

Antenna

YE0013AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2020-06-23	Kenny YIN	Creation of the document
1.0	2020-06-23	Kenny YIN	First official release
1.1	2020-12-15	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Updated connector description.

Contents

About the Document	3
Contents	4
1 Product Description.....	5
2 Product Features	5
3 Product Specifications	6
4 Overall Performance.....	7
4.1. Test Environment	7
4.2. VSWR.....	8
4.3. Efficiency	9
4.4. Gain.....	9
4.5. Radiation Patterns.....	10
5 Product Size	17

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 LTE
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	700–2700 MHz
Input Impedence	50 Ω
VSWR	≤ 3.0
Gain	≤ 2.5 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	115.4 mm x 17.5 mm x Φ 10.2 mm
Casing	TPEE
Connector Type	SMA Male (center pin)
Working Temperature	-20 °C to +70 °C
Radome Color	Black
Water proof grade	IP66

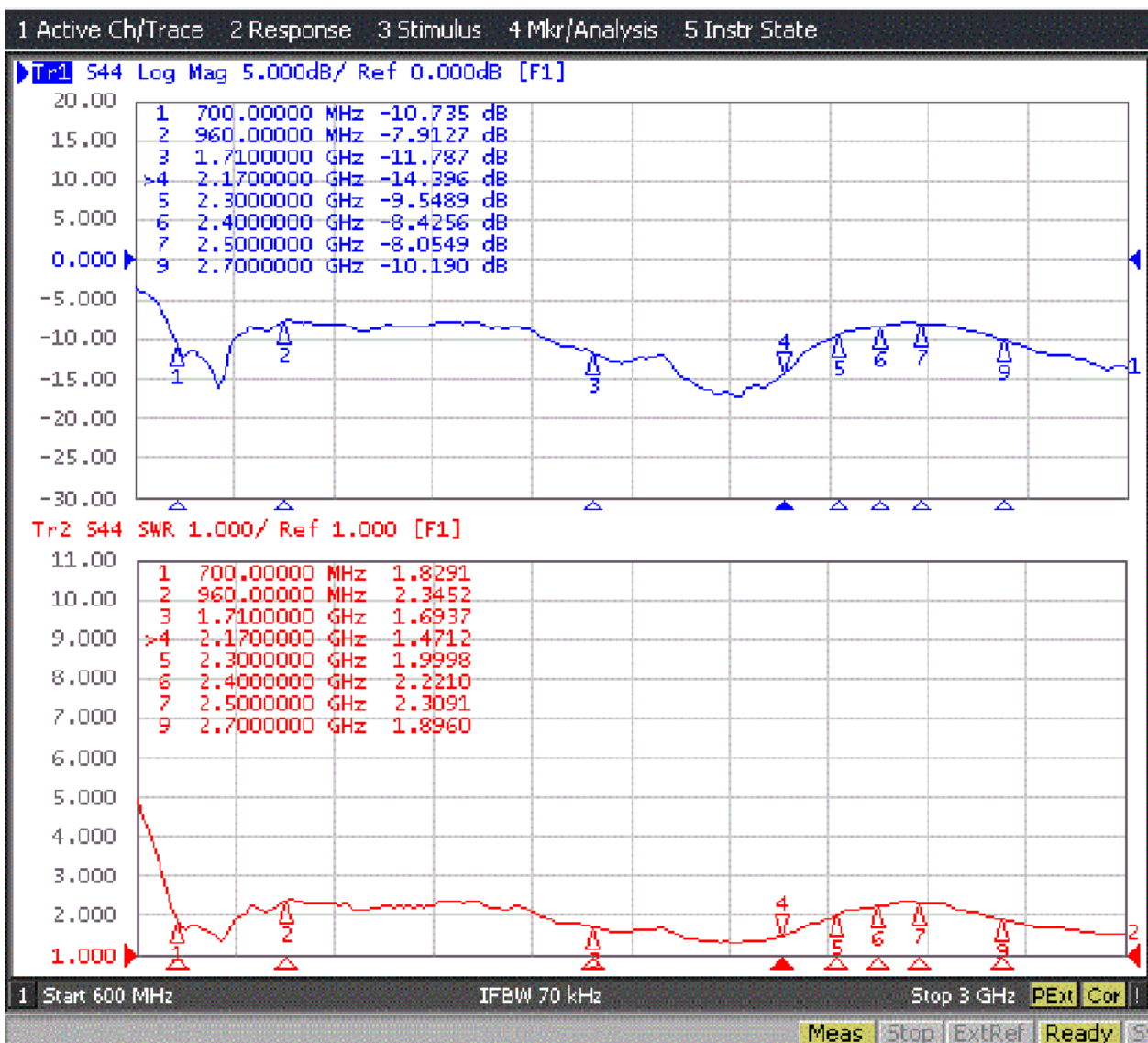
4 Overall Performance

4.1. Test Environment

- Agilent Technologies Network Analyzer E5071B 300 kHz – 8.5 GHz.
- SATEM24 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.

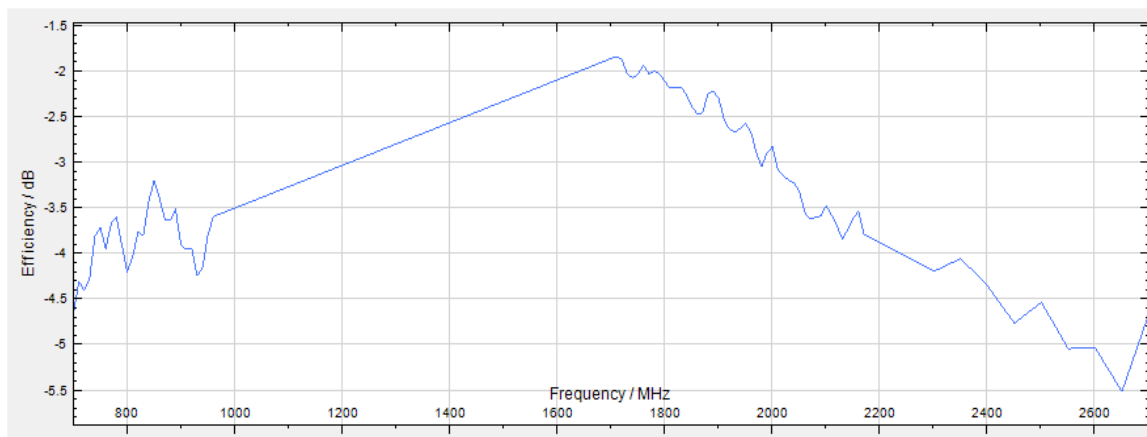


4.2. VSWR



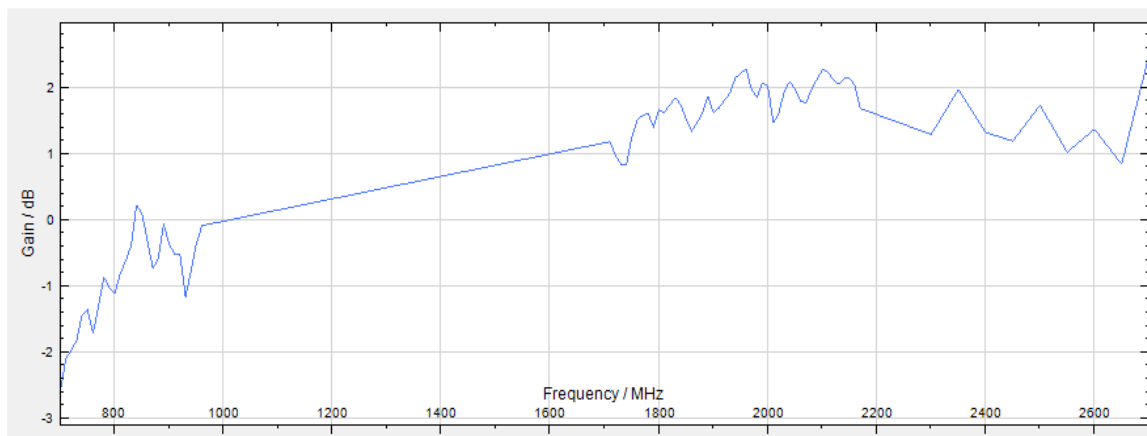
Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2700
VSWR	1.82	2.34	1.69	1.47	1.99	2.22	2.30	1.89

4.3. Efficiency



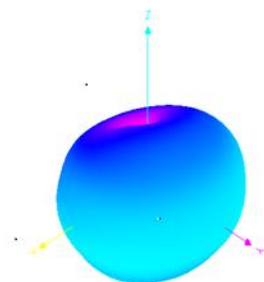
Frequency (MHz)	700	960	1710	1880	1920	2170	2300	2400	2500	2700
Efficiency (%)	34.2	43.7	65.6	59.7	54.5	41.8	38.1	36.7	35.2	34.2

4.4. Gain

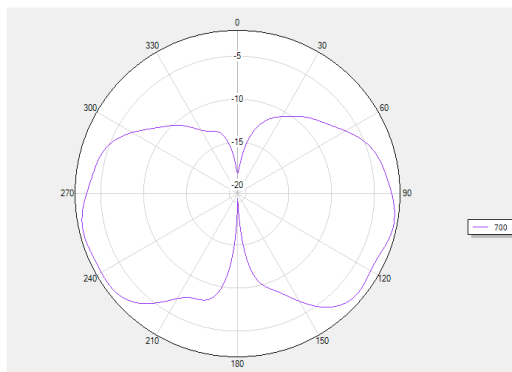


Frequency (MHz)	700	960	1710	1880	1920	2170	2300	2400	2500	2700
Gain	-2.59	-0.08	1.19	1.63	1.82	1.69	1.3	1.33	1.74	2.48

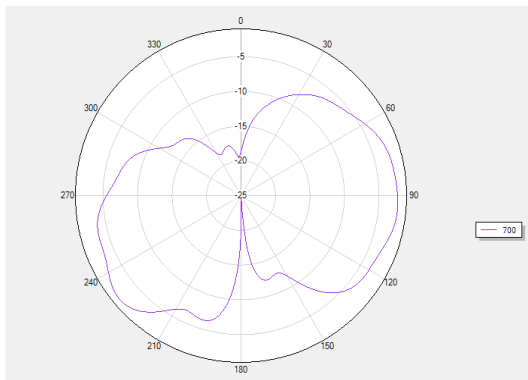
4.5. Radiation Patterns



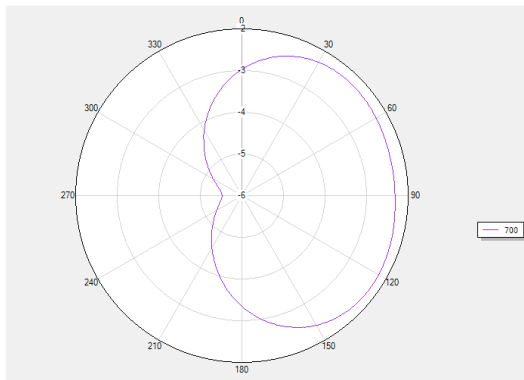
700 MHz



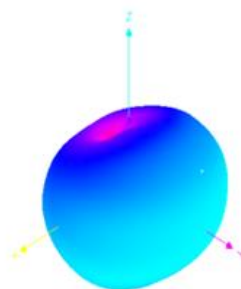
Phi 0 2D



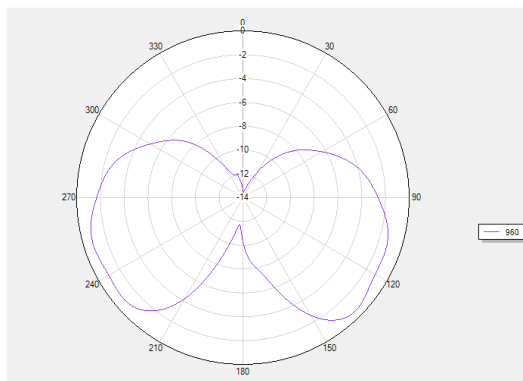
Phi 90 2D



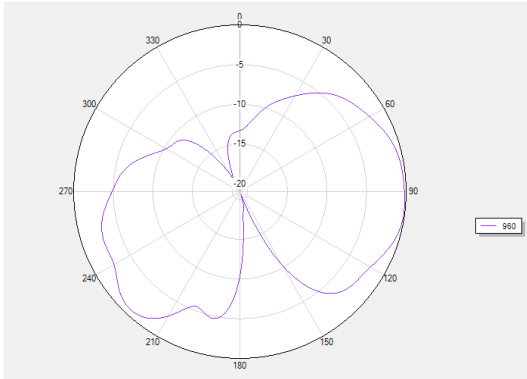
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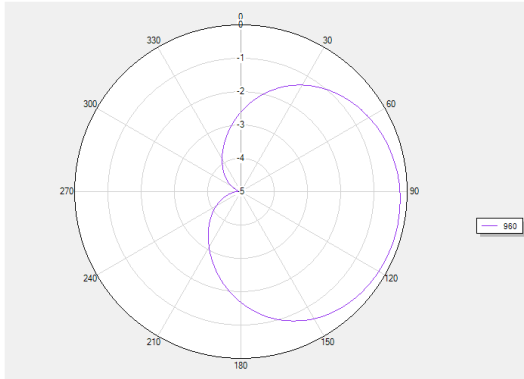
960 MHz



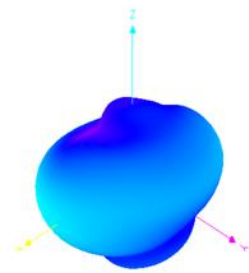
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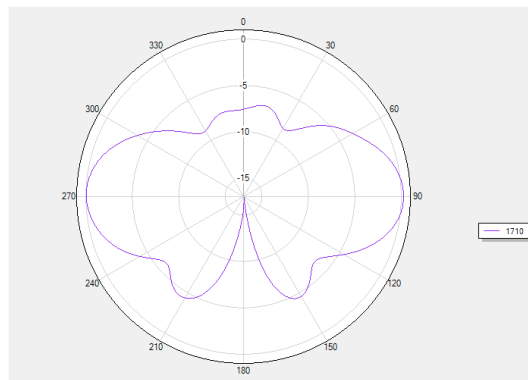
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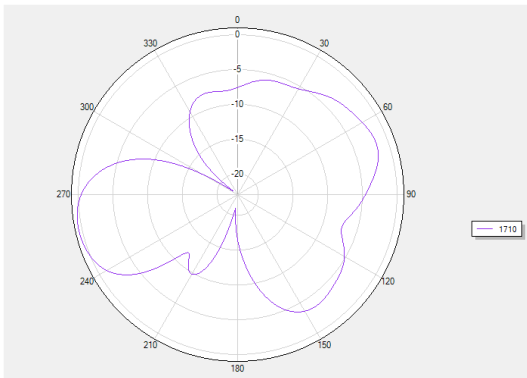
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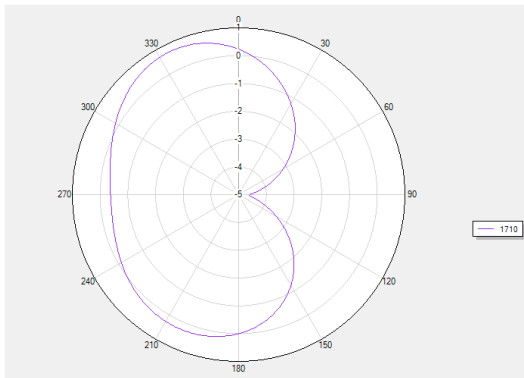
1710 MHz



Phi 0 2D



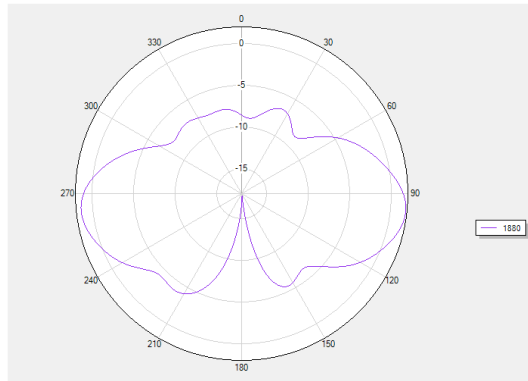
Phi 90 2D



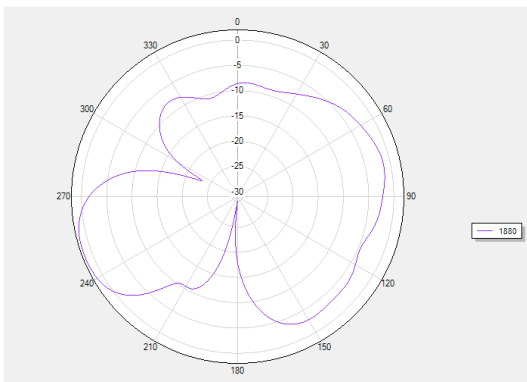
Theta 90 2D



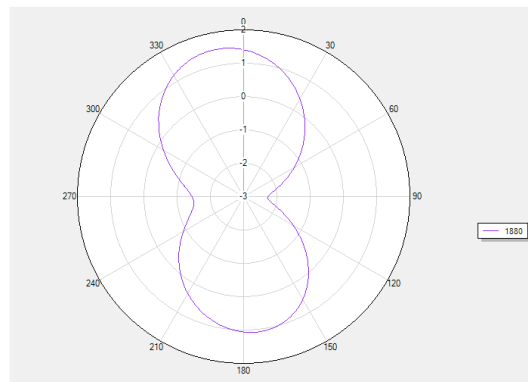
1880 MHz



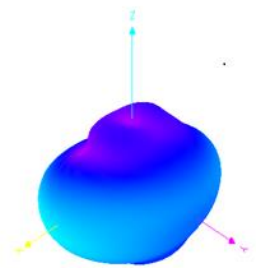
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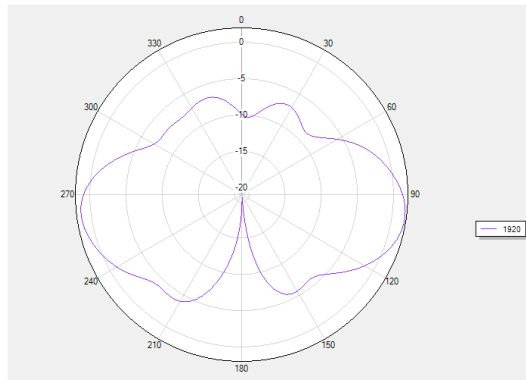
Phi 90 2D



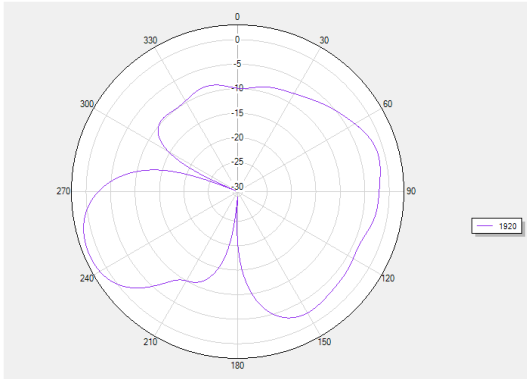
Theta 90 2D



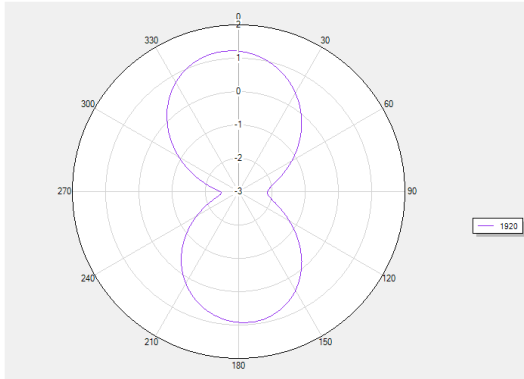
1920 MHz



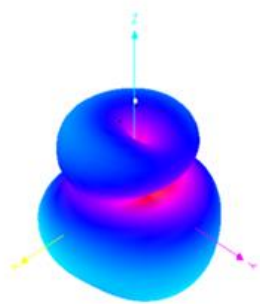
Phi 0 2D



Phi 90 2D



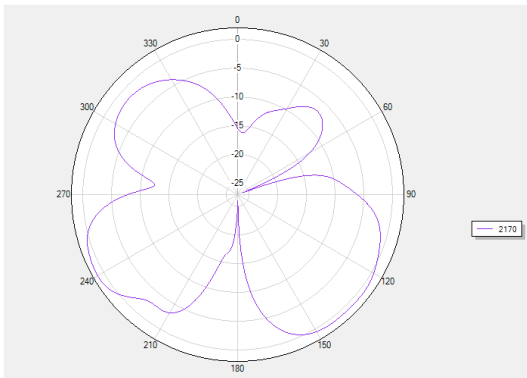
Theta 90 2D



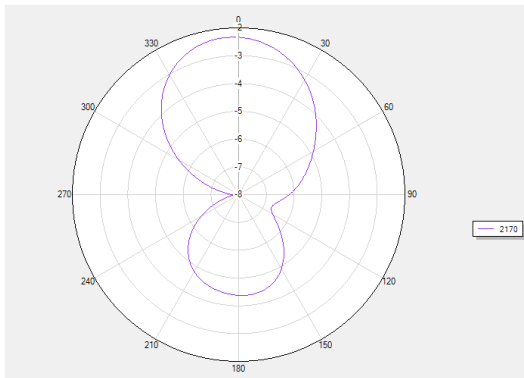
2170 MHz



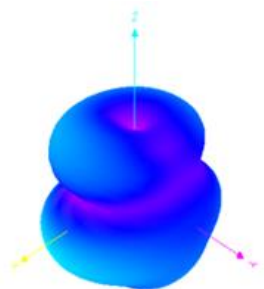
Phi 0 2D



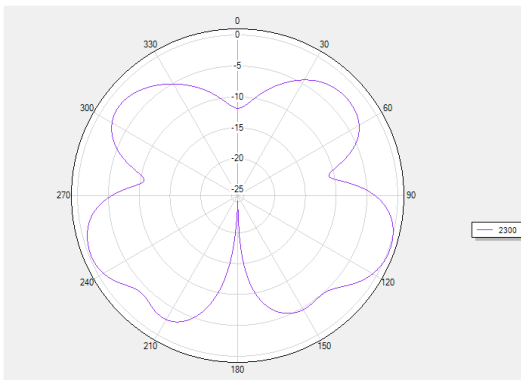
Phi 90 2D



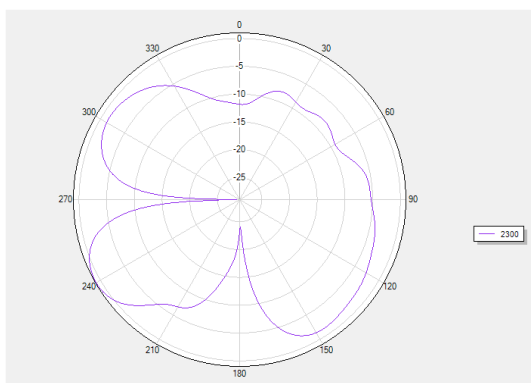
Theta 90 2D



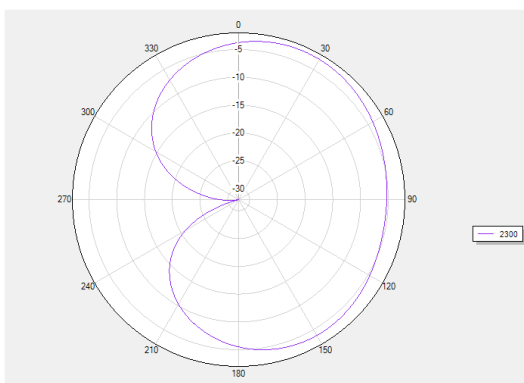
2300 MHz



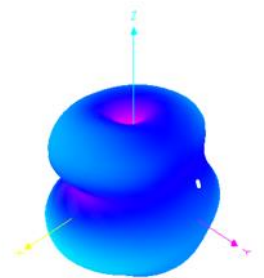
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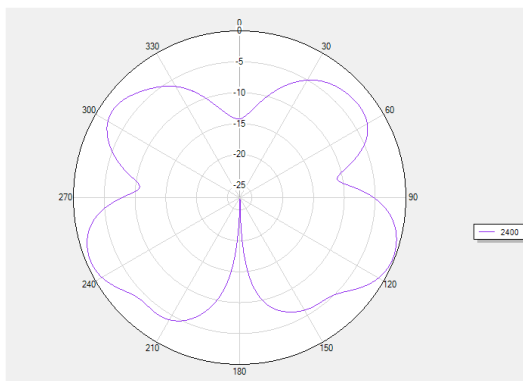
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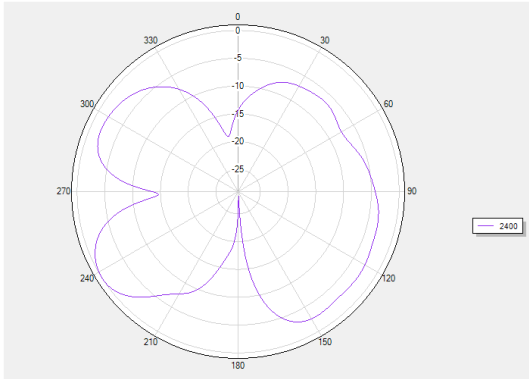
Theta 90 2D



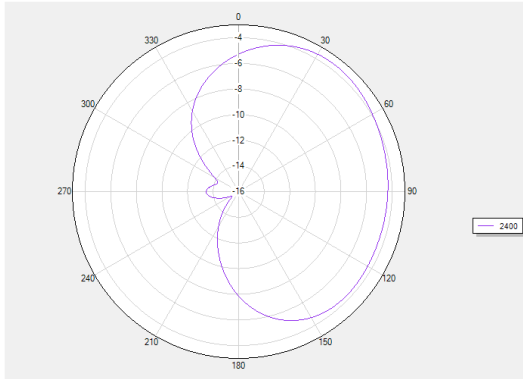
2400 MHz



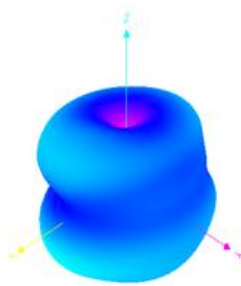
Phi 0 2D



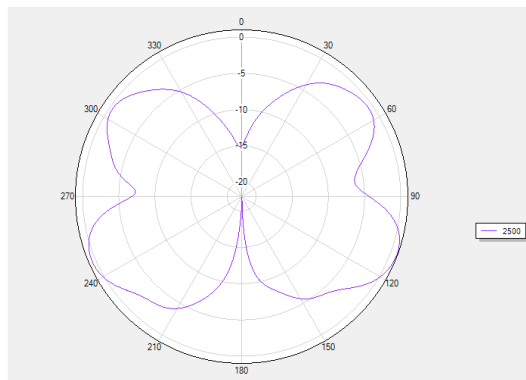
Phi 90 2D



Theta 90 2D



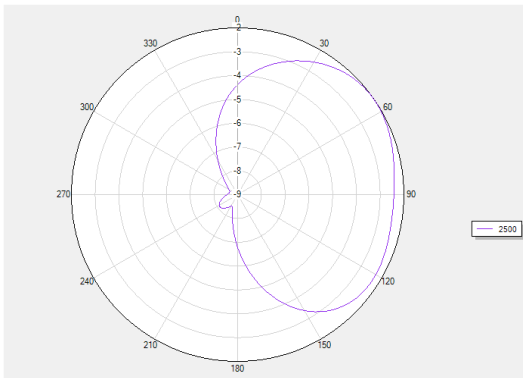
2500 MHz



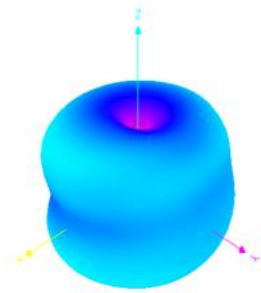
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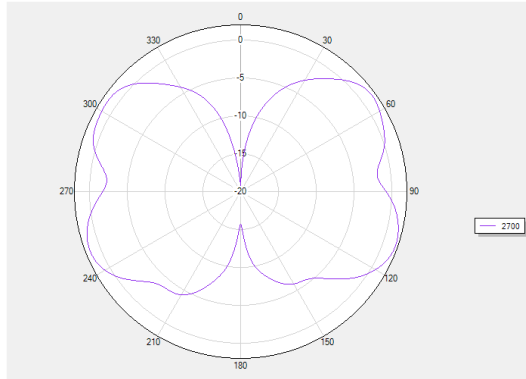
Phi 90 2D



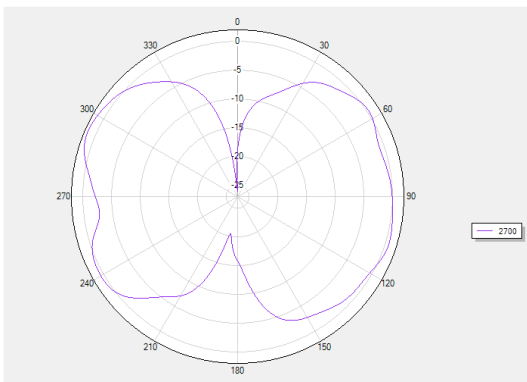
Theta 90 2D



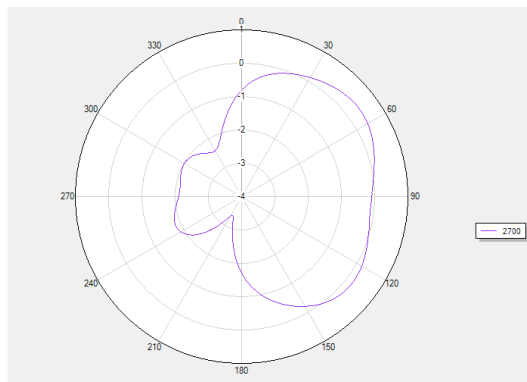
2700 MHz



Phi 0 2D



Phi 90 2D



Theta 90 2D

5 Product Size

