



SPECIFICATION FOR APPROVAL

Date 2025/04/08
File No 25040801
Revision 1.0

CUSTOMER: FJ Dynamics Technology Co., Ltd.

CUSTOMER NO: YTX-TX-003061-2 A.2

PART NAME: 2.4G+5.8G-Episode Antenna L=155mm MHF

SUPPLIER NO: YJF01.085.030.301A

Date: Q'TY:

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

SUPPLIER SIGNATURE		
APPROVAL	CHECK	DESIGN
 ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A

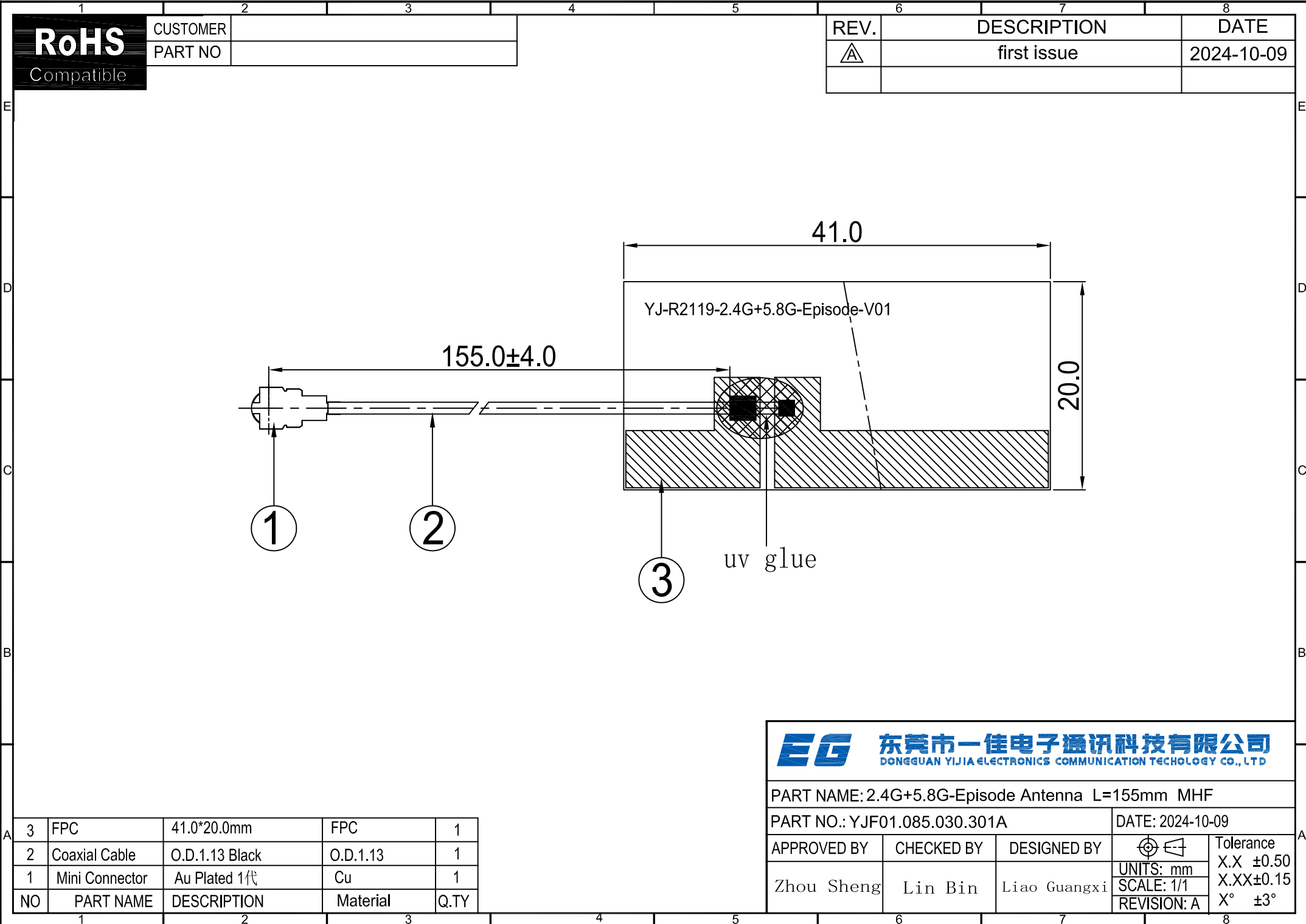




Spec Item

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RoHS

Compatible

CUSTOMER

PART NO

REV.



DESCRIPTION

first issue

DATE

2024-10-09

41.0

YJ-R2119-2.4G+5.8G-Episode-V01

155.0±4.0

20.0

uv glue



东莞市一佳电子通讯科技有限公司
DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

PART NAME: 2.4G+5.8G-Episode Antenna L=155mm MHF

PART NO.: YJF01.085.030.301A

DATE: 2024-10-09

APPROVED BY

CHECKED BY

DESIGNED BY



Tolerance

Zhou Sheng

Lin Bin

Liao Guangxi

UNITS: mm

SCALE: 1/1

REVISION: A

X.X ±0.50

X.XX±0.15

X° ±3°



Antenna Specification

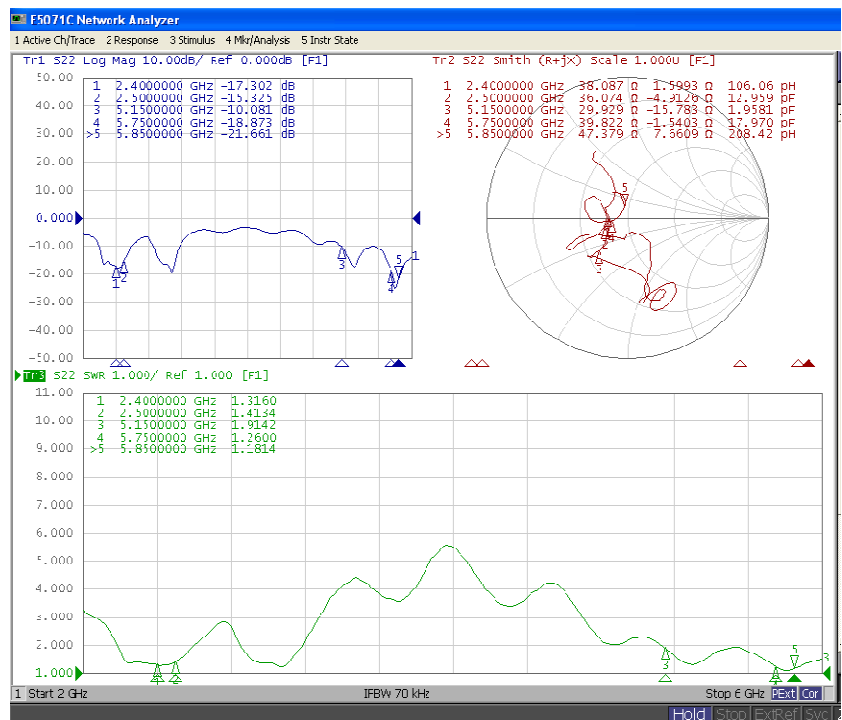
Electrical Properties	
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.0 Max
Gain	5.2 dBi@700-960MHz 4.0 dBi@1710-2690MHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1代IPEX
Cable Type	O.D.1.13mm
Cable Length	155mm
Cable Color	Black
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%





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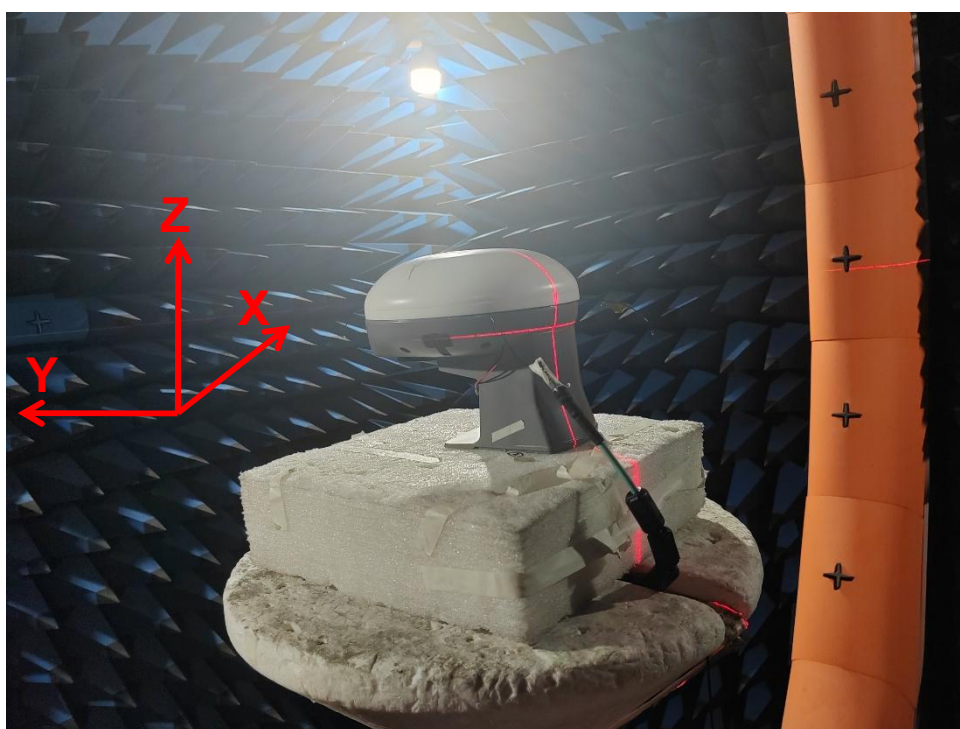
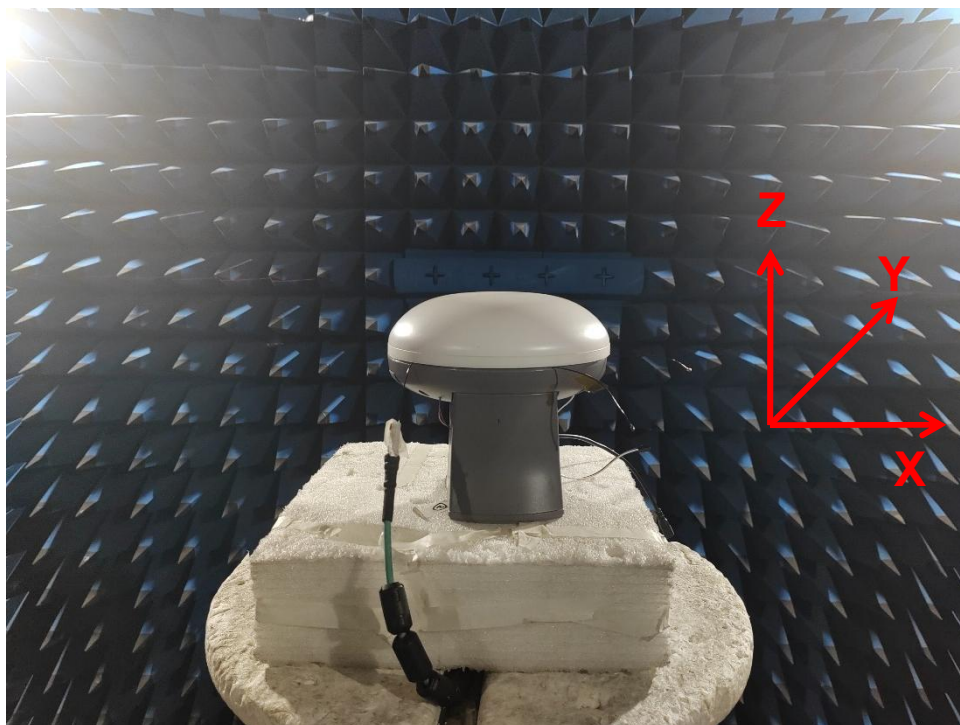
Agilent E5071C S Parameter Test // WiFi Aux Antenna



Yuanfu Industrial Park, No.59, Muyu Road, Shatou Community, Chang'an Town, Dongguan, Guangdong



Antenna Passive Test





Passive Test For WiFi Aux Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	39.3	-4.1	4.8
2410	40.2	-4.0	5.1
2420	39.3	-4.1	5.0
2430	38.9	-4.1	5.1
2440	39.7	-4.0	4.8
2450	43.2	-3.7	5.2
2460	42.3	-3.7	4.6
2470	44.6	-3.5	4.9
2480	44.7	-3.5	4.4
2490	46.9	-3.3	4.6
2500	45.3	-3.4	4.1



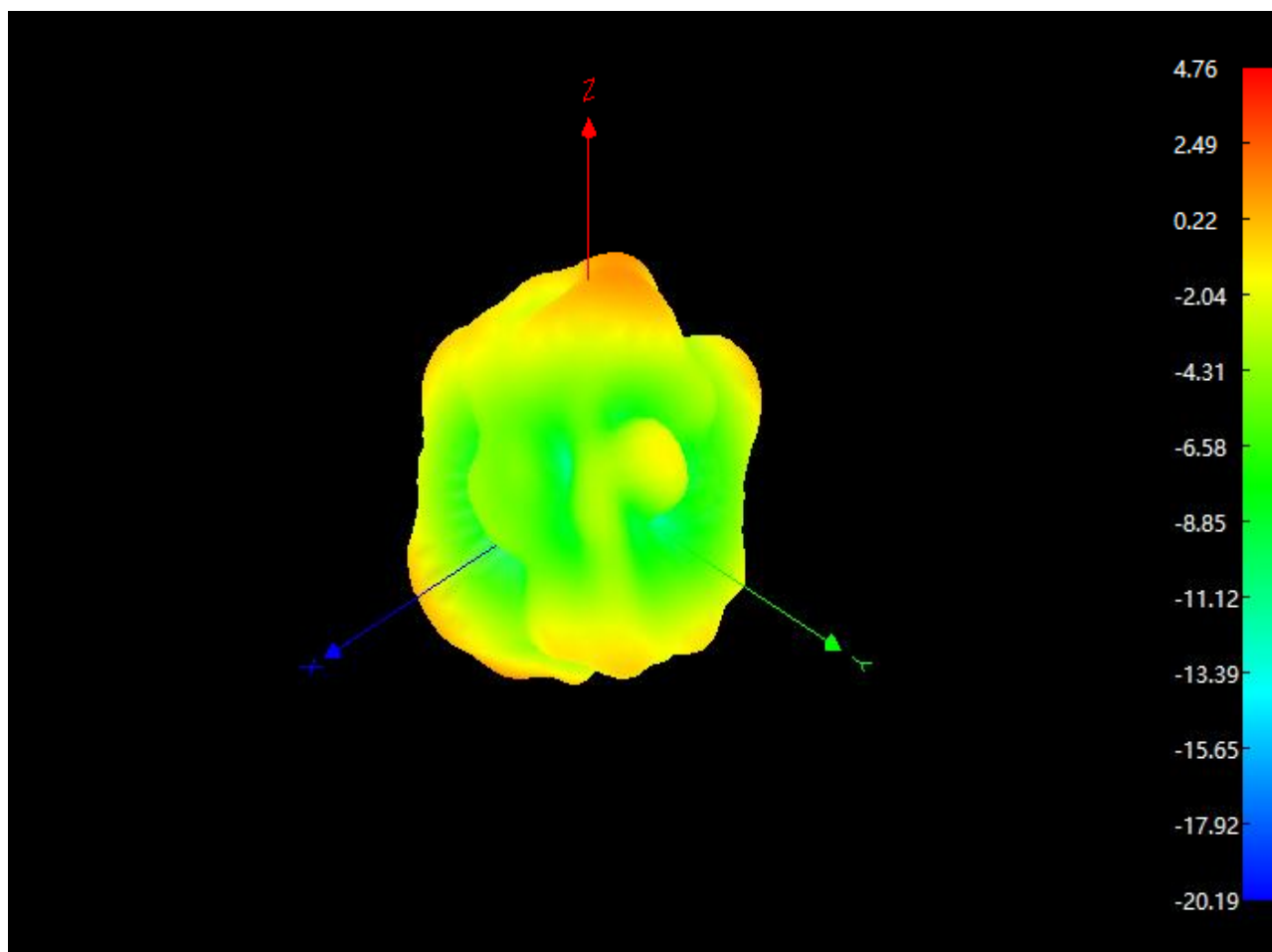


Passive Test For WiFi Aux Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	47.4	-3.2	3.8
5200	48.5	-3.1	3.7
5250	49.2	-3.1	4.0
5300	48.8	-3.1	3.7
5350	48.1	-3.2	3.0
5400	53.7	-2.7	3.3
5450	49.9	-3.0	2.1
5500	45.1	-3.5	1.3
5550	51.8	-2.9	2.4
5600	50.1	-3.0	2.0
5650	44.6	-3.5	1.6
5700	45.6	-3.4	2.1
5750	48.3	-3.2	2.7
5800	49.8	-3.0	3.4
5850	47.0	-3.3	3.3



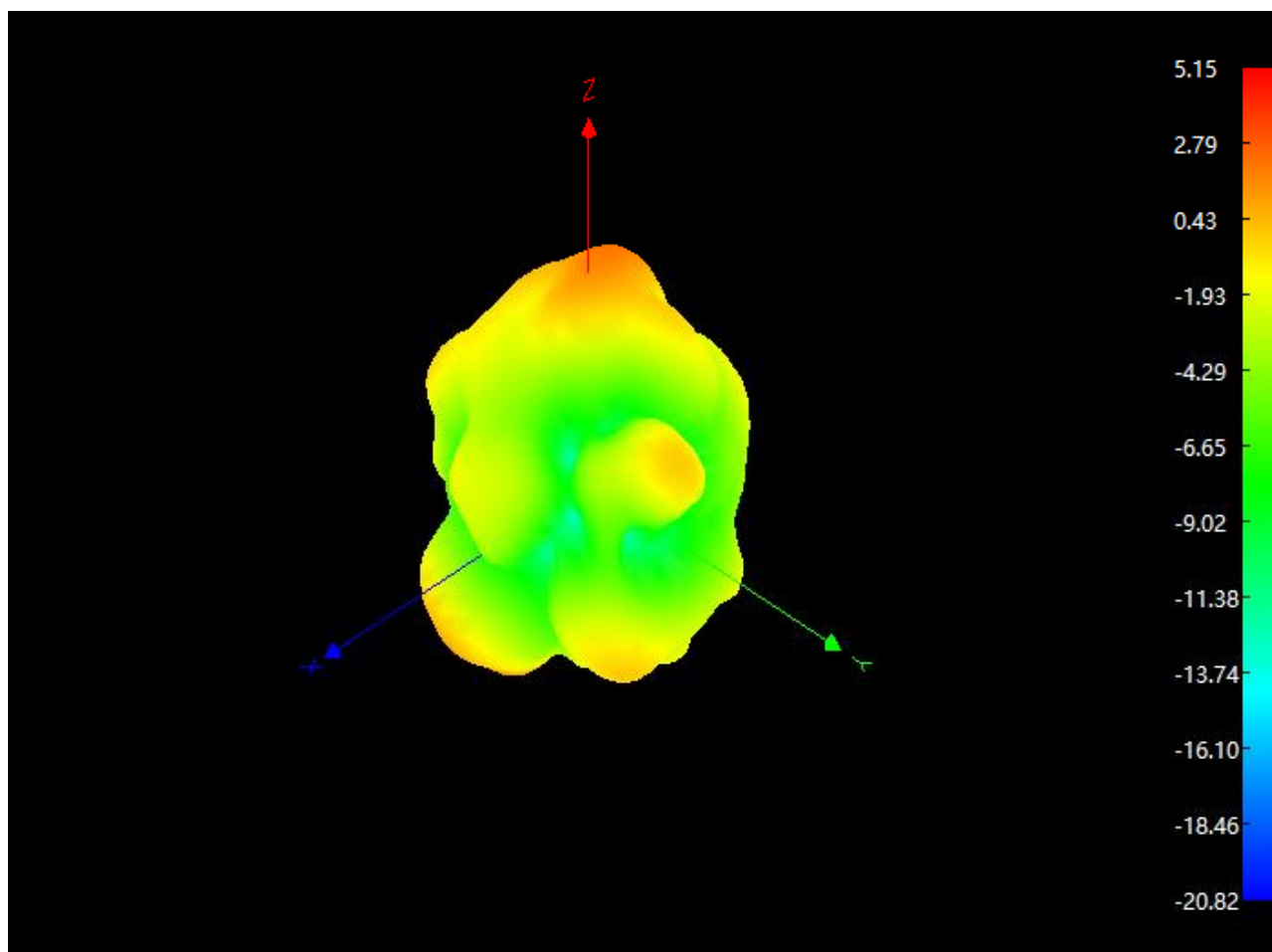


Radiation Pattern For WiFi Aux Antenna (2400MHz)



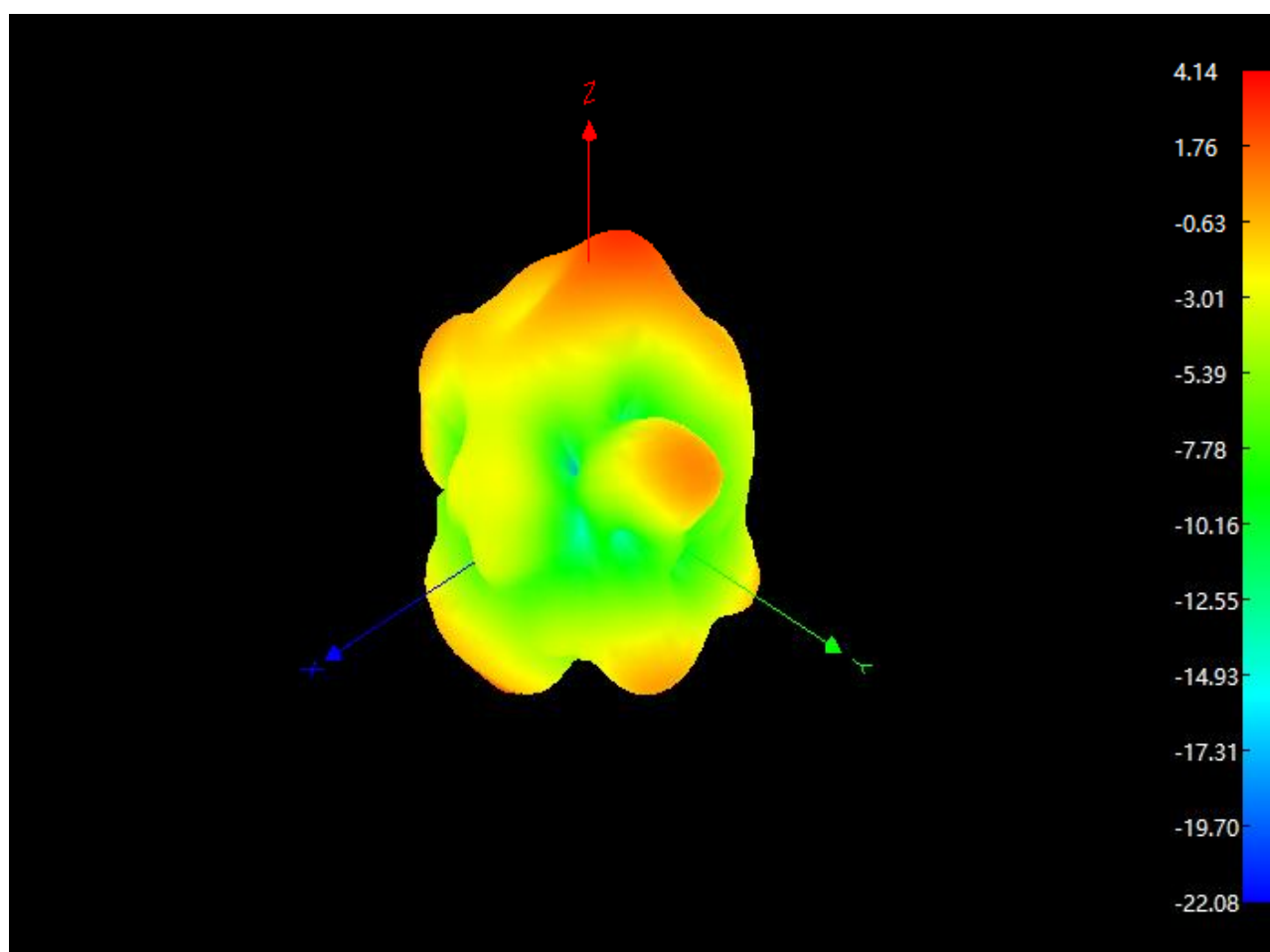


Radiation Pattern For WiFi Aux Antenna (2450MHz)



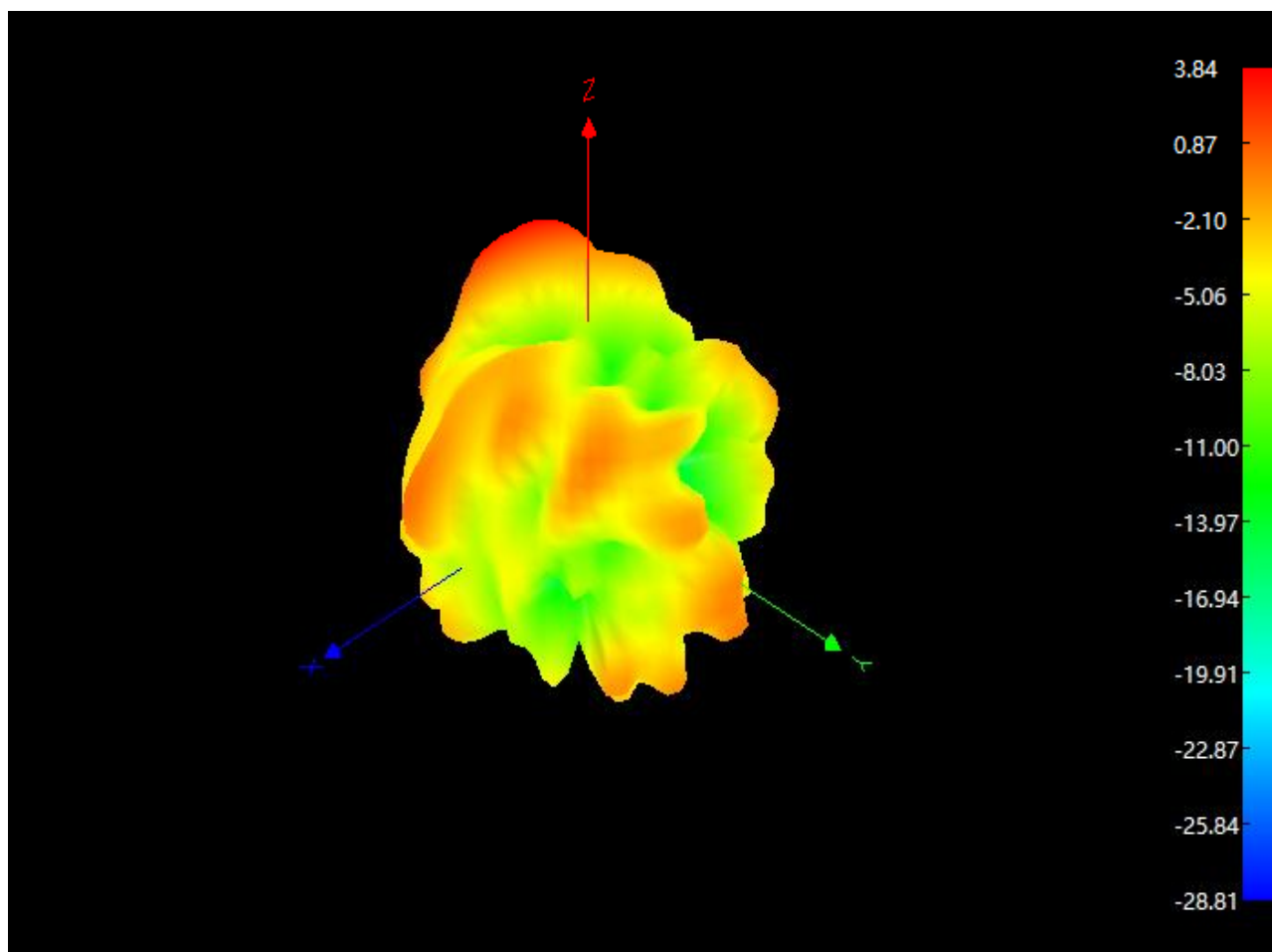


Radiation Pattern For WiFi Aux Antenna (2500MHz)



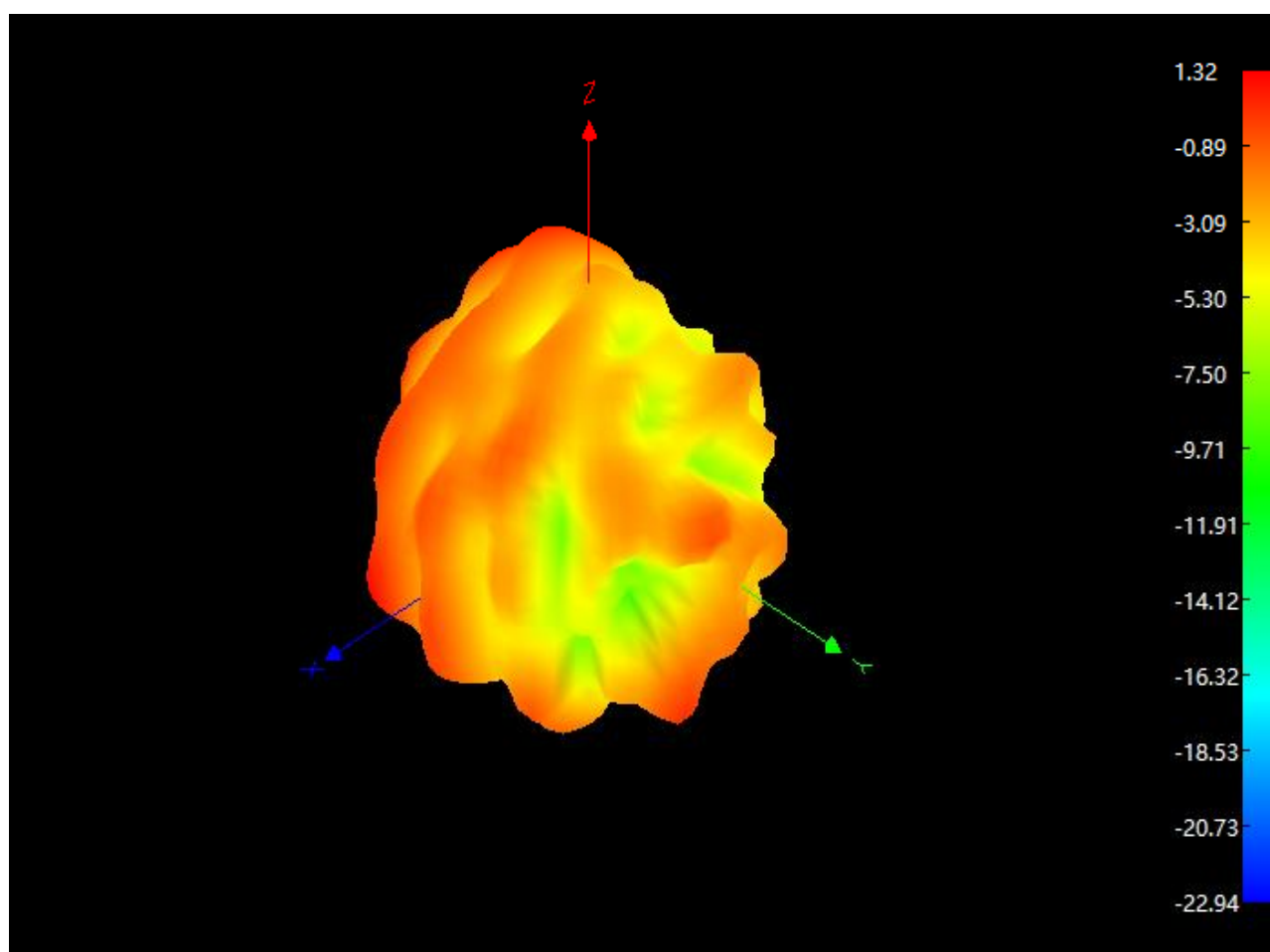


Radiation Pattern For WiFi Aux Antenna (5150MHz)



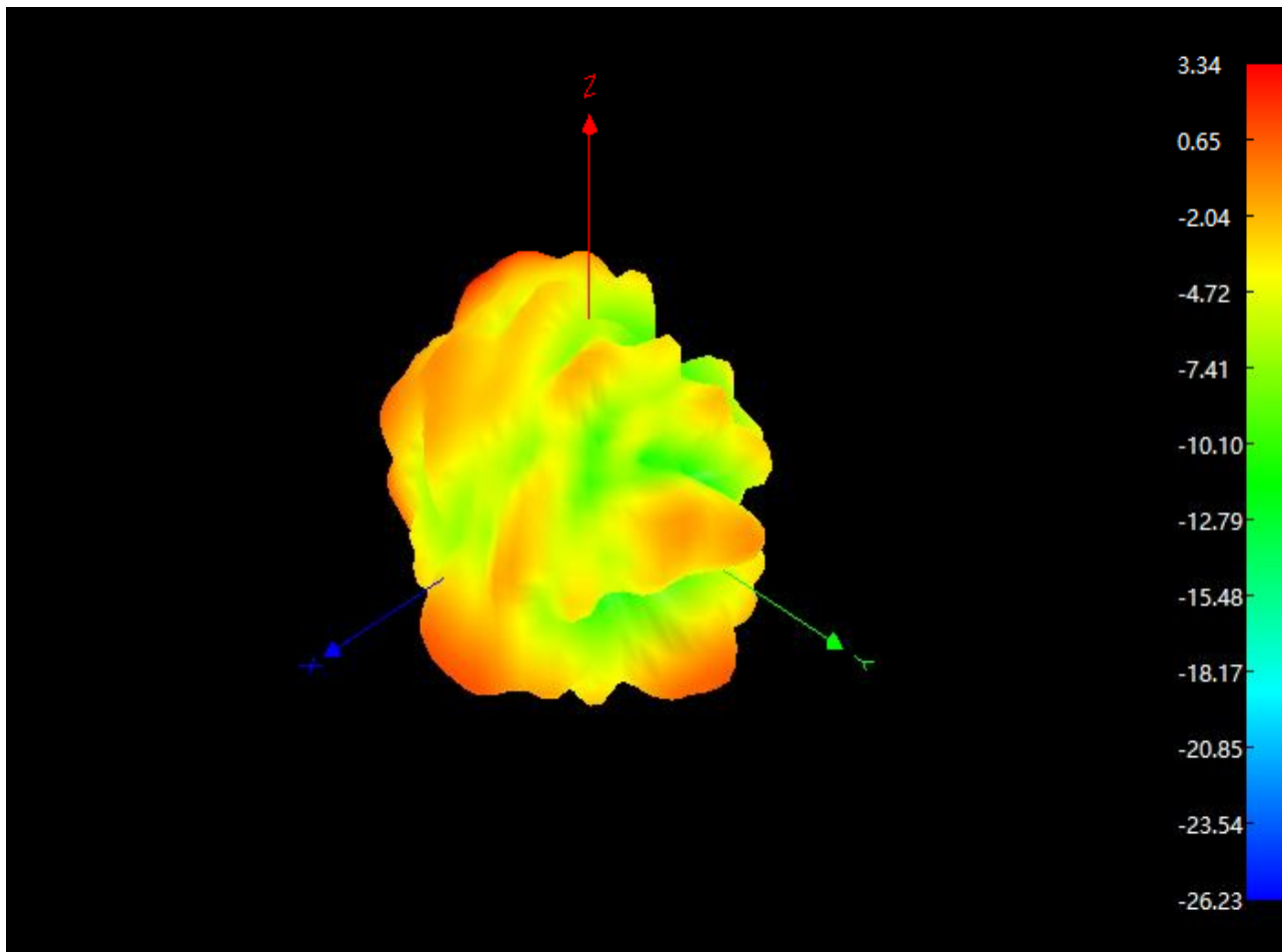


Radiation Pattern For WiFi Aux Antenna (5500MHz)





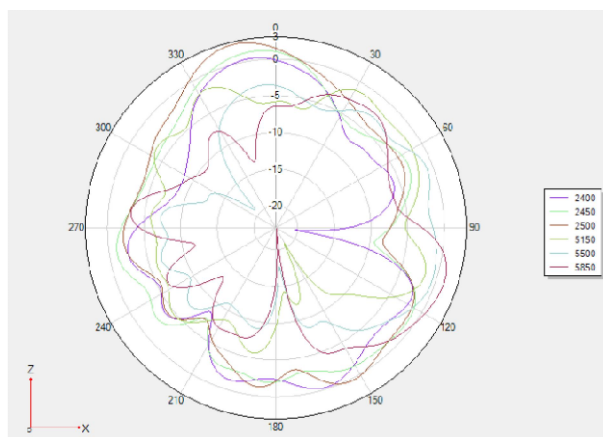
Radiation Pattern For WiFi Aux Antenna (5850MHz)



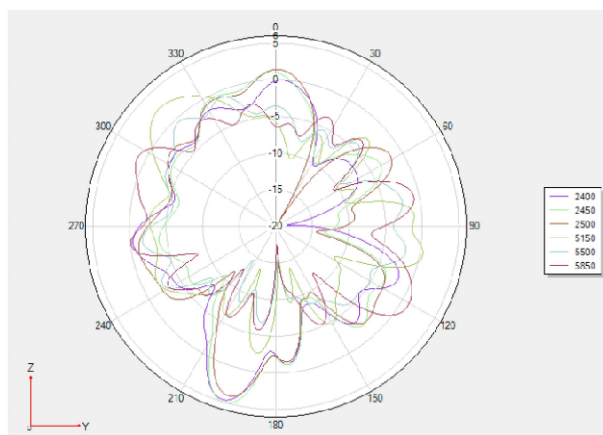


Radiation Pattern For WiFi Aux Antenna

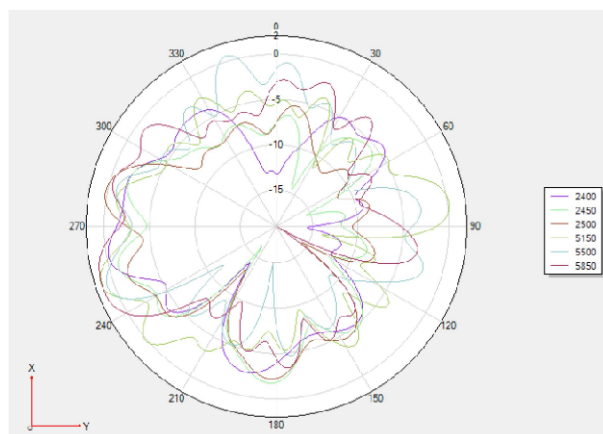
Phi 0°



Phi 90°



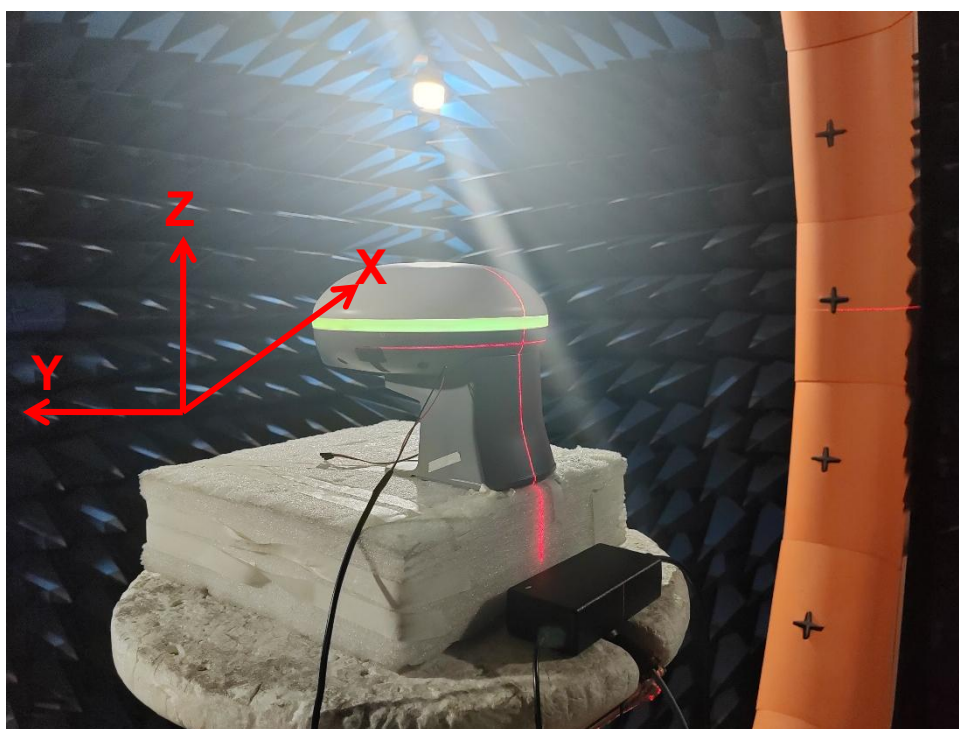
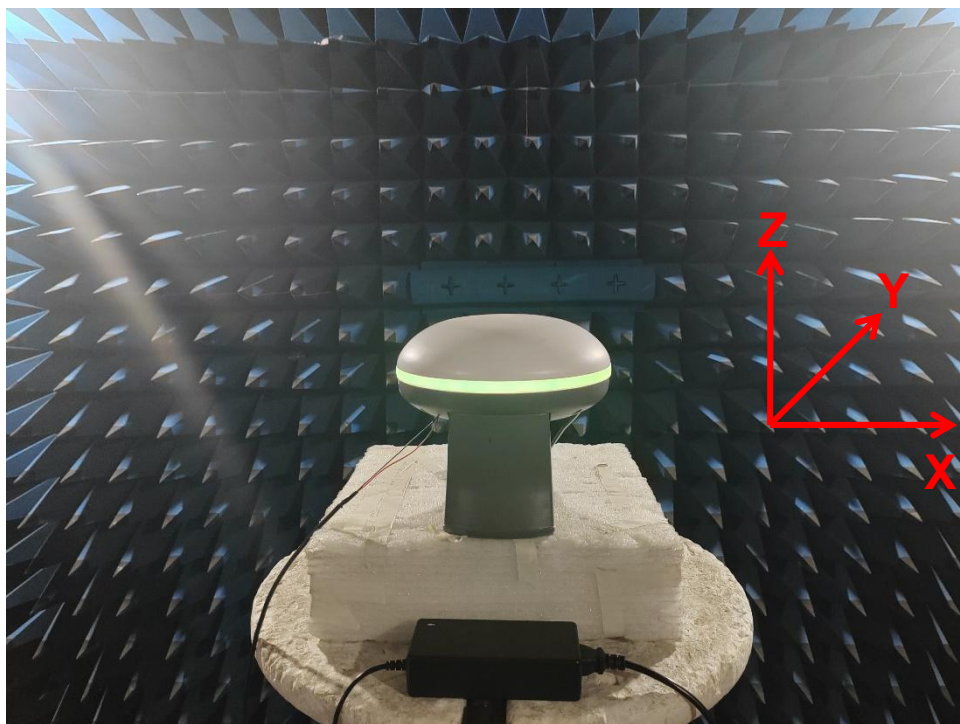
Theta 90°





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Antenna Active Test



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Active Test For WiFi Antenna					
Band	Channel	Data Rate	TRP	Data Rate	TIS
WIFI 2.4G 802.11b	1	1Mbps	14.4	1Mbps	-92.4
	7		14.5		-94.6
	13		14.2		-95.8
	1	11Mbps	14.4	11Mbps	-85.3
	7		14.5		-86.7
	13		14.3		-87.3
WIFI 2.4G 802.11g	1	6Mbps	14.3	6Mbps	-88.6
	7		14.3		-88.6
	13		13.9		-85.7
	1	54Mbps	14.3	54Mbps	-74.7
	7		14.4		-74.6
	13		14.0		-74.8





Active Test For WiFi Antenna					
Band	Channel	Data Rate	TRP	Data Rate	TIS
WIFI 2.4G 802.11n	1	MCS0	14.4	MCS0	-86.7
	7		14.4		-89.0
	13		14.1		-84.6
	1	MCS7	14.4	MCS7	-73.0
	7		14.6		-72.9
	13		14.2		-72.0
WIFI 5G 802.11a	48	6Mbps	15.6	6Mbps	-87.7
	149		17.8		-91.3
	157		18.2		-93.3
	165		18.3		-91.5
	48	54Mbps	15.7	54Mbps	-75.8
	149		16.7		-77.8
	157		17.2		-78.6
	165		17.2		-76.1





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Device



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*WiFi
Aux
Antenna*

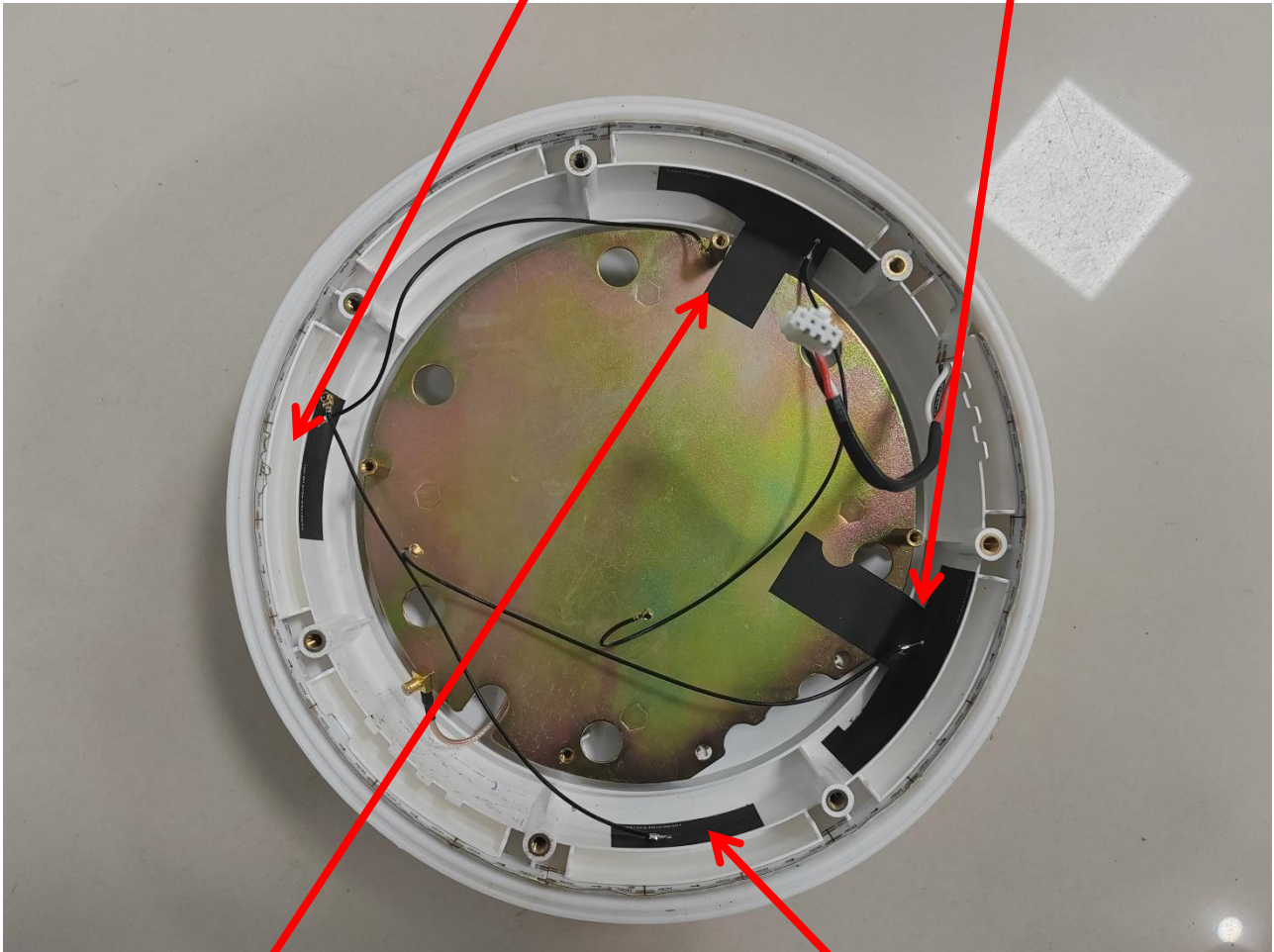


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WiFi Main ANT

LTE Main ANT



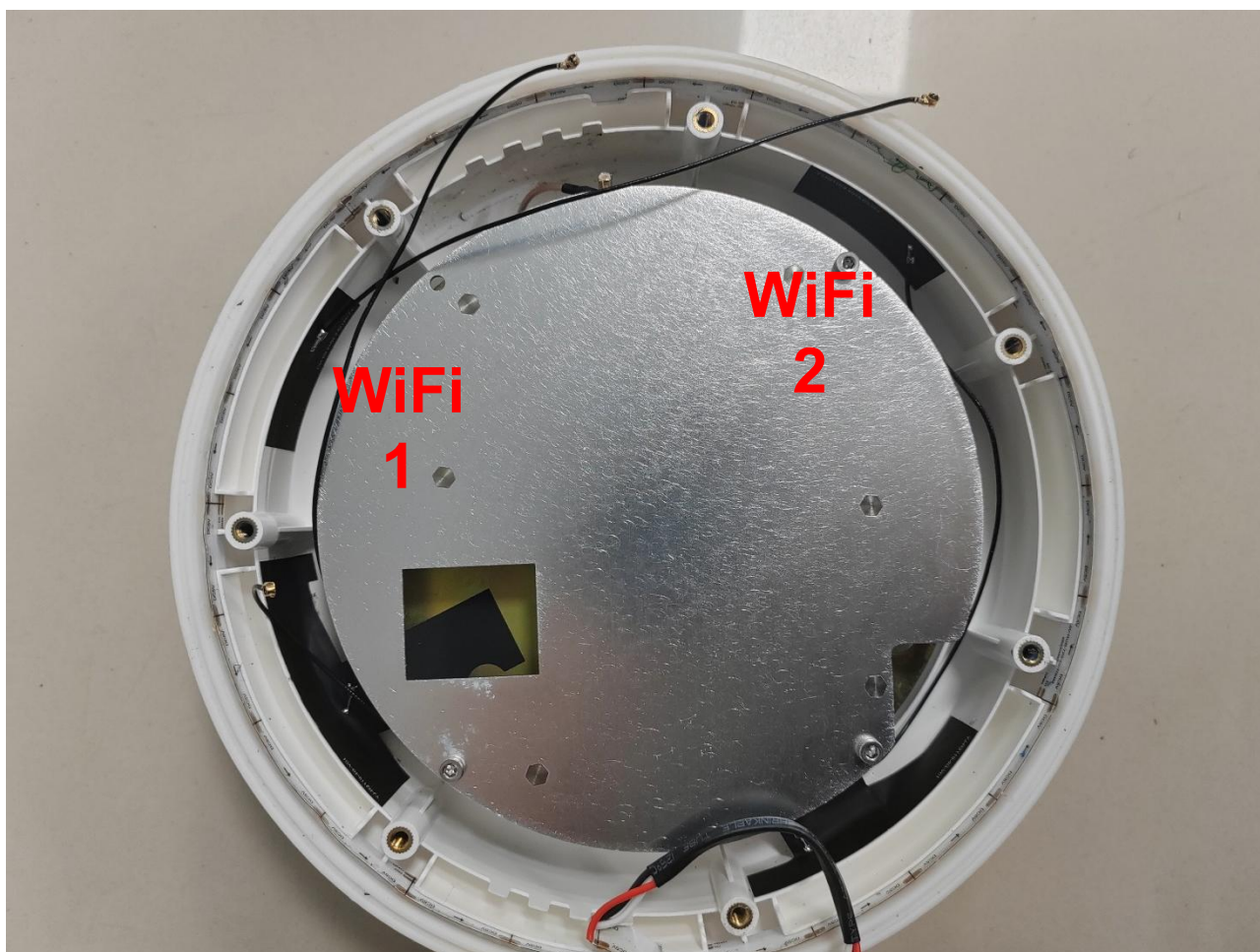
LTE Div ANT

WiFi Aux ANT





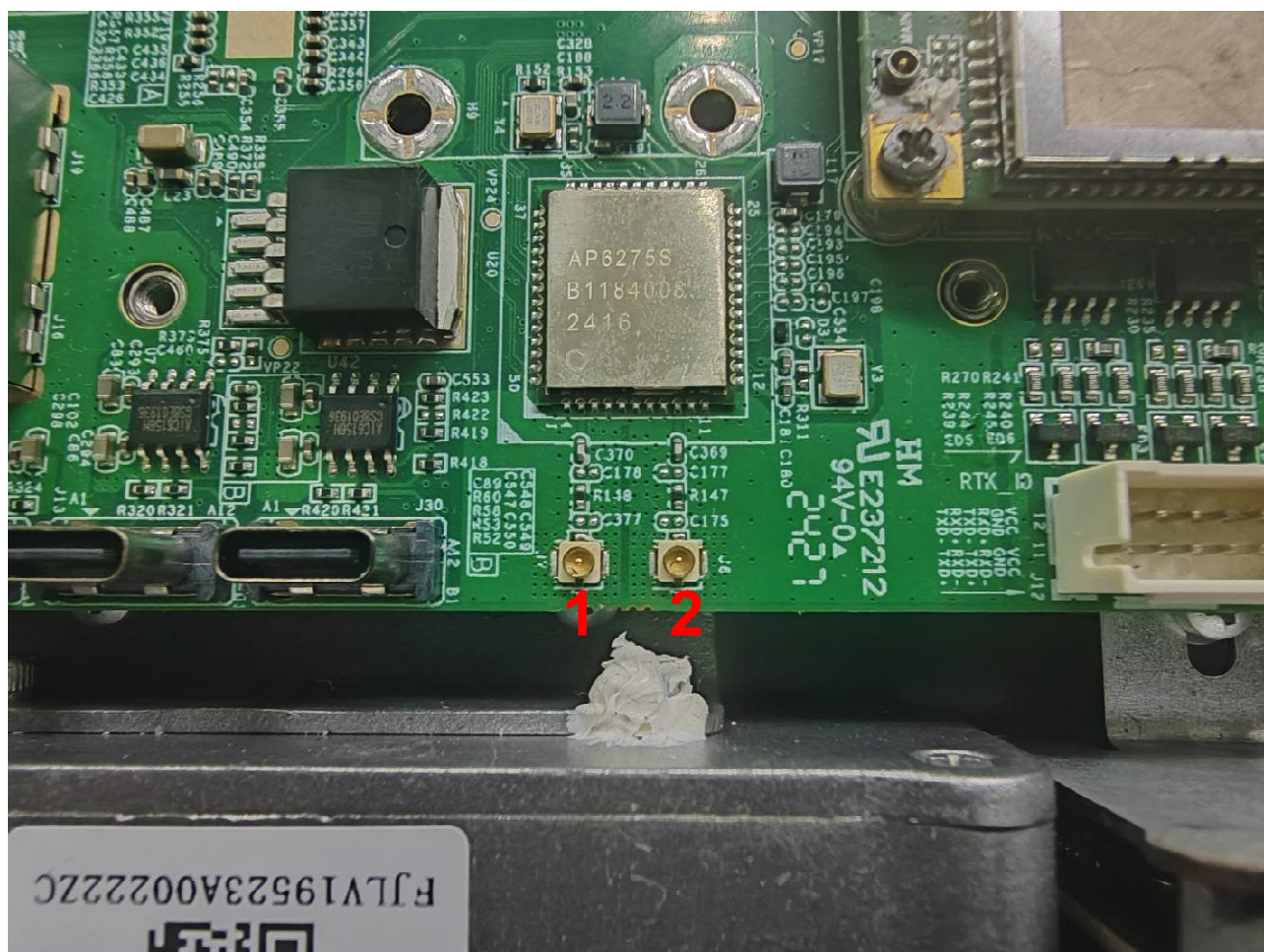
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