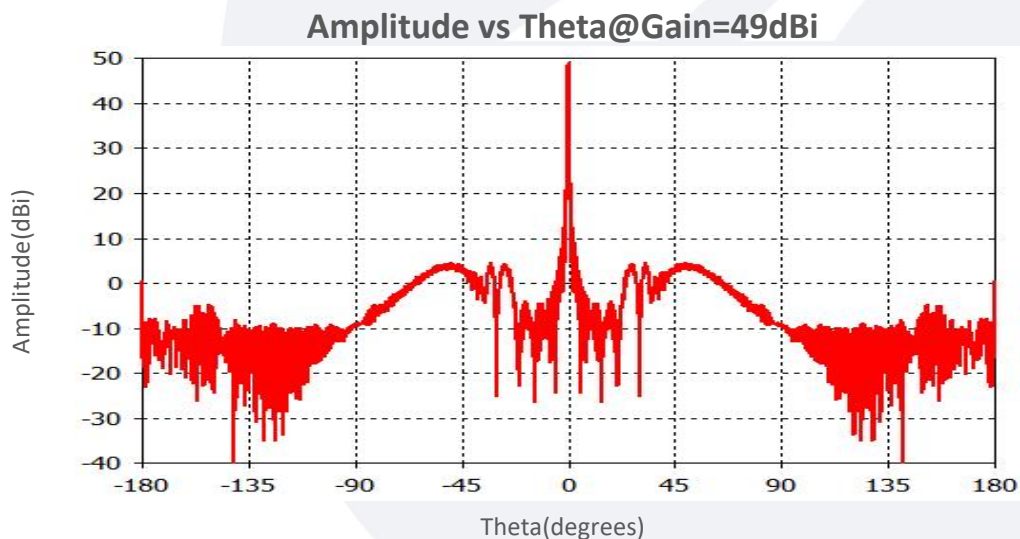
300GHz:



320GHz:



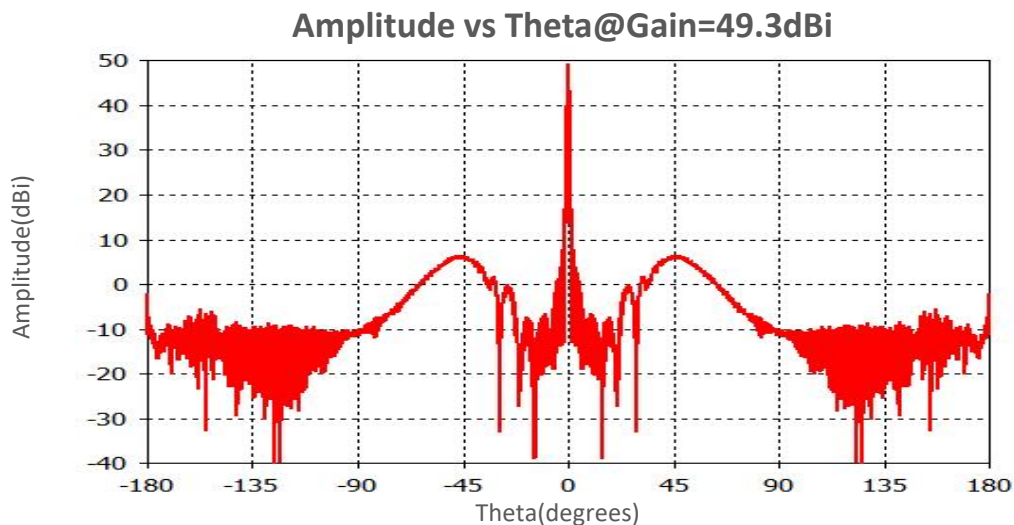
340GHz:



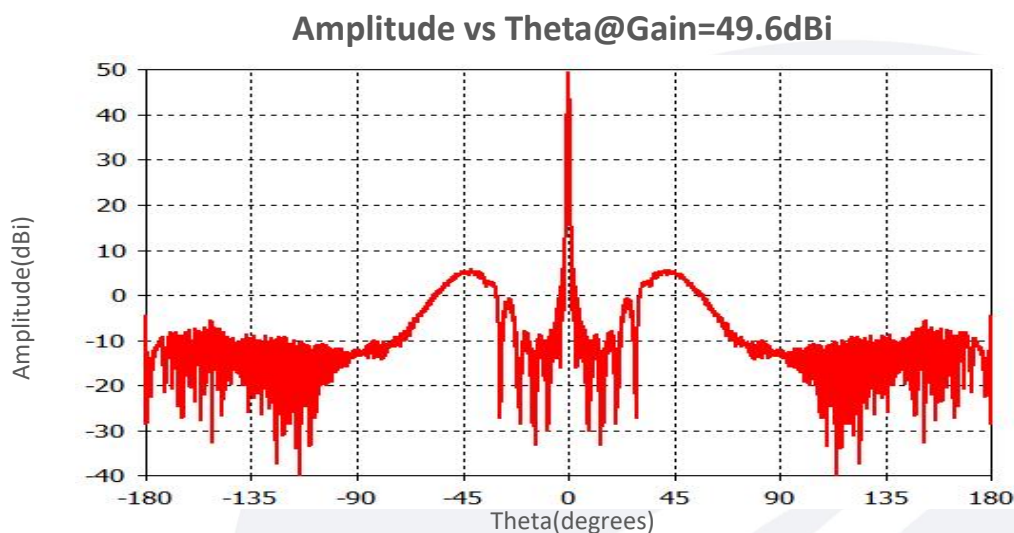
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典型曲线 Typical Performance Data:

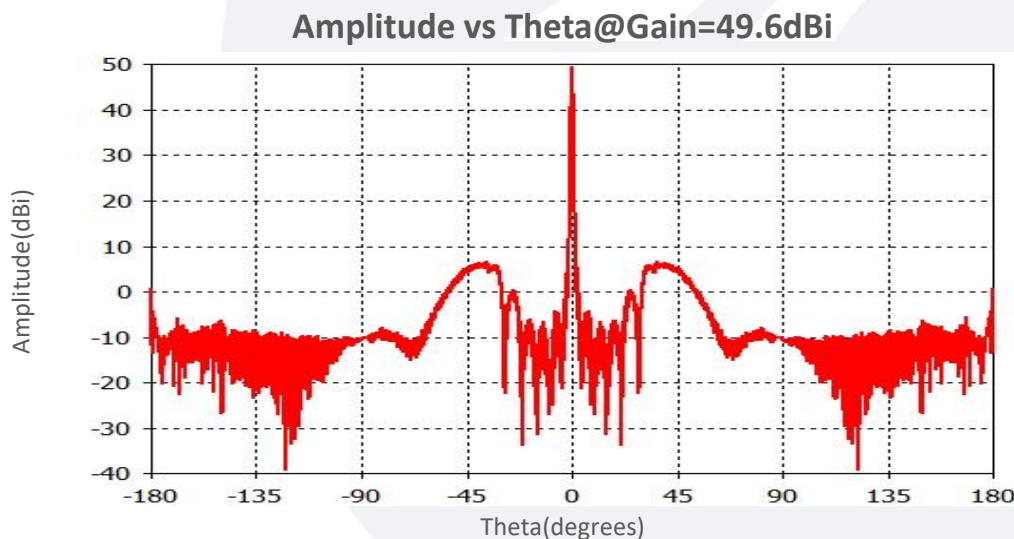
360GHz:



380GHz:



400GHz:



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.