

DONGGUANYIJIAELECTRONICS COMMUNICATIONTECHNOLOGYCO.,LTD

SPECIFICATION FOR APPROVAL

Date 2026/08/06
File No 26080601
Revision 1.0

CUSTOMER: Telpo

CUSTOMER NO: 3170300310

PART NAME: WIFI MAIN Antenna

SUPPLIER NO: YJW01.076.309.301A

Date: Q'TY:

CUSTOMER APPROVED BY

APPROVAL

CHIEF

SUPERVISOR

SUPPLIER SIGNATURE

APPROVAL

CHECK

DESIGN

ChenGuoqiang

ZhangLiqun

LiaoGuangxi

YJ-RD-F04-A

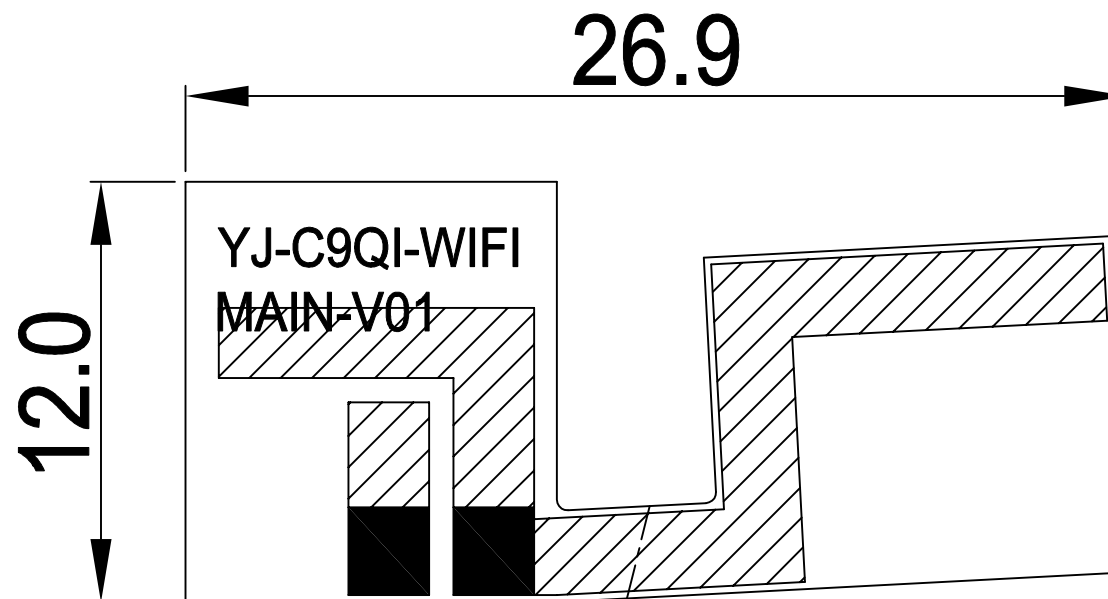
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SpecItem

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12	-	-	-
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RoHS
Compatible

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 MAIN Antenna

PART NO.: YJW01.076.309.301A

DATE: 2024-11-14

APPROVED BY

CHECKED BY

DESIDNED BY



Tolerance
X.X ±0.50
X.XX±0.15
X° ±3°

Qin Jianyu

Zhou Yingjie

Liao Guangxi

UNITS: mm
SCALE: 1/1
REVISION: A

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Antenna Specification

Electrical Properties

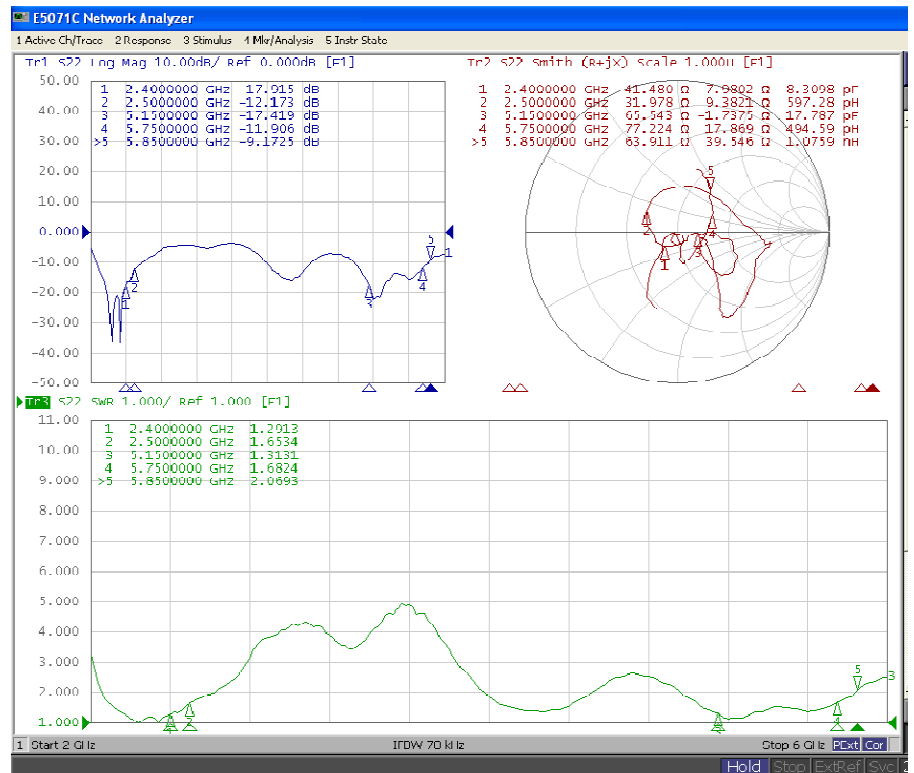
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.0 Max@2.4-2.5GHz 2.5 Max@5.15-5.85GHz
Gain	6.6 dBi@2.4-2.5GHz 5.3 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear

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%

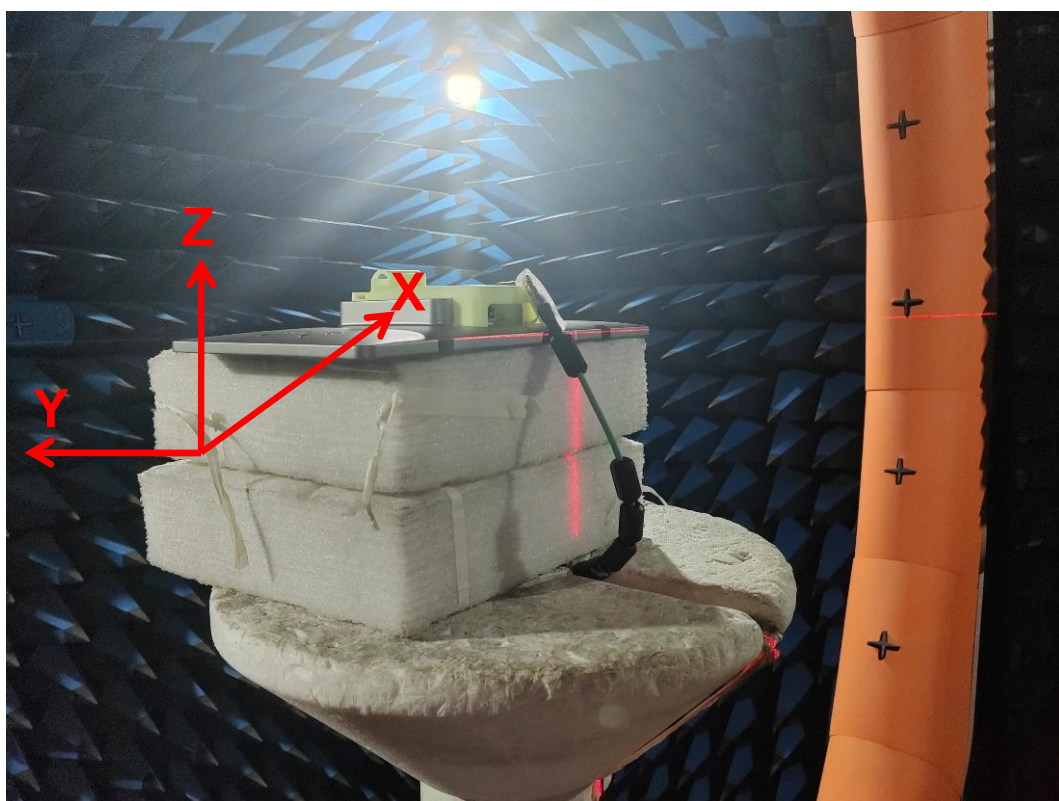
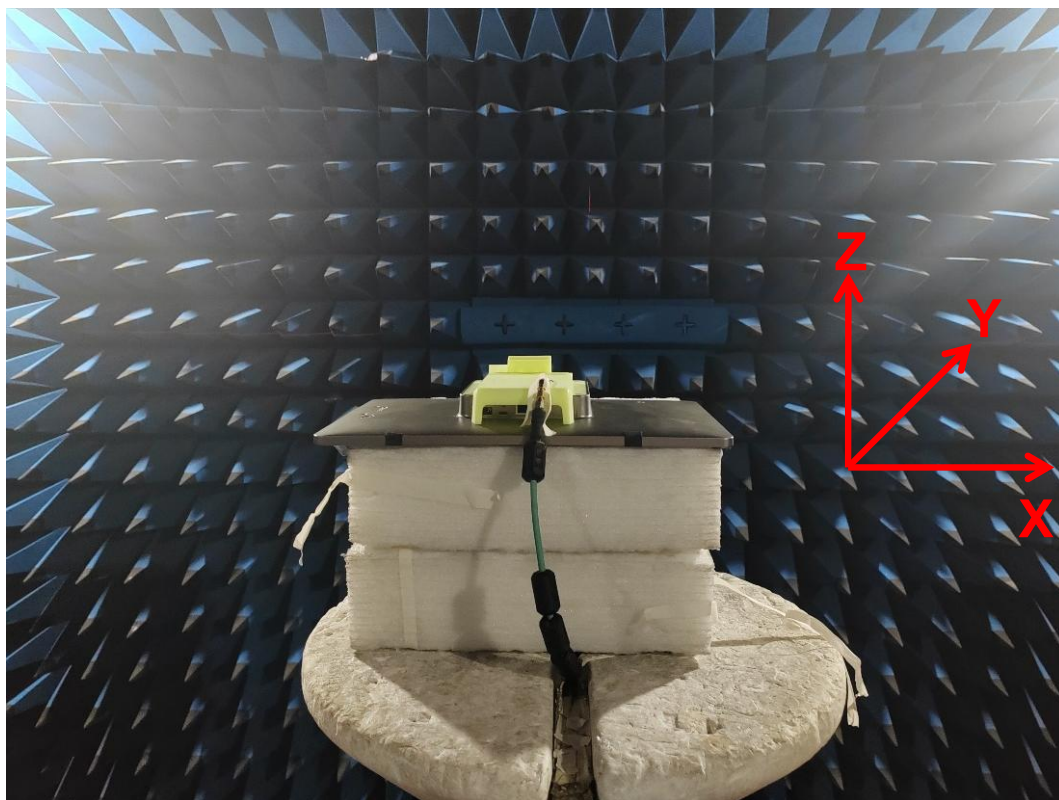
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Agilent E5071C S Parameter Test // WiFi Main Antenna



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Antenna Passive Test



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Passive Test For WiFi Main Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	47.6	-3.2	6.6
2410	47.6	-3.2	6.4
2420	46.5	-3.3	6.0
2430	45.6	-3.4	5.7
2440	46.1	-3.4	5.4
2450	47.4	-3.2	5.2
2460	46.7	-3.3	4.8
2470	46.7	-3.3	4.5
2480	46.3	-3.3	4.4
2490	46.1	-3.4	4.7
2500	44.4	-3.5	4.7

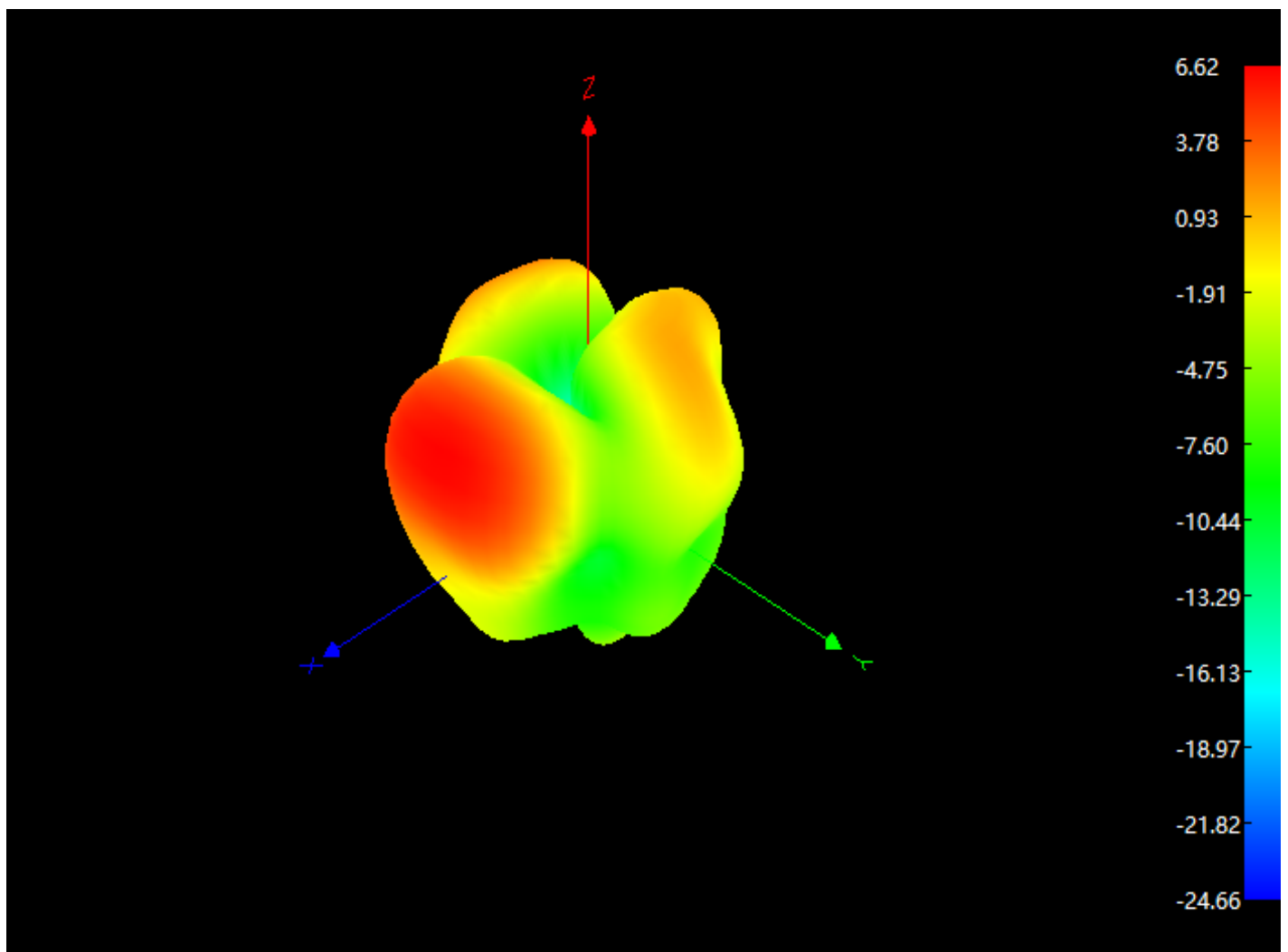
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Passive Test For WiFi Main Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	48.6	-3.1	4.9
5200	49.9	-3.0	4.9
5250	47.1	-3.3	4.6
5300	45.5	-3.4	4.5
5350	46.8	-3.3	4.6
5400	53.3	-2.7	4.9
5450	50.1	-3.0	4.6
5500	47.4	-3.2	4.6
5550	54.1	-2.7	5.3
5600	52.2	-2.8	5.2
5650	43.2	-3.7	4.7
5700	42.2	-3.8	4.8
5750	45.7	-3.4	5.2
5800	39.1	-4.1	4.9
5850	40.8	-3.9	5.2

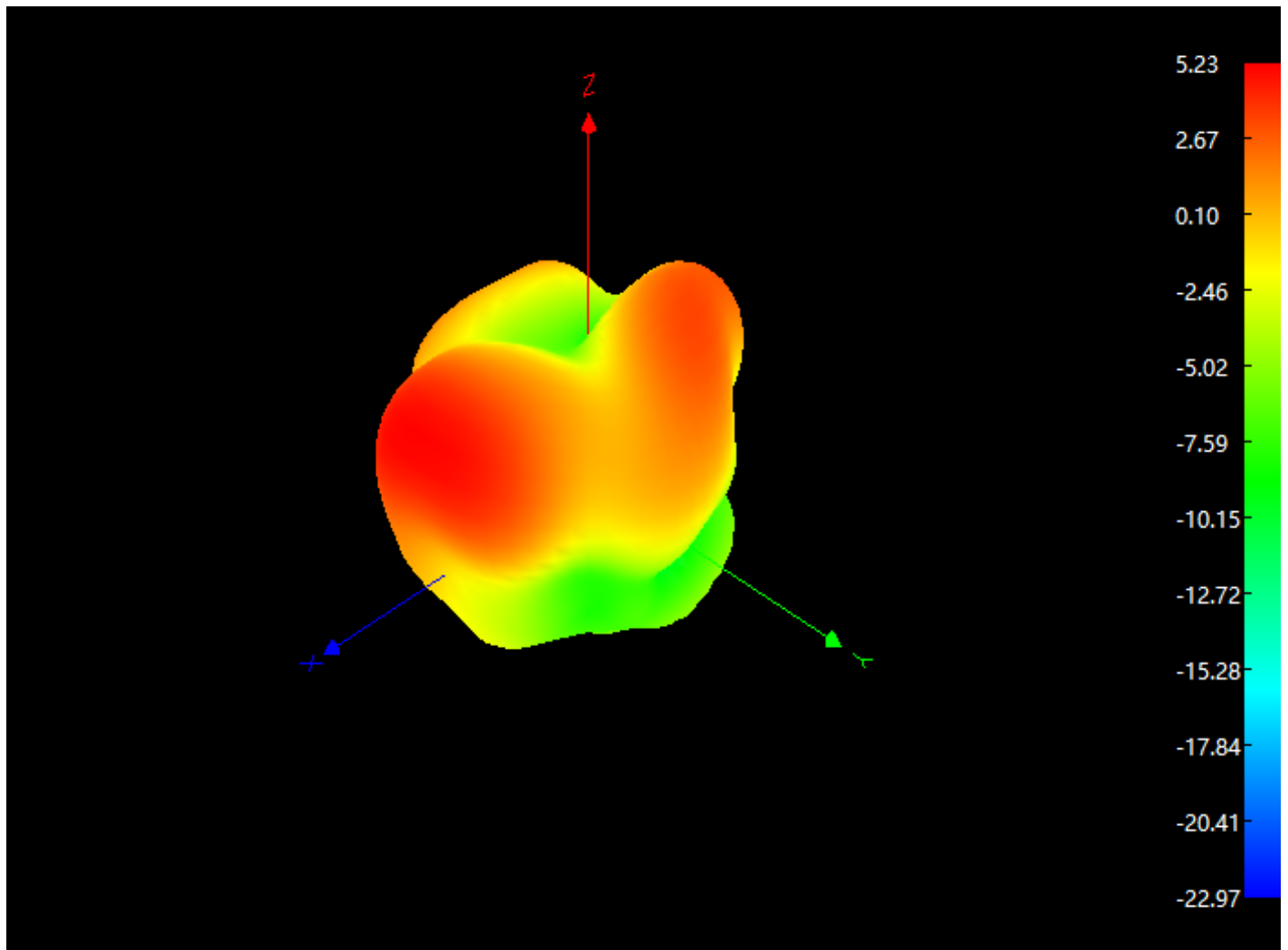
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Radiation Pattern For WiFi Main Antenna (2400MHz)



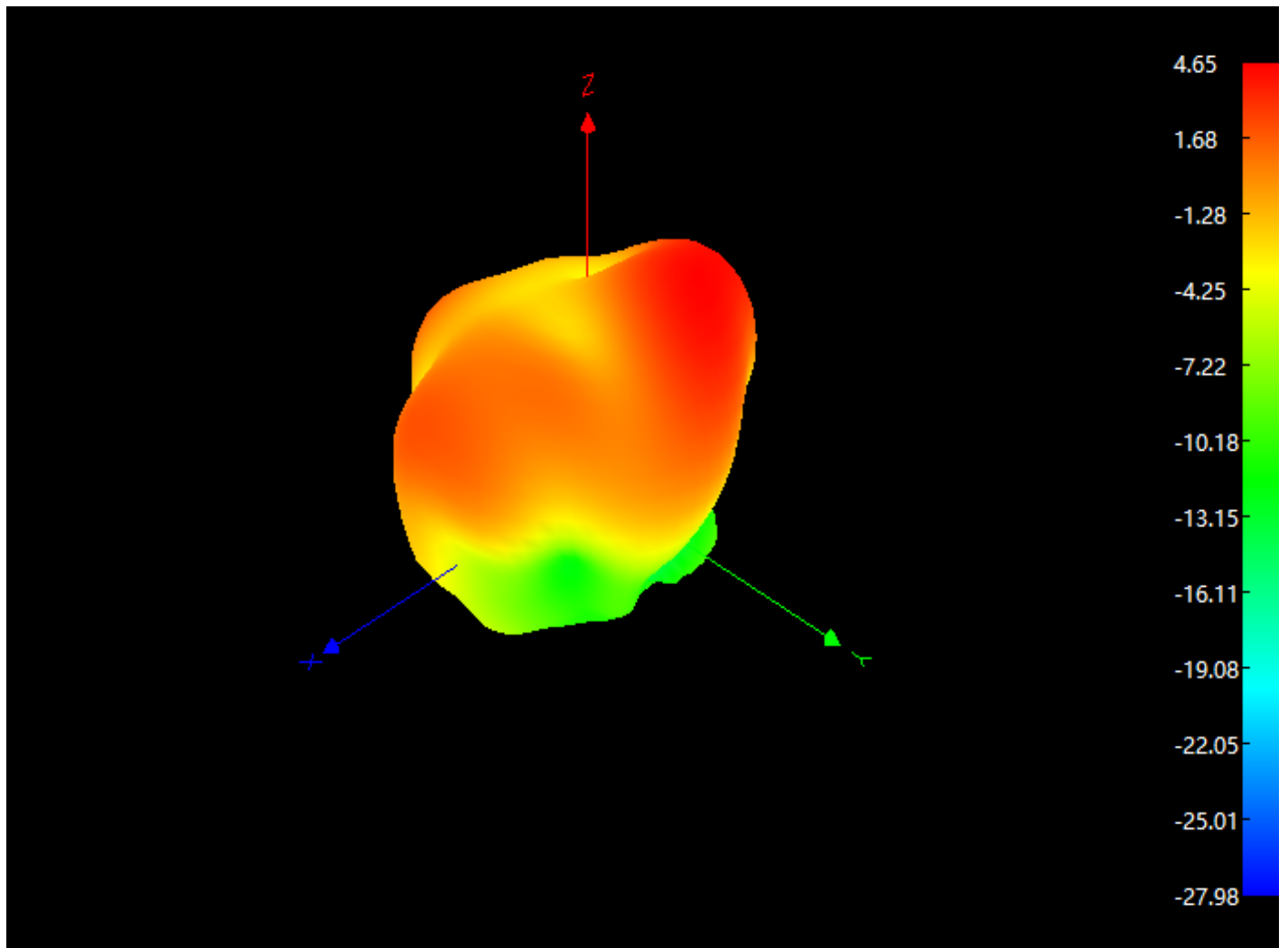
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Radiation Pattern For WiFi Main Antenna (2450MHz)



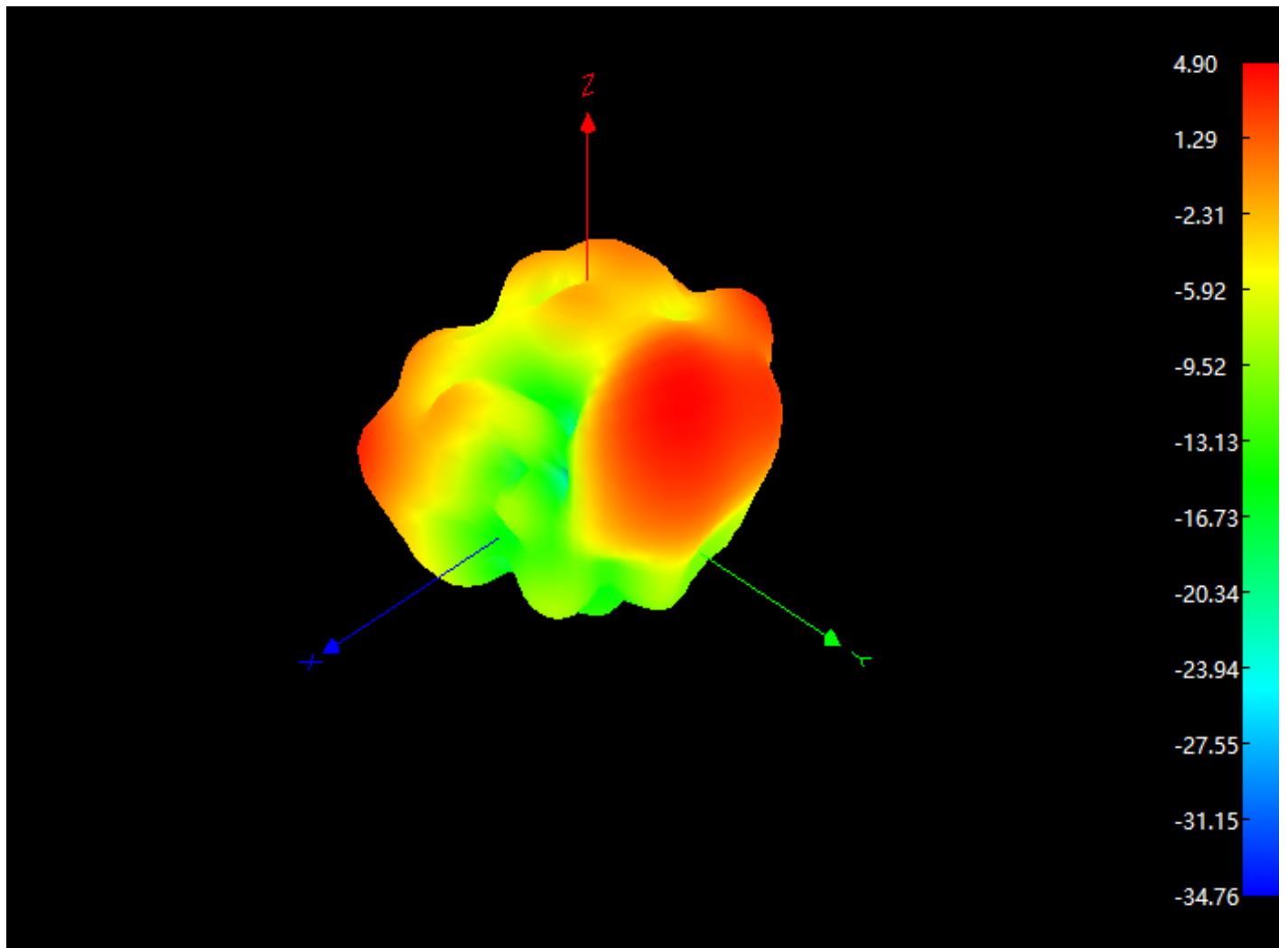
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Radiation Pattern For WiFi Main Antenna (2500MHz)



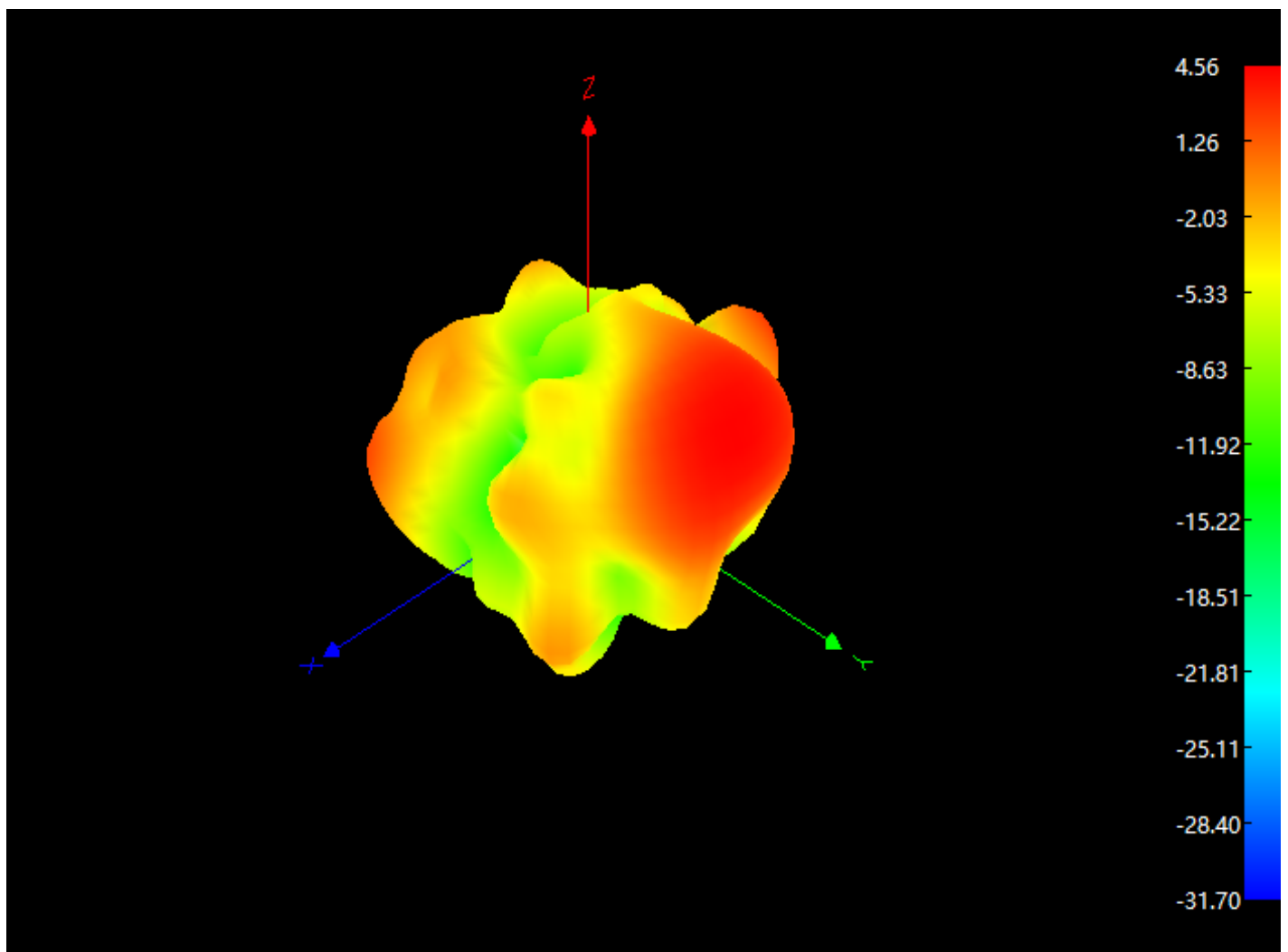
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Radiation Pattern For WiFi Main Antenna (5150MHz)



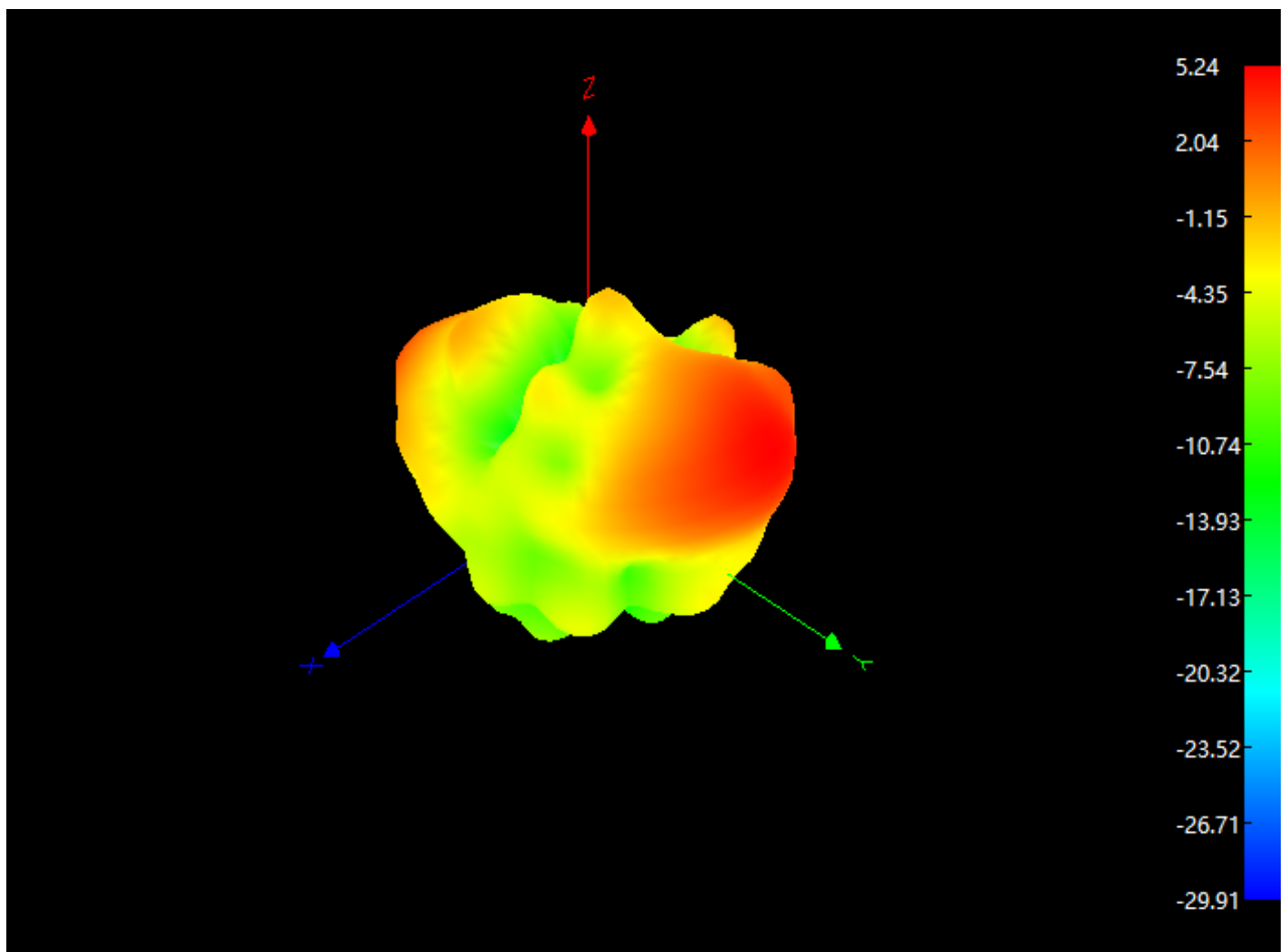
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Radiation Pattern For WiFi Main Antenna (5500MHz)



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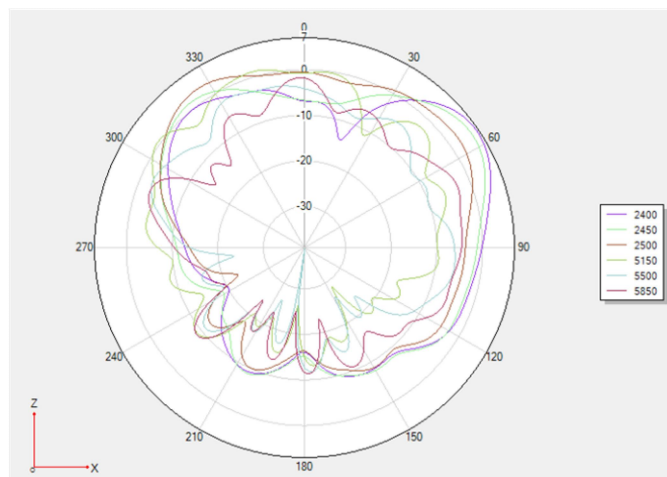
Radiation Pattern For WiFi Main Antenna (5850MHz)



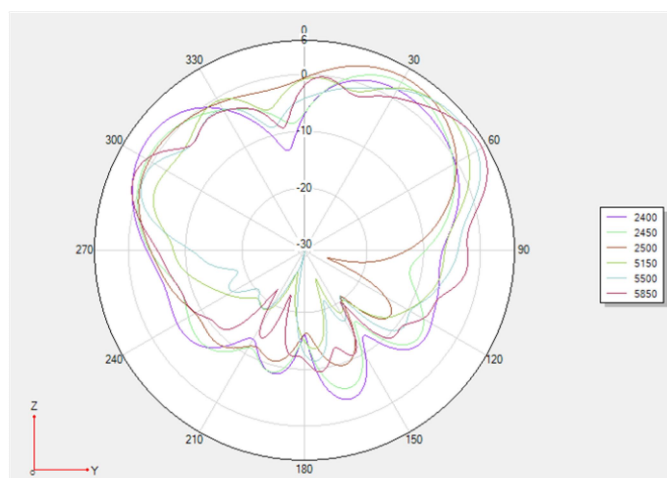
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Radiation Pattern For WiFi Main Antenna

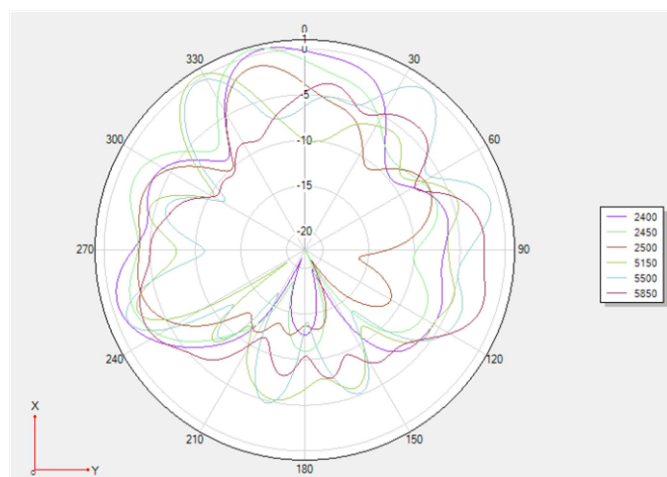
Phi 0°



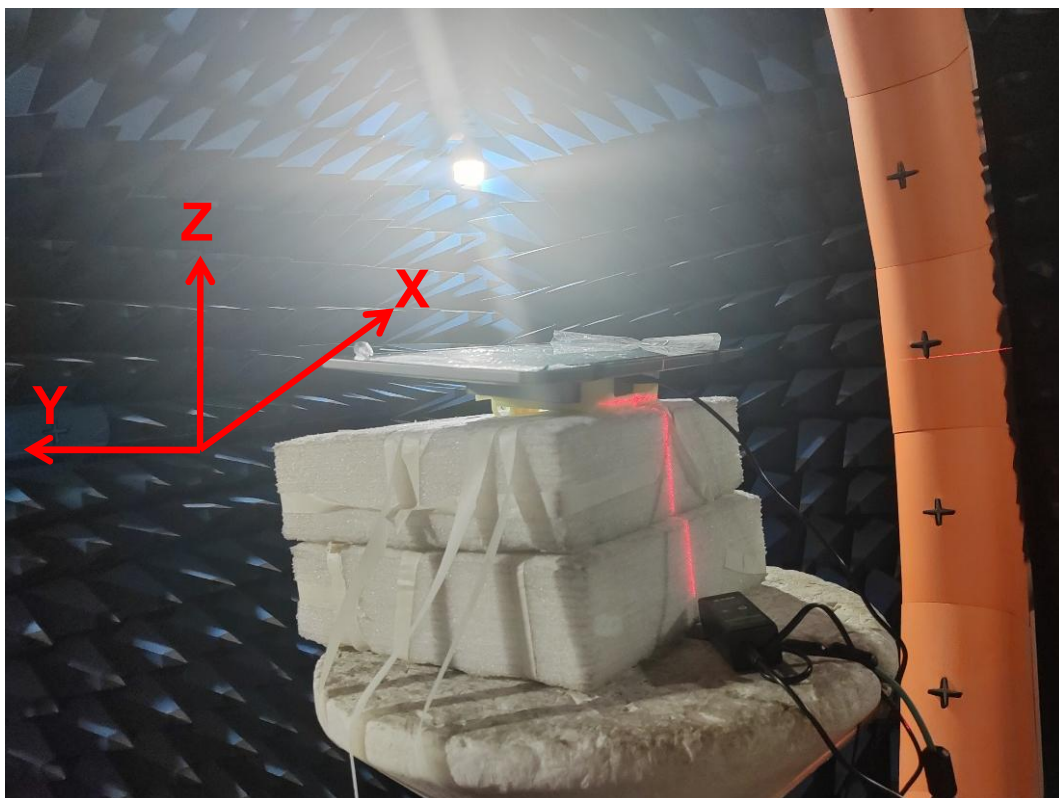
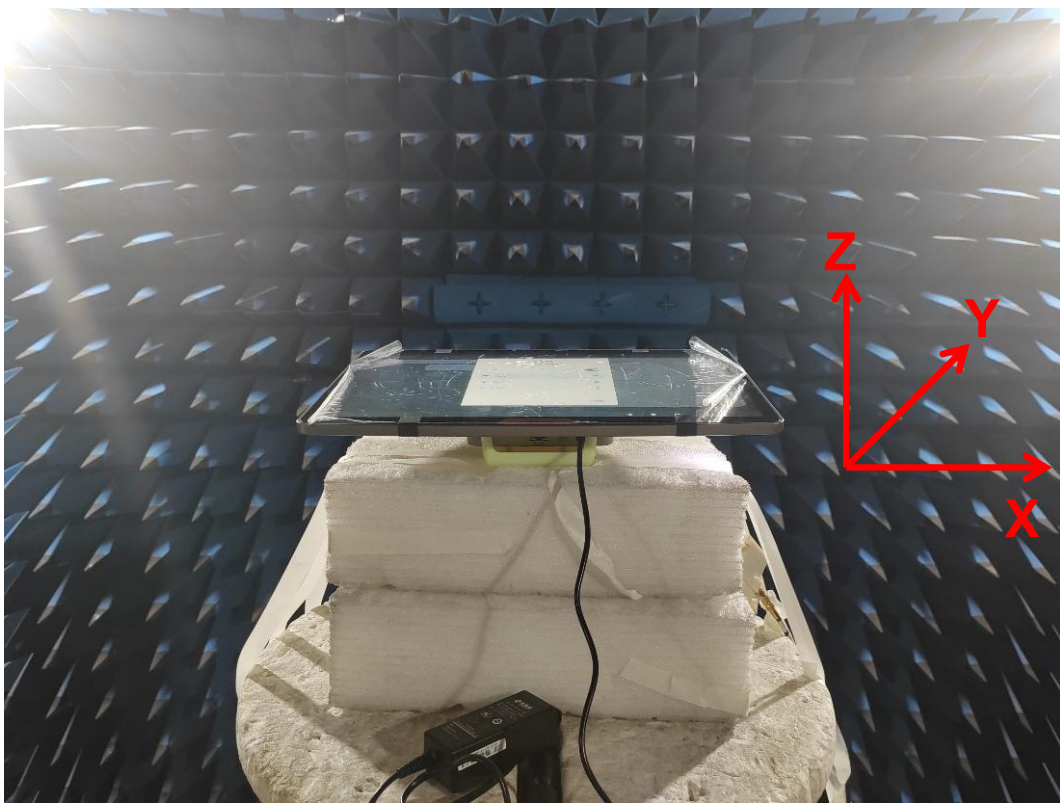
Phi 90°



Theta 90°



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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