

Standard Gain Horn Antenna

75-110GHz/25dBi Typ, Gain/WR-10

Model:TL-10SHA25-T1

TL-10SHA25-T1 is a standard gain horn antenna that operates from 75 GHz to 110 GHz. The antenna offers 25 dBi nominal gain. The input of this antenna is a WR-10 waveguide with UG-387/U anti-cocking flange. The standard gain horn is offered for antenna range calibration purpose mainly, but it can be also used for general purpose system set ups.

Features:

- Operating Frequency 75 to 110 GHz
- Linear Polarization
- Good Impedance Match

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Characteristics:

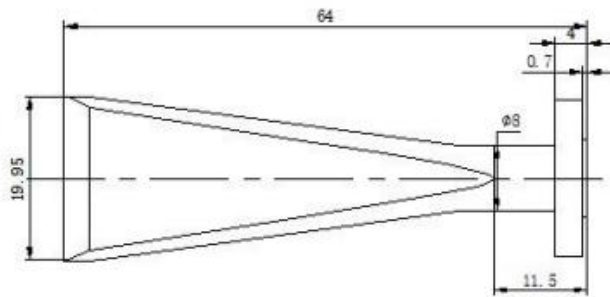
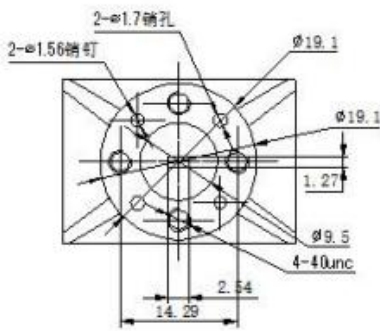
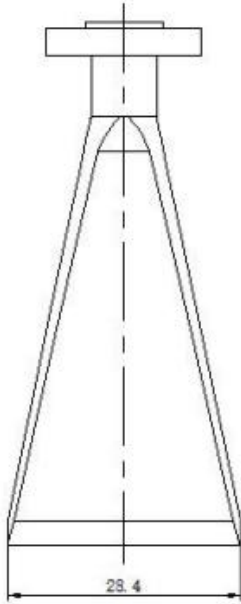
| Parameter | Min | Typ | Max | Units |
|-----------------|--------|-----|-----|-------|
| Frequency Range | 75 | | 110 | GHz |
| Gain | | 25 | | dBi |
| Polarization | Linear | | | |
| Input VSWR | | | 1.1 | :1 |

Environmental And Physical Characteristics:

| Description | Parameter | Units |
|-----------------------|----------------|-------|
| Operating Temperature | -40 To +85 | °C |
| Storage Temperature | -40 to +85 | °C |
| Material | Brass | |
| Finish | Gold plating | |
| Connectors | WR-10/UG-387/U | |
| Size | 28.4*19.95*64 | mm |
| Weight | 50 | g |

Outline Drawing:

Unit:mm



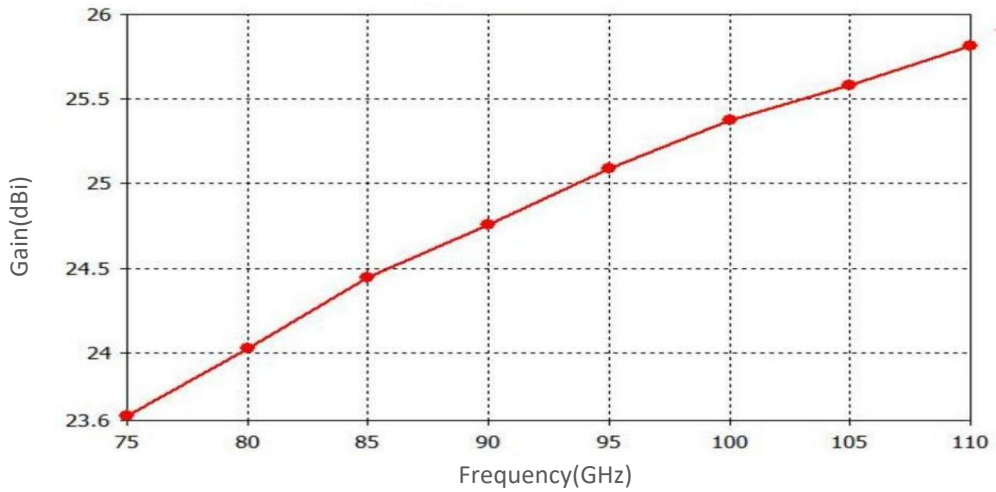
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Ordering Information:

| Base Number | Description | Revision |
|---------------|--|----------|
| TL-10SHA25-T1 | Standard Gain Horn Antenna, 75-110GHz, Gain: 25 dBi Typ. | Rev.1.1 |

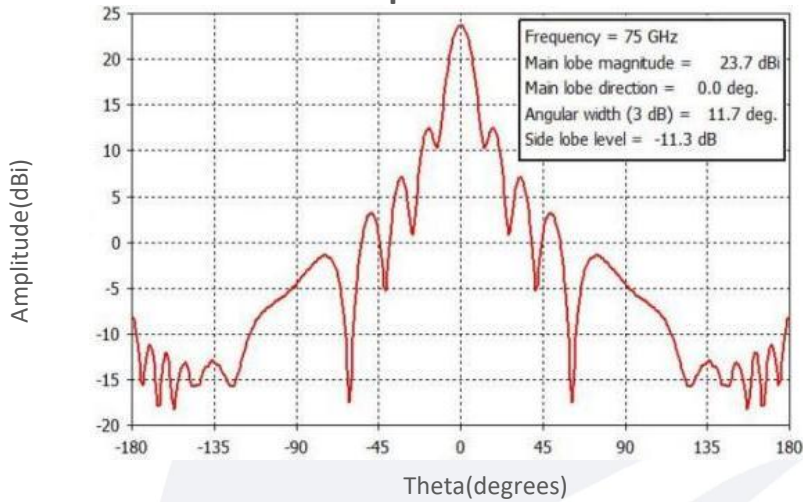
Typical Performance Data:

Gain vs Frequency



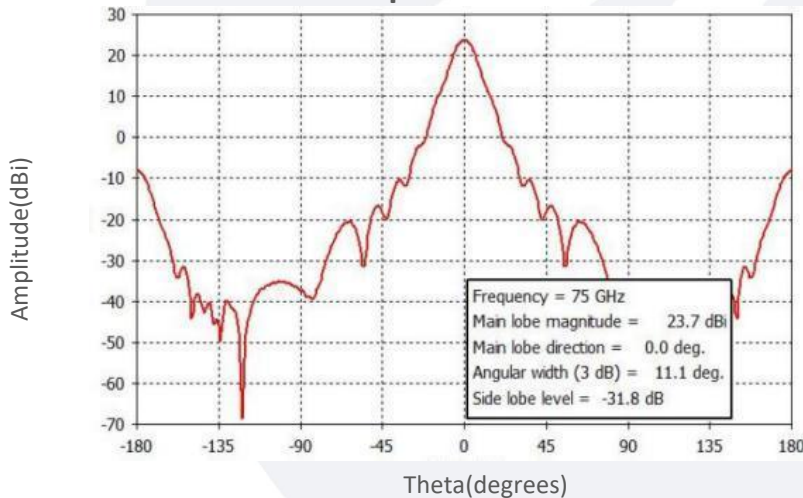
E plane, 75GHz:

Amplitude vs Theta



H plane, 75GHz:

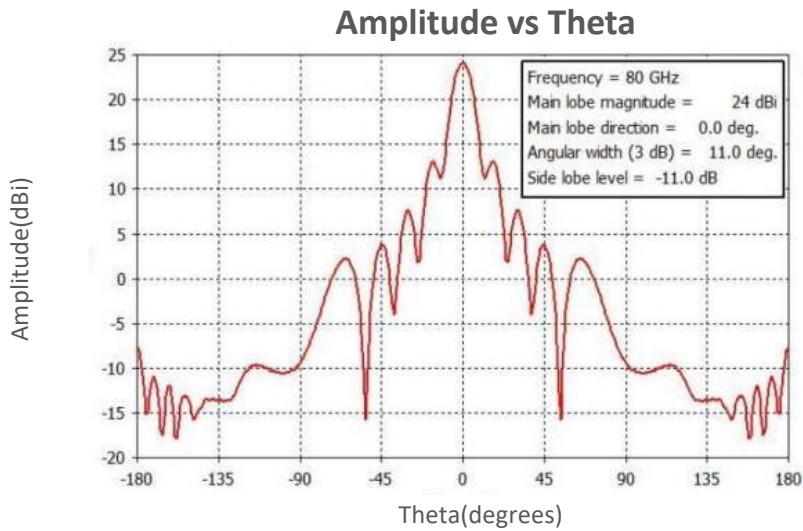
Amplitude vs Theta



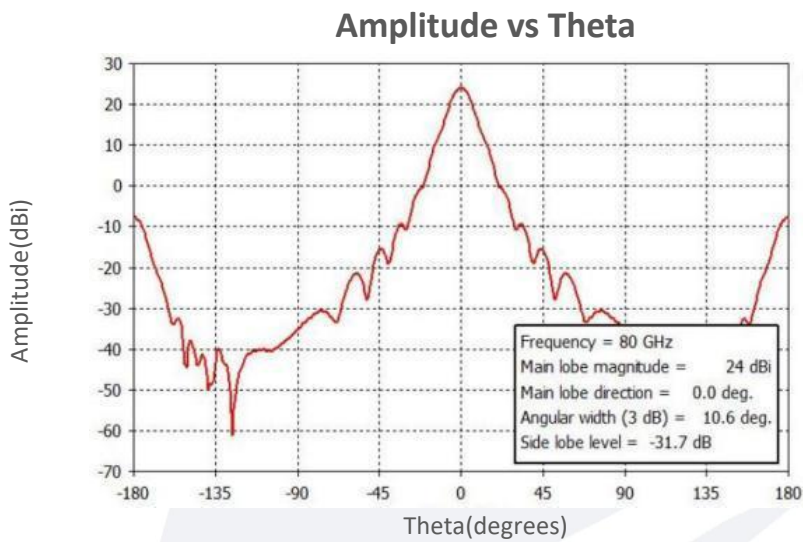
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

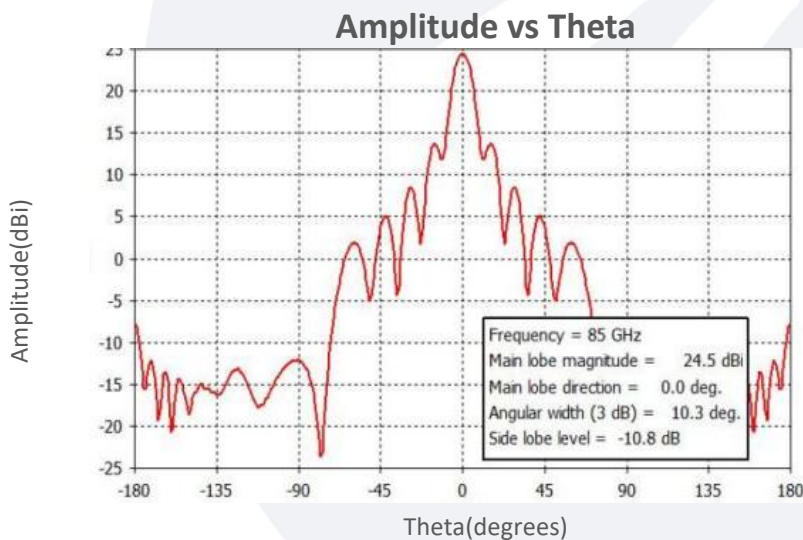
E plane, 80GHz:



H plane, 80GHz:



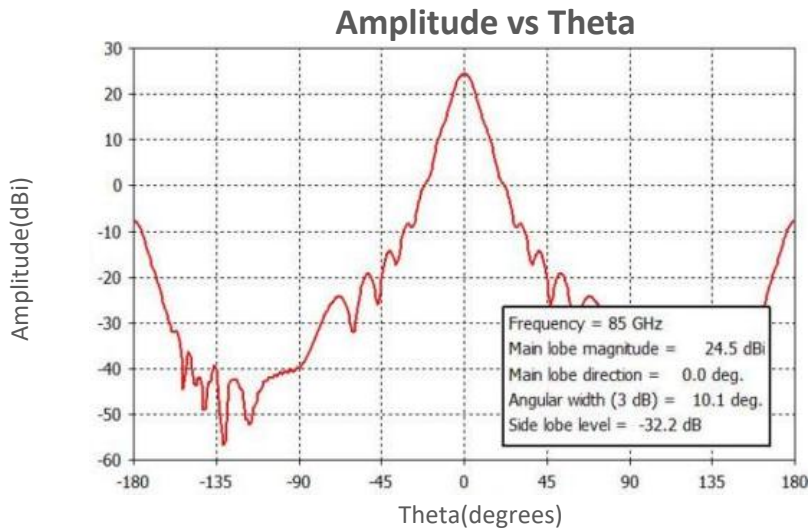
E plane, 85GHz:



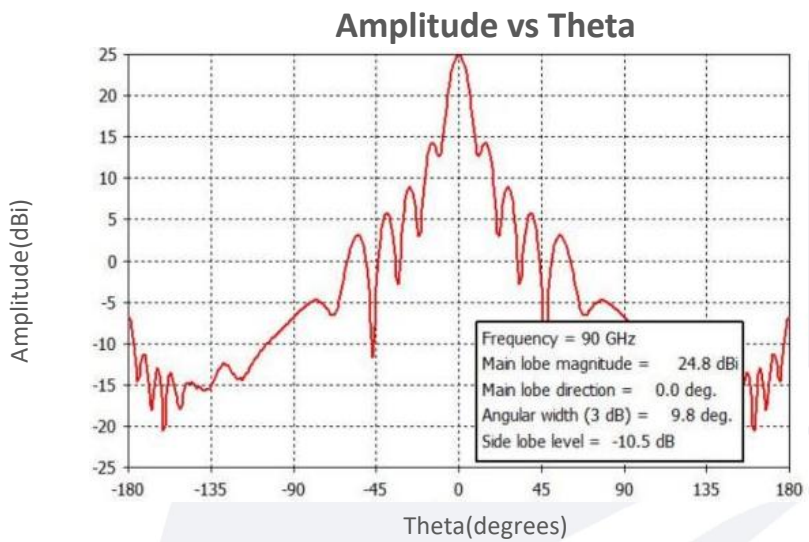
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

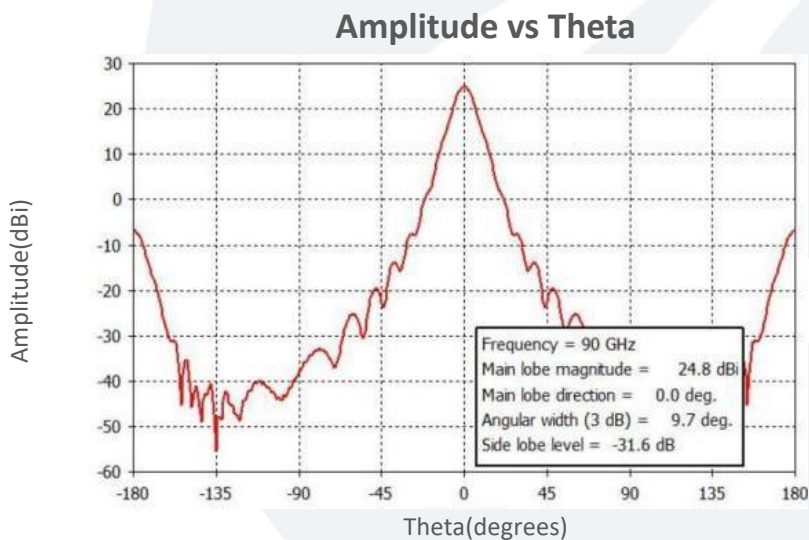
H plane, 85GHz:



E plane, 90GHz:



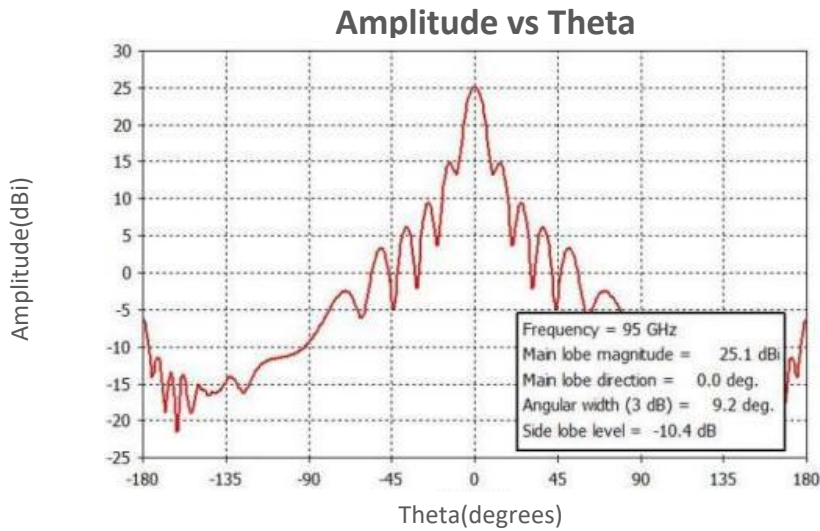
H plane, 90GHz:



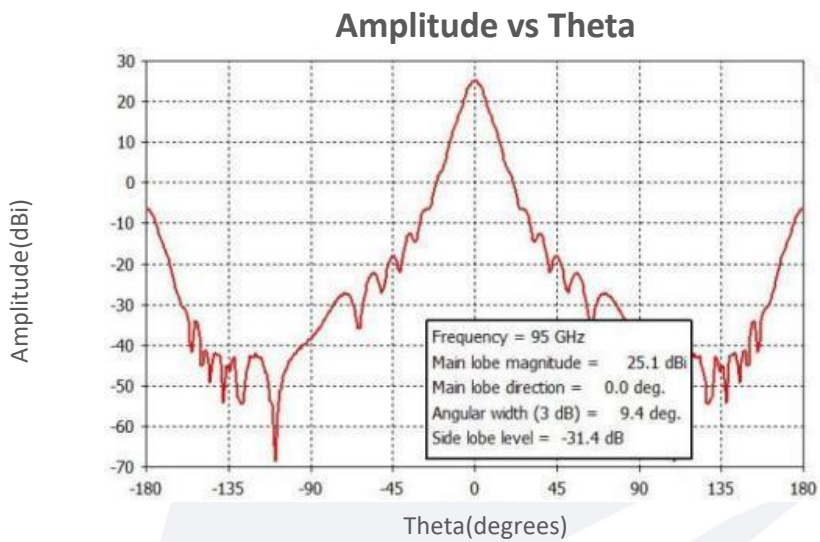
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

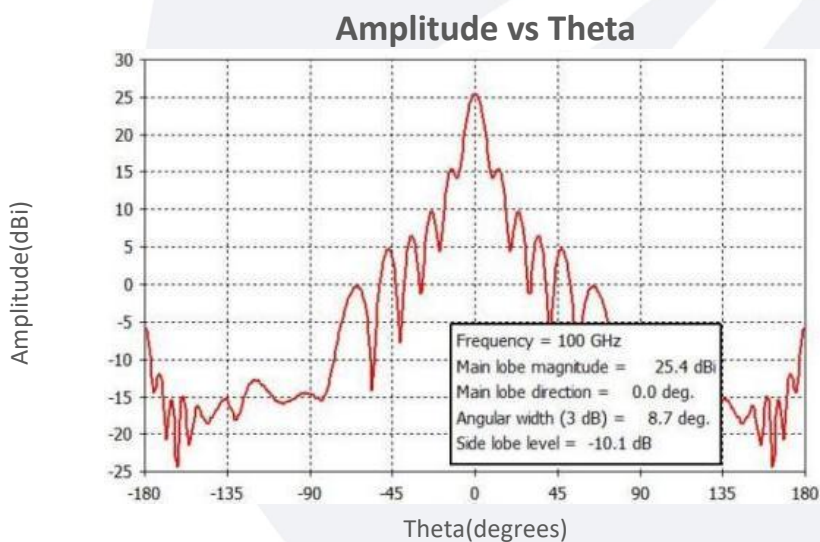
E plane, 95GHz:



H plane, 95GHz:



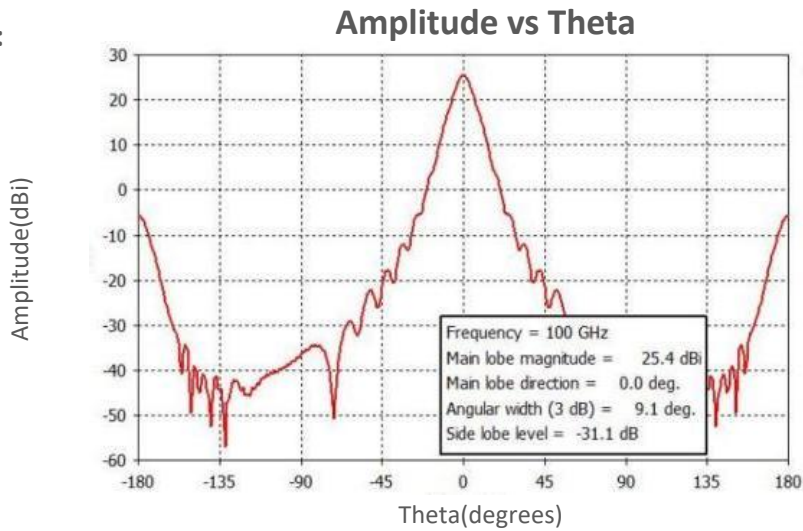
E plane, 100GHz:



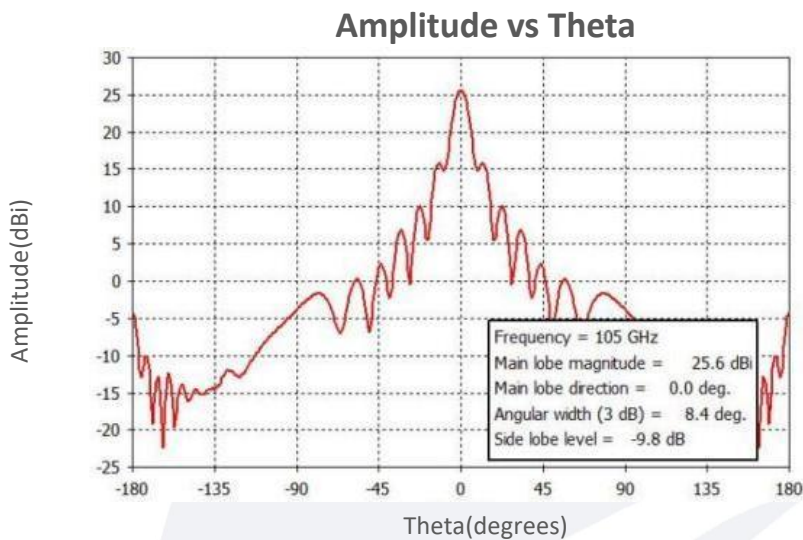
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

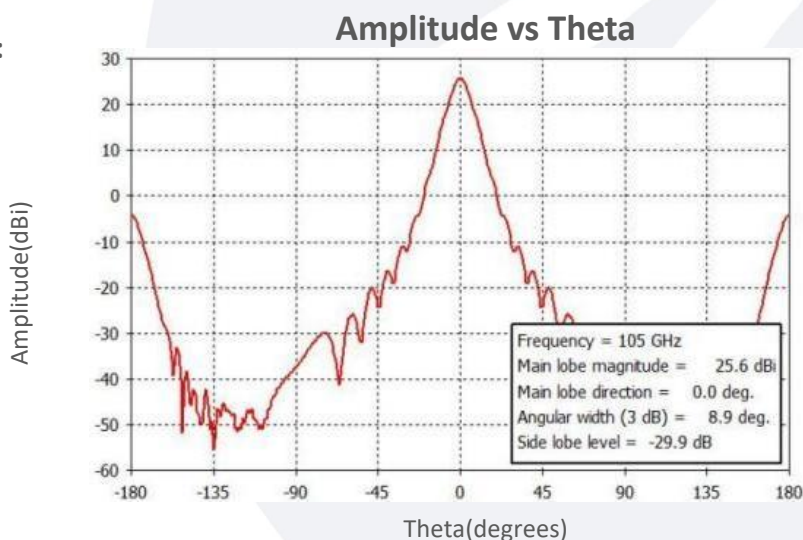
H plane, 100GHz:



E plane, 105GHz:



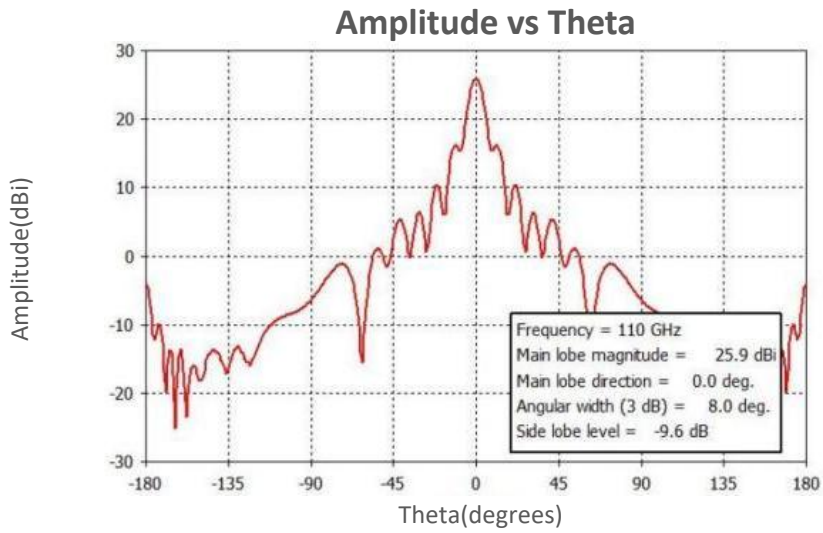
H plane, 105GHz:



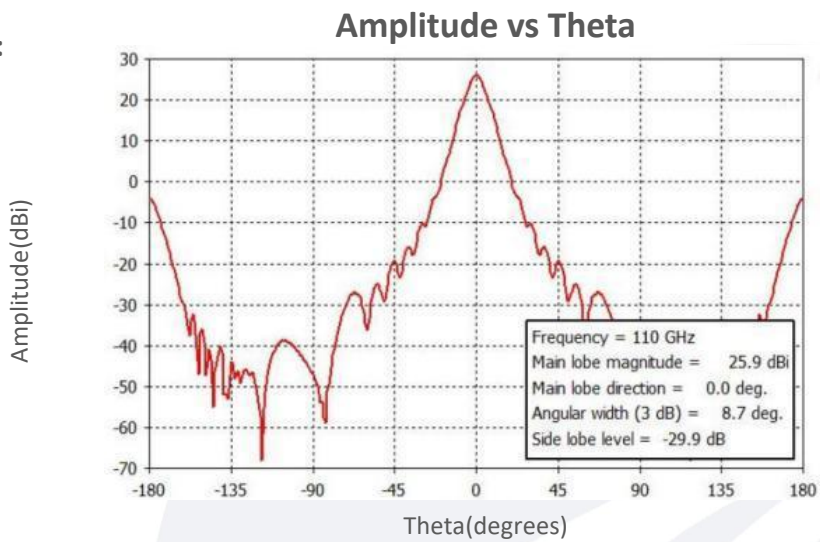
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

E plane, 110GHz:



H plane, 110GHz:



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.