DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

SPECIFICATION FOR APPROVAL

Date	2025/06/24
File No	25062404
Revision	1.0

CUSTOMER: FJ Dynamics Technology Co., Ltd.

CUSTOMER NO: YTX-TX-003069-1A

PART NAME: WIFI 1 Antenna L=190mm MHF

SUPPLIER NO: YJF01.085.029.304A

Date: Q'TY:

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

SUPPLIER SIGNATURE		
APPROVAL	CHECK	DESIGN
ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A

Spec Item

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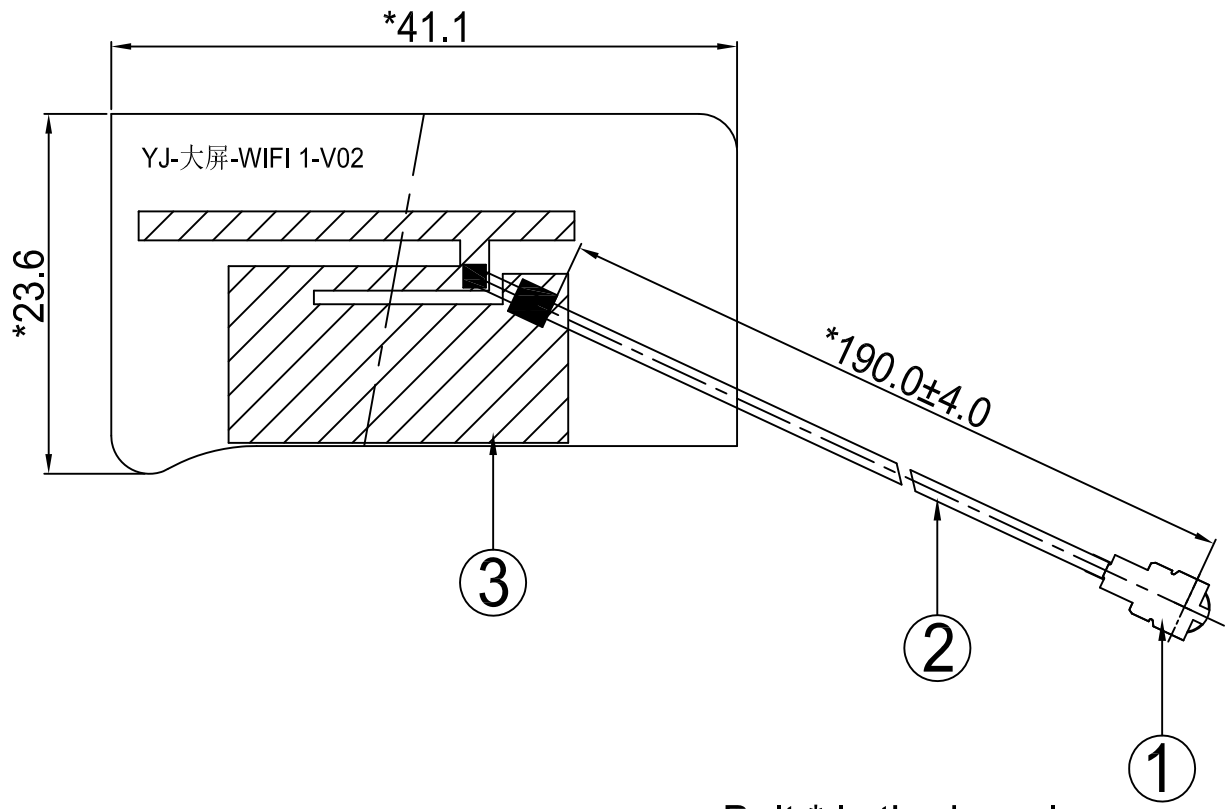
13	-	-	-

RoHS Compatible

CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
A	Initial release	2024-08-24
B	ModifyFPC	2024-10-30



Belt * is the key size

Frequency：2400-2500MHz,5150-5850MHz

NO	PART NAME	DESCRIPTION	Material	Q.TY
3	FPC	41.1*23.6mm	FPC	1
2	Coaxial Cable	O.D.1.13 Black Low loss	O.D.1.13	1
1	Mini Connector	Au Plated 1 Generation	Cu	1

DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

PART NAME: WIFI 1 Antenna L=190mm MHF

PART NO.: YJF01.085.029.304A

DATE: 2024-10-30

APPROVED BY	CHECKED BY	DESIGNED BY	
Zhou Sheng	Zhou Yingjie	Liao Guangxi	UNITS: mm SCALE: 1/1 REVISION: B

Tolerance
X.X ±0.50
X.XX±0.15
X° ±3°

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Antenna Specification

Electrical Properties	
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.0 Max
Gain	4.9 dBi@2.4-2.5GHz 4.5 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1 Generation IPEX
Cable Type	O.D.1.13mm Low loss
Cable Length	190mm
Cable Color	Black
Operating Temp.	-40 ~ +85 ˚C
Storage Temp / Humidity	25±5˚C / <70%

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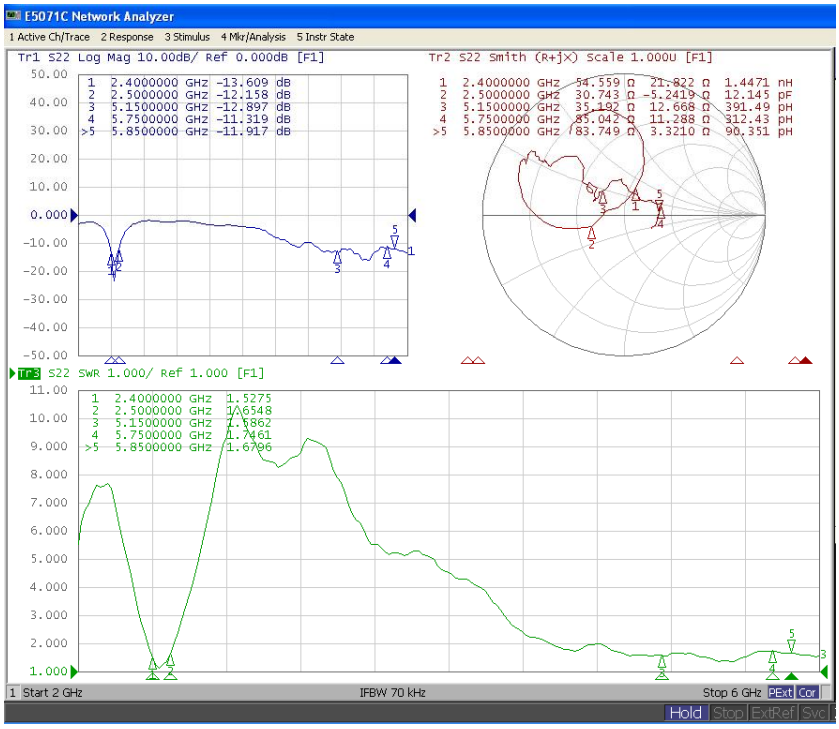
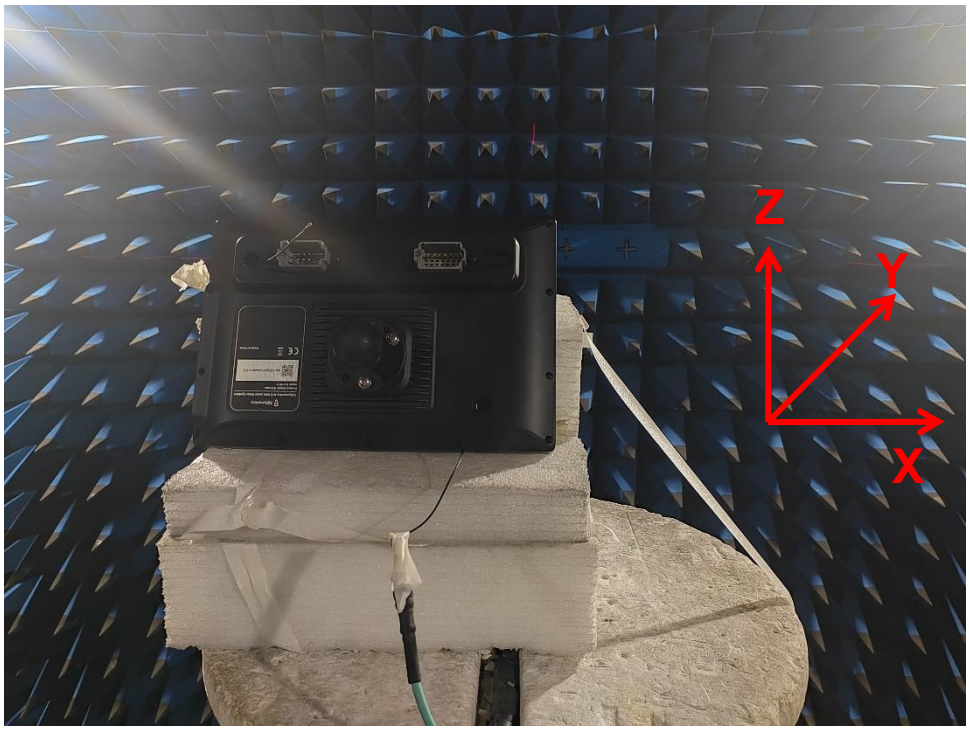
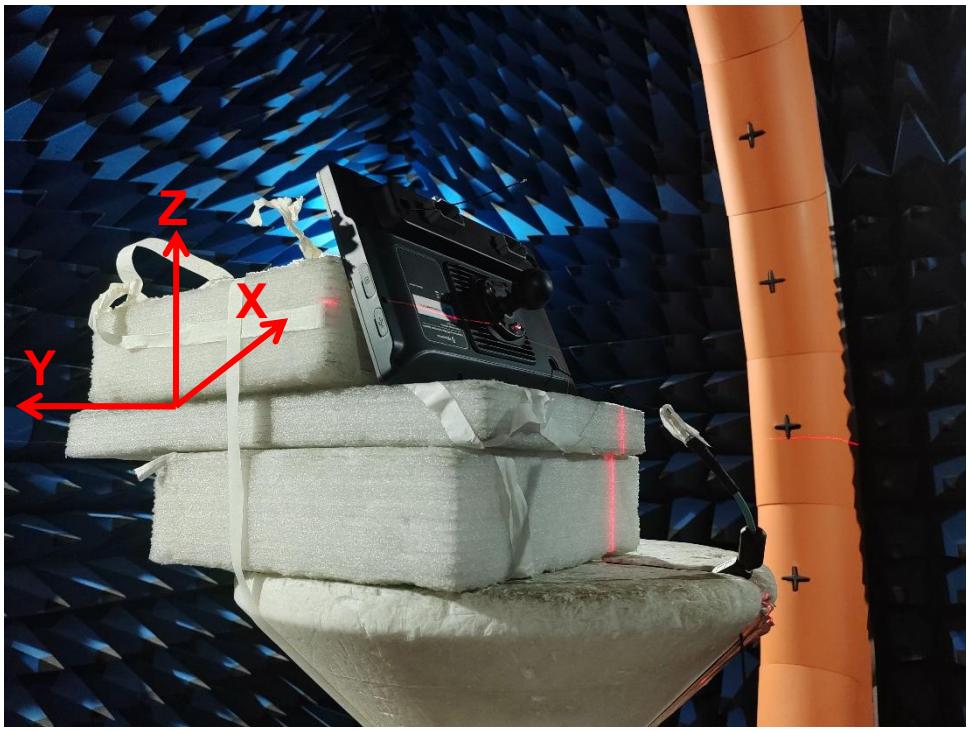
Agilent E5071C S Parameter Test // WiFi1 Antenna



Antenna Passive Test





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Passive Test For WiFi1 Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	37.3	-4.3	4.2
2410	39.6	-4.0	4.4
2420	41.3	-3.8	4.6
2430	42.4	-3.7	4.7
2440	41.8	-3.8	4.5
2450	44.4	-3.5	4.9
2460	43.6	-3.6	4.6
2470	45.4	-3.4	4.8
2480	43.8	-3.6	4.6
2490	43.1	-3.7	4.6
2500	40.1	-4.0	4.3

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Passive Test For WiFi1 Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	47.4	-3.2	3.1
5170	49.4	-3.1	2.8
5190	54.2	-2.7	3.1
5210	52.5	-2.8	2.9
5230	50.2	-3.0	2.7
5250	48.6	-3.1	2.7
5270	46.0	-3.4	2.8
5290	47.4	-3.2	3.1
5310	44.9	-3.5	2.9
5330	44.4	-3.5	2.9
5350	42.8	-3.7	2.7
5370	44.8	-3.5	3.1
5390	47.1	-3.3	3.6
5410	52.4	-2.8	4.1
5430	52.5	-2.8	4.2
5450	54.1	-2.7	4.2
5470	49.8	-3.0	3.8
5490	50.1	-3.0	4.1

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Passive Test For WiFi1 Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5510	47.9	-3.2	4.1
5530	51.6	-2.9	4.5
5550	53.0	-2.8	4.5
5570	53.3	-2.7	4.3
5590	50.9	-2.9	3.8
5610	47.4	-3.2	3.3
5630	47.5	-3.2	3.5
5650	43.2	-3.7	3.3
5670	43.9	-3.6	3.5
5690	39.5	-4.0	3.0
5710	40.1	-4.0	3.1
5730	37.4	-4.3	2.8
5750	38.3	-4.2	2.6
5770	37.8	-4.2	2.6
5790	38.6	-4.1	2.9
5810	38.6	-4.1	3.2
5830	40.7	-3.9	3.9
5850	40.8	-3.9	4.2

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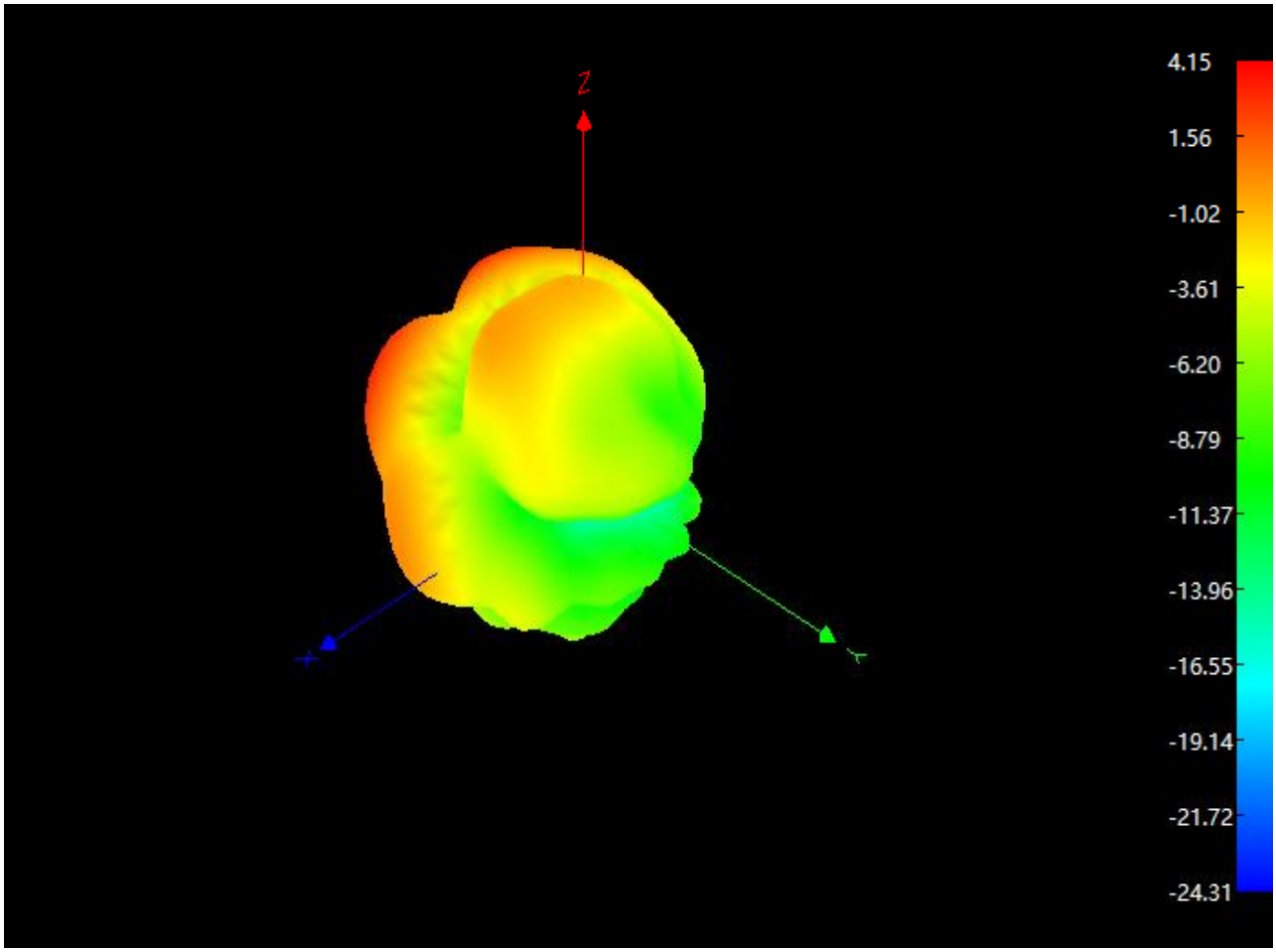
Radiation Pattern For WiFi1 Antenna（2400MHz）



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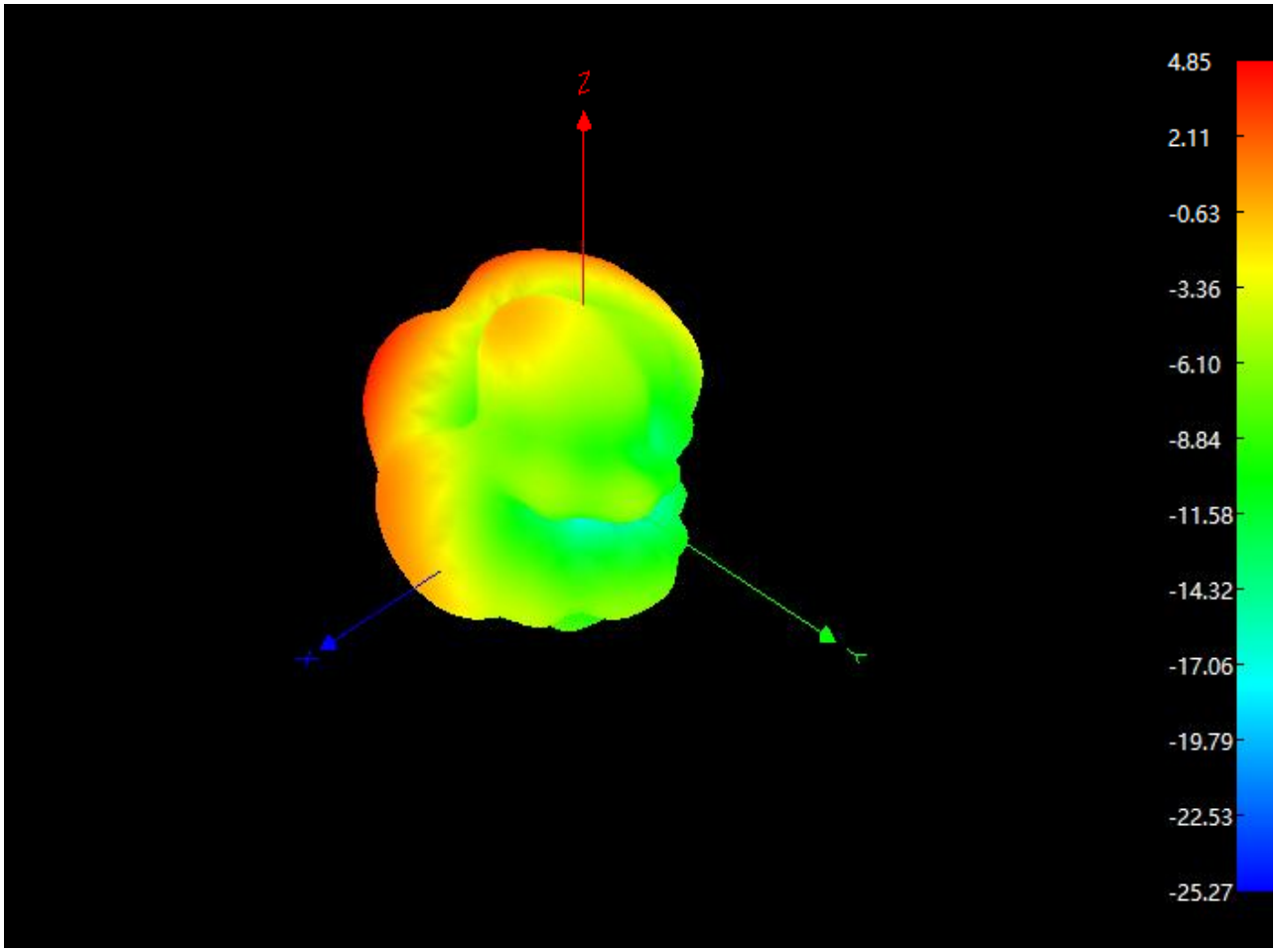
Radiation Pattern For WiFi1 Antenna（2450MHz）



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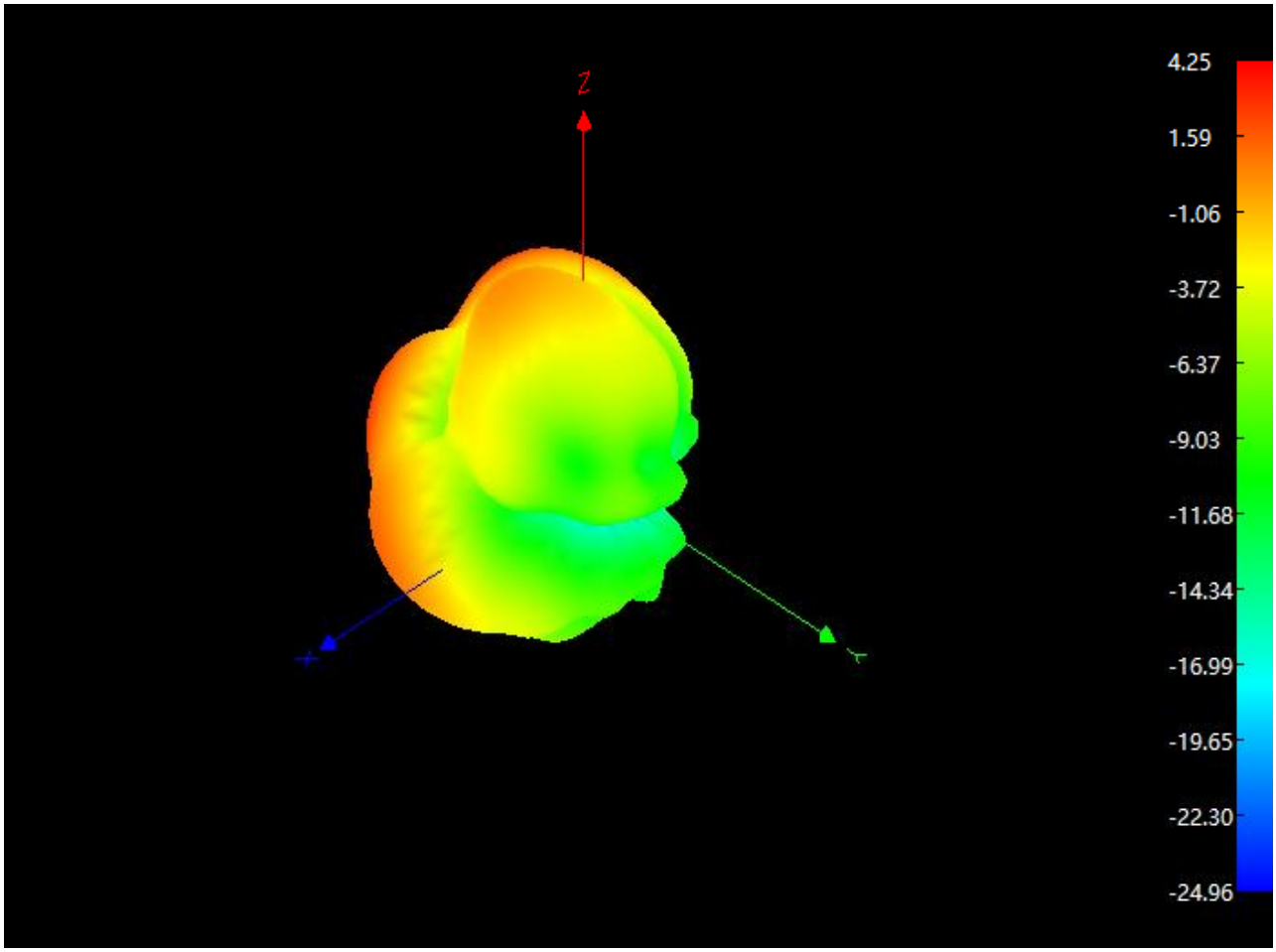
Radiation Pattern For WiFi1 Antenna（2500MHz）



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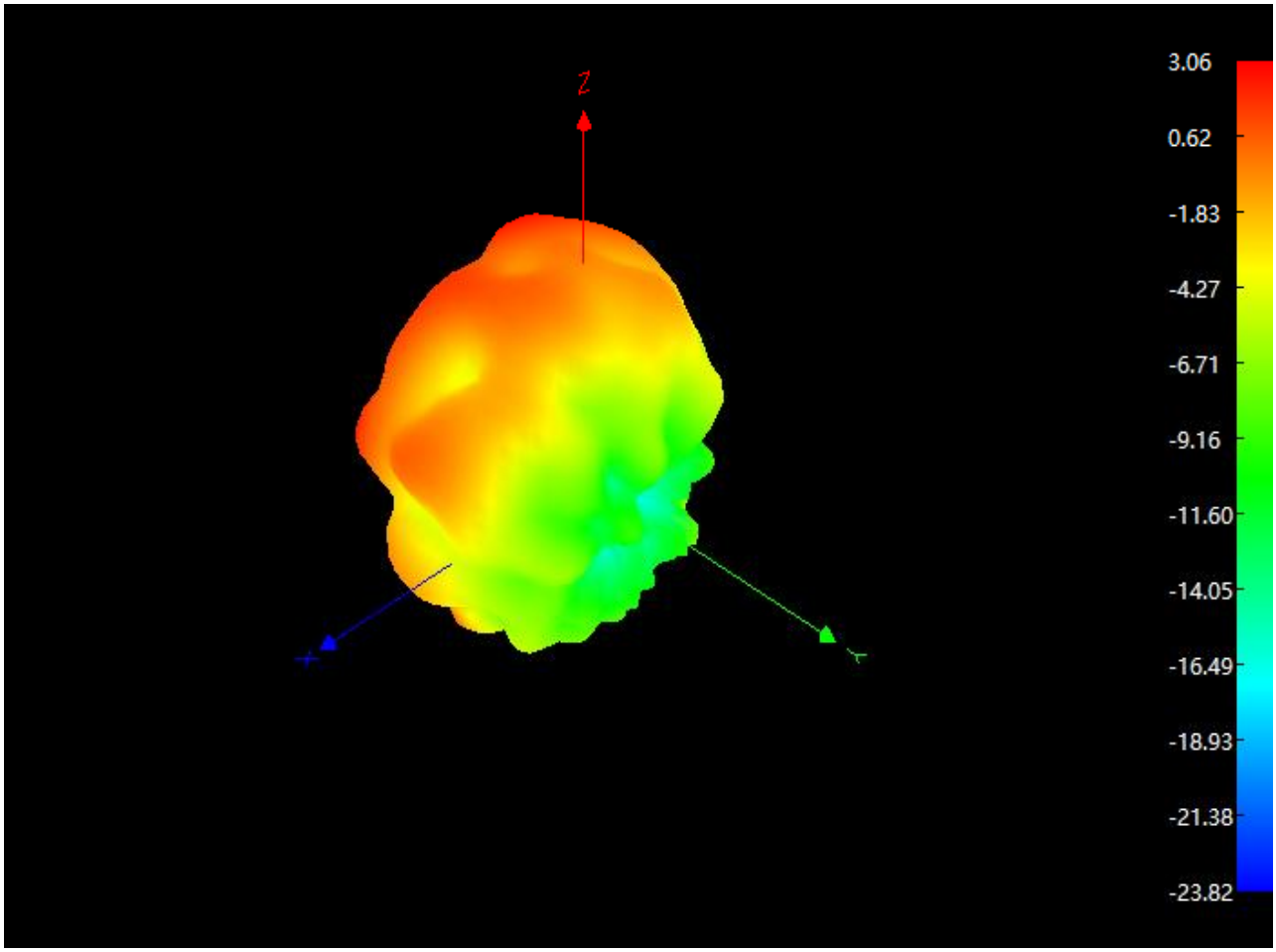
Radiation Pattern For WiFi1 Antenna（5150MHz）



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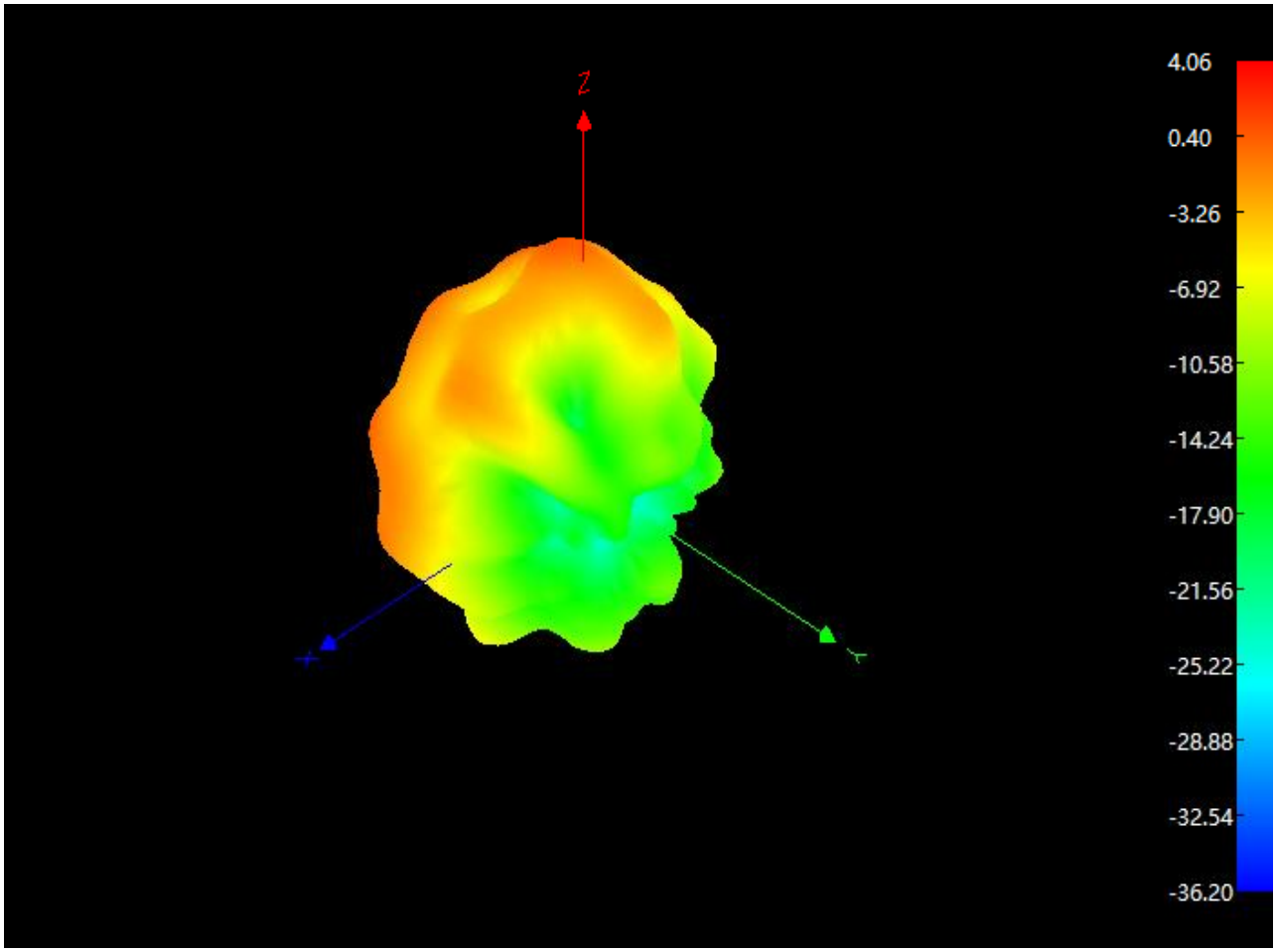
Radiation Pattern For WiFi1 Antenna（5510MHz）



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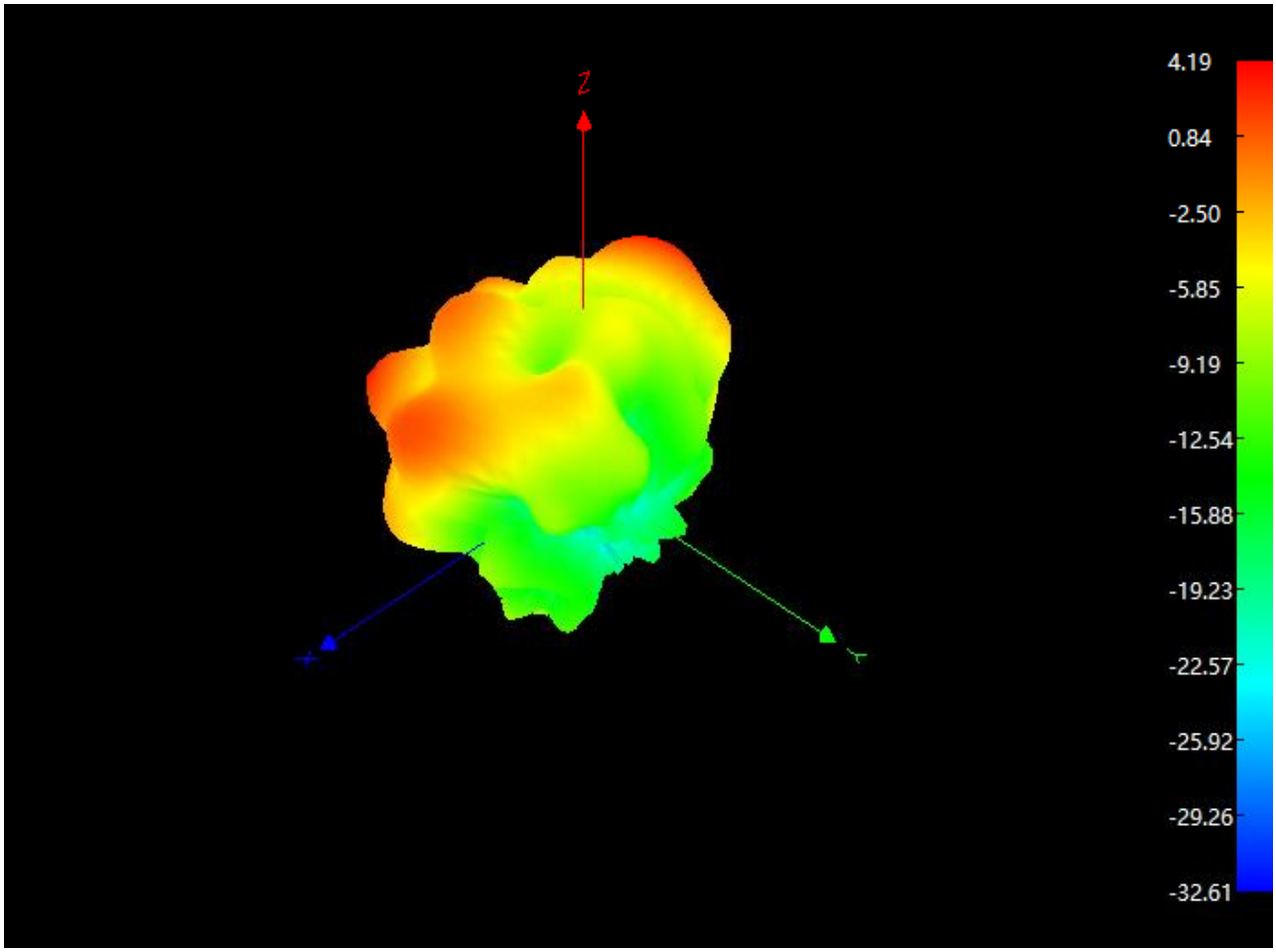
Radiation Pattern For WiFi1 Antenna（5850MHz）



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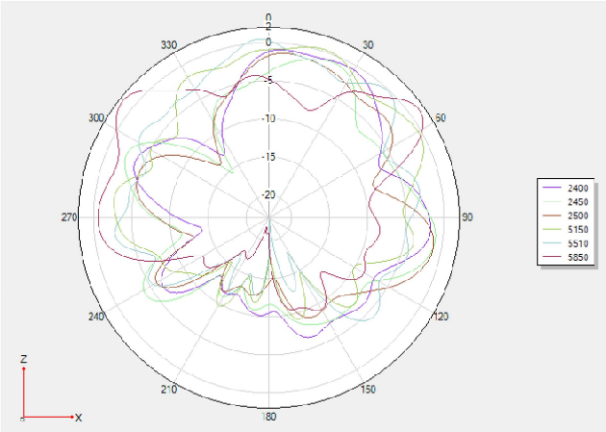
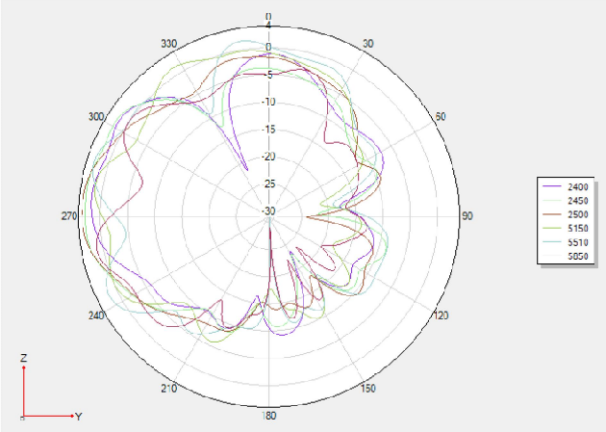
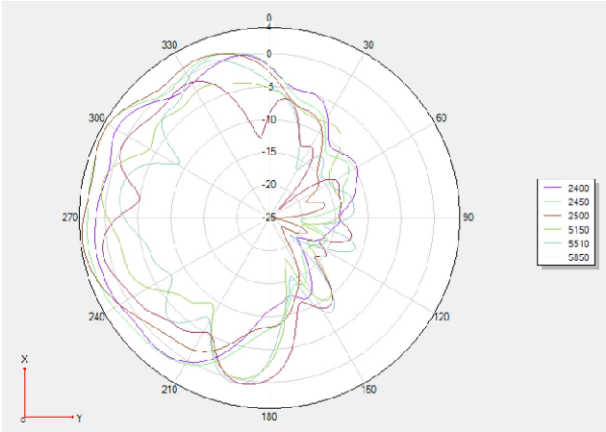
Radiation Pattern For WiFi1 Antenna

Phi 0°



Phi 90°



Theta 90°