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	Prepared by: Chenlapeng	Approved by: Guoshenhui	Part No. RDNI908269-0 01	Revision: A

MA01 Antenna

LUXSHARE-ICT TEAM					
Checked by	Name	Signature	Approved by	Name	Signature
R&D RF ENG	Chenlapeng		R&D RF Manager	Guoshenhui	
R&D ME ENG	Jeffson Shen		R&D ME Manager		
R&D PM ENG	Jonson		R&D PM Manager		
QA ENG			QA Manager		

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REVISION AND UPDATES

REV	ECN NO.	DESCRIPTION	DATE	BY
MA01		Approval Sheet for Microsoft, Project MA01	2020-08-31	Chenlapeng.
Customer's Product Specification				
Customer: Incase				
PRODUCT NAME: MA01				
MODEL NO:				
PART NO: RDNI 908269-001				
REV.: A				

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Antenna Product Description

This document is issued to describe the specification for MA01 MS Dongle BT ANT.

1.1 Antenna Part Number

The antenna part number is RDNI 908269-001

1.2 Antenna Picture

The Antenna picture is shown below

1.3 Antenna Device Picture

The antenna device picture is shown below

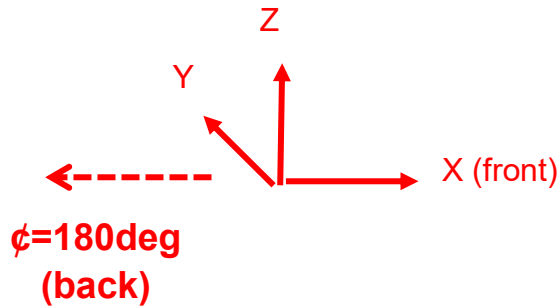
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2 ELECTRICAL PERFORMANCE

2.1 Electrical Measurement Environment

2.1.1 VSWR and Return Loss

The VSWR and Return Loss measurement (S11) is performed by using Agilent ENA Series Vector Network Analyzer and previously described device fixture. This measurement is taken in free space.

2.1.2 Efficiency Gain and TRP/TIS

The efficiency, gain and TRP/TIS data were measured in LUXSHARE-ICT's 3D Anechoic Chamber. Our chambers are capable of taking both passive and active measurement from 600MHz to 6GHz. Baseband simulator for active TRP/TIS measurement includes Agilent 8960, Anritsu 8820 and CMW 500. Standard head and hand model were used for CTIA phantom measurement.

2.1.3 Input Impedance: 50Ω

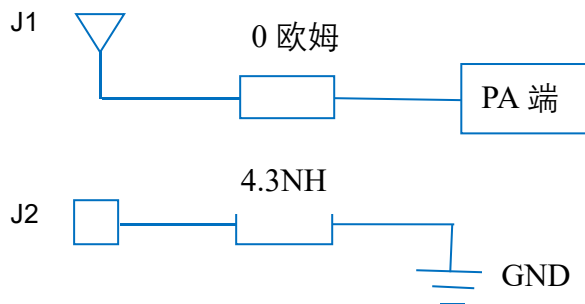
2.2 Frequency Bands

The MA01 MS Dongle BT ANT operates in frequency range [2400 – 2480MHz]

2.3 The matching circuit for this antenna is as below

Antenna matching circuit

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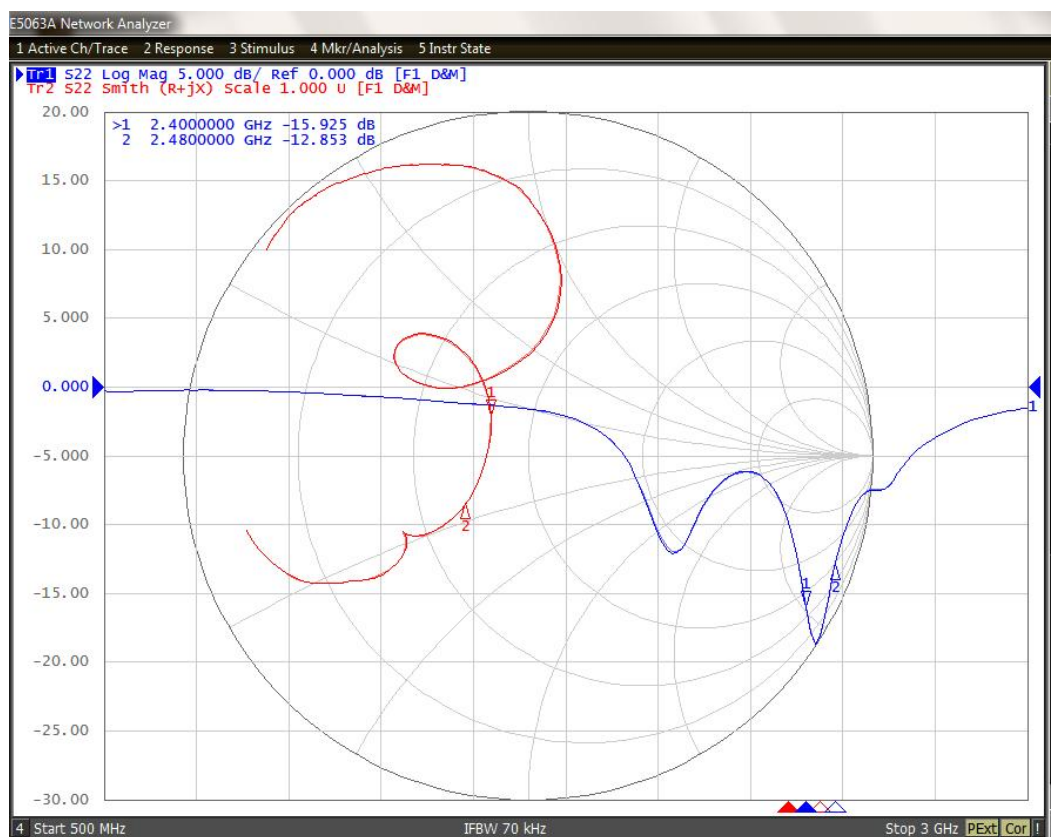
注：1.主路匹配为串联 0 欧姆电阻；

2.地线匹配串 4.3NH 电感。

2.4 Electrical Measurement Data

2.4.1 Antenna Return Loss Plot

BT antenna return loss



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2.4.2 Antenna Efficiency Data

Dongle is in Laptop Testing			
Freq	Efficiency (%)	Efficiency=Average gain(dB)	Gain=Peak gain(dBi)
2400	39.18	-4.07	2.22
2410	40.13	-3.97	2.30
2420	40.16	-3.96	2.28
2430	41.10	-3.86	2.23
2440	42.18	-3.75	2.40
2450	43.47	-3.62	2.64
2460	45.77	-3.33	4.00
2470	43.54	-3.61	3.80
2480	42.58	-3.71	3.74
AVG	41.90	-3.78	2.83

2.4.3 Antenna TRP&TIS Data

无法测试 TRP 和 TIS

2.4.4 Antenna radiation pattern Plot 2D Radiation Pattern Results

XZ 面

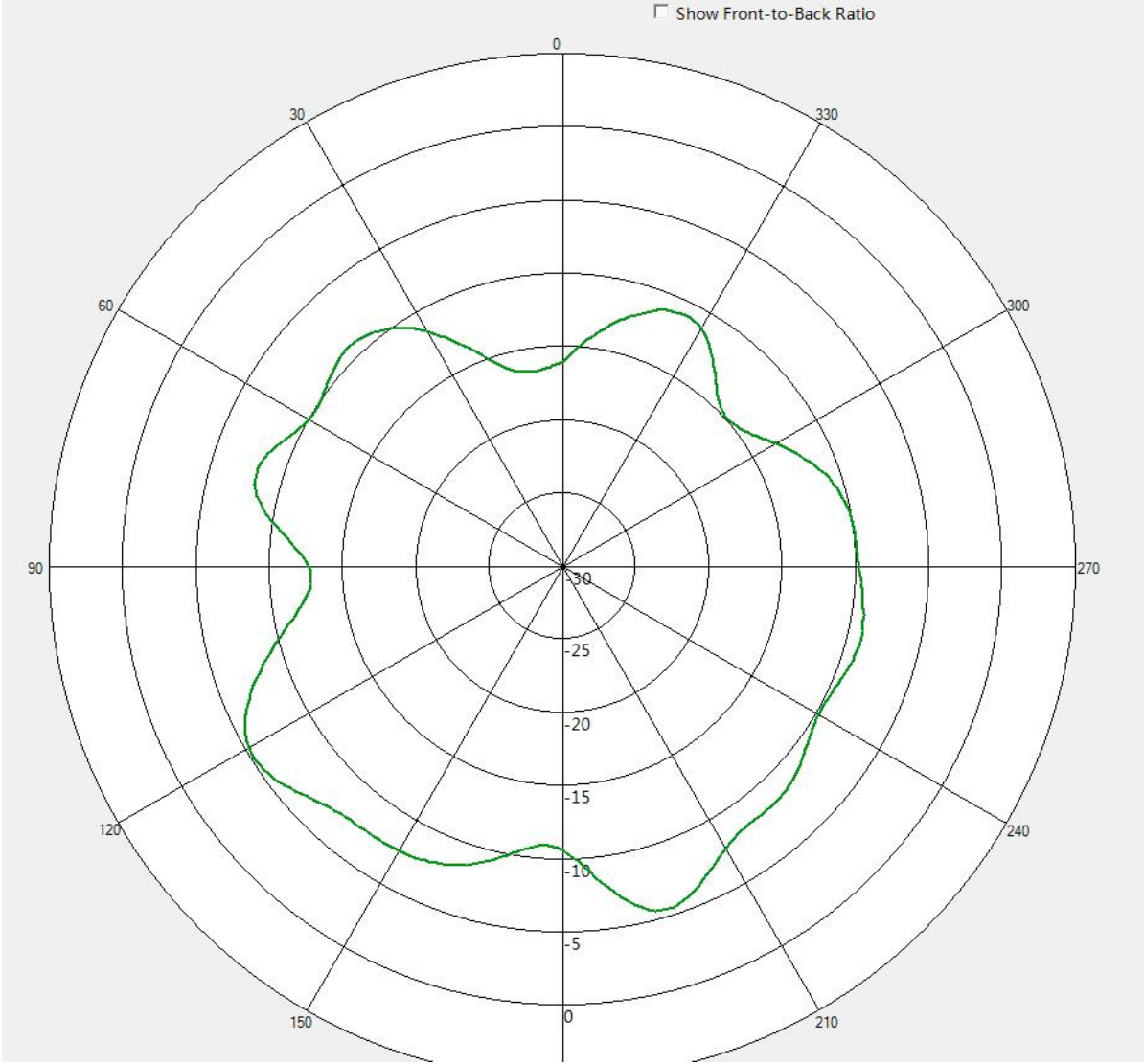
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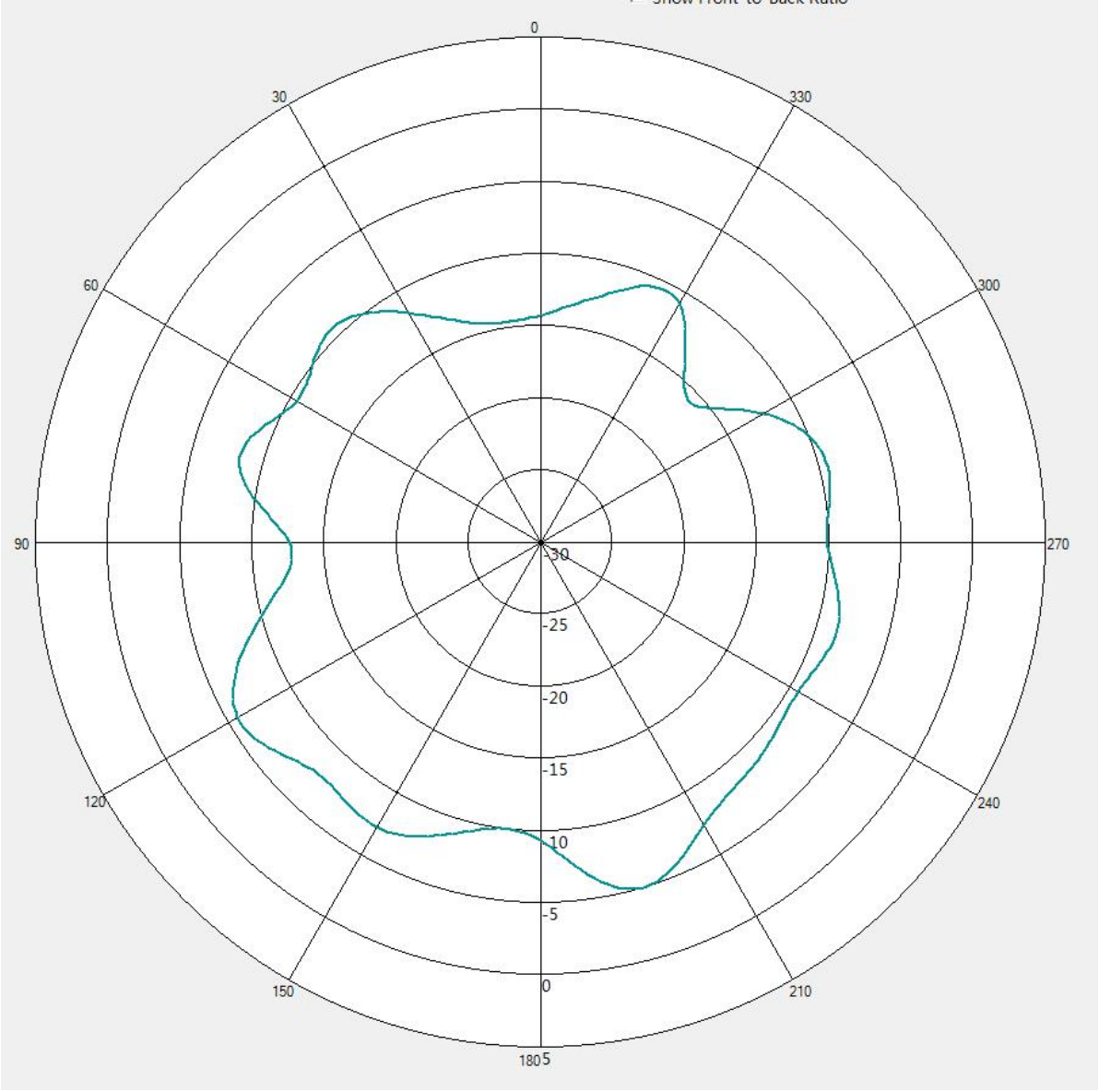
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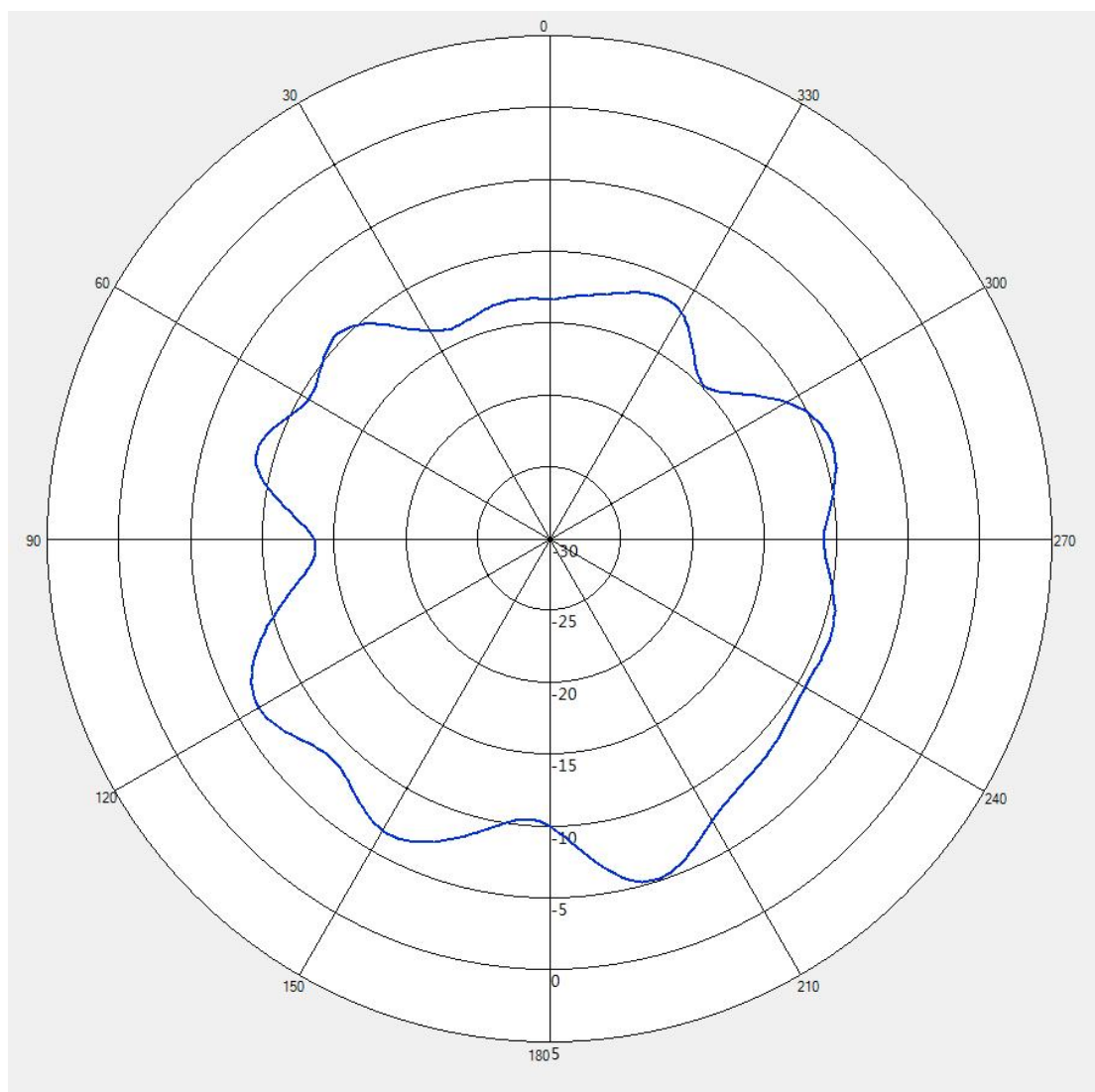
2400MHz

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2440MHz

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2480MHz
YZ 面

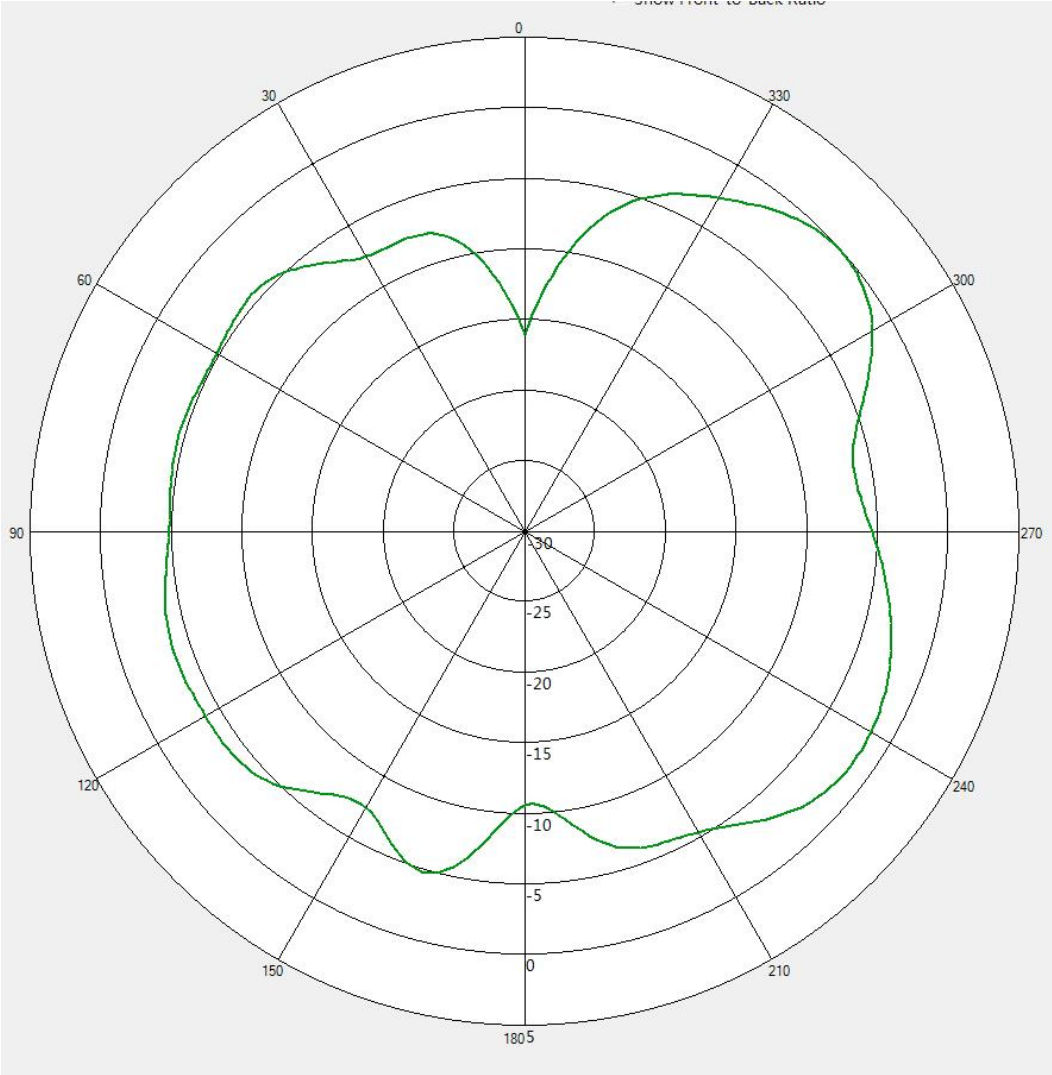
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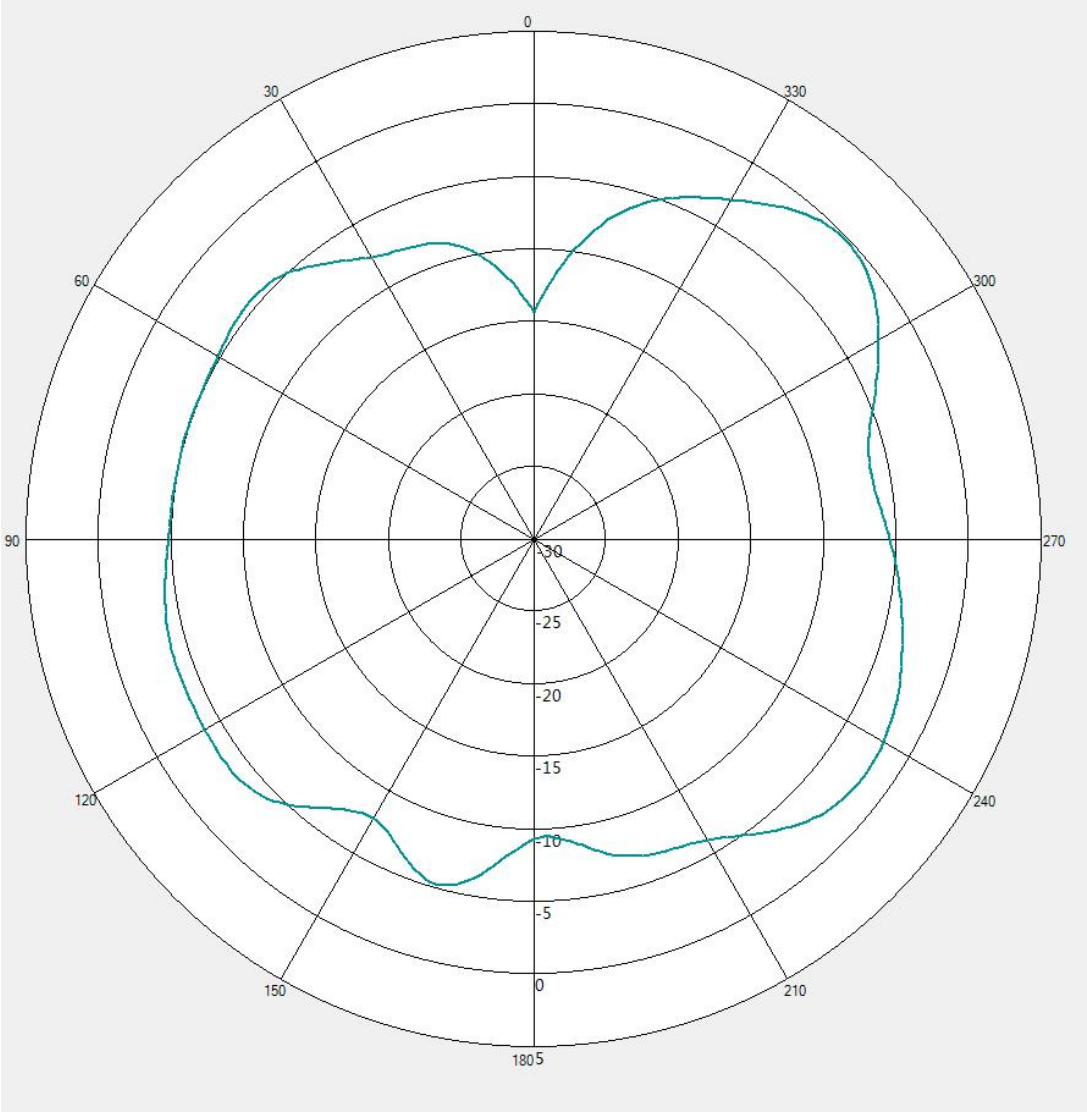
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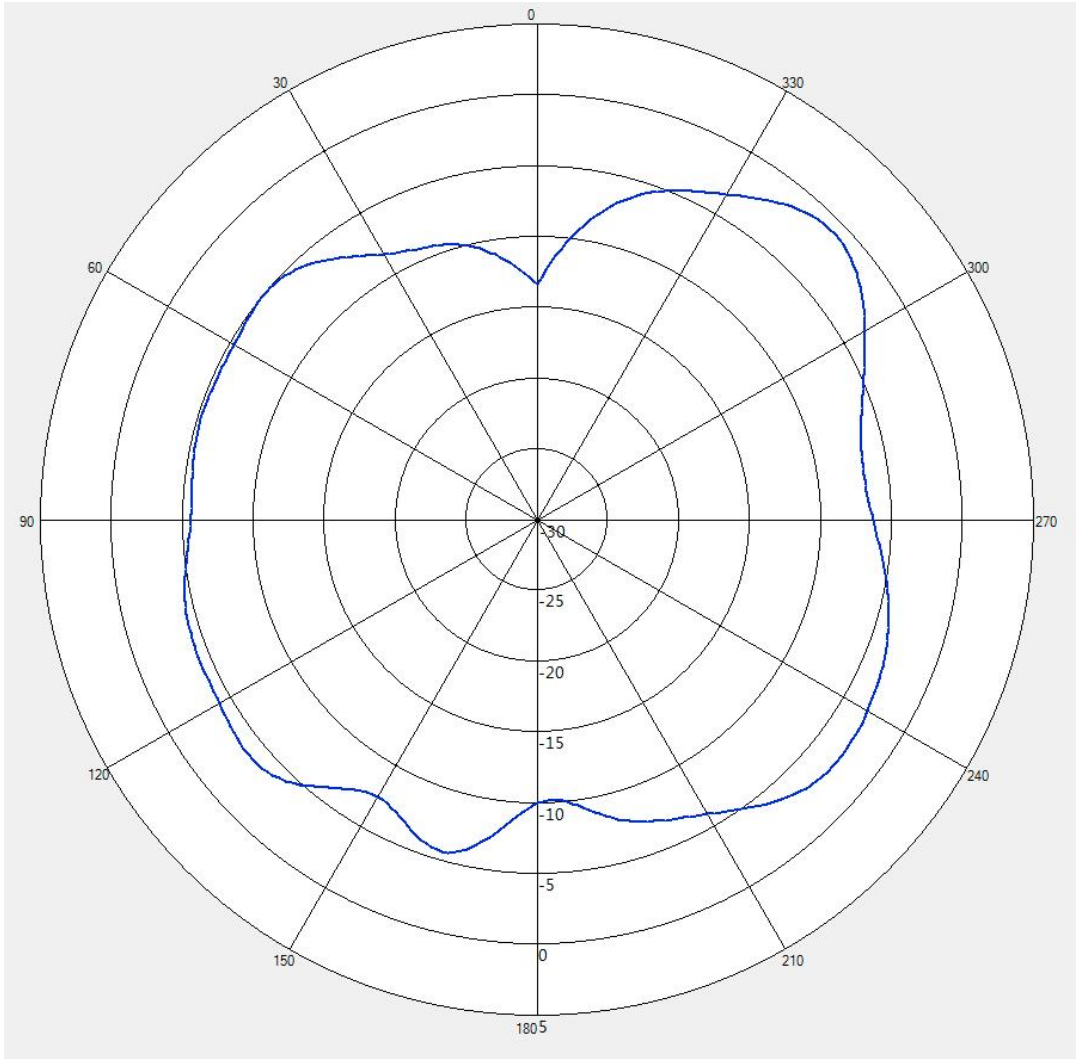
2400MHz

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2440MHz

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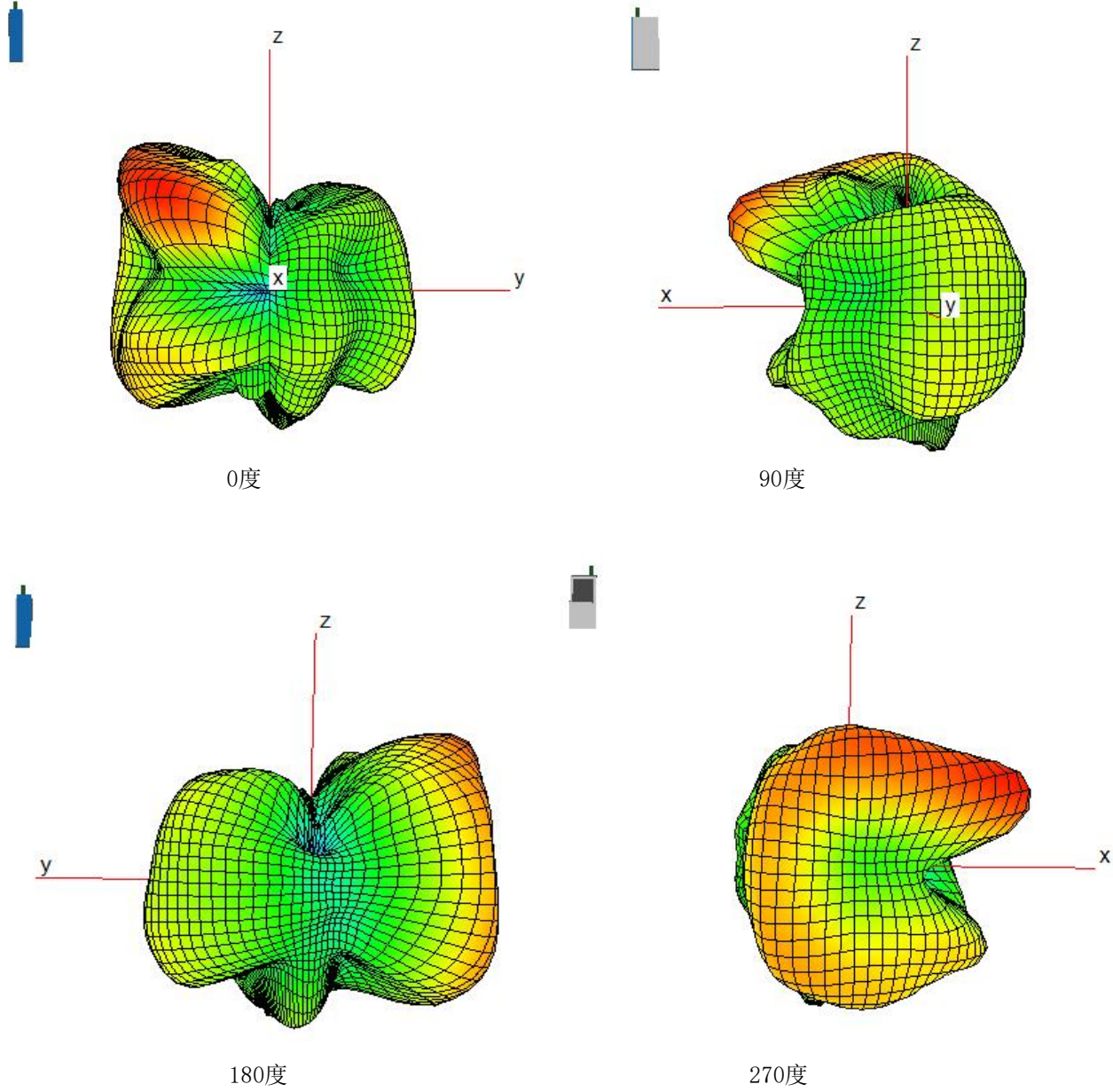


2480MHz

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3D Radiation Pattern Results

2450MHz



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