

WR6 Standard Gain Horn Antenna

110-170 GHz | 20 dBi | P/N: AMT-SGH6-20A

1. Product Overview

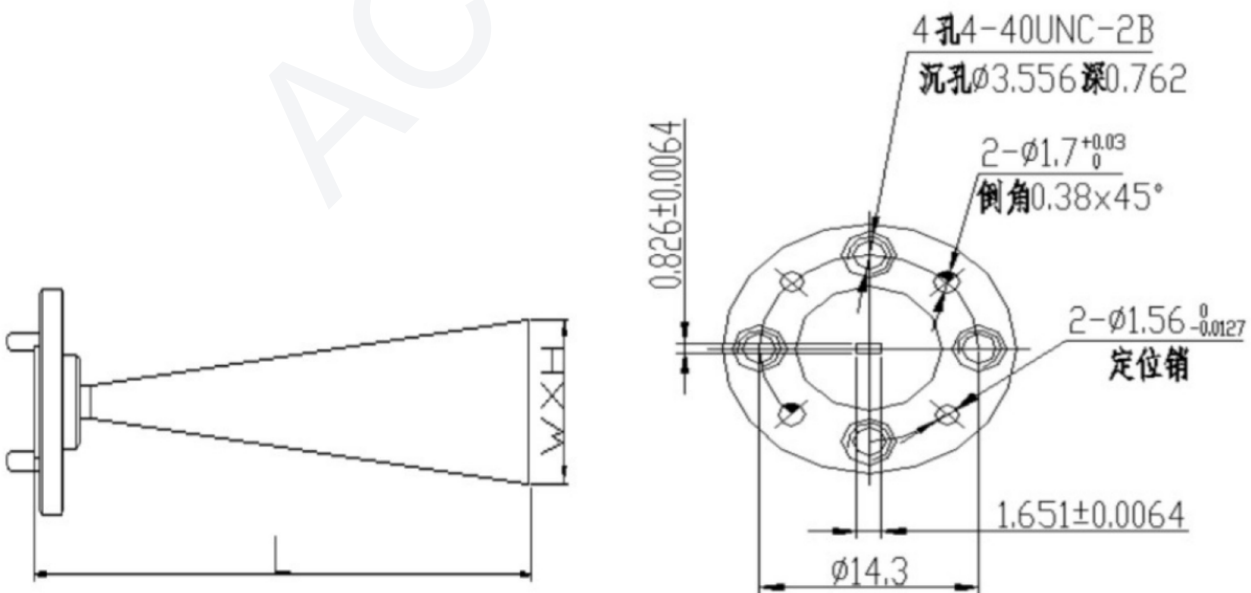
The AMT-SGH6-20A is a linearly polarized WR6 standard gain horn antenna operating from 110 GHz to 170 GHz. It provides nominal 20 dBi gain and low VSWR for antenna calibration, gain comparison, terahertz measurement, and laboratory applications.

2. Technical Specifications



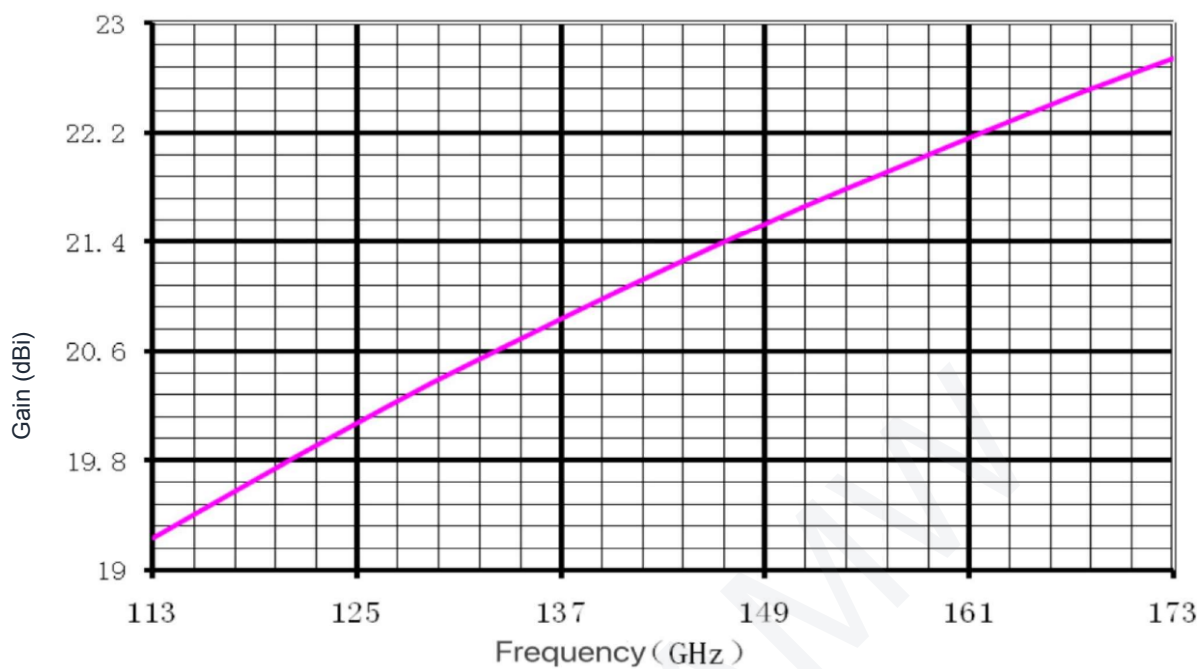
Parameter	Specification
Frequency Range	110-170 GHz
Nominal Gain	20 dBi typ.
Polarization	Linear
VSWR	≤ 1.5
RF Interface	WR6 with UG-387/U-M flange
Dimensions	$\varnothing 19.1 \times 41$ mm approx.
Material	Copper
Finish	Gold plated

3. Outline (mm)



4. Test Result

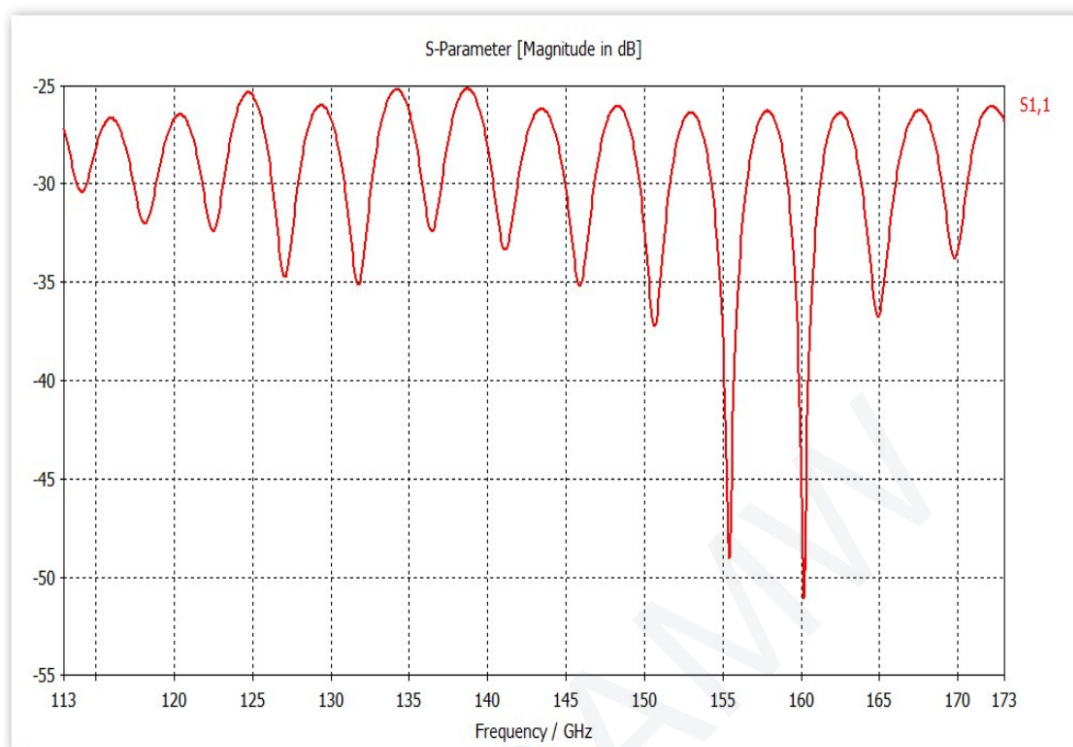
Gain



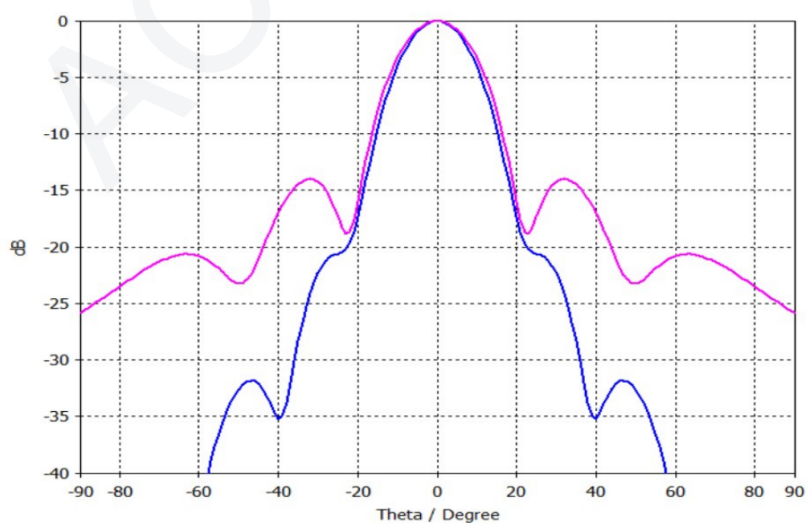
Gain Data

Frequency (GHz)	Gain (dBi)	Frequency (GHz)	Gain (dBi)
110.0	19.0	145.73	21.37
113.0	19.25	151.18	21.67
118.45	19.65	156.64	21.96
123.91	20.03	162.09	22.24
129.36	20.39	167.55	22.51
134.82	20.73	173.0	22.77
140.27	21.05		

VSWR

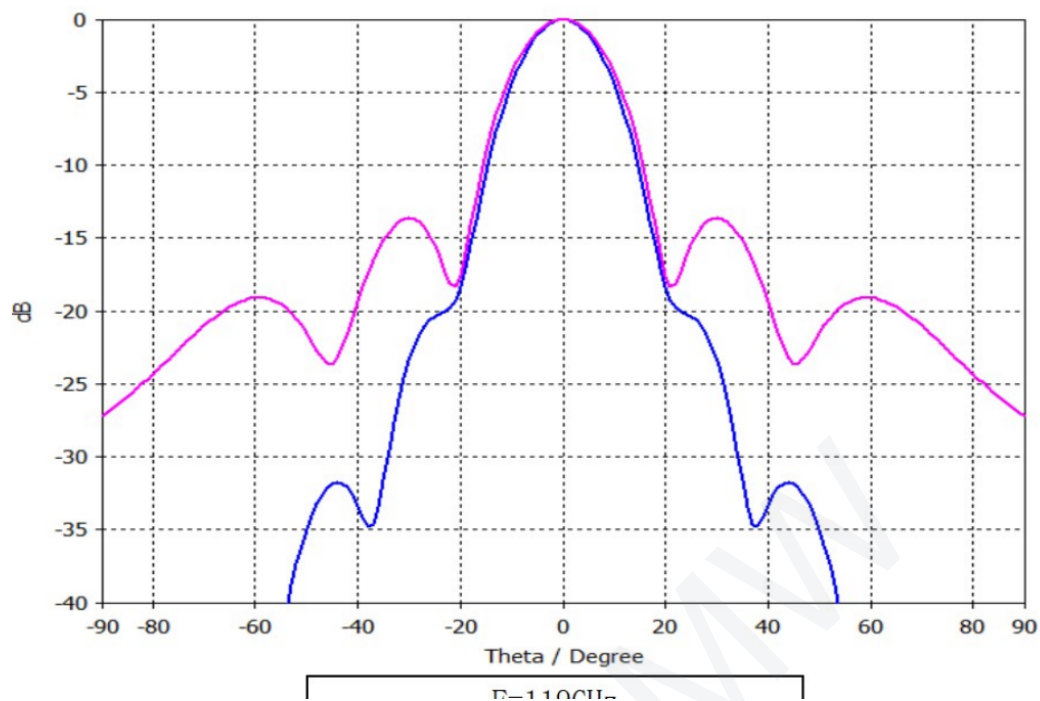


Pattern



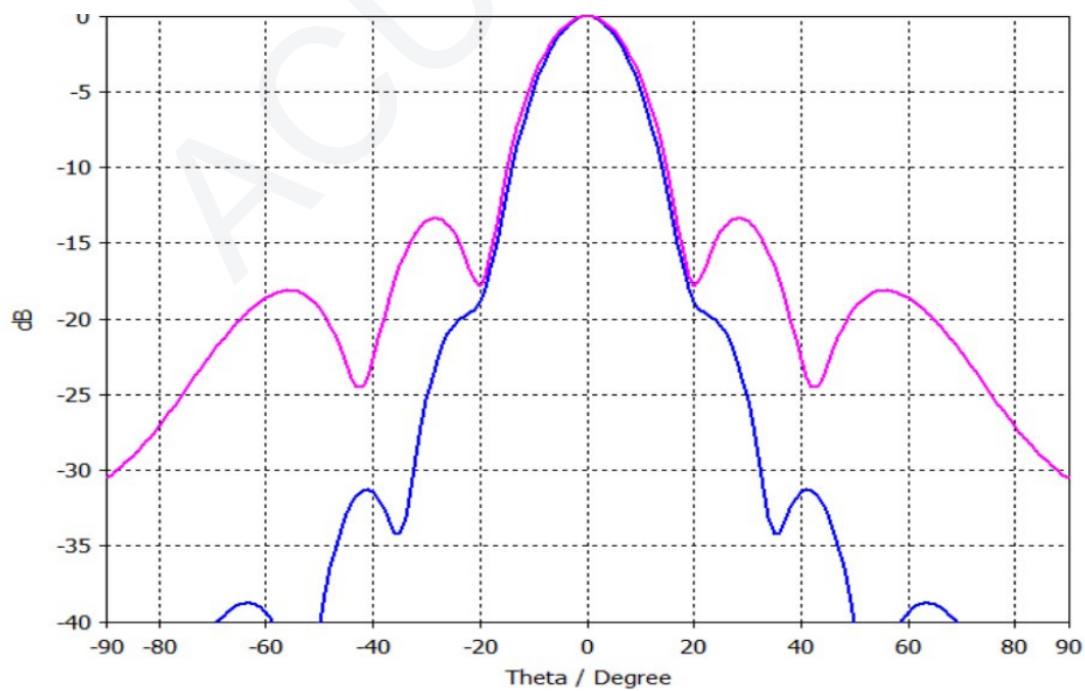
113 GHz

H-plane 3dB Beamwidth: 17.3° E-plane 3dB Beamwidth: 19.2°



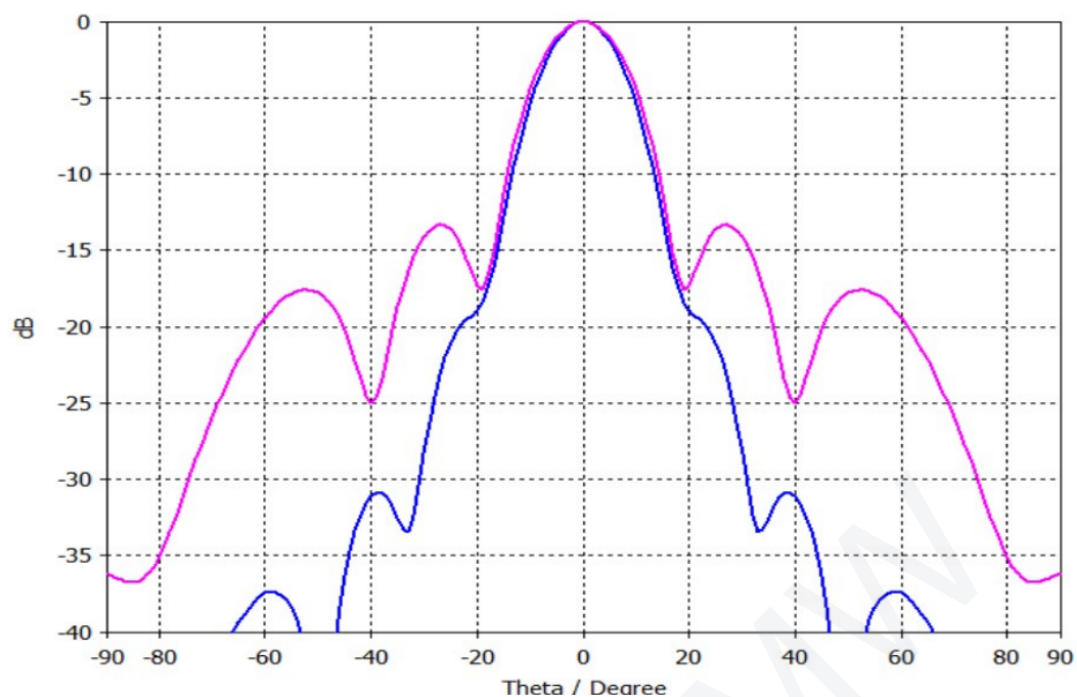
119 GHz

H-plane 3dB Beamwidth: 16.5° E-plane 3dB Beamwidth: 18.2°

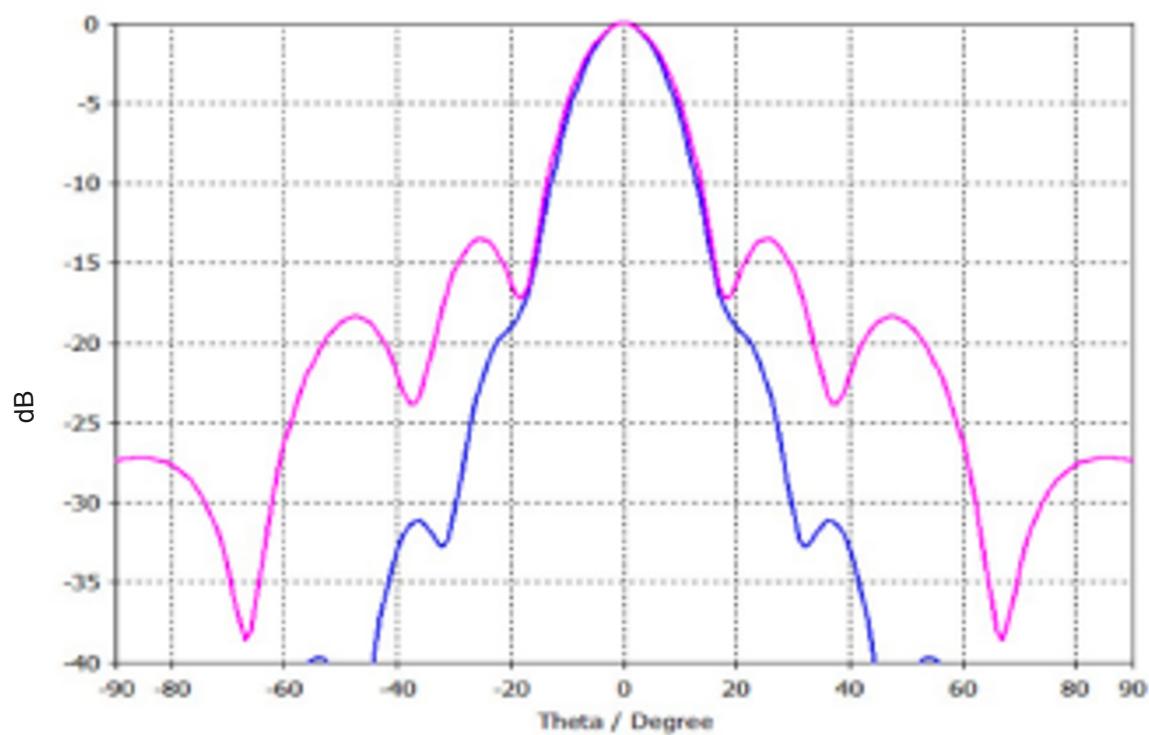


125 GHz

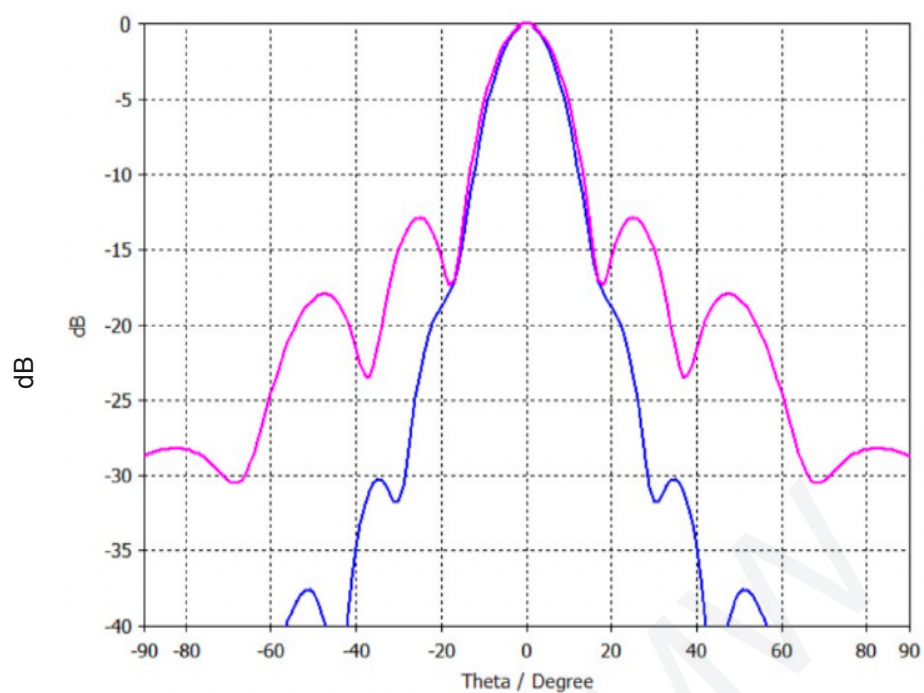
H-plane 3dB Beamwidth: 15.8° E-plane 3dB Beamwidth: 17.3°

**131 GHz**

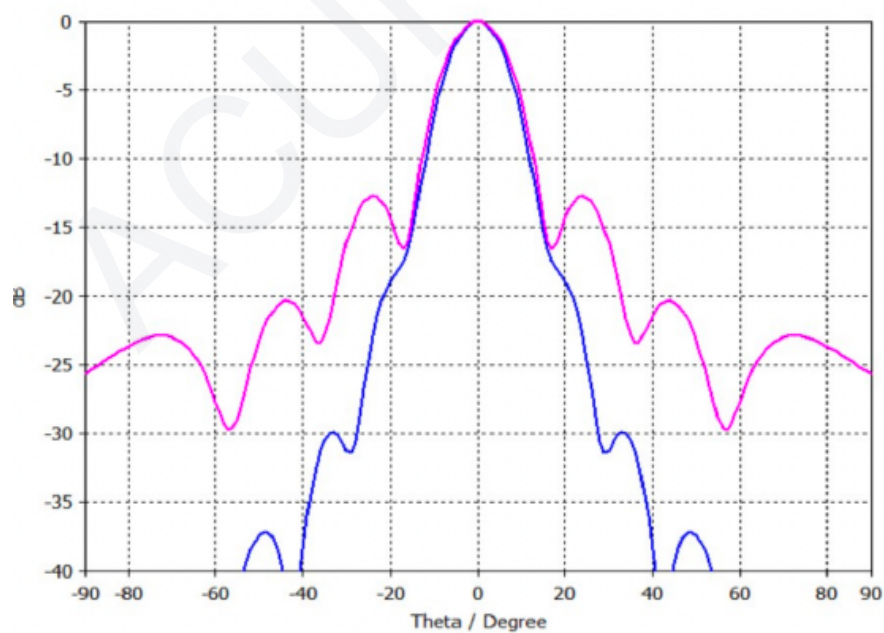
H-plane 3dB Beamwidth: 15.0° E-plane 3dB Beamwidth: 16.6°

**137 GHz**

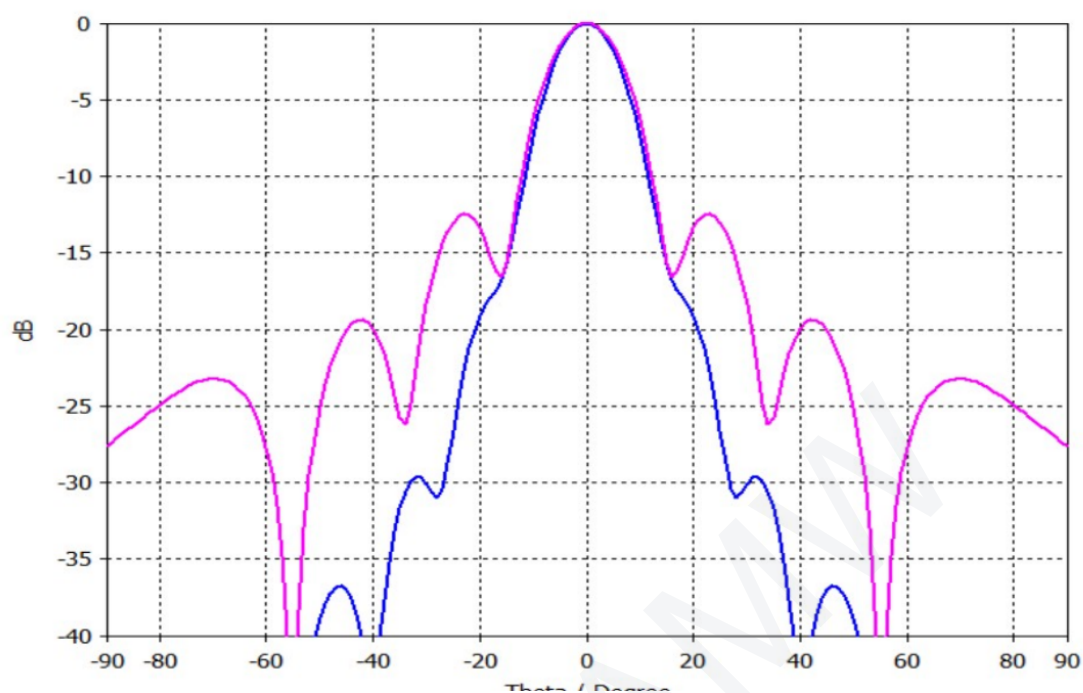
H-plane 3dB Beamwidth: 14.4° E-plane 3dB Beamwidth: 15.7°

**143 GHz**

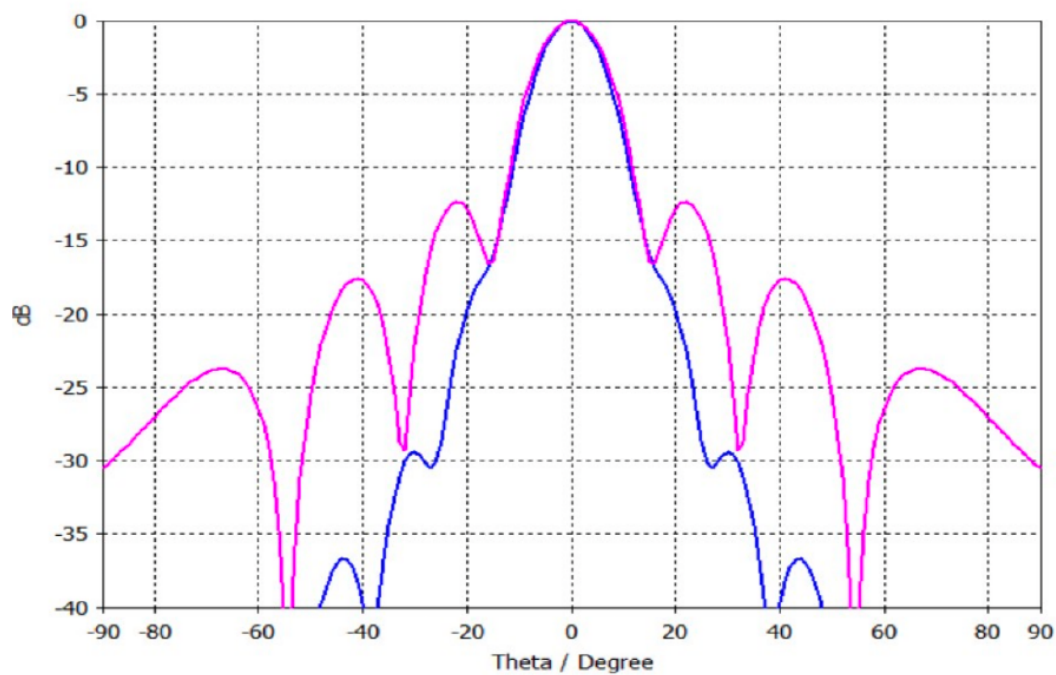
H-plane 3dB Beamwidth: 13.9° E-plane 3dB Beamwidth: 15.5°

**149 GHz**

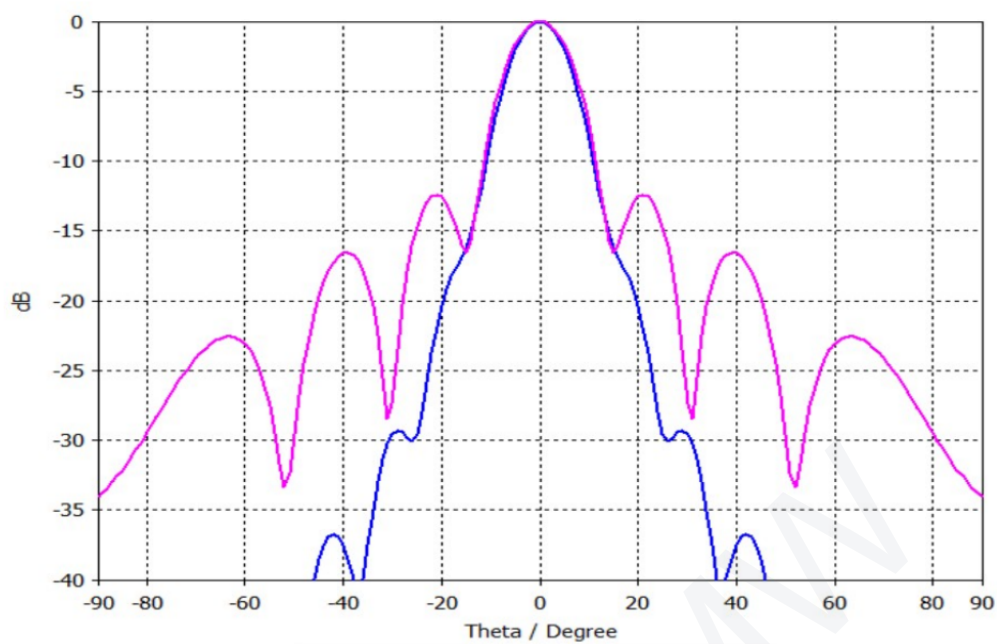
H-plane 3dB Beamwidth: 13.3° E-plane 3dB Beamwidth: 14.8°

**155 GHz**

H-plane 3dB Beamwidth: 12.9° E-plane 3dB Beamwidth: 14.2°

**164 GHz**

H-plane 3dB Beamwidth: 12.4° E-plane 3dB Beamwidth: 13.7°

**167 GHz**

H-plane 3dB Beamwidth: 12.0° E-plane 3dB Beamwidth: 13.3°