Antenna

YE0021CA Datasheet

Antenna Services

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Status: Released

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

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About the Document

Revision History

Version	Date	Author	Note
-	2021-08-13	Kenny YIN/ Riona HAN	Creation of the document
1.0	2021-08-13	Kenny YIN/ Riona HAN	First official release

Contents

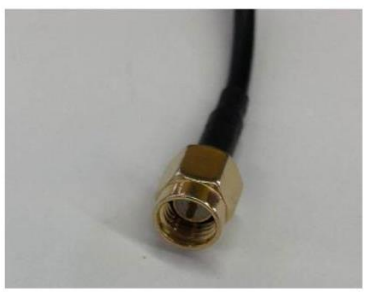
1 Product Description

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

- 4G sucker antenna
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications	
Frequency Range	690–960 MHz, 1710–2690 MHz
Input Impendence	50 Ω
VSWR	≤ 6.43
Gain	≤ 2.94 dBi
Polarization Type	Vertical

Detailed Passive Electrical Specifications

Frequency Range (MHz)	698–960	1176–1280	1400–1610	1710–2170	2170–2690	3300–4000	4000–5000	5000–6000
VSWR (Max.)	4.01	-	-	6.43	3.96	3.84	-	-
Average Efficiency (%)	60	-	-	52	41	43	-	-
Max. Peak Gain (dBi)	1.25	-	-	2.94	2.6	-2.0	-	-

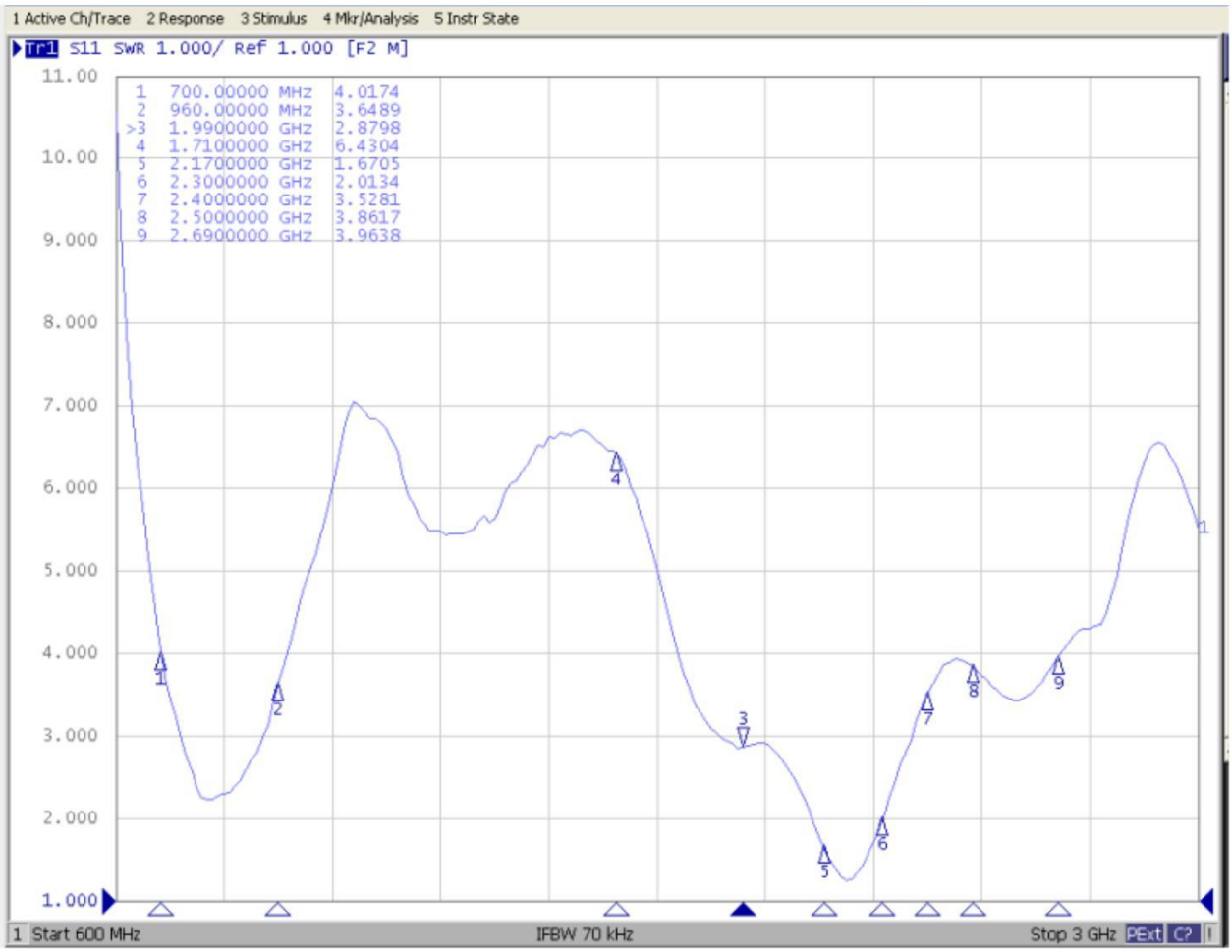
Mechanical Specifications	
Antenna Size	112 mm x 29.8 mm RG174 Cable Length = 2000 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-20 °C to +60 °C
Radome Color	Black
Mounting Type	Magnet
IP Rating	IP65

4 Overall Performance

4.1. Test Environment

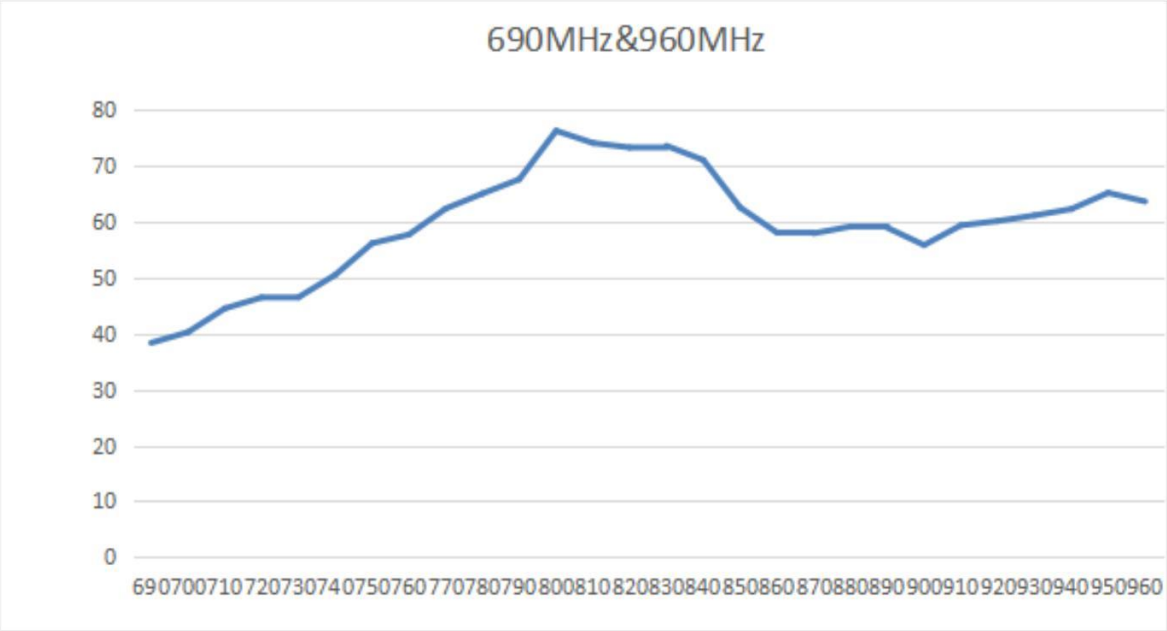
- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 8.0 GHz

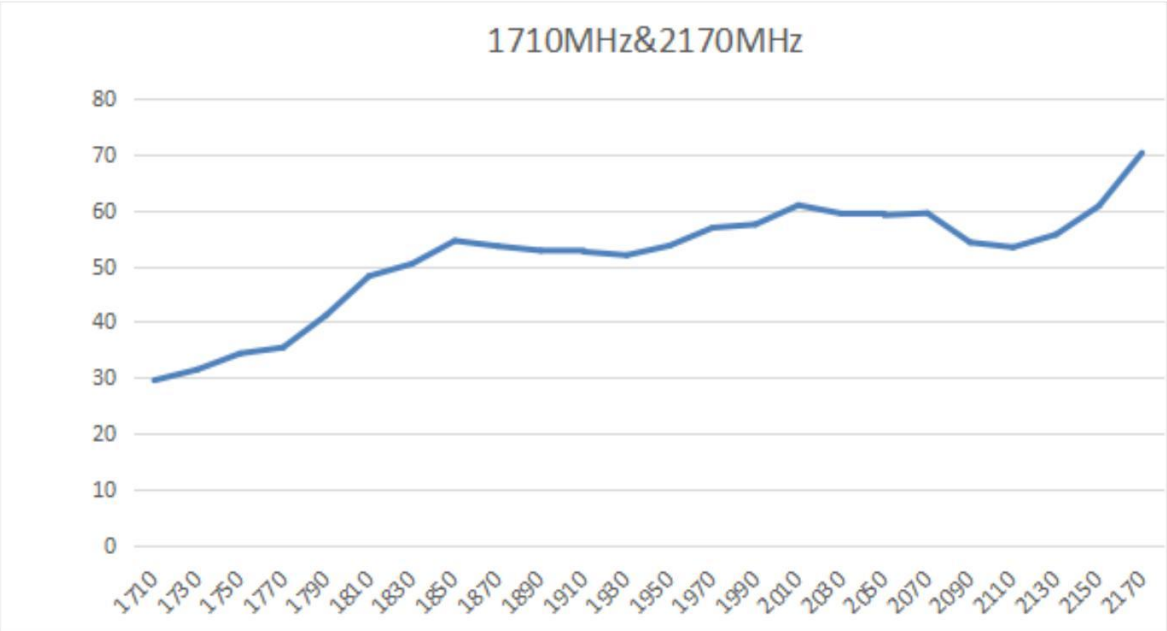
4.2. VSWR

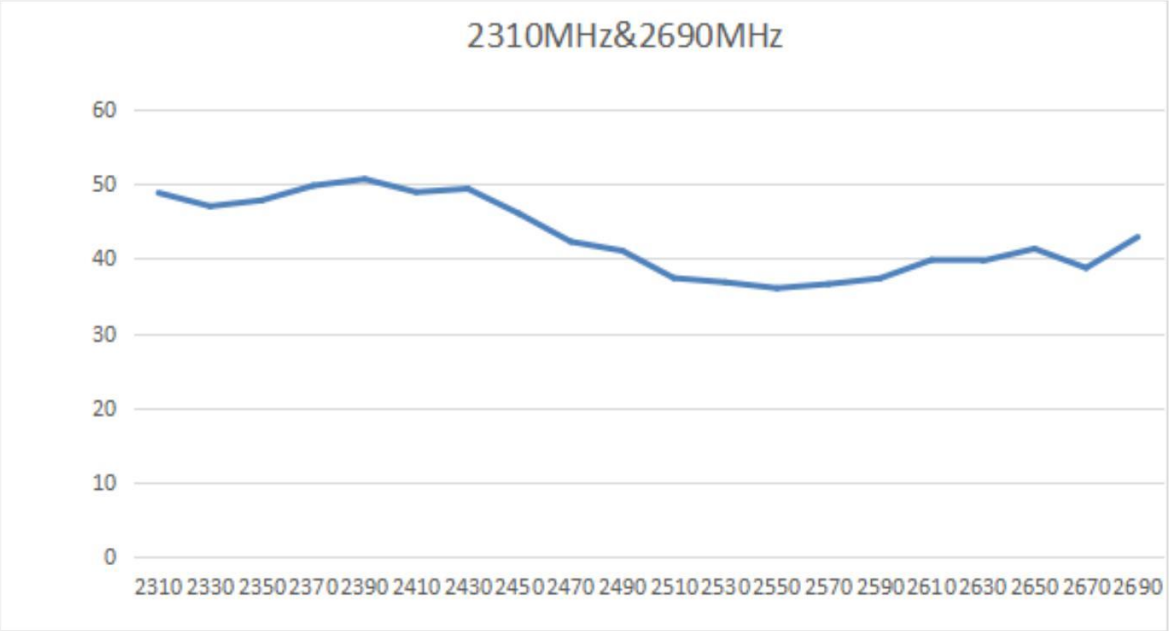


Frequency (MHz)	700	960	1710	1990	2170	2300	2400	2690
VSWR	4.01	3.65	6.43	2.88	1.67	2.01	3.53	3.96

4.3. Efficiency

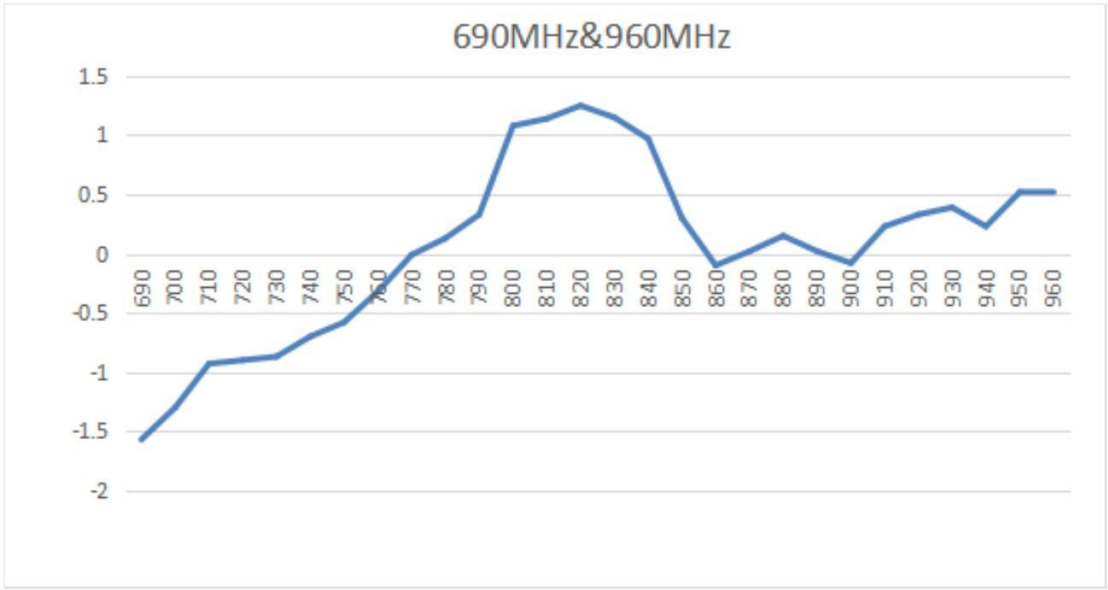


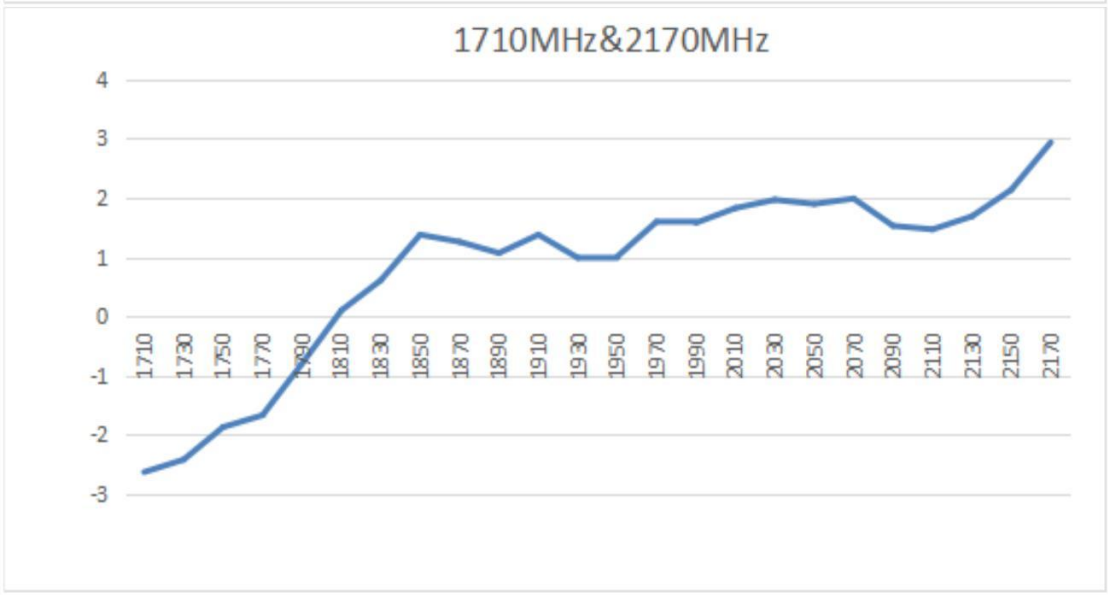


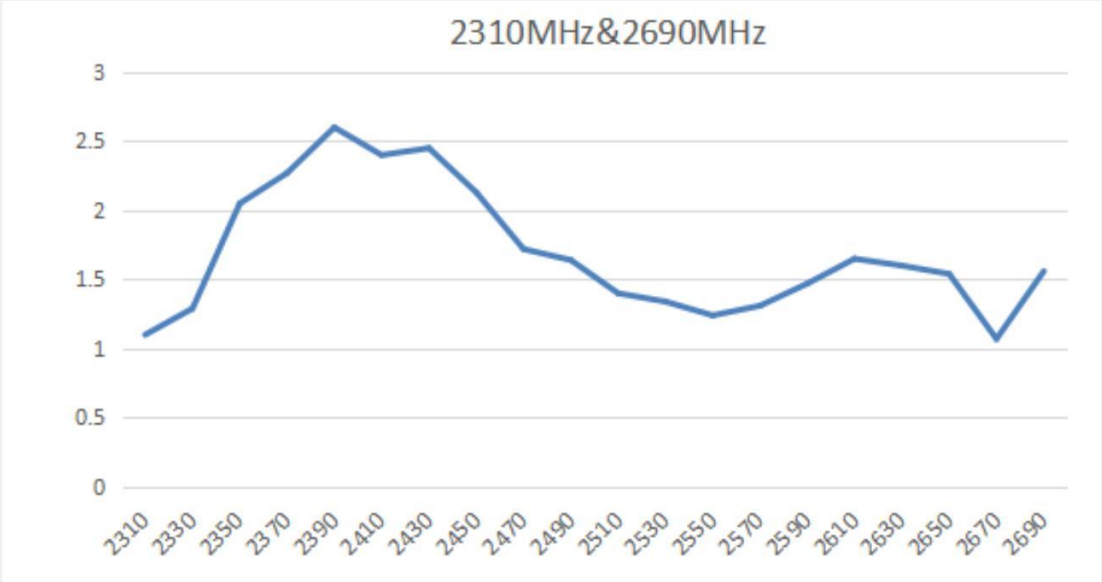


Frequency (MHz)	690	790	820	960	1710	2170	2310	2410	2690
Efficiency (%)	68.31	67.54	73.22	63.58	29.57	70.21	48.83	48.93	42.91

4.4. Gain

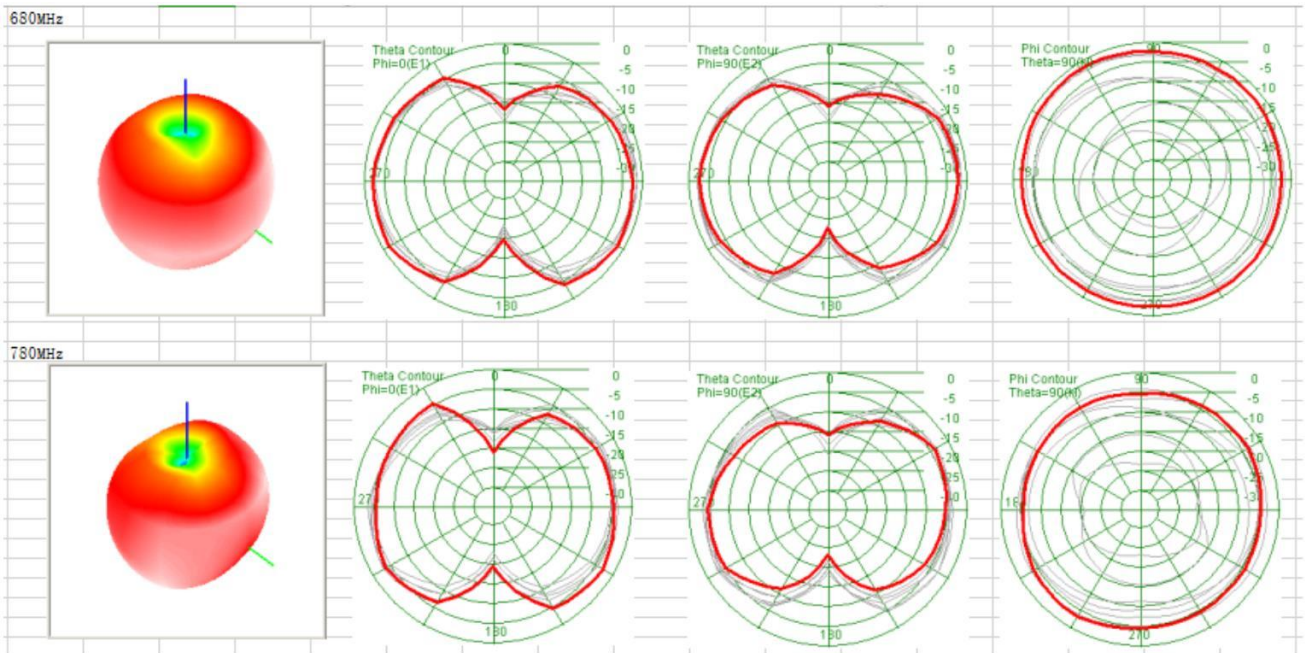

690MHz&960MHz
1.5
1
0.5
0
-0.5
-1
-1.5
-2
690
700
710
720
730
740
750
760
770
780
790
800
810
820
830
840
850
860
870
880
890
900
910
920
930
940
950
960

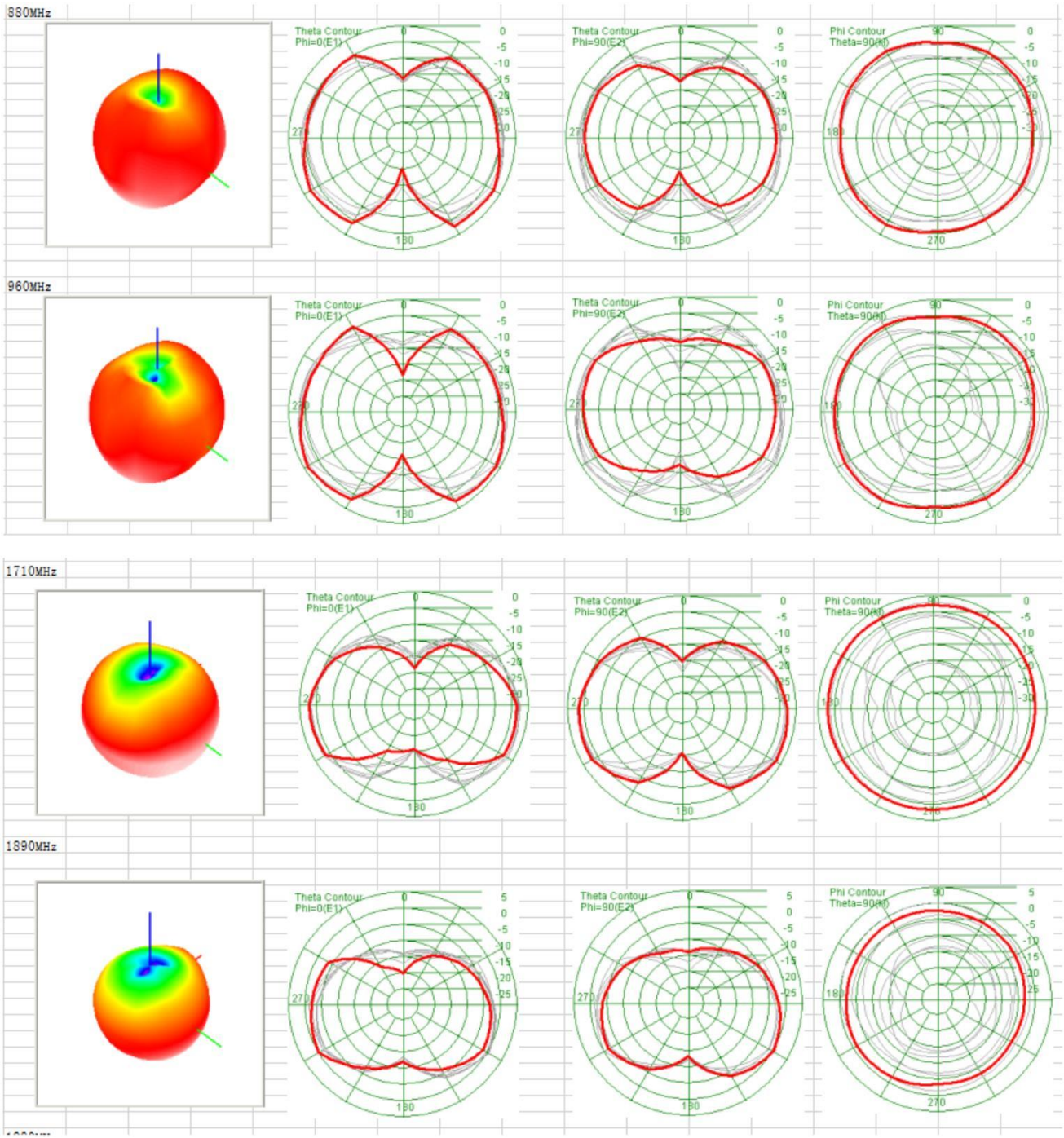

1710MHz&2170MHz
4
3
2
1
0
-1
-2
-3
1710
1730
1750
1770
1790
1810
1830
1850
1870
1890
1910
1930
1950
1970
1990
2010
2030
2050
2070
2090
2110
2130
2150
2170



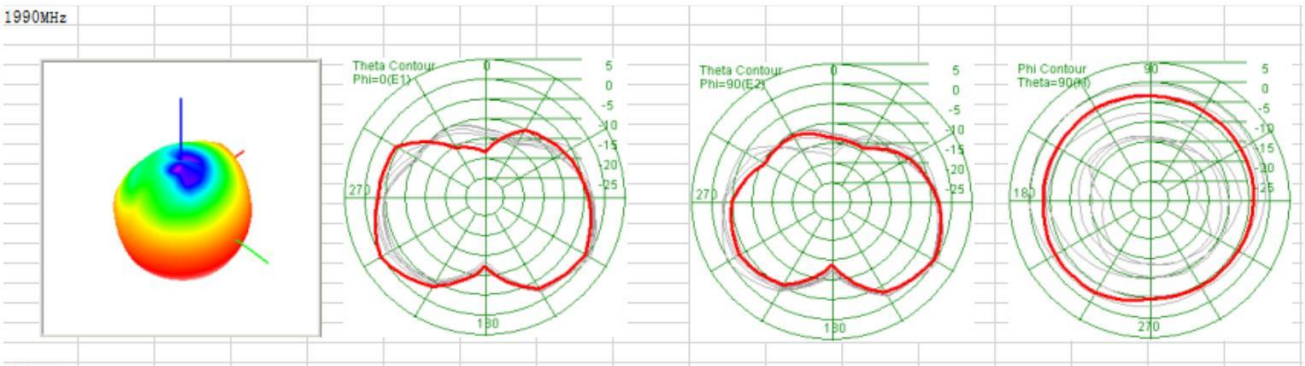
Frequency (MHz)	690	790	820	960	1710	2170	2310	2410	2690
Gain (dBi)	-1.57	0.33	1.25	0.52	-2.63	2.94	1.1	2.4	1.56

4.5. Radiation Pattern

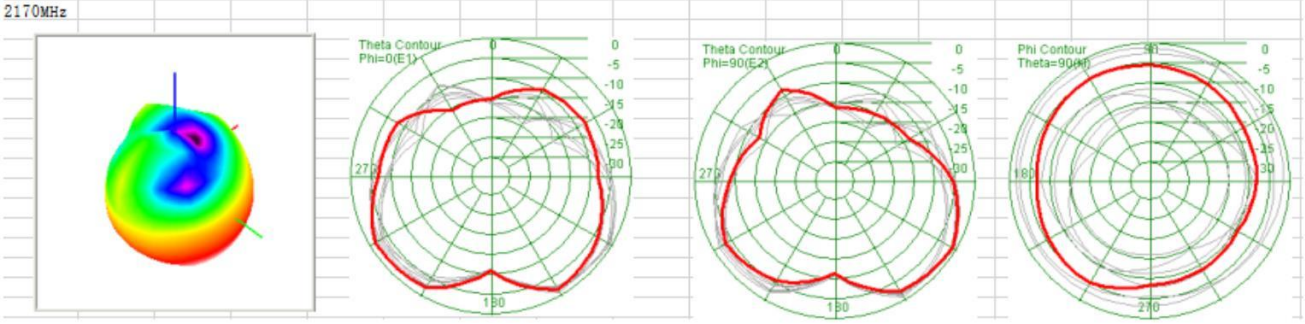



880MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)
960MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)
1710MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)
1890MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)

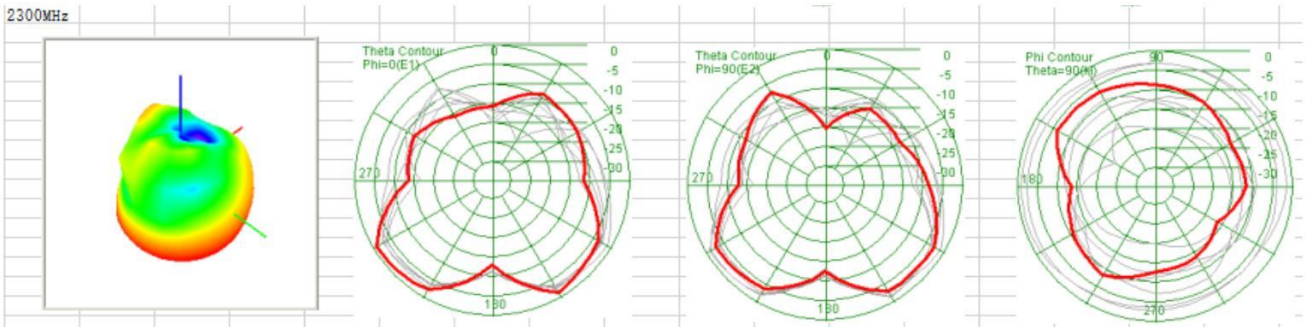
1990MHz



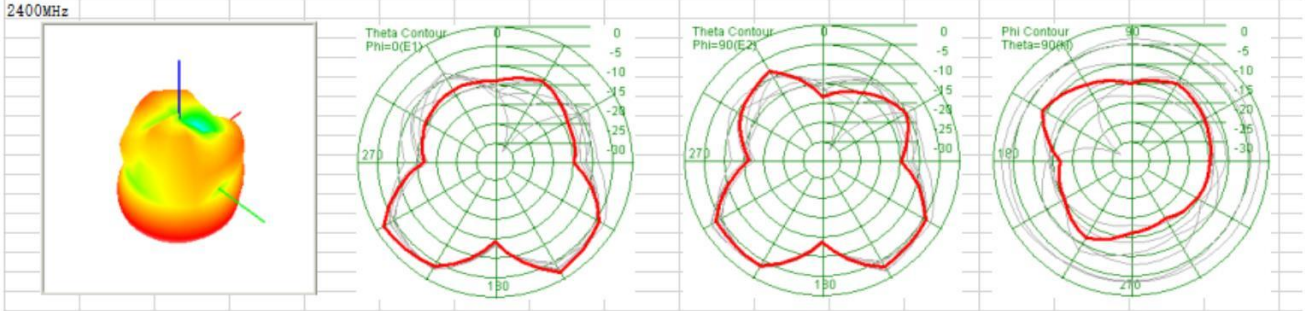
2170MHz

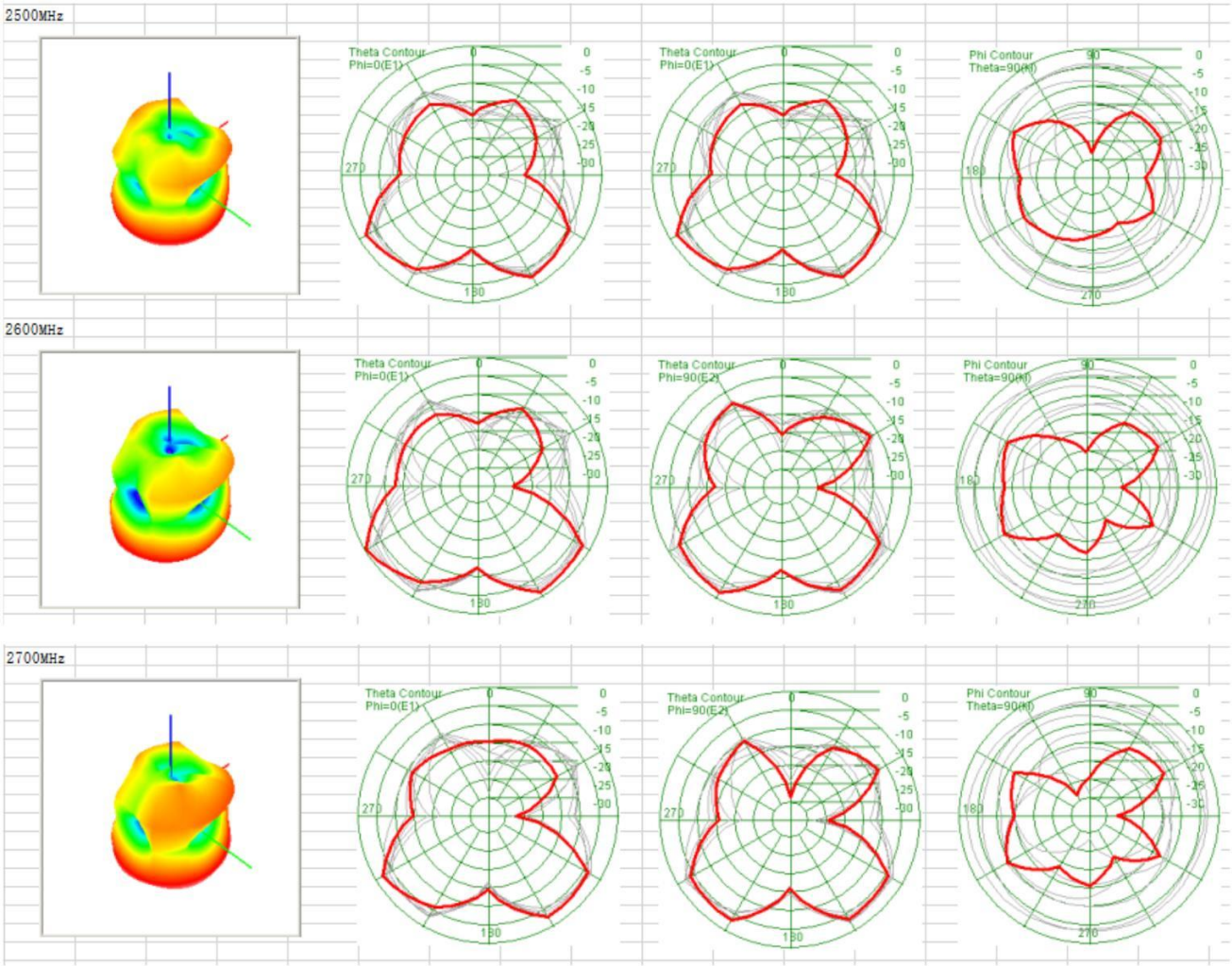


2300MHz



2400MHz




2500MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=0(E1)
Phi Contour
Theta=90(H)
2600MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)
2700MHz
Theta Contour
Phi=0(E1)
Theta Contour
Phi=90(E2)
Phi Contour
Theta=90(H)

5 Product Size

RoHS