

Antenna

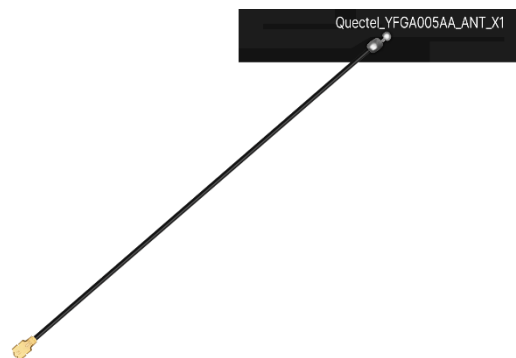
YFGA005AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2022-09-09	Knight HU/ Joye WANG	Creation of the document
1.0	2022-09-09	Knight HU/ Joye WANG	First official release

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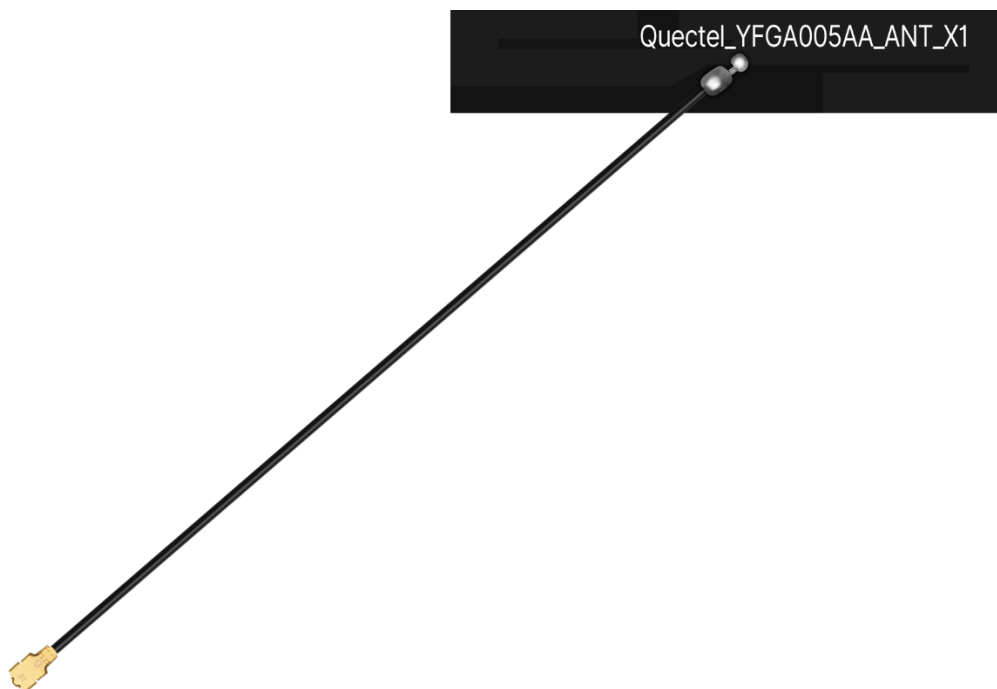
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1. Product Description

This Quectel GNSS antenna adopts a diversity of forms to guarantee the most suitable polarization type. Quectel's positioning products support single-band or multi-band operation modes to meet various high-precision positioning requirements of customers' products. Quectel provides both passive and active antennas to satisfy the customer demand for high gain. Such antenna supports different installation or connection methods such as pin mount, surface mount, magnetic mount, internal cable, and external SMA. Customized connector type and cable length are provided according to requirements.

2. Product Features

- GPS L1
- High efficiency
- Excellent performance



3. Product Specifications

Passive Electrical Specifications

Frequency Range	1560–1605 MHz
Input Impedance	50 Ω
VSWR	≤ 2.0
Gain	≤ 2.6 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	61.15 mm \times 11.24 mm
Material	FPC
Cable Type & Length	Φ 1.13 Black & 100.5 mm
Connector	IPEX 1
Color	Black
Weight	Typ: 0.6 g
Mounting Type	Adhesive
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C

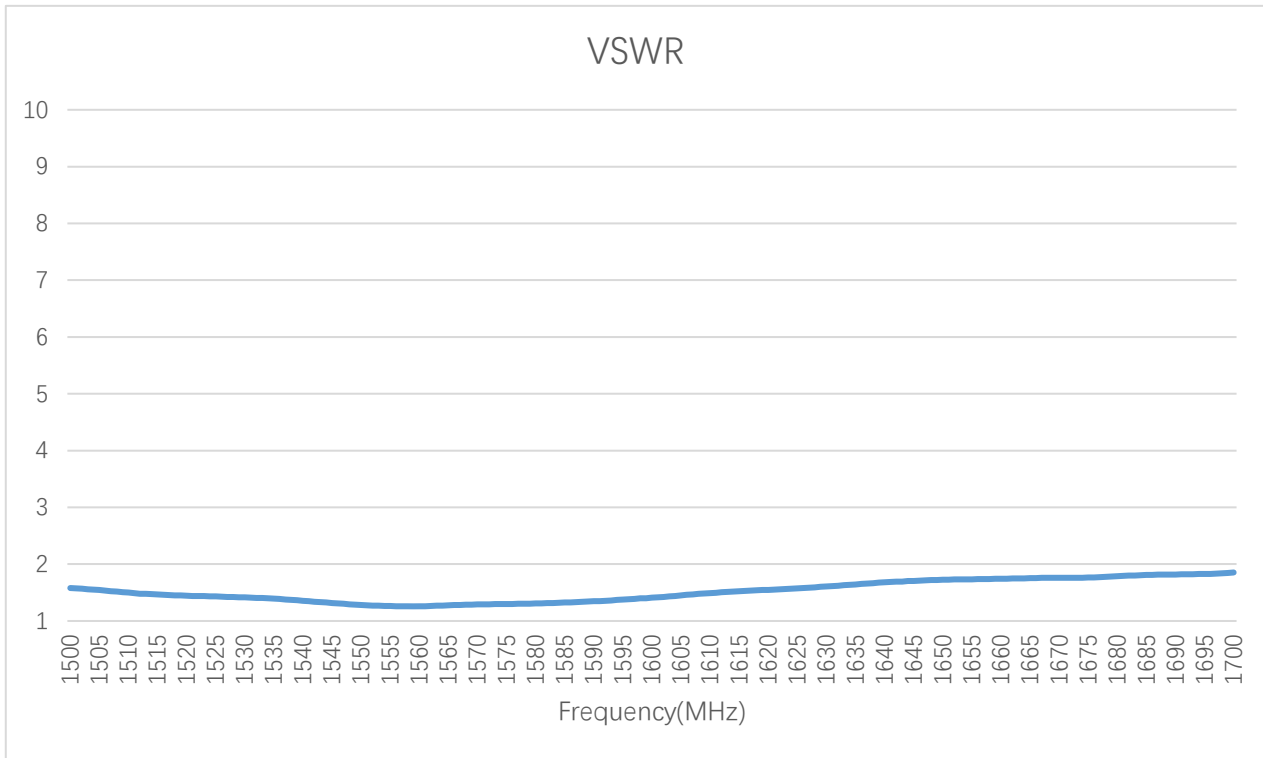
4. Overall Performance

4.1 Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/ MIMO, 600 MHz – 8.5 GHz

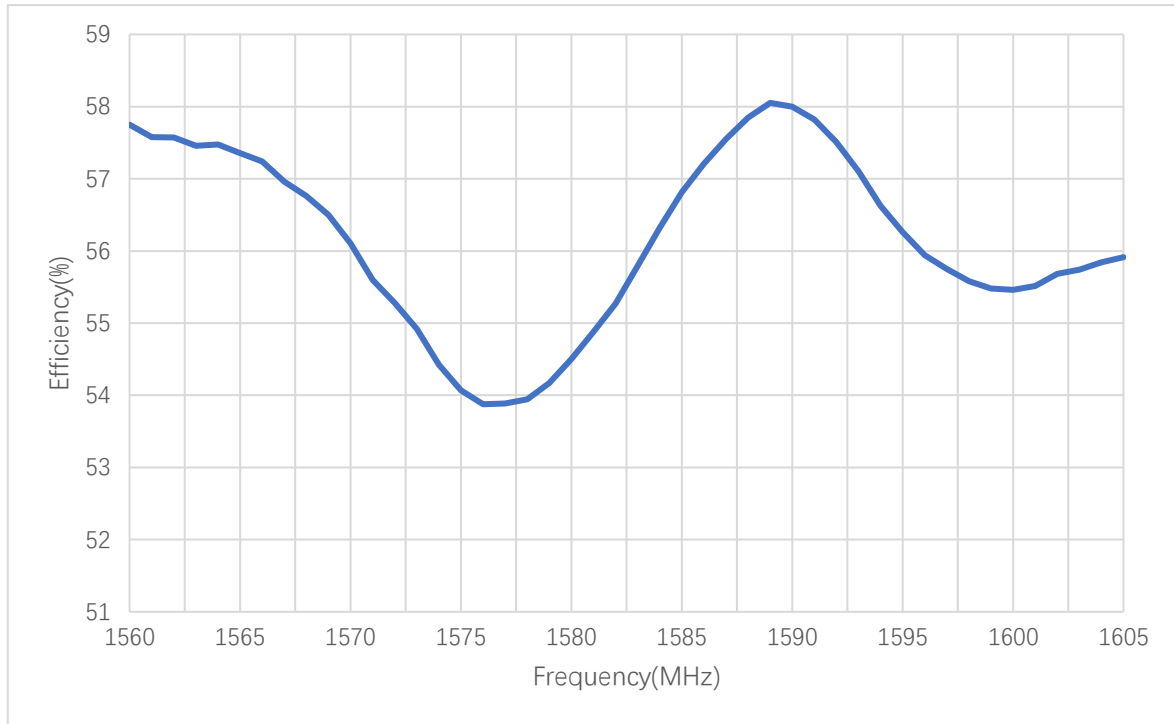


4.2 VSWR



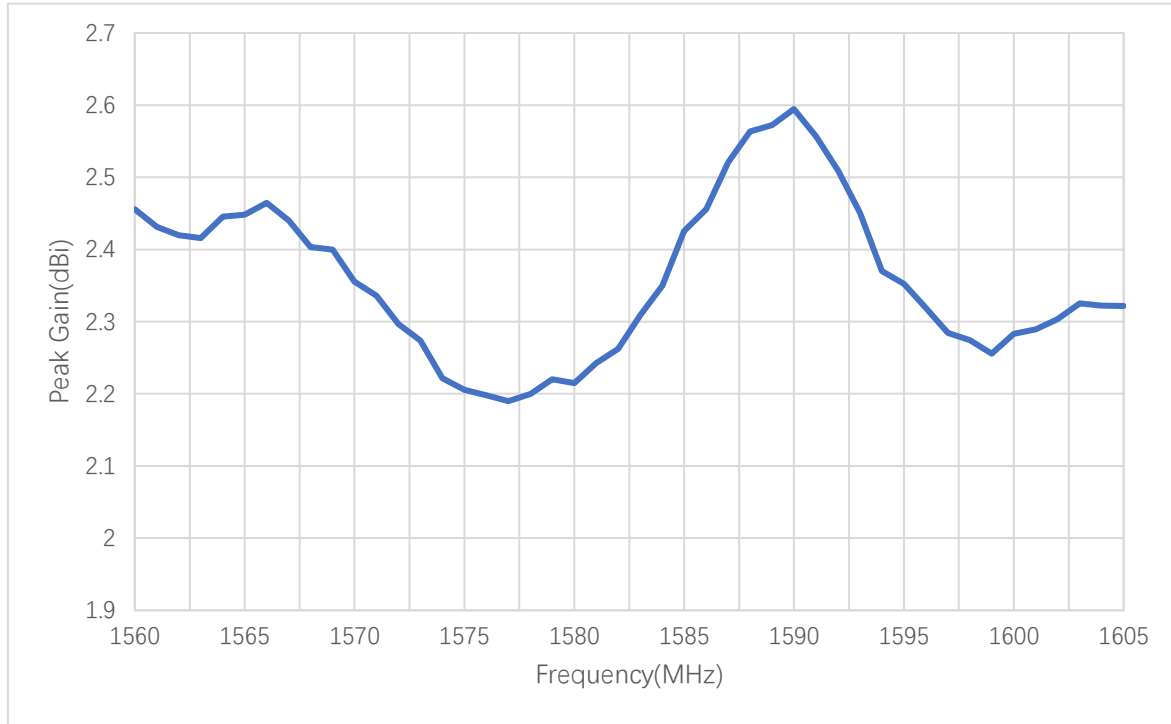
Frequency (MHz)	1560	1575	1605
VSWR	1.26	1.30	1.45

4.3 Efficiency



Frequency (MHz)	1560	1575	1605
Efficiency (%)	57.7	54.1	55.9

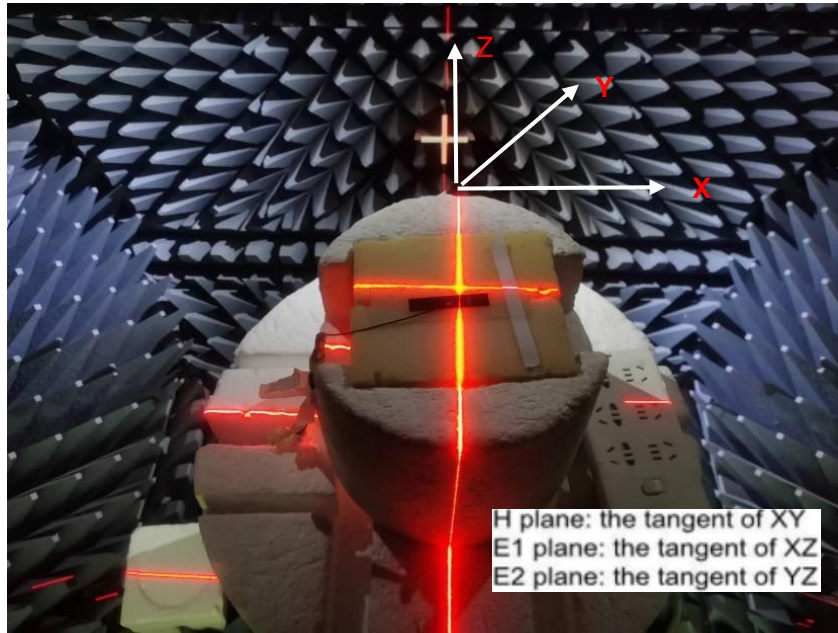
4.4 Gain



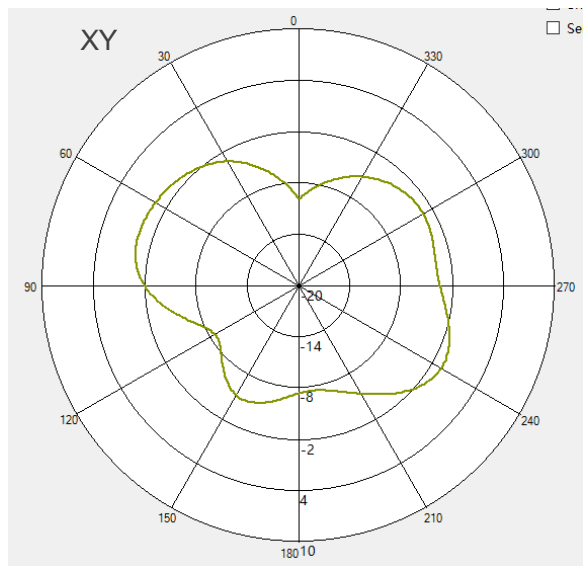
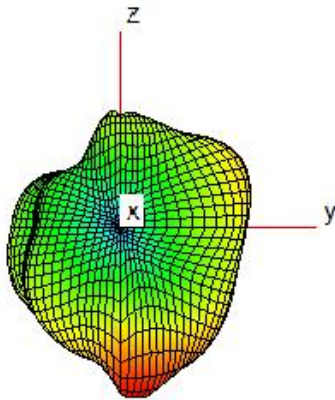
Frequency (MHz)	1560	1575	1605
Gain (dBi)	1.27	1.23	1.79

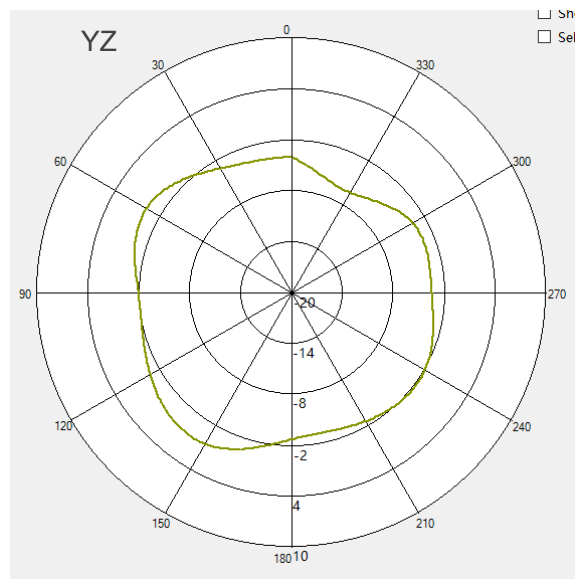
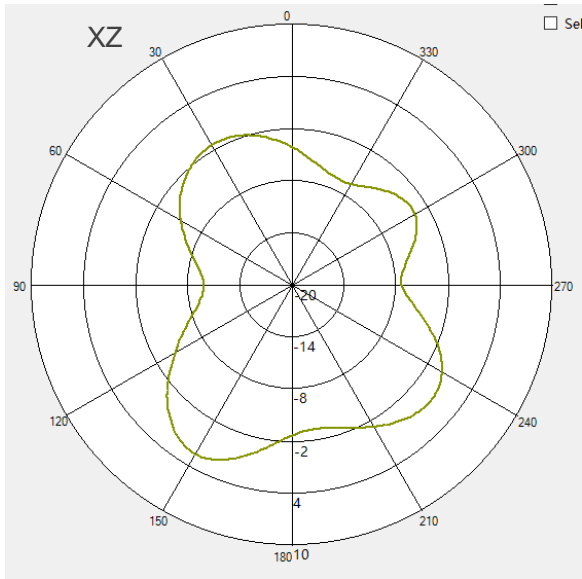
4.5 Radiation Patterns

- Test condition: free space

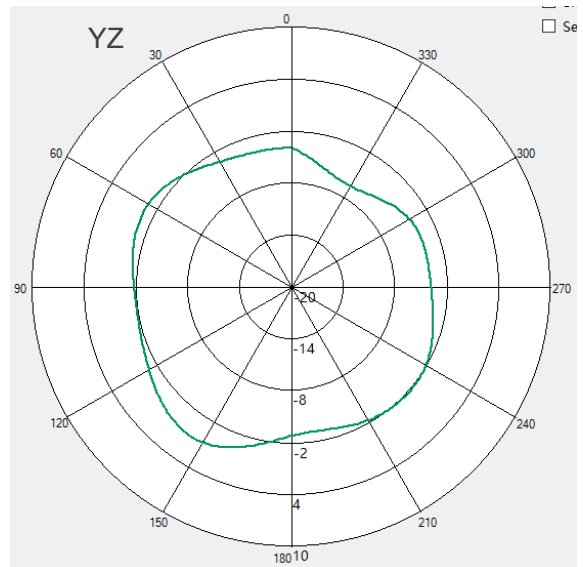
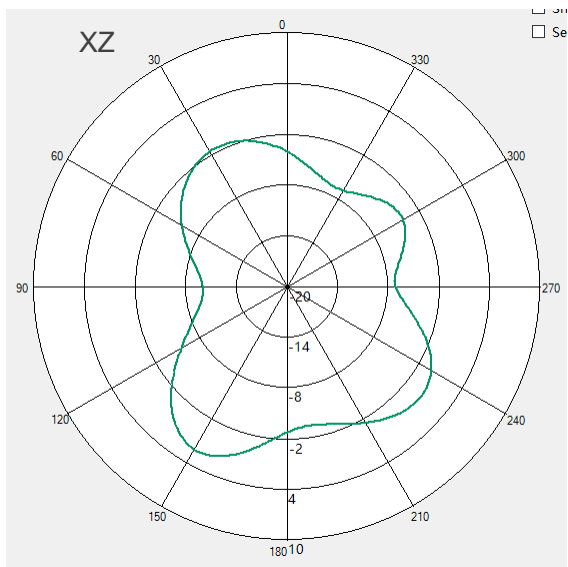
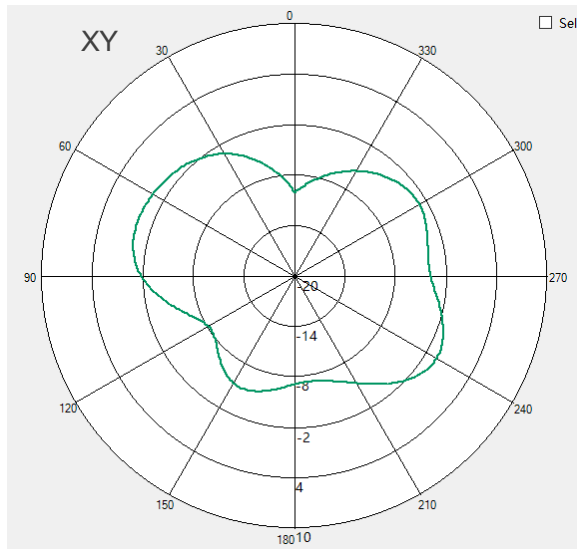
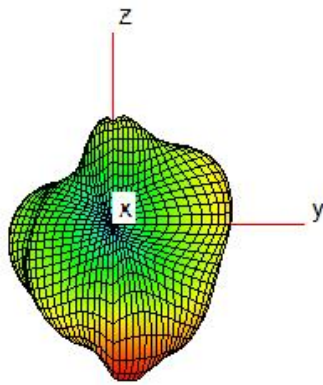


1560 MHz

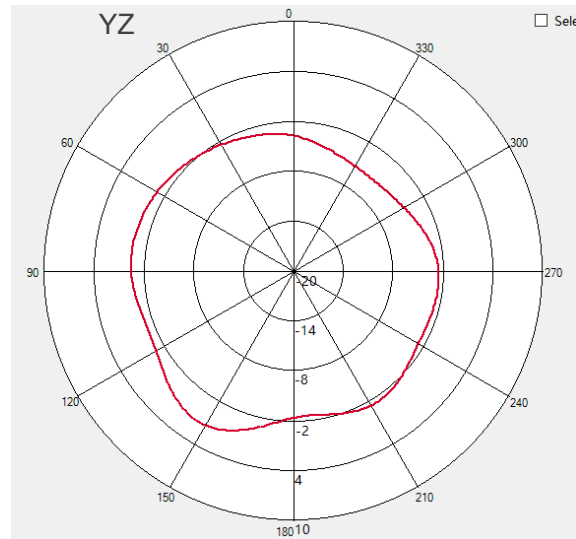
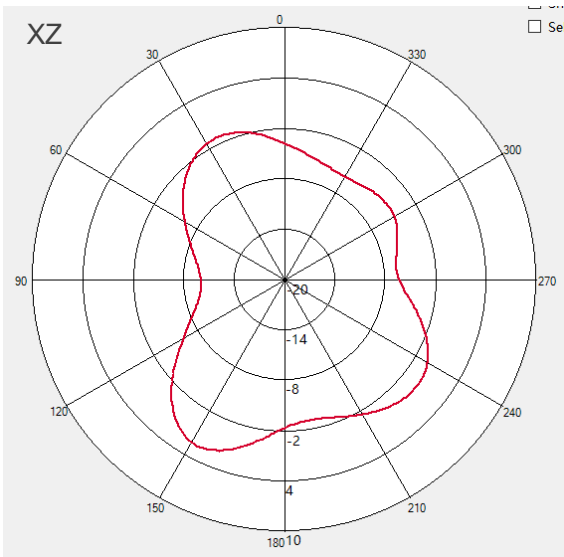
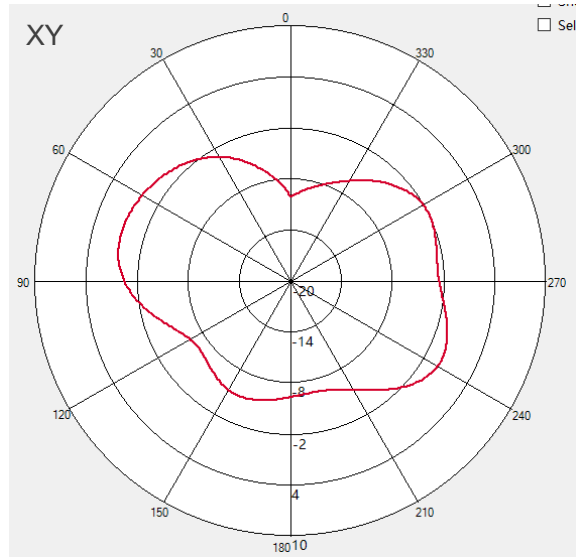
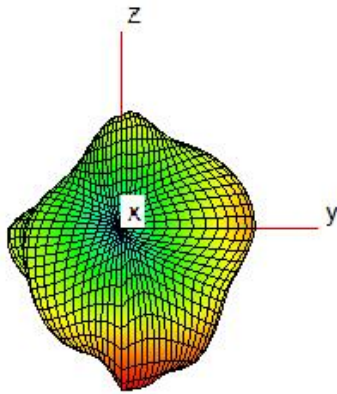




1575 MHz



1605 MHz



5. Product Size

ROHS

