Antenna

YF0007AA Datasheet

Antenna Services

Version: 1.2

Date: 2020-12-11

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

Revision History

Version	Date	Author	Note
1.0	2020-06-08	Kenny YIN	Initial
1.1	2020-11-19	Kenny YIN	Updated the antenna picture with the new silkscreen in Chapter 1.
1.2	2020-12-11	Kenny YIN	Updated the antenna picture in Chapter 2.

Contents

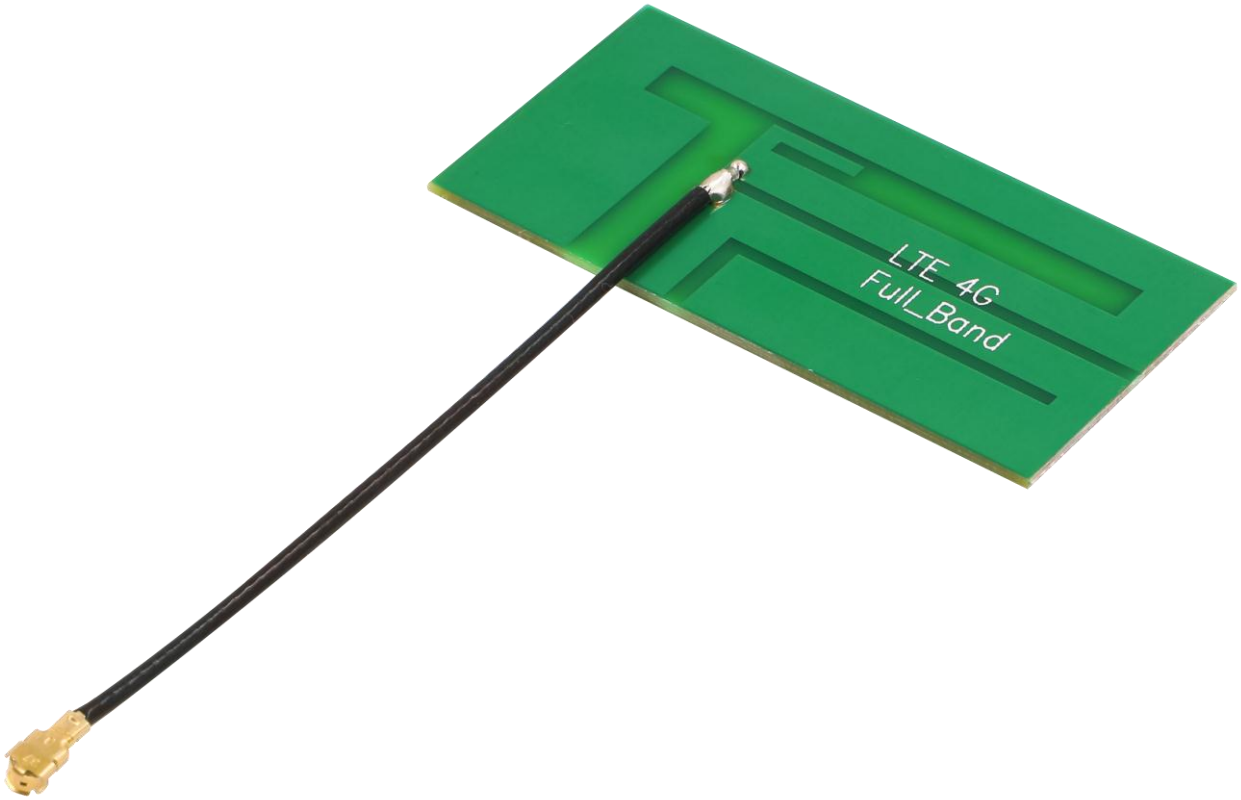
1 Product Description

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

- LTE Full-Band Antenna
- High efficiency
- Excellent performance



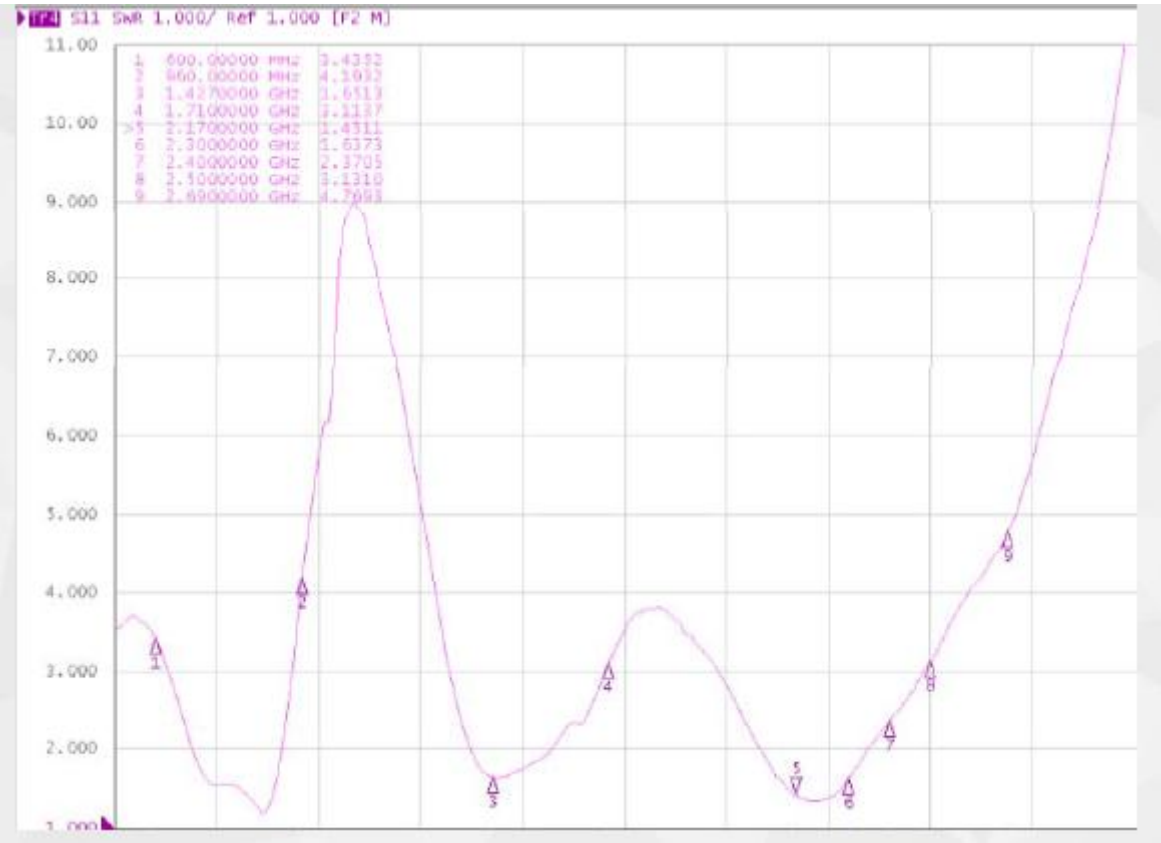
3 Product Specifications

Passive Electrical Specifications	
Frequency Range	600–960 MHz, 1427.9–1495.9 MHz, 1710–2170 MHz, 2300–2700 MHz
Input Impendence	50 Ω
VSWR	≤ 5.0
Gain	≤ 4.7 dBi
Polarization Type	Linear
Mechanical Specifications	
Antenna Size	50 mm × 25 mm × 0.85 mm
Casing	FR4
Connector Type	U.FL
Working Temperature	-20 °C to +80 °C
Radome Color	Green

4 Overall Performance

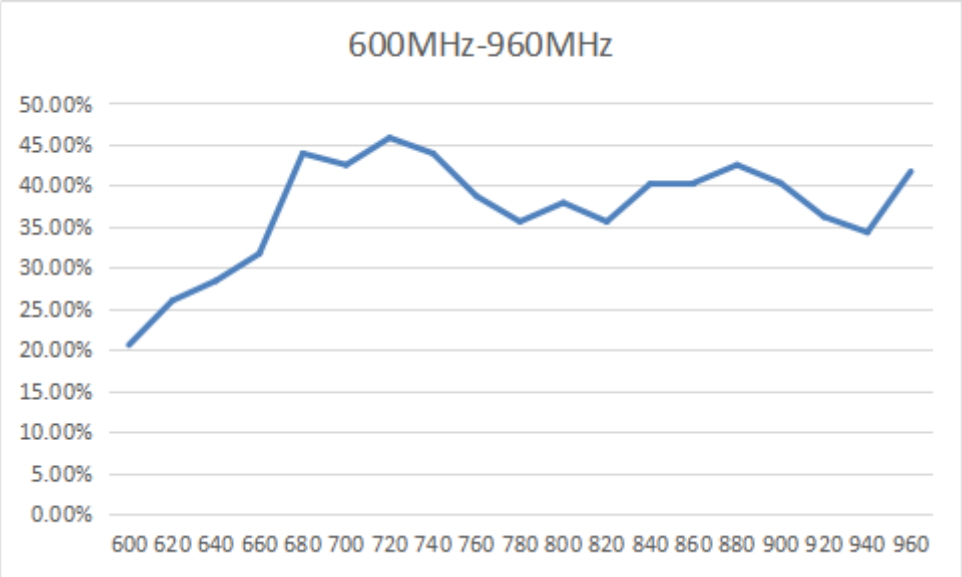
- Test Environment
  - KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 6.5 GHz.
  - RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.

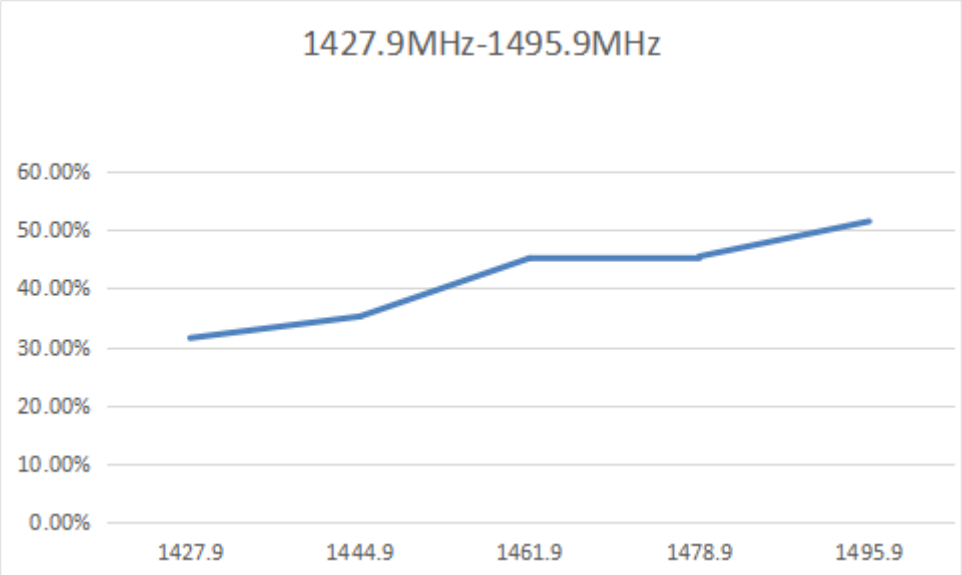
- VSWR

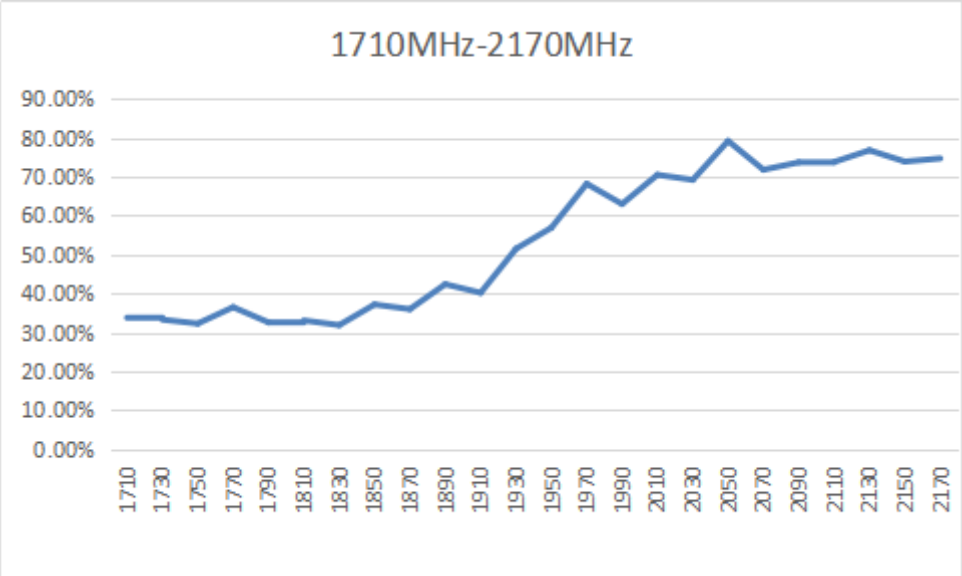


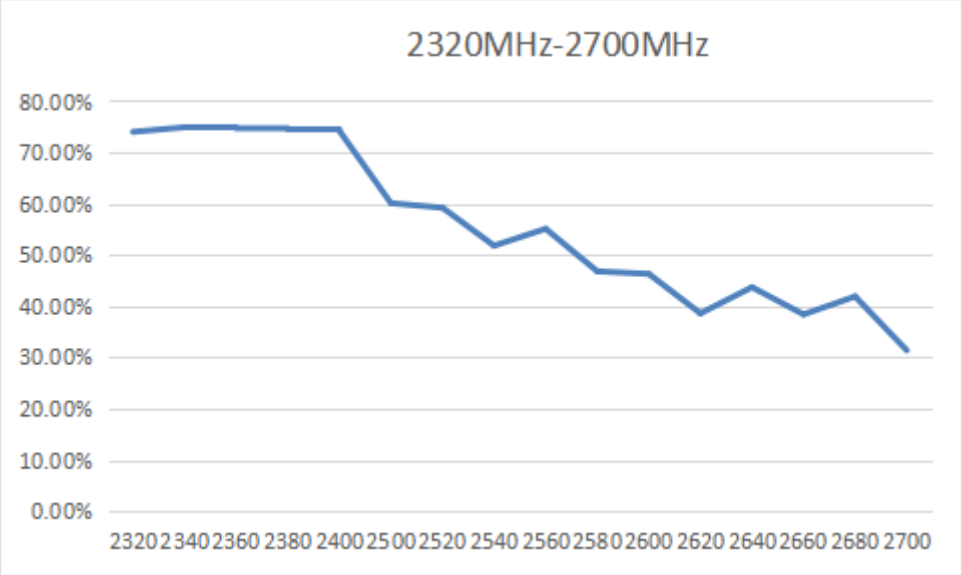
Frequency(MHz)	600	960	1427	1710	2170	2300	2400	2500	2690
VSWR	3.44	4.19	1.65	3.11	1.43	1.64	2.37	3.14	4.77

- Efficiency


600MHz-960MHz
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960

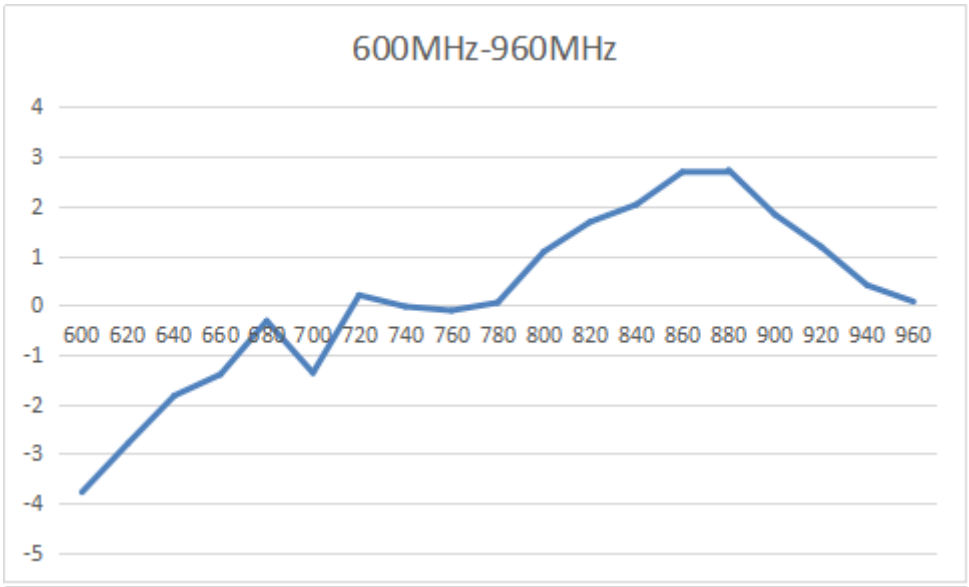

1427.9MHz-1495.9MHz
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
1427.9
1444.9
1461.9
1478.9
1495.9

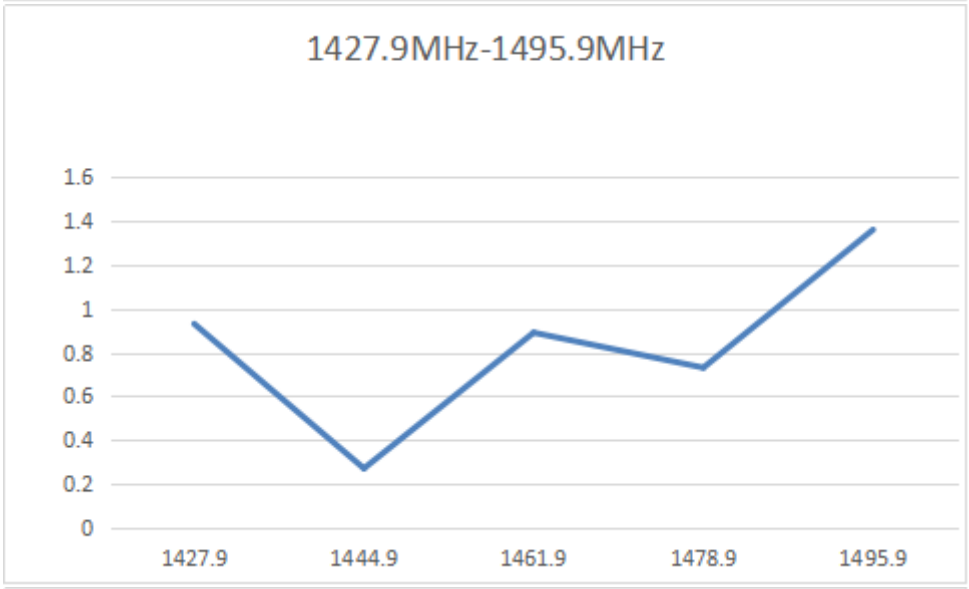

1710MHz-2170MHz
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
1710 1730 1750 1770 1790 1810 1830 1850 1870 1890 1910 1930 1950 1970 1990 2010 2030 2050 2070 2090 2110 2130 2150 2170

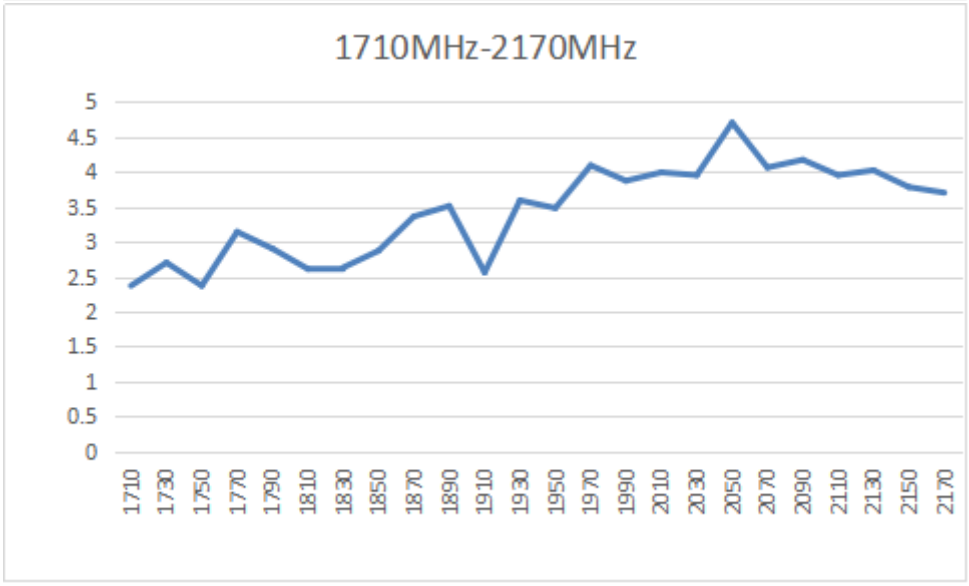


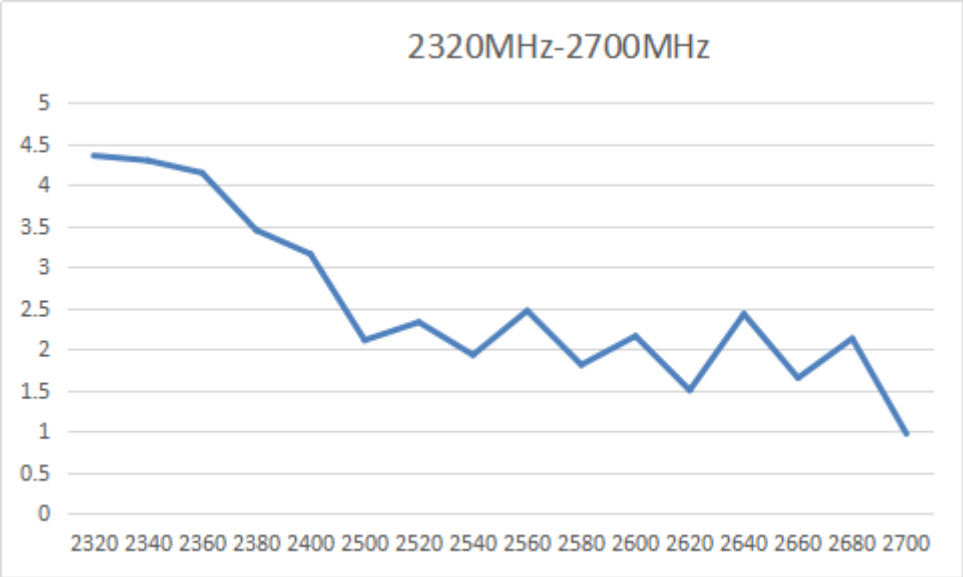
Frequency(MHz)	600	820	960	1710	1990	2170	2320	2580	2680
Efficiency(%)	43.9	35.6	41.7	33.8	63	74.7	74	46.8	41.9

- Gain


600MHz-960MHz
4
3
2
1
0
-1
-2
-3
-4
-5
600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960

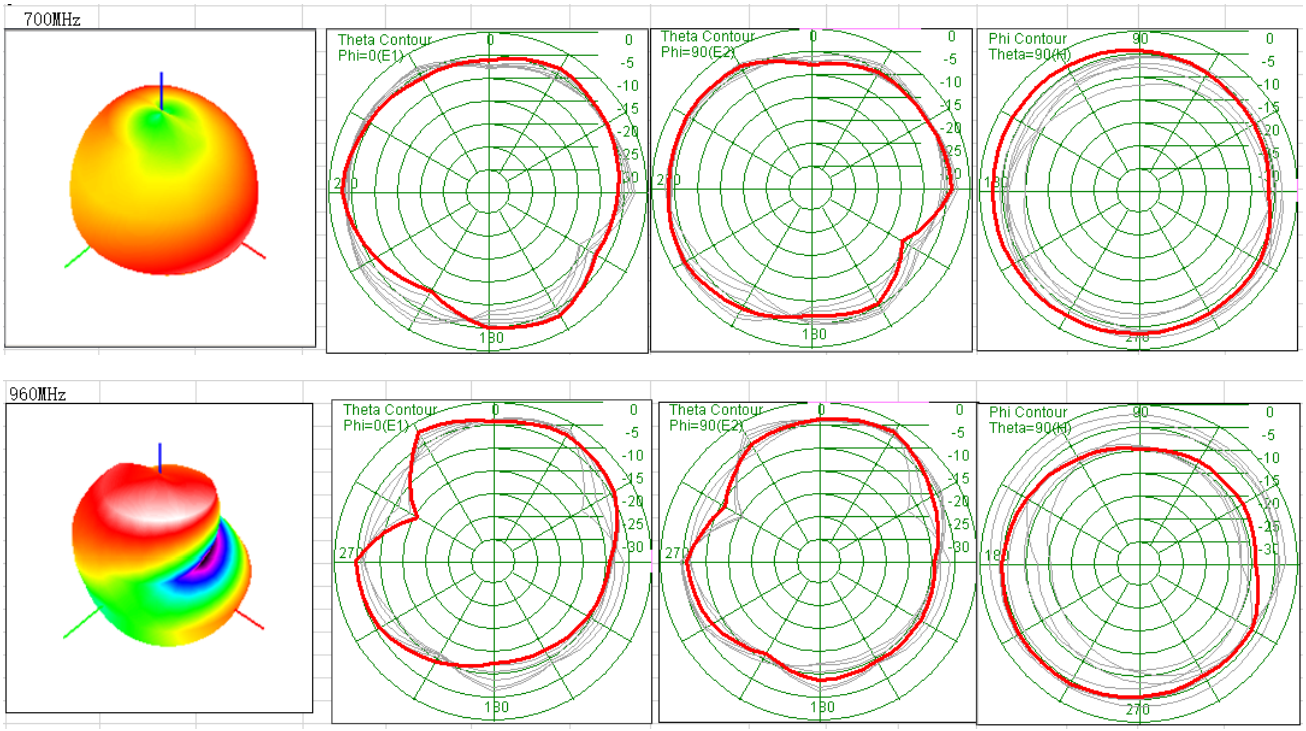

1427.9MHz-1495.9MHz
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1427.9
1444.9
1461.9
1478.9
1495.9


1710MHz-2170MHz
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1710 1730 1750 1770 1790 1810 1830 1850 1870 1890 1910 1930 1950 1970 1990 2010 2030 2050 2070 2090 2110 2130 2150 2170

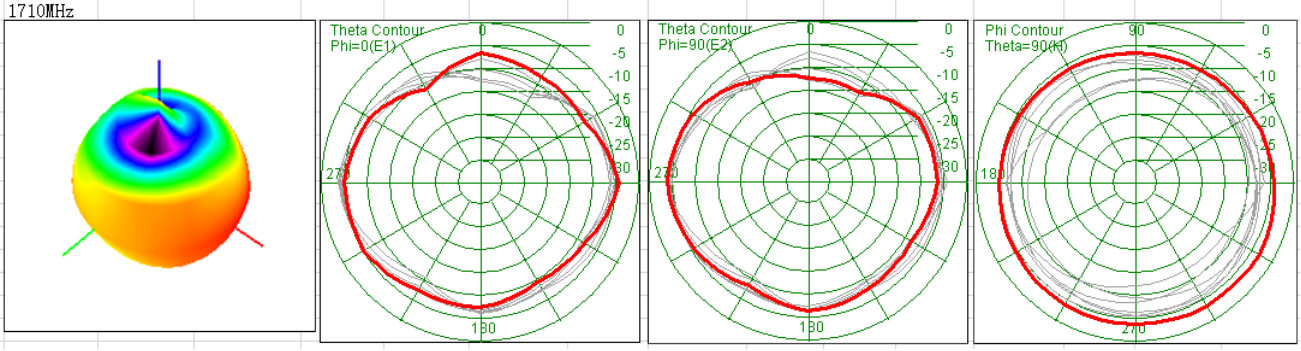


Frequency(MHz)	600	960	1427	1710	2170	2320	2400	2500	2680
Gain(dBi)	-3.78	0.07	0.93	2.37	3.7	4.36	3.16	2.11	2.13

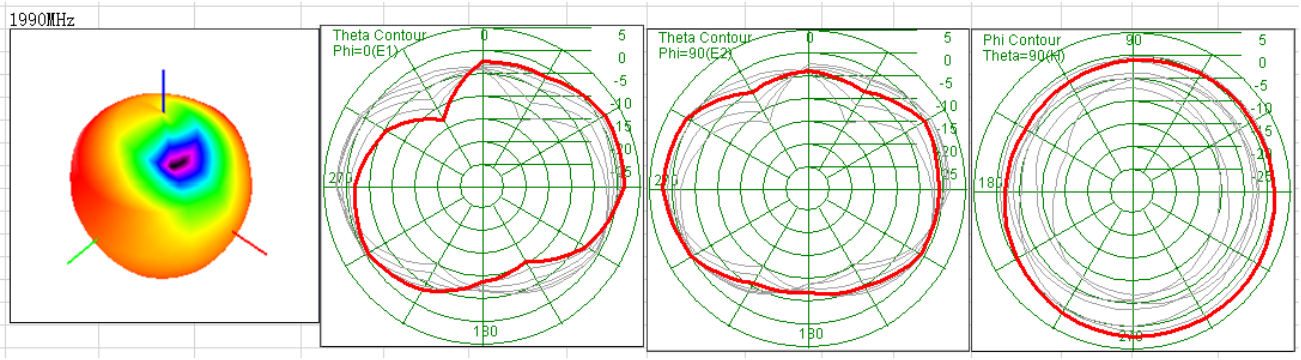
- Radiation Patterns



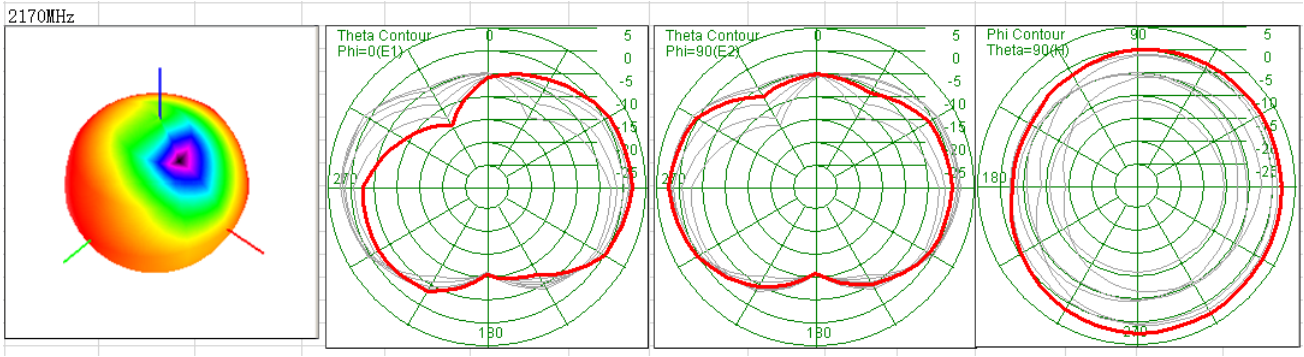
1710MHz



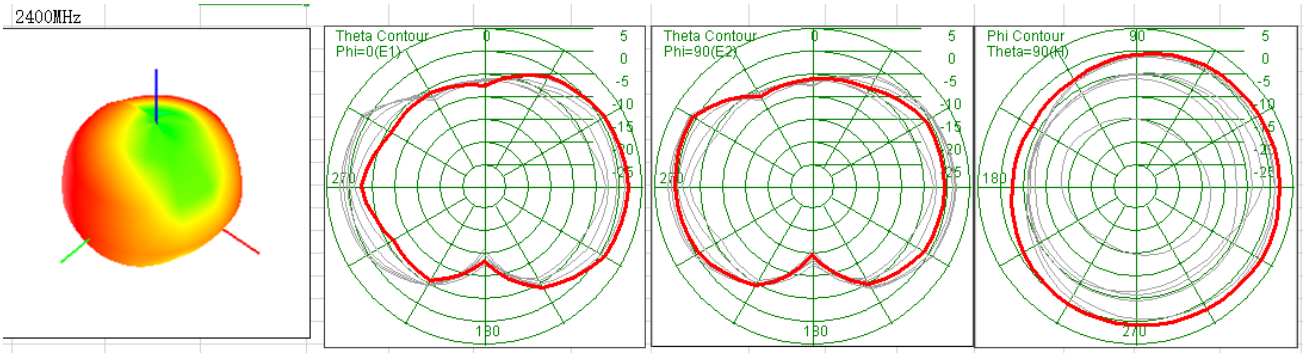
1990MHz



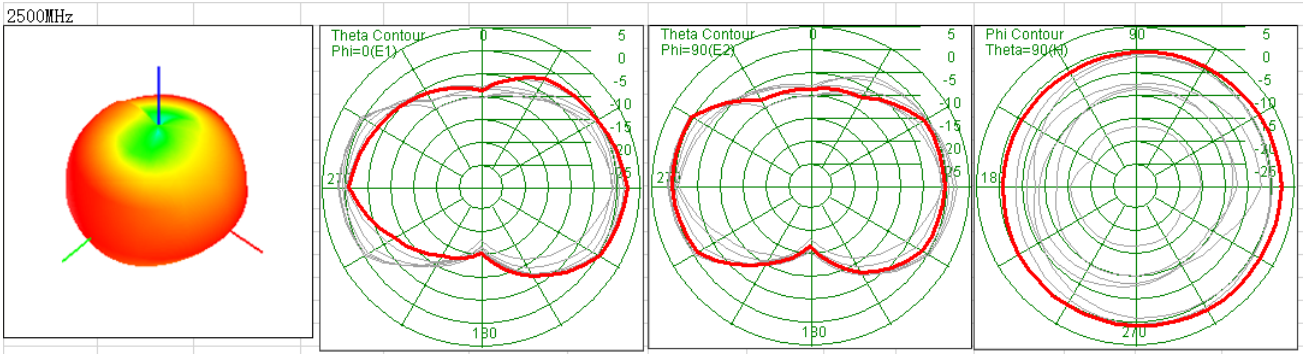
2170MHz

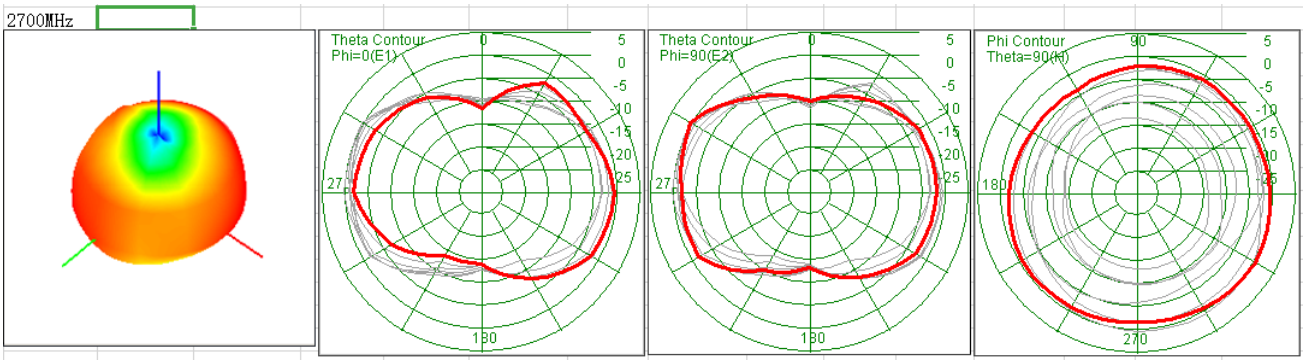


2400MHz



2500MHz





5 Product Size