

Antenna

YXH001AA Datasheet

Antenna Services

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Status: Released



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Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local office. For more information, please visit:

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About the Document

Revision History

Version	Date	Author	Note
1.0	2020-12-21	Kenny YIN	Initial
1.1	2021-01-12	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description.

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1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

2 Product Features

- Cellular 5G
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	700–960 MHz, 1710–2690 MHz, 3300–5000 MHz
Input Impedance	50 Ω
VSWR	≤ 4.0
Gain	≤ 4.5 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	285 mm \times 45 mm, RG195 Length = 1000 mm
Casing	ABS
Connector Type	SMA Male (center pin)
Working Temperature	-20 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Black
IP rating	IP65
Installation method	Magnet

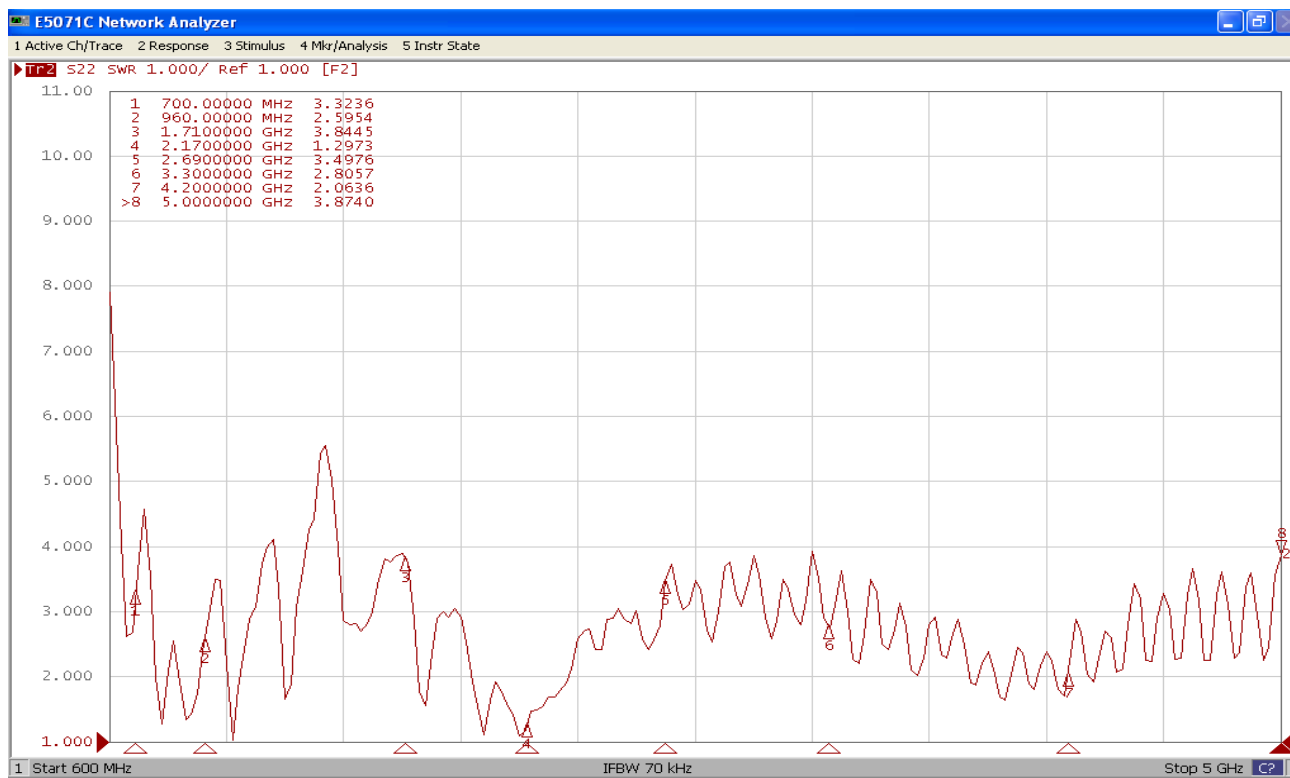
4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 KHz – 6.5 GHz.
- RayZone®2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.



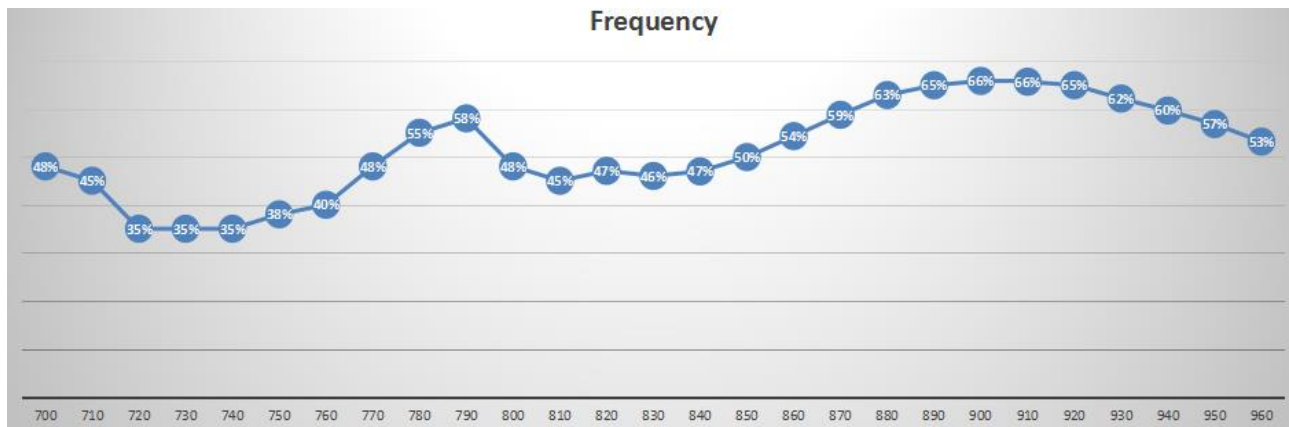
4.2. VSWR



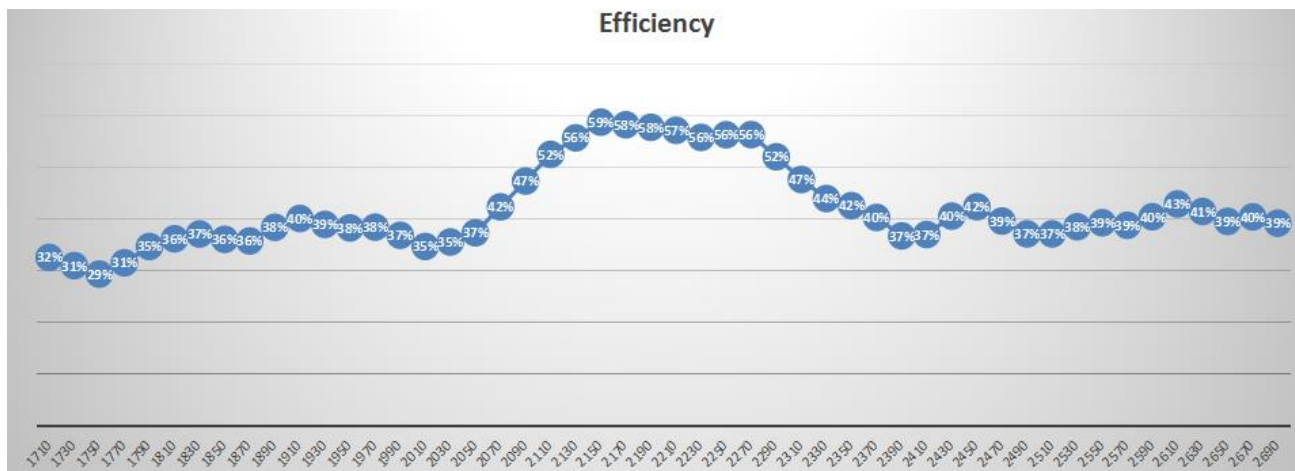
Frequency (MHz)	700	960	1710	2170	2690	3300	4200	5000
VSWR	3.32	2.59	3.84	1.29	3.49	2.80	2.06	3.87

4.3. Efficiency

- 700–960 MHz



- 1710–2690 MHz



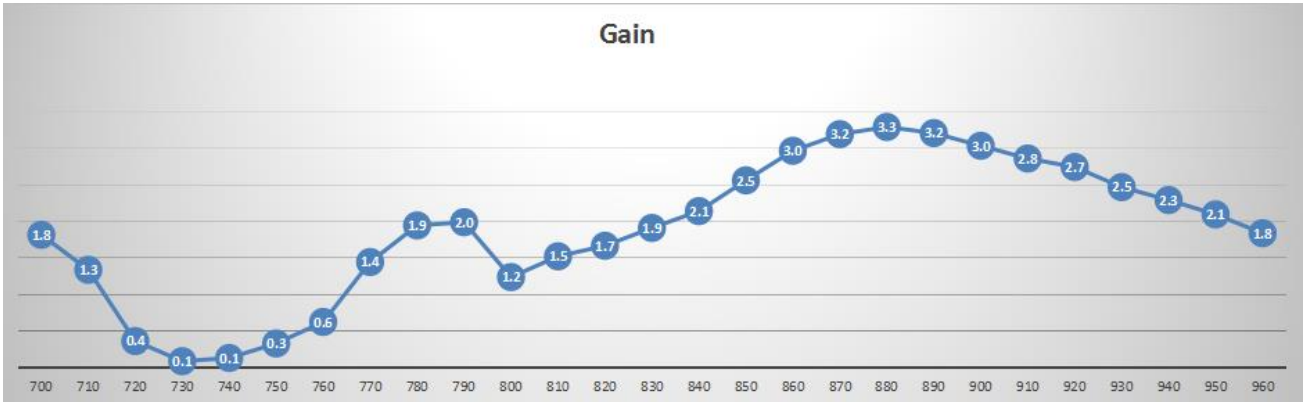
● 3300–5000 MHz



Frequency (MHz)	700	820	960	1710	2170	2450	2690	3300	4200	5000
Efficiency (%)	48	47	53	32	58	42	39	44	34	20

4.4. Gain

- 700–960 MHz



- 1710–2690 MHz

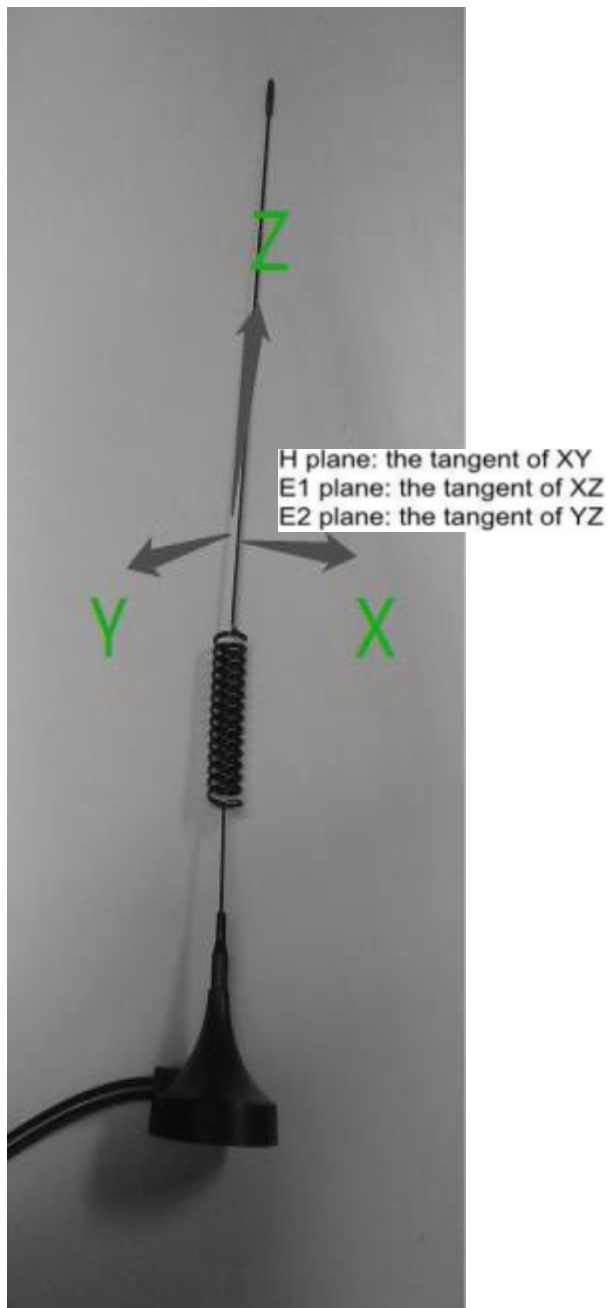


- 3300–5000 MHz

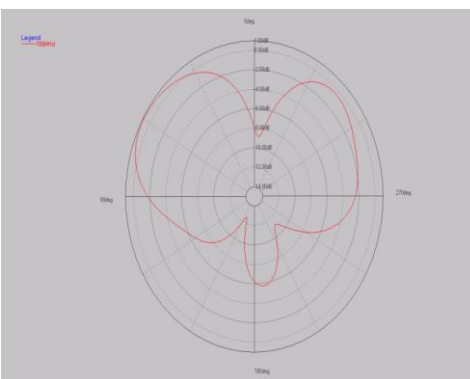
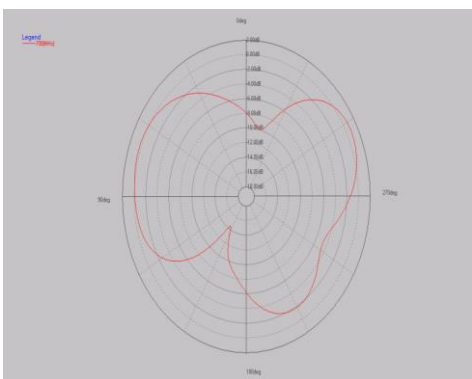
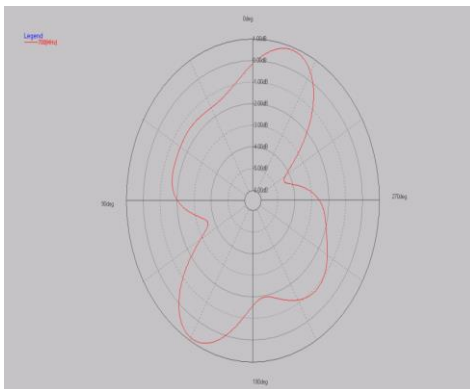
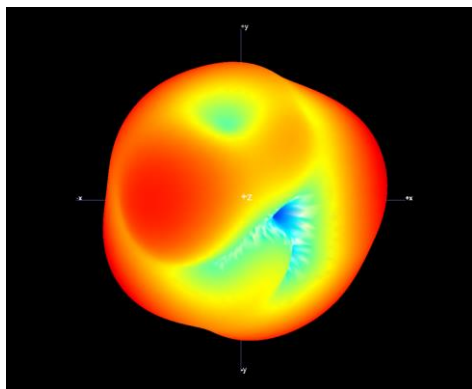


Frequency (MHz)	700	820	960	1710	2170	2450	2690	3300	4200	5000
Gain (dBi)	1.8	1.7	1.8	0.5	4.5	3.8	2.2	3.3	2.0	2.3

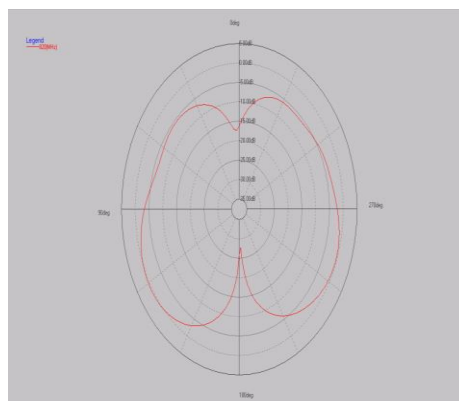
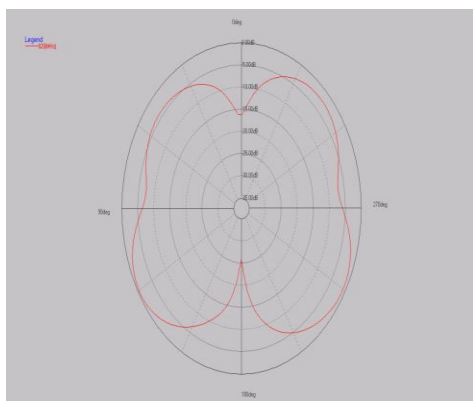
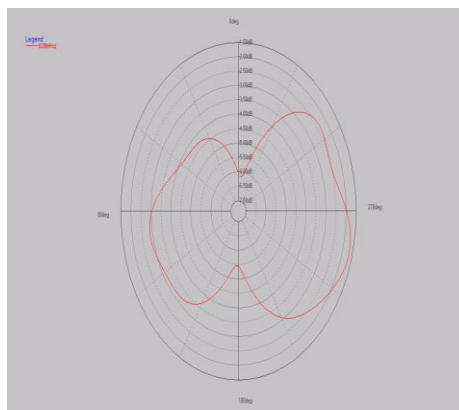
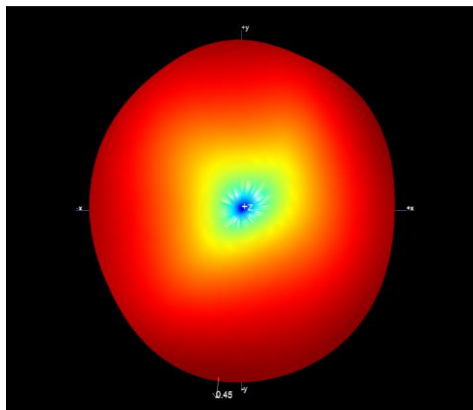
4.5. Radiation Patterns



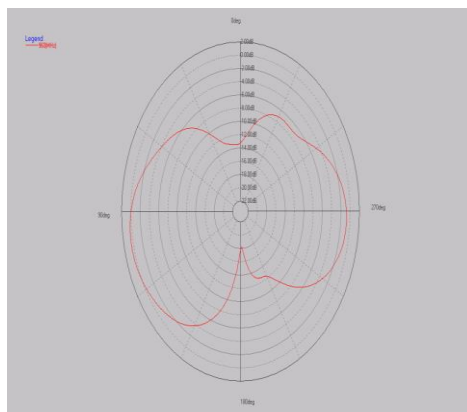
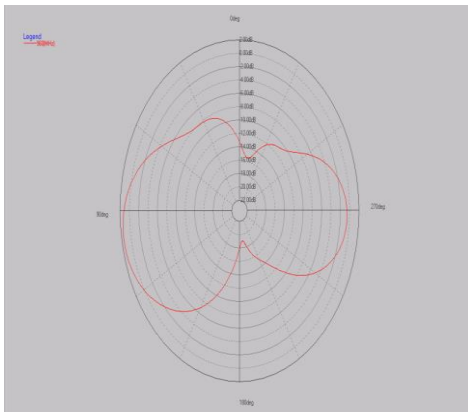
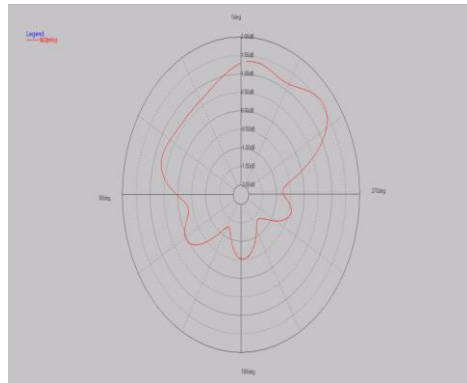
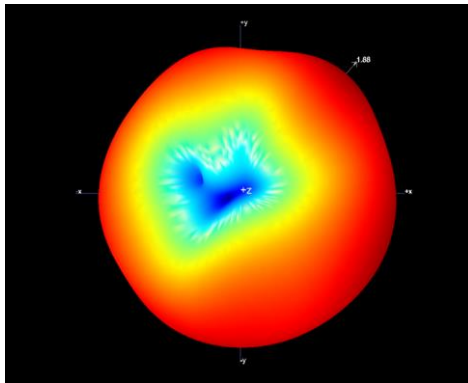
● 700 MHz



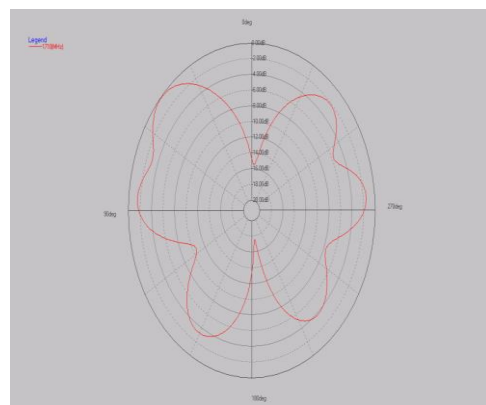
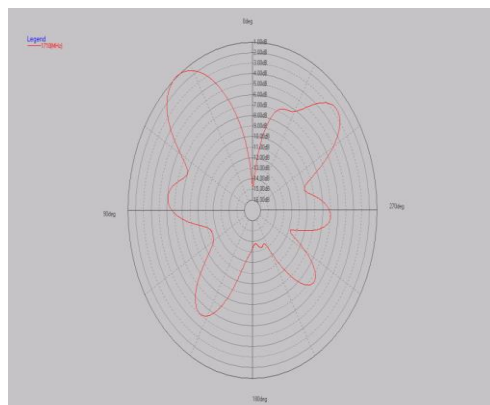
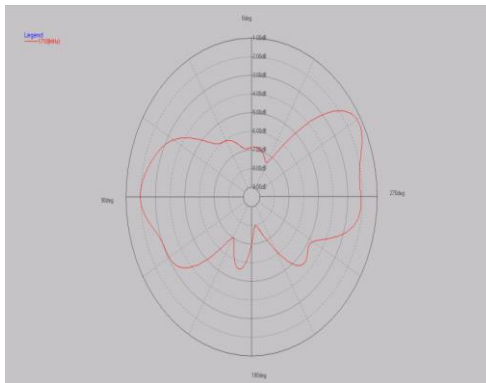
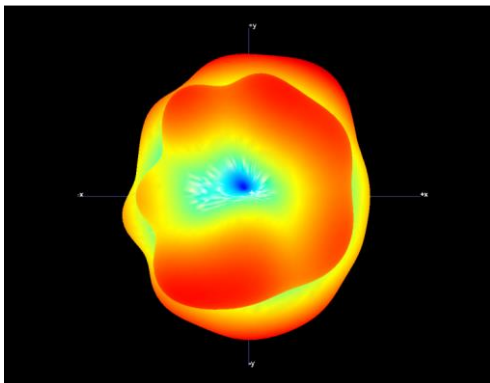
● 820 MHz



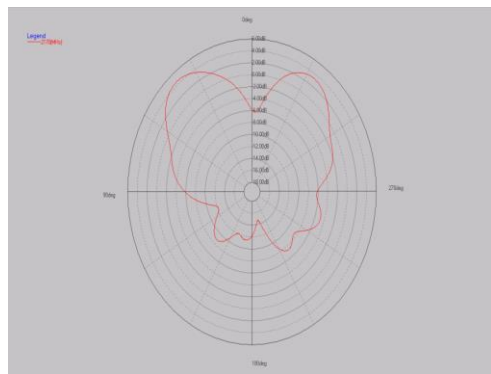
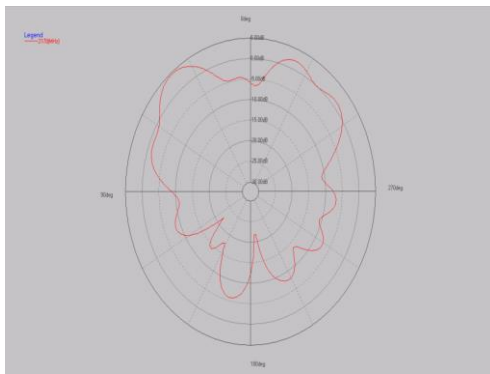
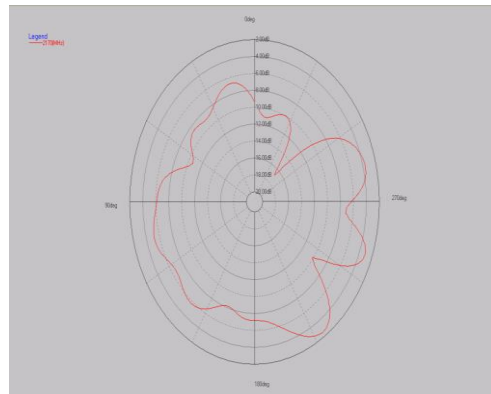
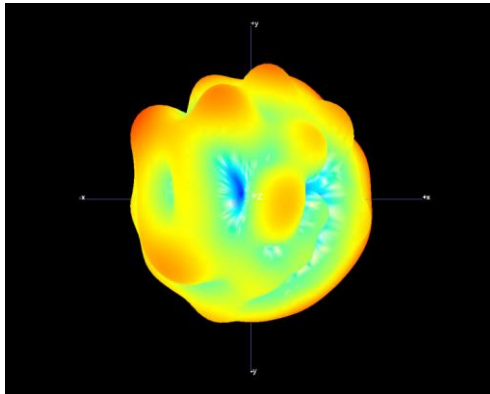
● 960 MH



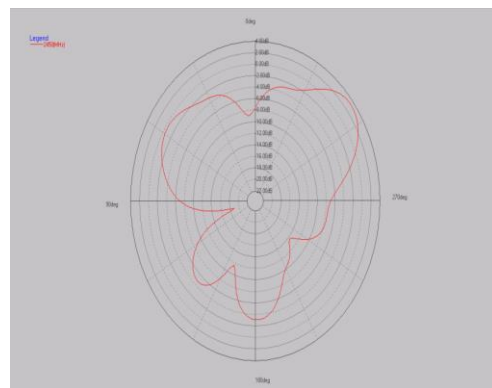
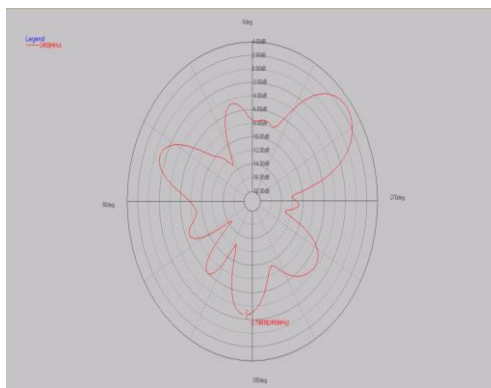
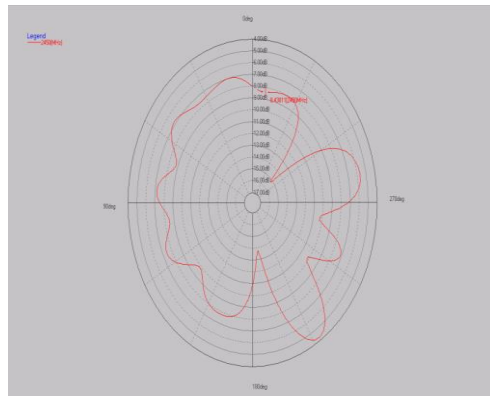
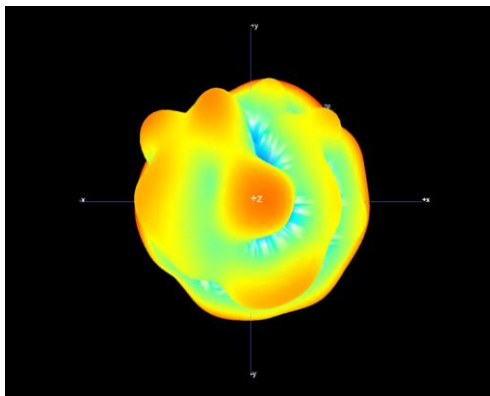
● 1710MHz



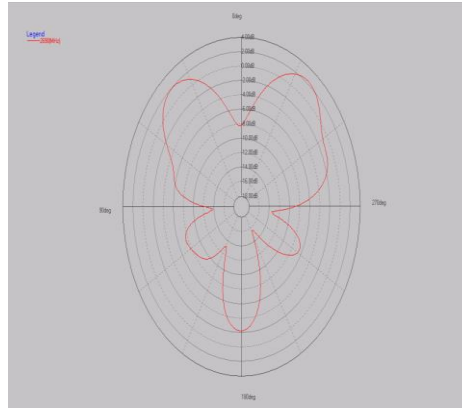
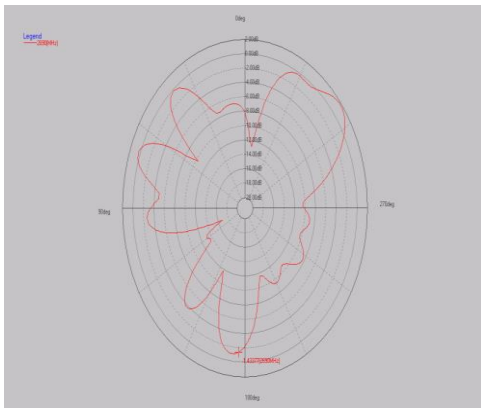
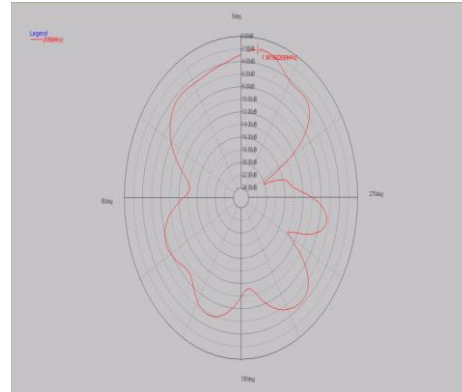
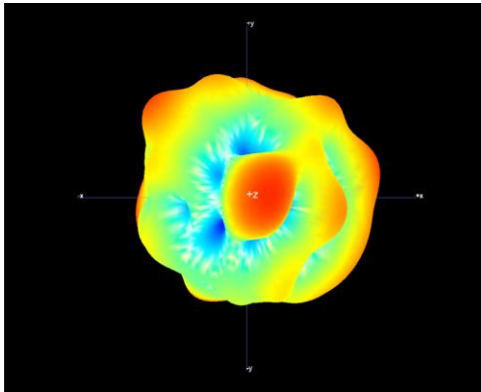
● 2170 MHz



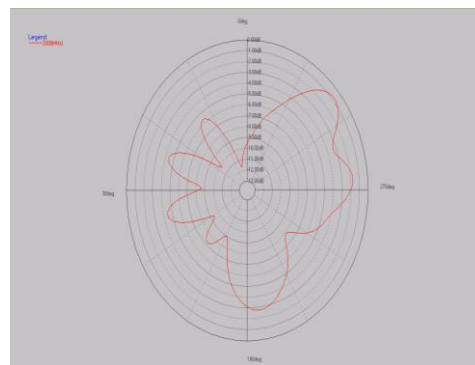
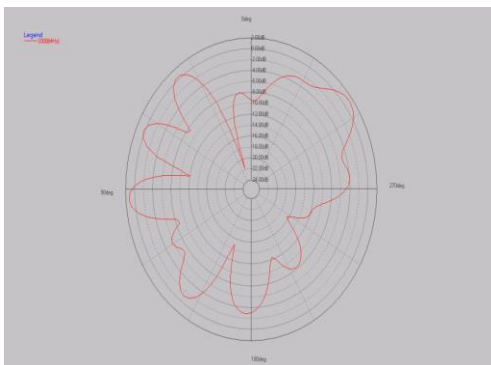
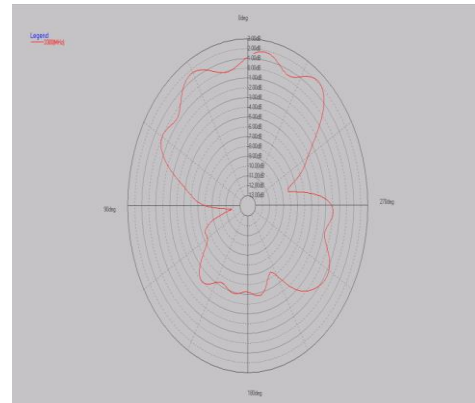
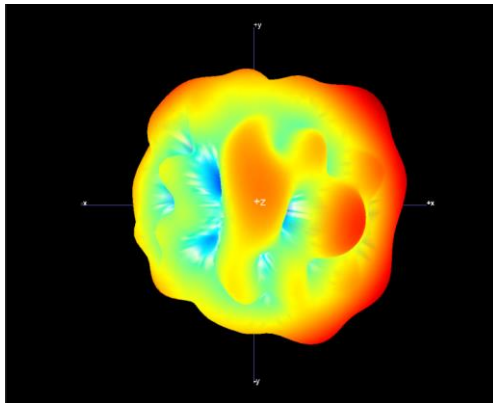
● 2450 MHz



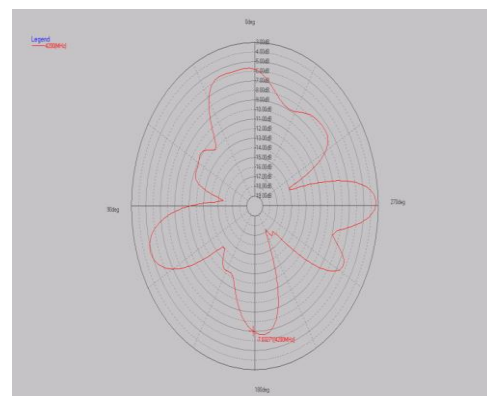
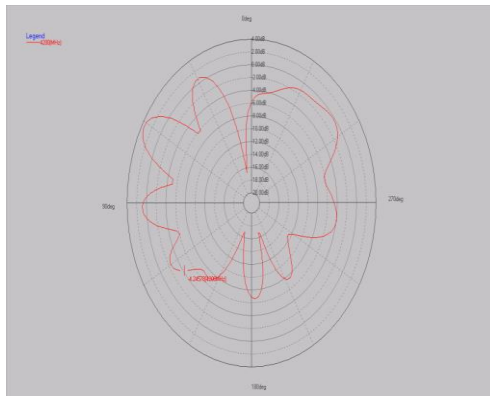
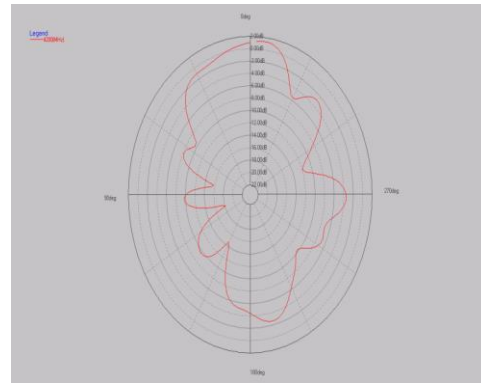
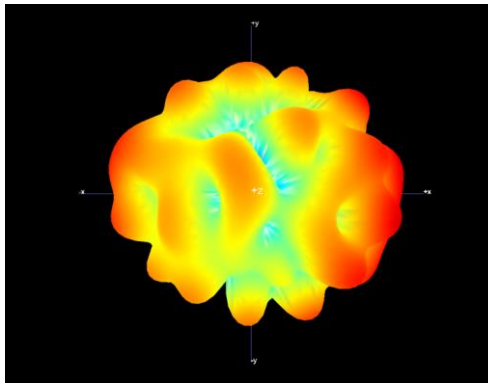
● 2690 MHz



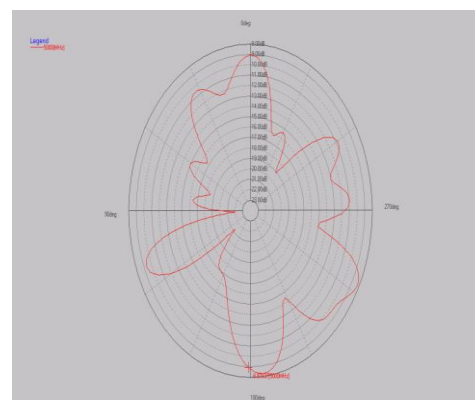
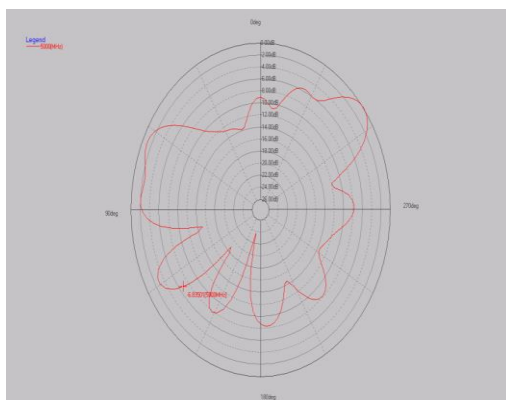
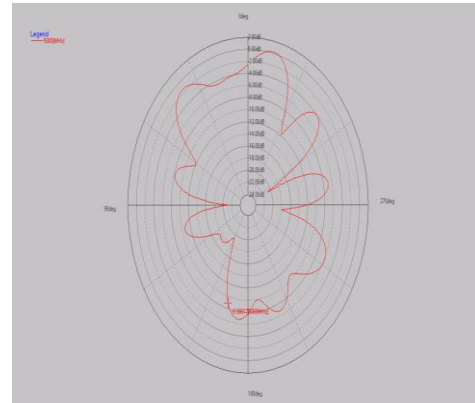
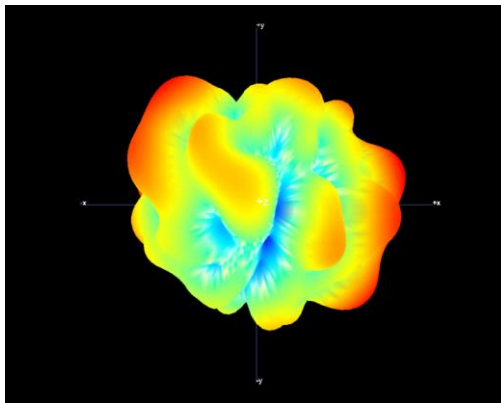
● 3300 MHz



● 4200 MHz



● 5000 MHz



5 Product Size

ROHS

