

DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

SPECIFICATION FOR APPROVAL

Date 2026/08/06
File No 26080601
Revision 1.0

CUSTOMER: Telpo

CUSTOMER NO: 3170300311

PART NAME: WIFI AUX Antenna

SUPPLIER NO: YJW01.076.309.302A

Date: Q'TY:

CUSTOMER APPROVED BY

APPROVAL

CHIEF

SUPERVISOR

SUPPLIER SIGNATURE

APPROVAL

CHECK

DESIGN

ChenGuoqiang

ZhangLiqun

LiaoGuangxi

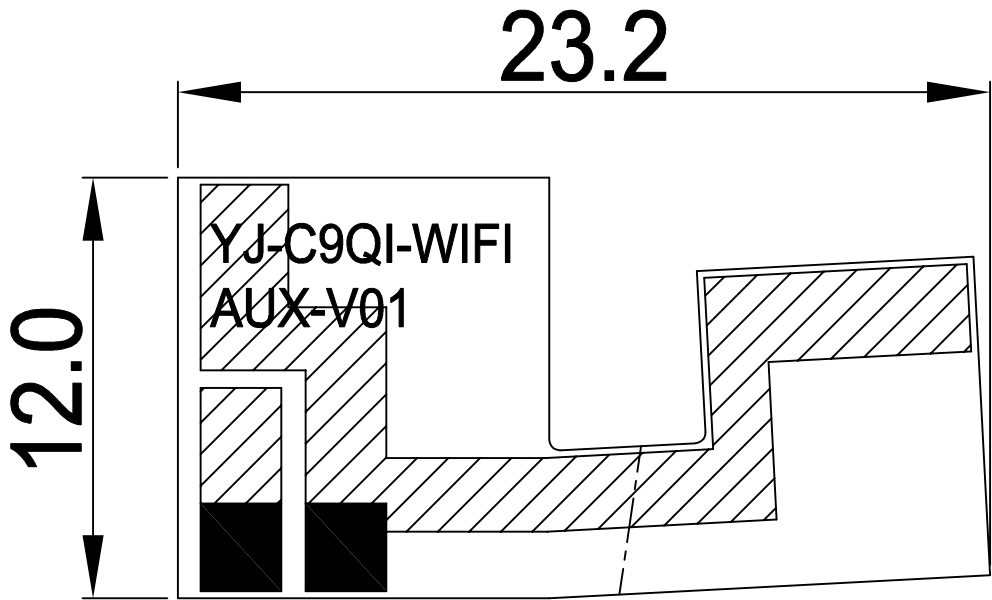
YJ-RD-F04-A

**DONGGUANYIJIAELECTRONICS
COMMUNICATIONTECHNOLOGYCO.,LTD**

SpecItem

NO.	(Contents)	(Number of Page)	(Page Code)
1	(Spec Cover)	1	1
2	(Spec Item)	1	2
3	(Drawing)	1	3
4	(Antenna Specification)	1	4
5	(S Parameter)	1	5
6	(Passive Test)	3	6 ~ 8
7	(Radiation Pattern)	7	9 ~ 15
8	(Active Test)	2	16 ~ 17
9	N/A	N/A	N/A
10	N/A	N/A	N/A
11	-	-	-
12	-	-	-
13	-	-	-

REV.	DESCRIPTION	DATE
△	Initial release	2024-11-14



- ▨ Wiring Area
■ Solder joint area

- Notes:
- Material: a pair and a half of substrate; FPC thickness: 0.1mm.
 - Color/surface treatment: gold plating of solder joints; 3M tape split line on the back
Color: black ink, white silk screen.
 - Size: Belt * is the key size.
 - Tolerance: Tolerance is not marked with reference to standard tolerance.
 - Packing: Ship with micro-adhesive packaging.



DONGGUAN YIJA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

PART NAME: WIFI AUX Antenna				
PART NO.:YJW01.076.309.302A			DATE: 2024-11-14	
APPROVED BY	CHECKED BY	DESIDNED BY		Tolerance
Qin Jianyu	Zhou Yingjie	Liao Guangxi	UNITS: mm	X.X ±0.50
			SCALE: 1/1	X.XX±0.15
			REVISION: A	X° ±3°

DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Antenna Specification

Electrical Properties

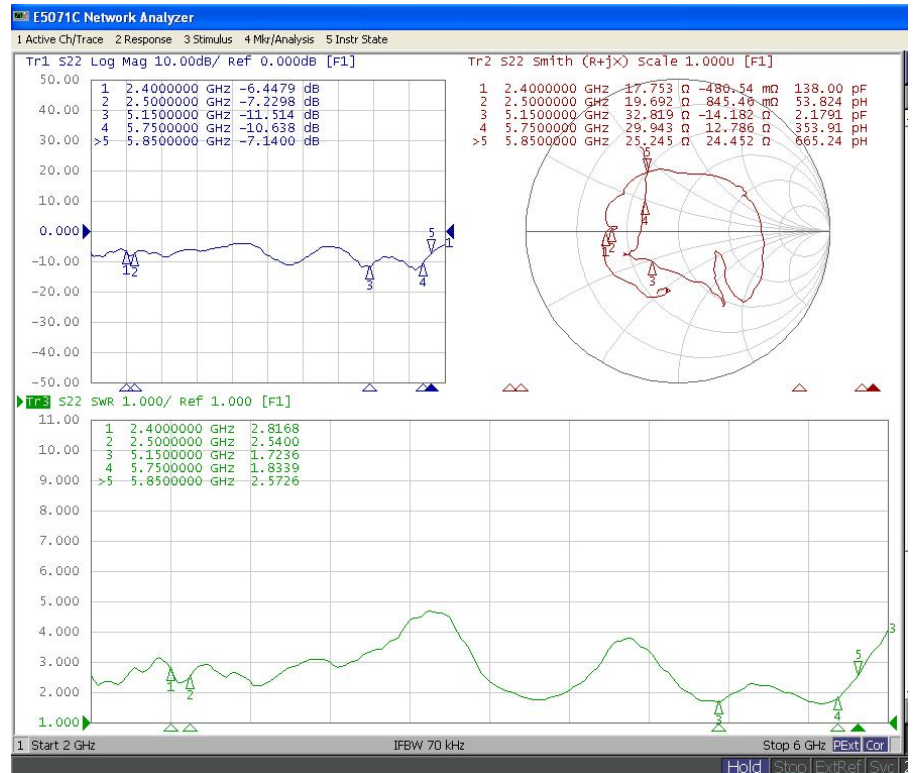
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	3.0 Max
Gain	5.2 dBi@2.4-2.5GHz 3.0 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear

Physical Properties

Connector	None
Cable Type	None
Cable Length	None
Cable Color	None
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%

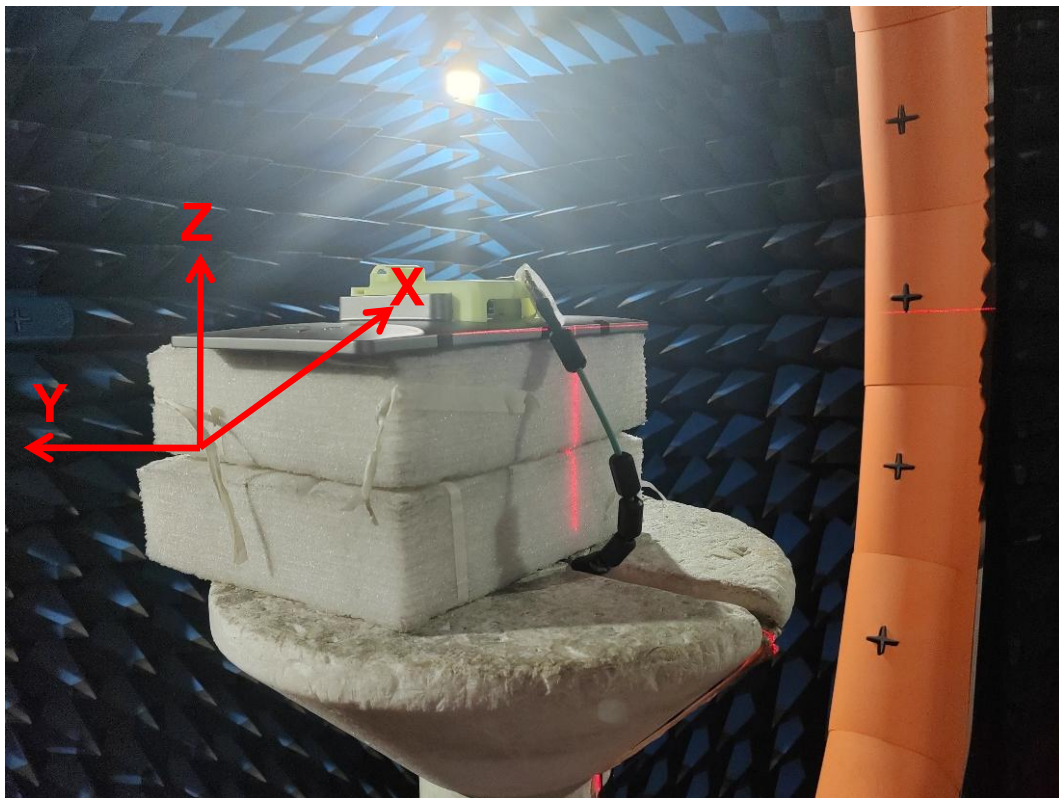
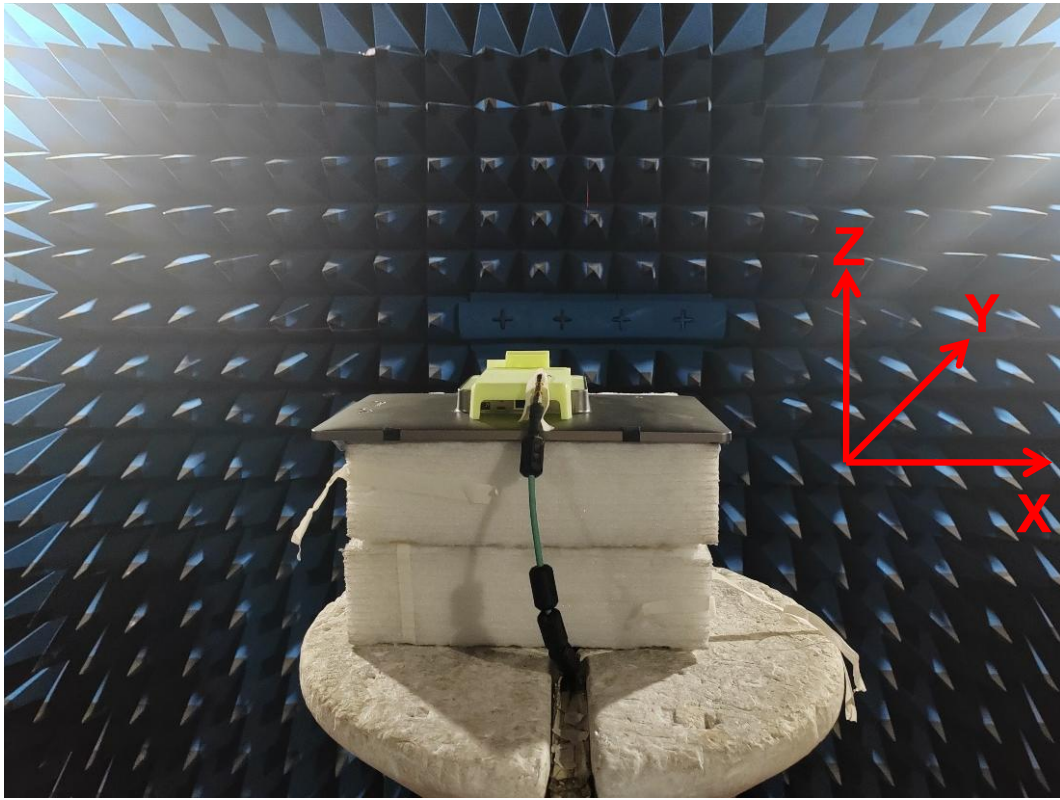
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

*Agilent
E5071C
S
Parameter
Test //
WiFi Aux
Antenna*



DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Antenna Passive Test



DONGGUANYIJIAELECTRONICS
COMMUNICATIONTECHNOLOGYCO.,LTD

Passive Test For WiFi Aux Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	37.0	-4.3	4.7
2410	37.5	-4.3	4.8
2420	36.4	-4.4	4.7
2430	36.1	-4.4	4.8
2440	36.9	-4.3	5.0
2450	36.9	-4.3	5.1
2460	36.1	-4.4	5.2
2470	36.1	-4.4	5.1
2480	36.2	-4.4	5.2
2490	36.4	-4.4	5.0
2500	35.6	-4.5	4.8

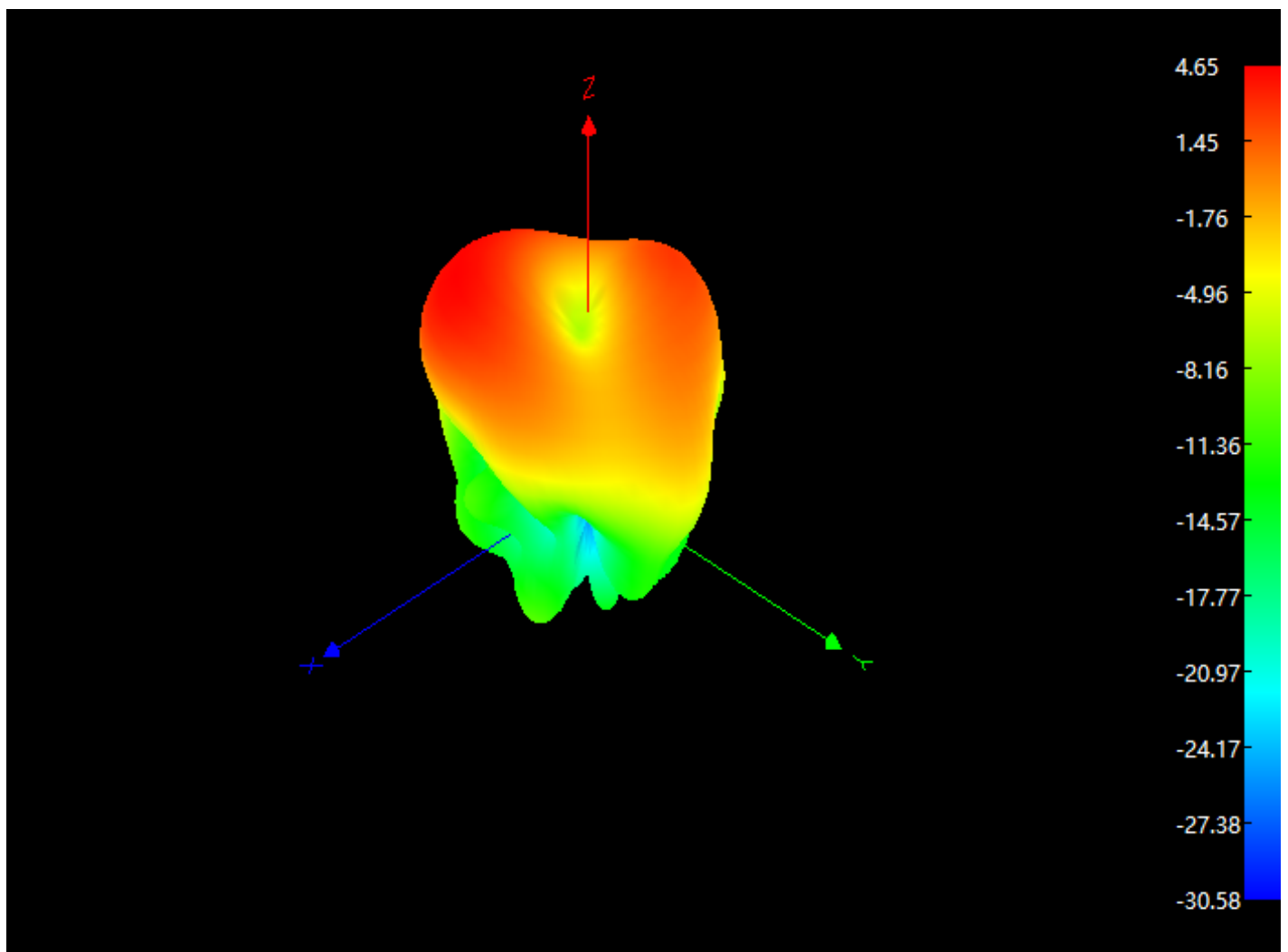
DONGGUANYIJIAELECTRONICS
COMMUNICATIONTECHNOLOGYCO.,LTD

Passive Test For WiFi Aux Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	33.4	-4.8	3.0
5200	32.2	-4.9	2.6
5250	27.7	-5.6	2.0
5300	27.2	-5.7	1.7
5350	29.2	-5.3	1.4
5400	32.2	-4.9	2.3
5450	33.4	-4.8	2.7
5500	32.7	-4.9	2.8
5550	34.5	-4.6	2.7
5600	36.2	-4.4	2.3
5650	32.1	-4.9	1.7
5700	29.7	-5.3	0.9
5750	36.1	-4.4	1.4
5800	30.2	-5.2	1.1
5850	26.8	-5.7	0.3

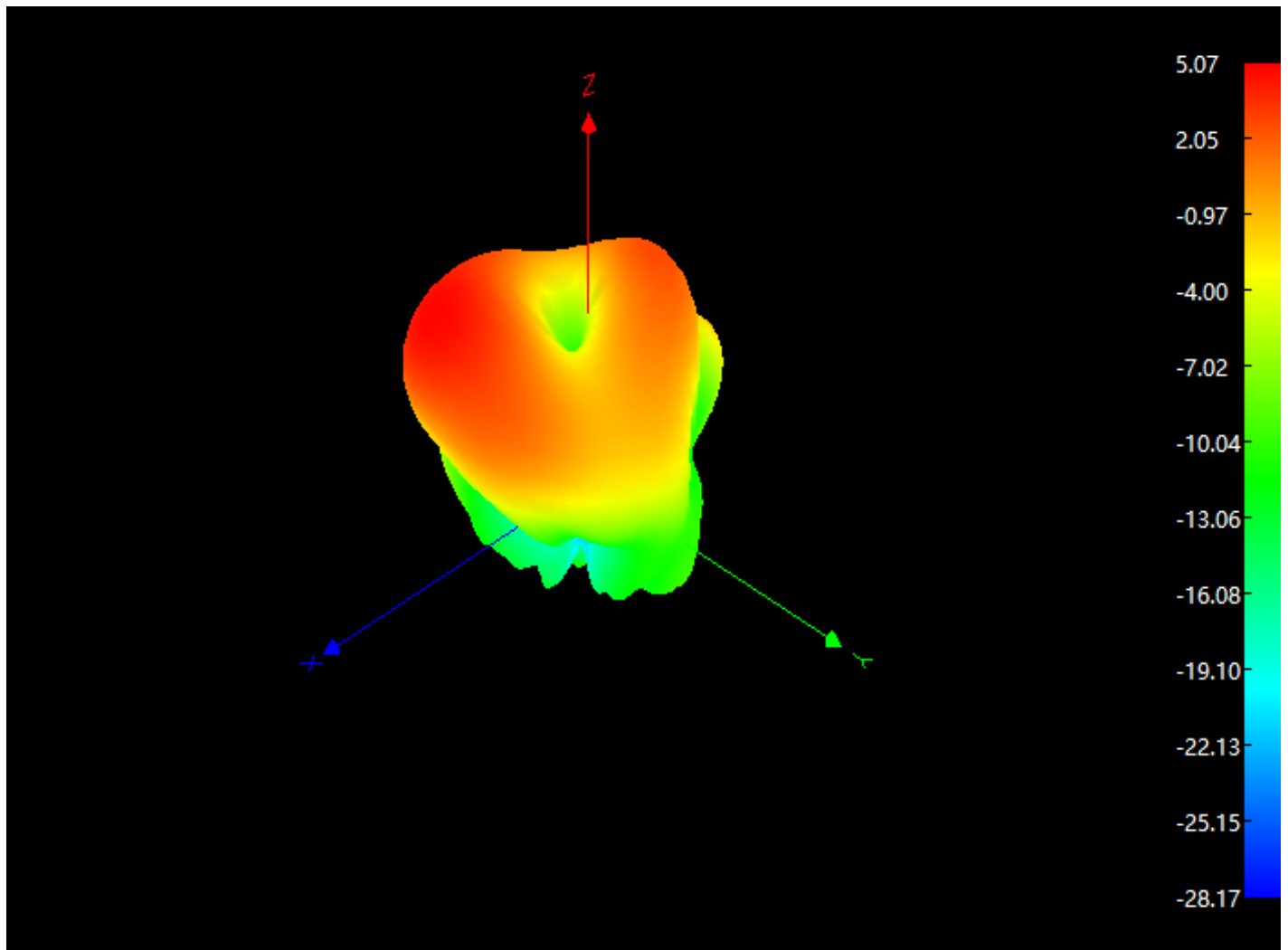
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna (2400MHz)



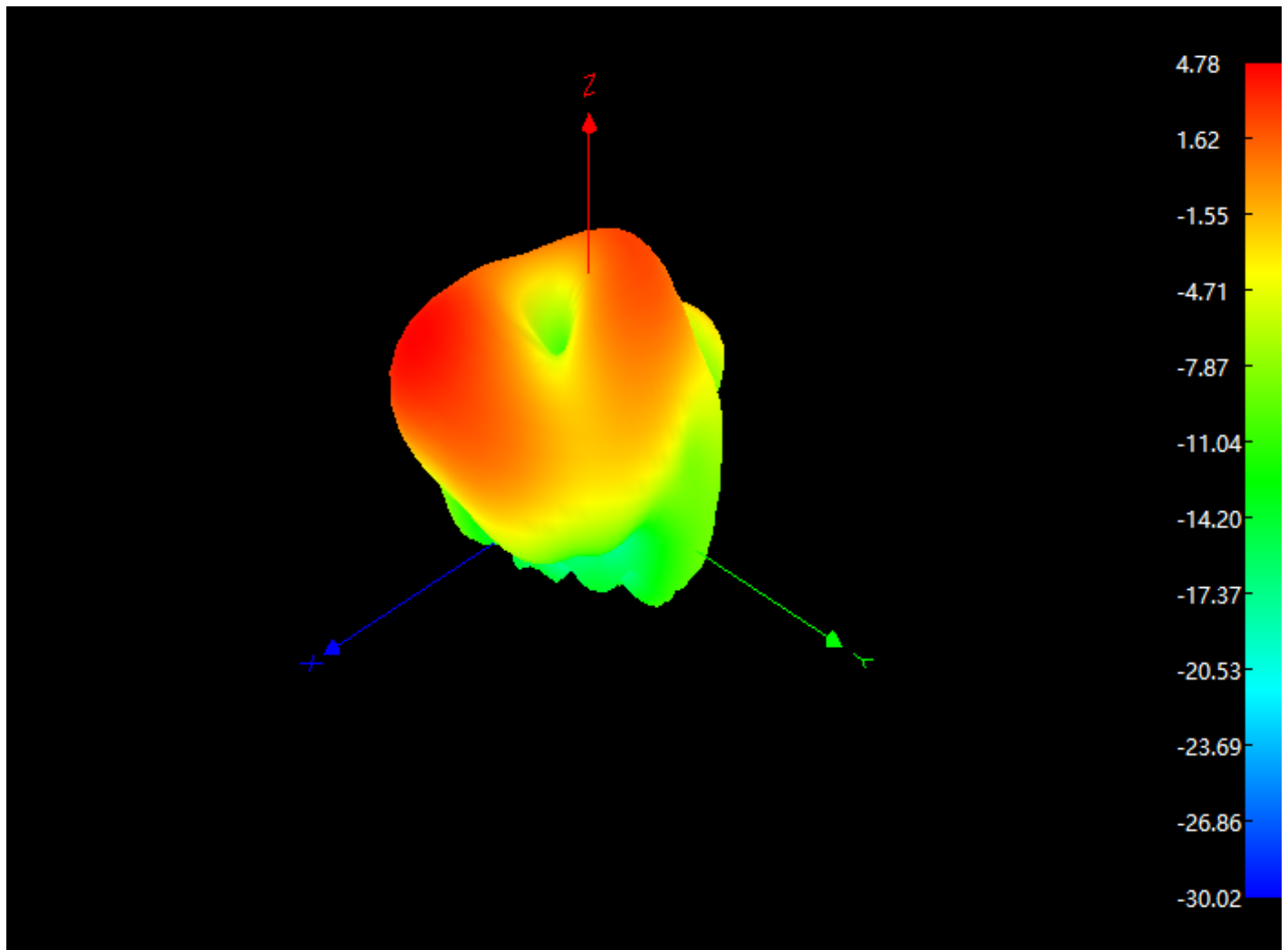
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna (2450MHz)



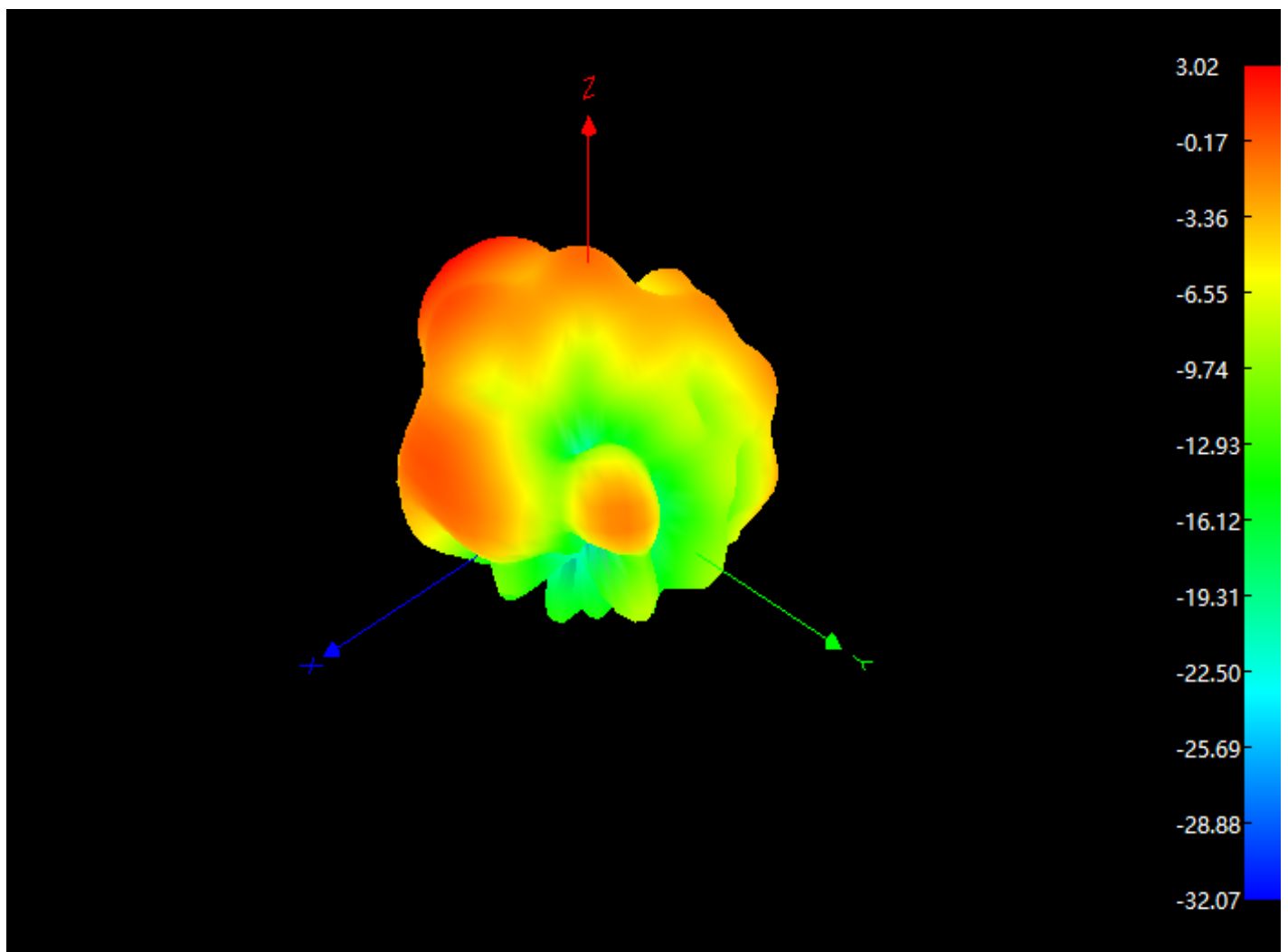
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna (2500MHz)



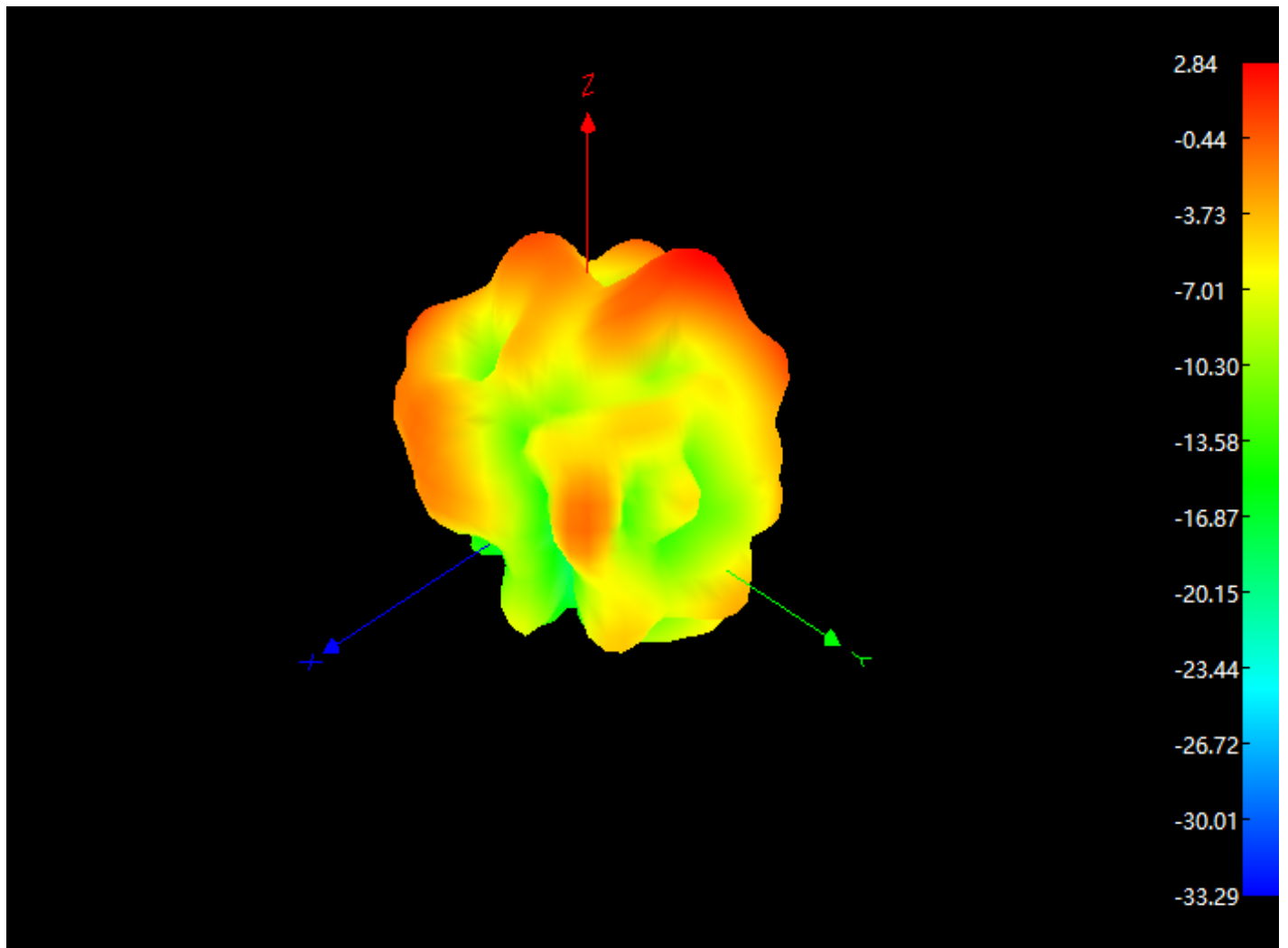
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna (5150MHz)



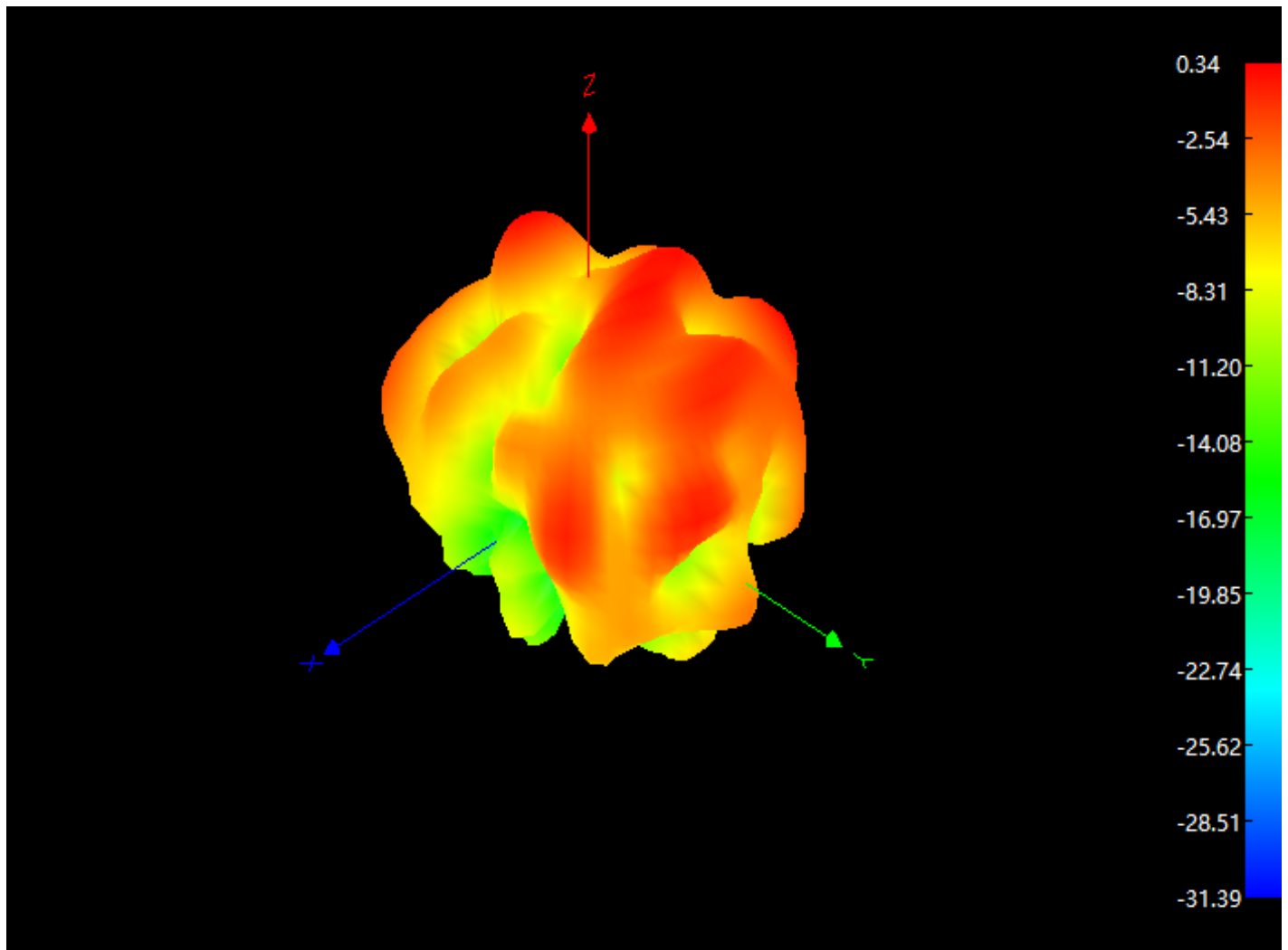
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna (5500MHz)



DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

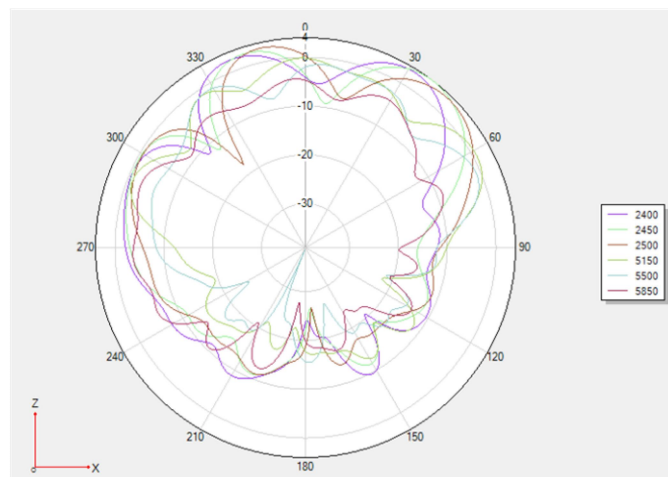
Radiation Pattern For WiFi Aux Antenna (5850MHz)



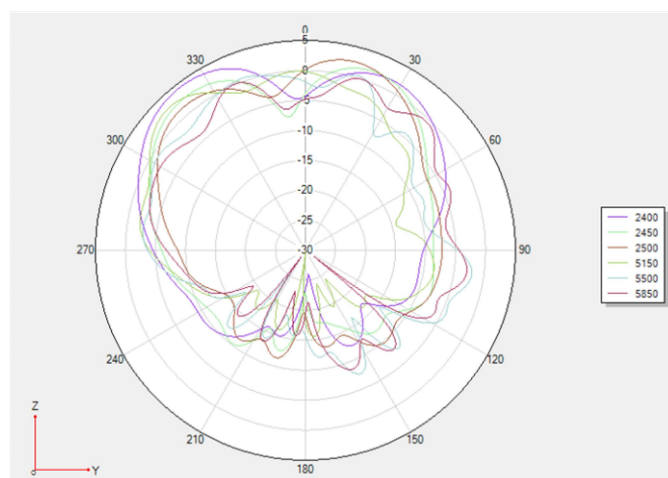
DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Radiation Pattern For WiFi Aux Antenna

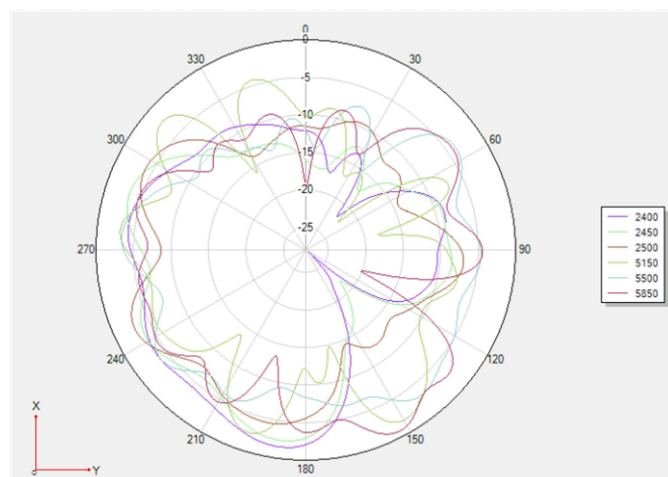
Phi 0°



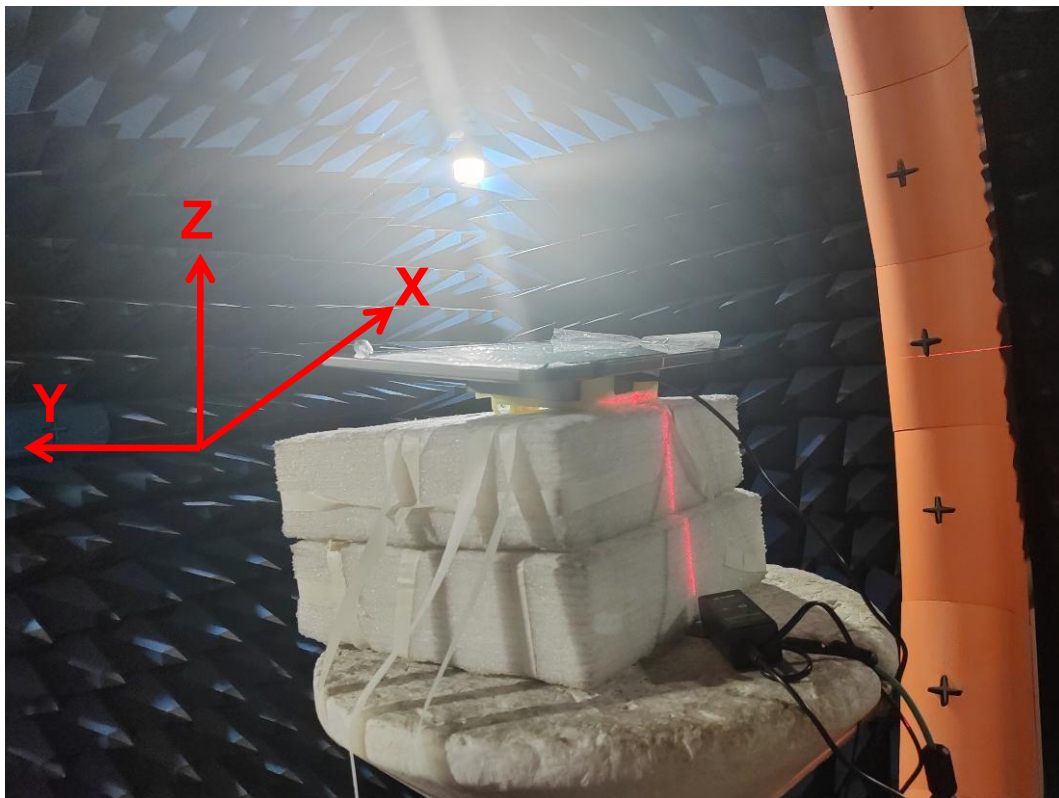
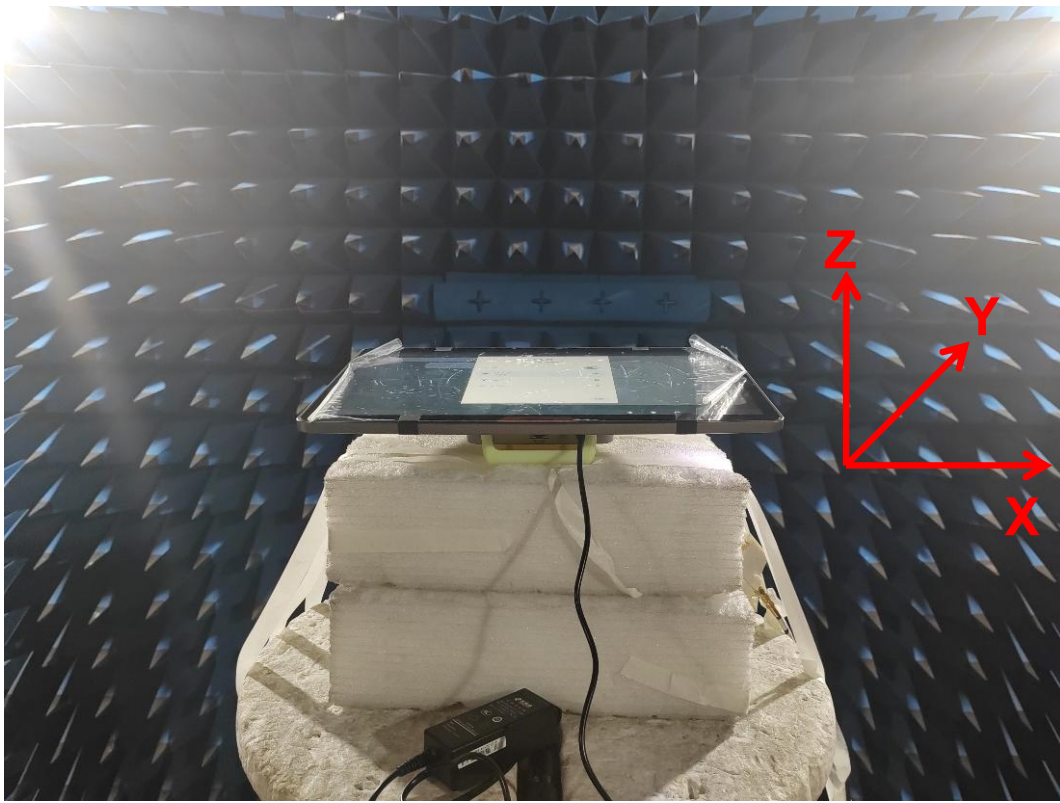
Phi 90°



Theta 90°



DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD



DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

Active Test For WiFi Antenna					
Band	Channel	Data Rate	TRP	Data Rate	TIS
WIFI 2.4G 802.11b	1	11Mbps	13.1	11Mbps	-71.8
	6		14.0		-71.4
	11		12.8		-71.8
WIFI 2.4G 802.11g	1	54Mbps	13.4	54Mbps	-56.5
	6		14.3		-57.2
	11		14.0		-56.8
WIFI 2.4G 802.11n	1	MCS7	13.2	MCS7	-41.4
	6		14.0		-42.7
	11		14.1		-42.2
WIFI 5G 802.11a	149	54Mbps	15.0	54Mbps	-71.0
	157		15.7		-70.9
	165		15.9		-70.3