



SPECIFICATION FOR APPROVAL

Date 2025/04/08
File No 25040802
Revision 1.0

CUSTOMER: FJ Dynamics Technology Co., Ltd.

CUSTOMER NO: YTX-TX-003057-2 A.2

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

SUPPLIER NO: YJF01.085.030.302A

Date: Q'TY:

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

SUPPLIER SIGNATURE		
APPROVAL	CHECK	DESIGN
 ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A

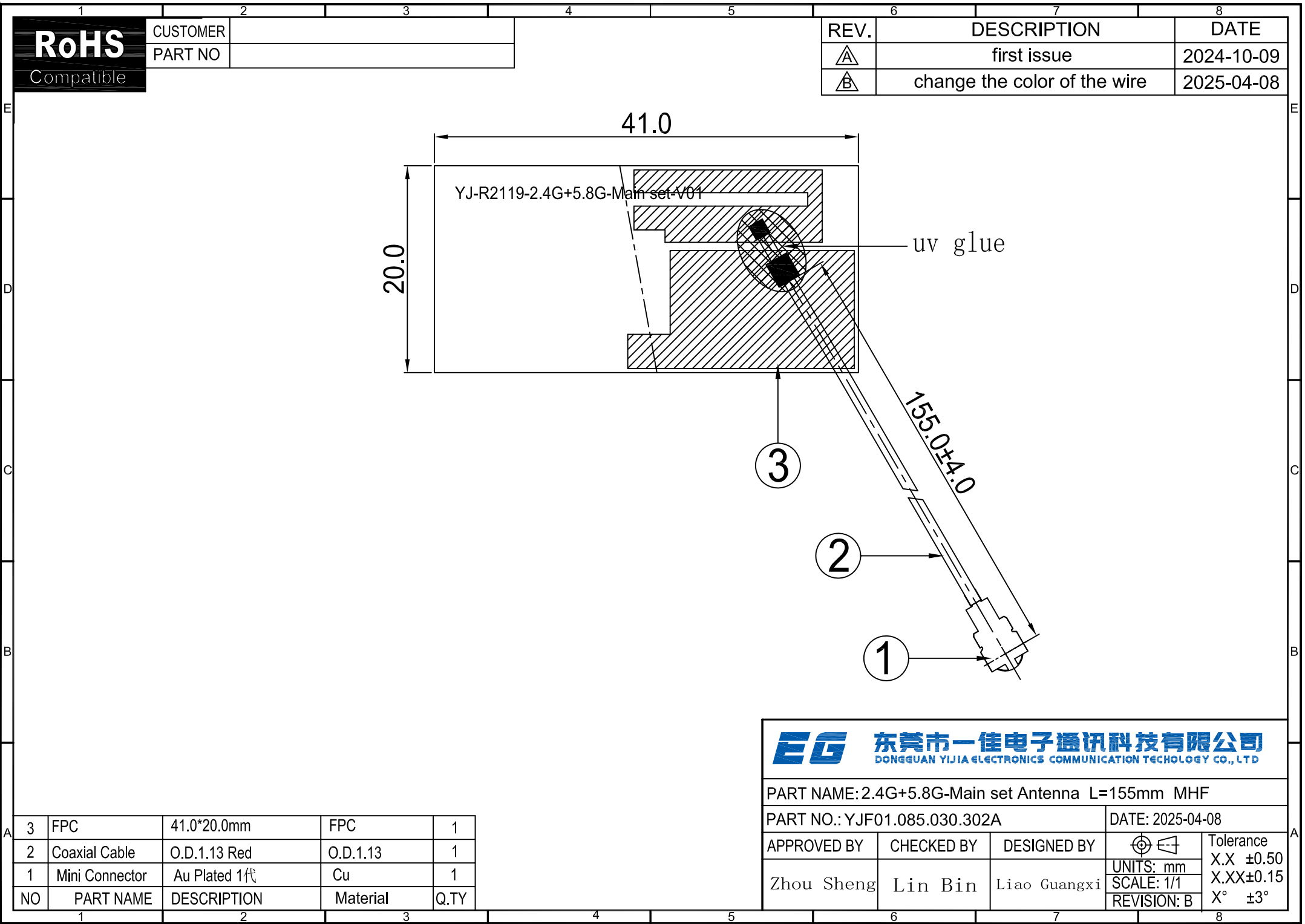




Spec Item

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	3	16 ~ 18
9	Antenna Profile	5	19 ~ 23
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-





RoHS

Compatible

CUSTOMER

PART NO

REV.

DESCRIPTION

DATE

A

first issue

2024-10-09

B

change the color of the wire

2025-04-08

YJ-R2119-2.4G+5.8G-Main set-V01

uv glue

155.0±4.0

3

2

1

EG

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-Main set Antenna L=155mm MHF

PART NO.: YJF01.085.030.302A

DATE: 2025-04-08

APPROVED BY

CHECKED BY

DESIGNED BY

UNITS: mm

Tolerance

Zhou Sheng

Lin Bin

Liao Guangxi

SCALE: 1/1

X.X ±0.50

REVISION: B

X.XX±0.15

X° ±3°

3	FPC	41.0*20.0mm	FPC	1
2	Coaxial Cable	O.D.1.13 Red	O.D.1.13	1
1	Mini Connector	Au Plated 1代	Cu	1
NO	PART NAME	DESCRIPTION	Material	Q.TY



Antenna Specification

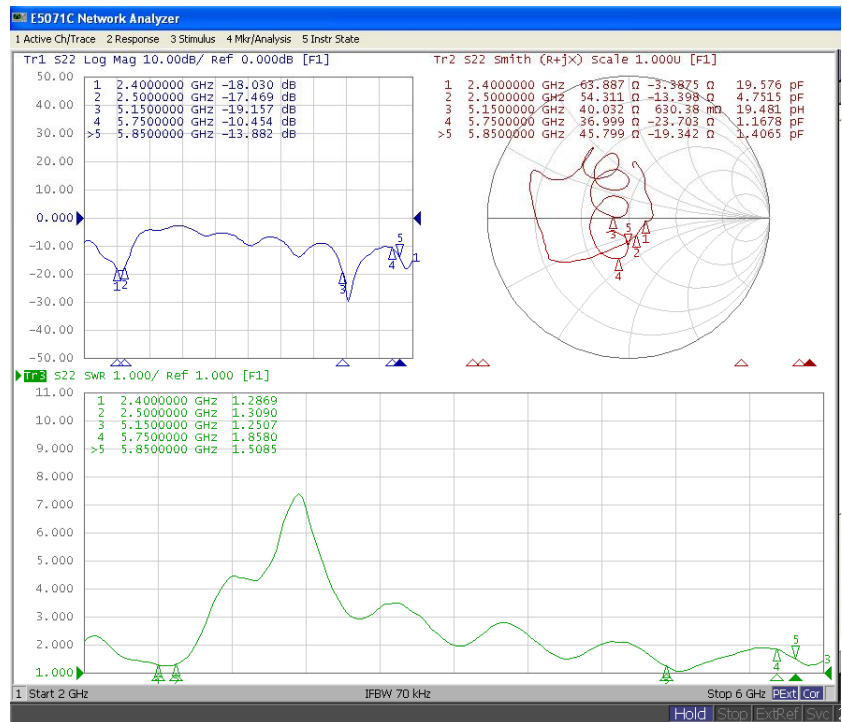
Electrical Properties	
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.0 Max
Gain	1.7 dBi@700-960MHz 3.2 dBi@1710-2690MHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1代IPEX
Cable Type	O.D.1.13mm
Cable Length	155mm
Cable Color	Red
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%





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

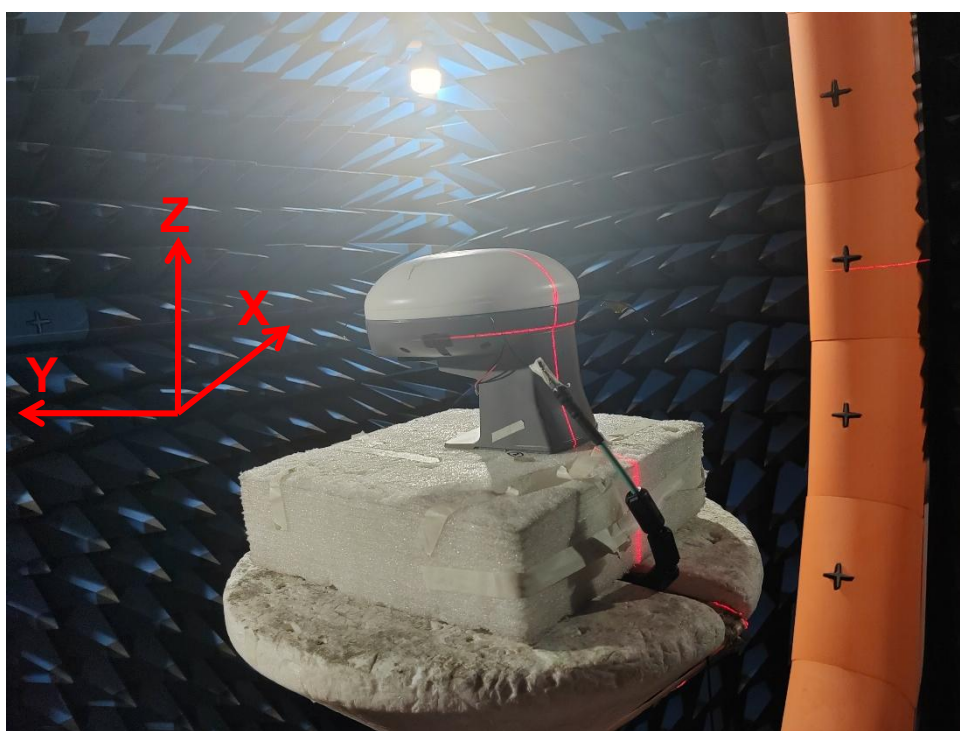
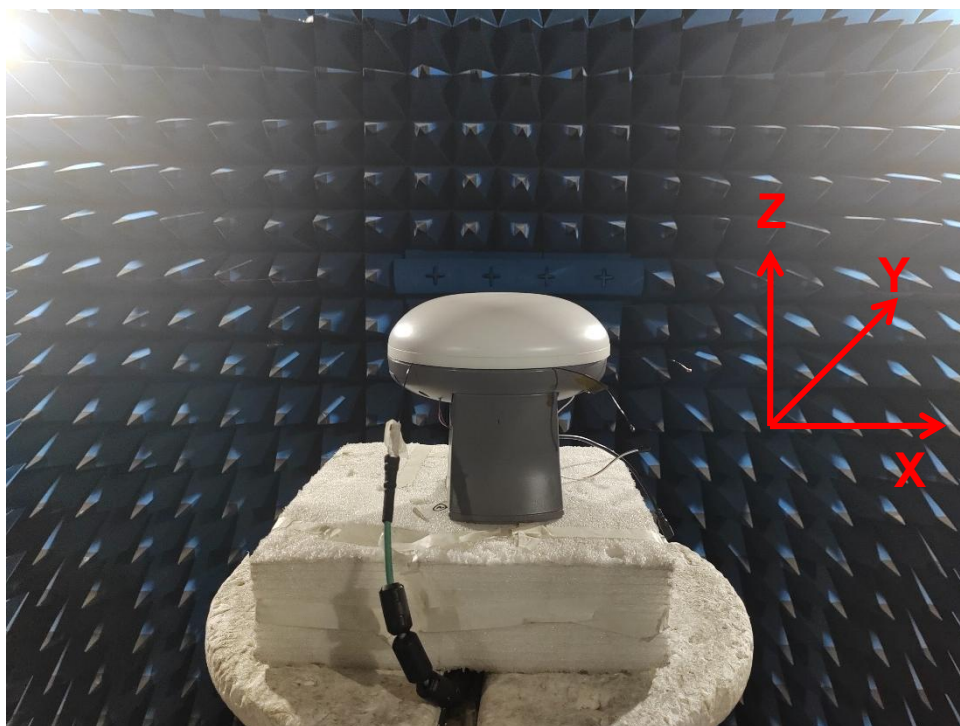
Agilent E5071C S Parameter Test // WiFi Main Antenna



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



Antenna Passive Test





Passive Test For WiFi Main Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	37.8	-4.2	1.5
2410	37.7	-4.2	1.5
2420	38.2	-4.2	1.0
2430	38.1	-4.2	0.8
2440	38.8	-4.1	0.5
2450	39.0	-4.1	0.8
2460	39.1	-4.1	0.6
2470	39.0	-4.1	1.4
2480	39.1	-4.1	1.3
2490	39.5	-4.0	1.6
2500	38.3	-4.2	1.7



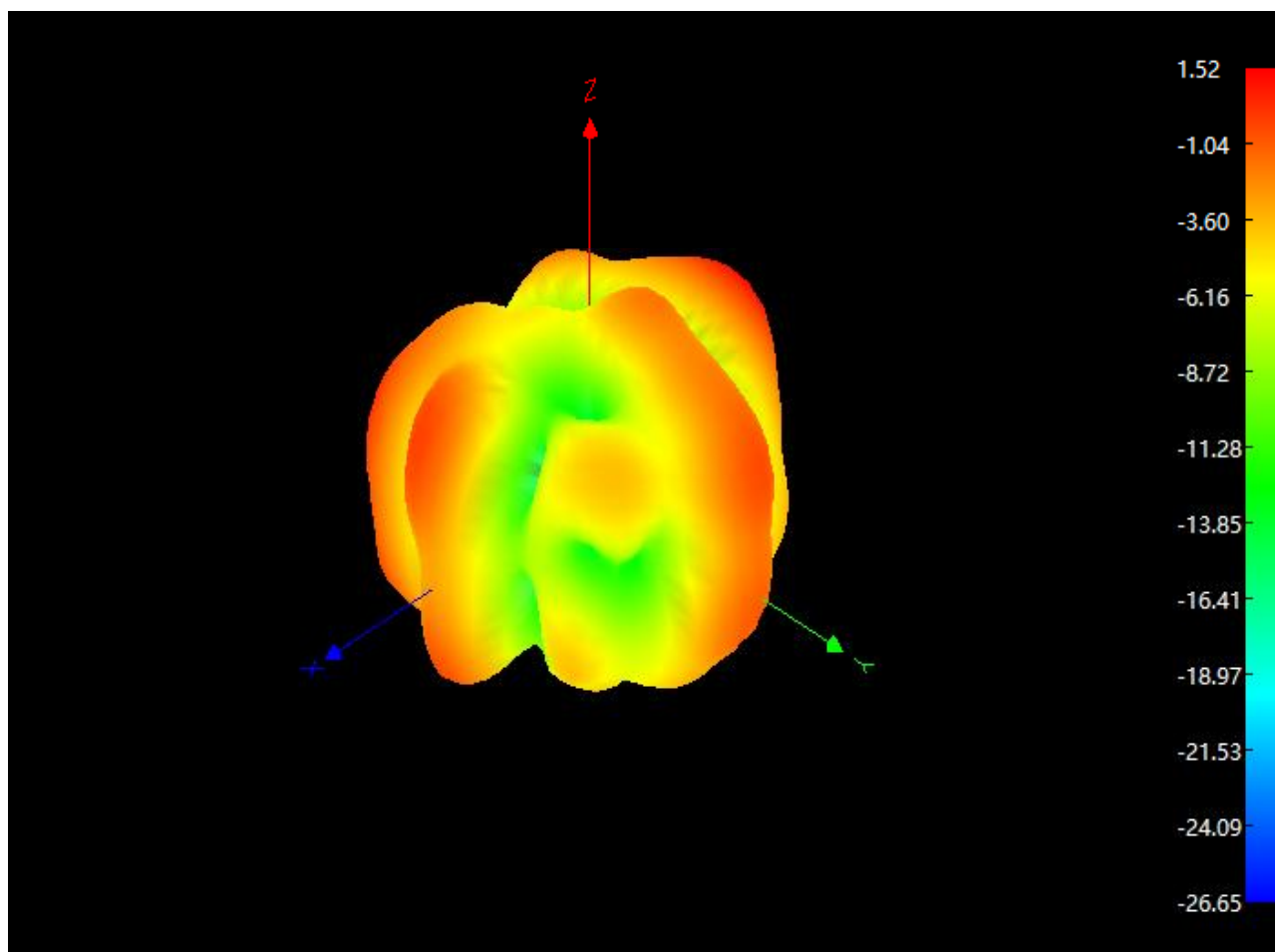


Passive Test For WiFi Main Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	41.1	-3.9	2.8
5200	41.9	-3.8	2.7
5250	40.9	-3.9	2.5
5300	38.1	-4.2	2.3
5350	37.9	-4.2	1.8
5400	41.4	-3.8	1.9
5450	38.2	-4.2	1.3
5500	38.9	-4.1	1.9
5550	46.1	-3.4	2.8
5600	48.8	-3.1	2.8
5650	46.1	-3.4	2.6
5700	47.3	-3.3	2.3
5750	53.3	-2.7	3.2
5800	46.6	-3.3	2.8
5850	46.0	-3.4	3.0



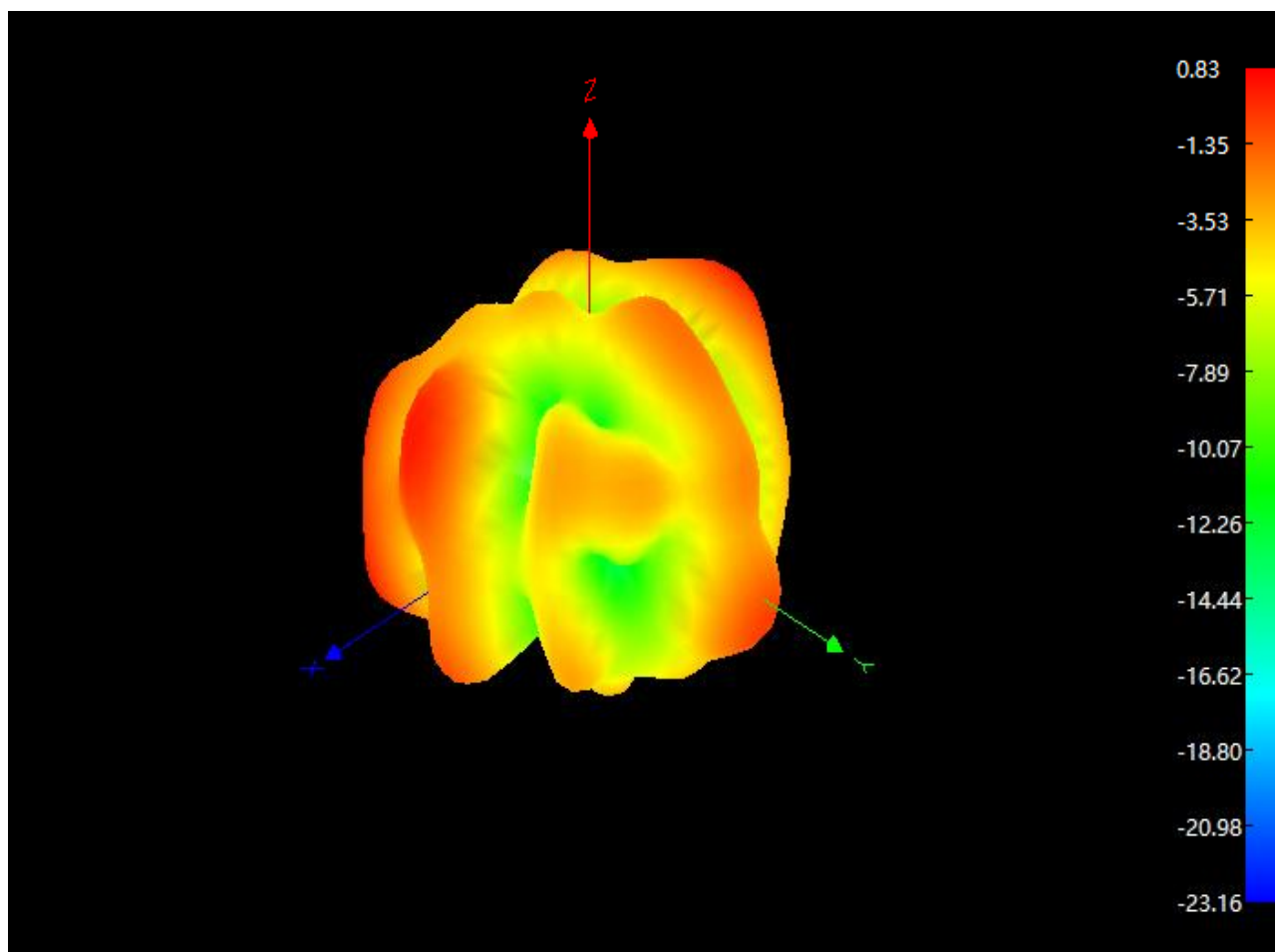


Radiation Pattern For WiFi Main Antenna (2400MHz)



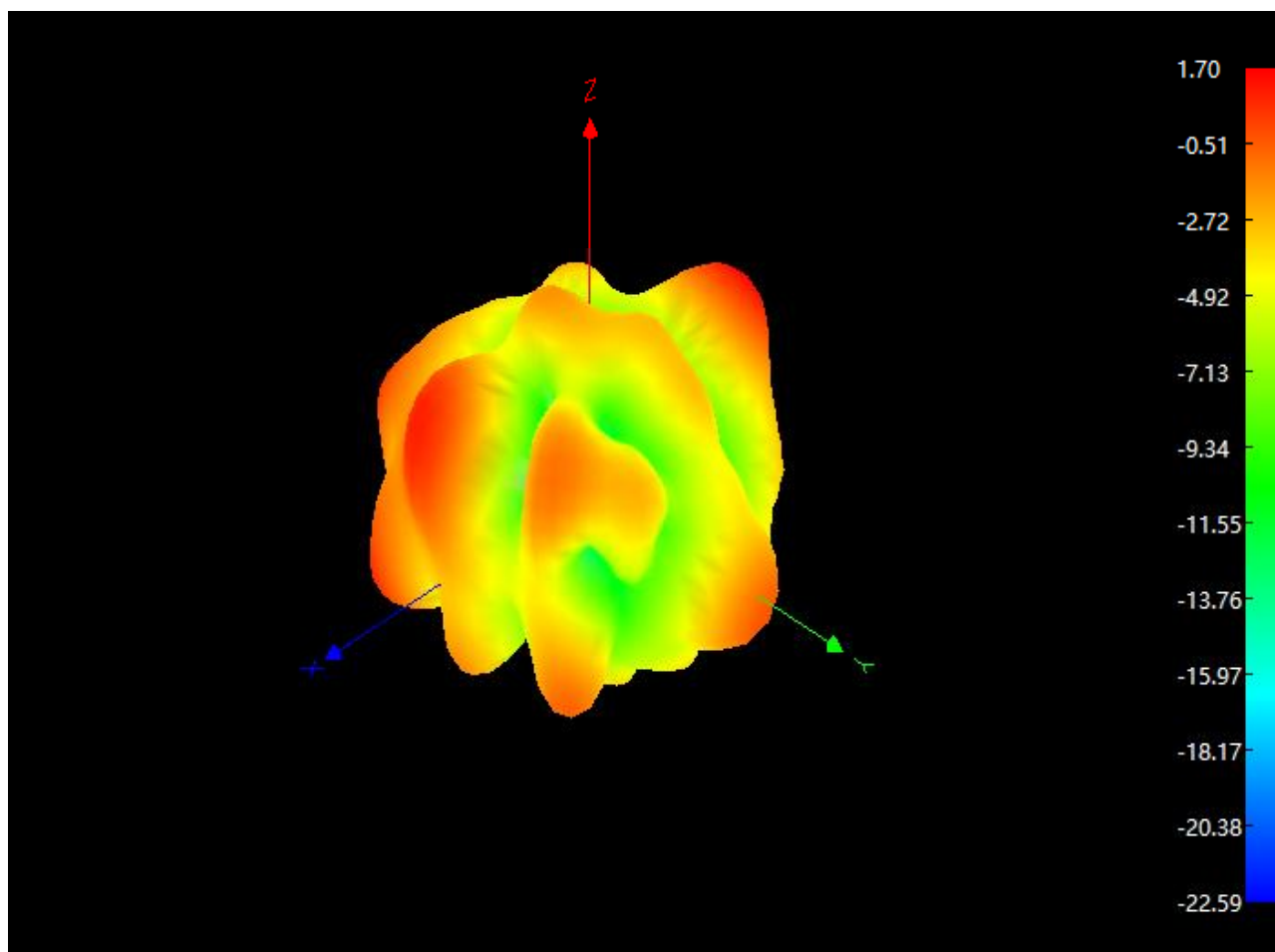


Radiation Pattern For WiFi Main Antenna (2450MHz)



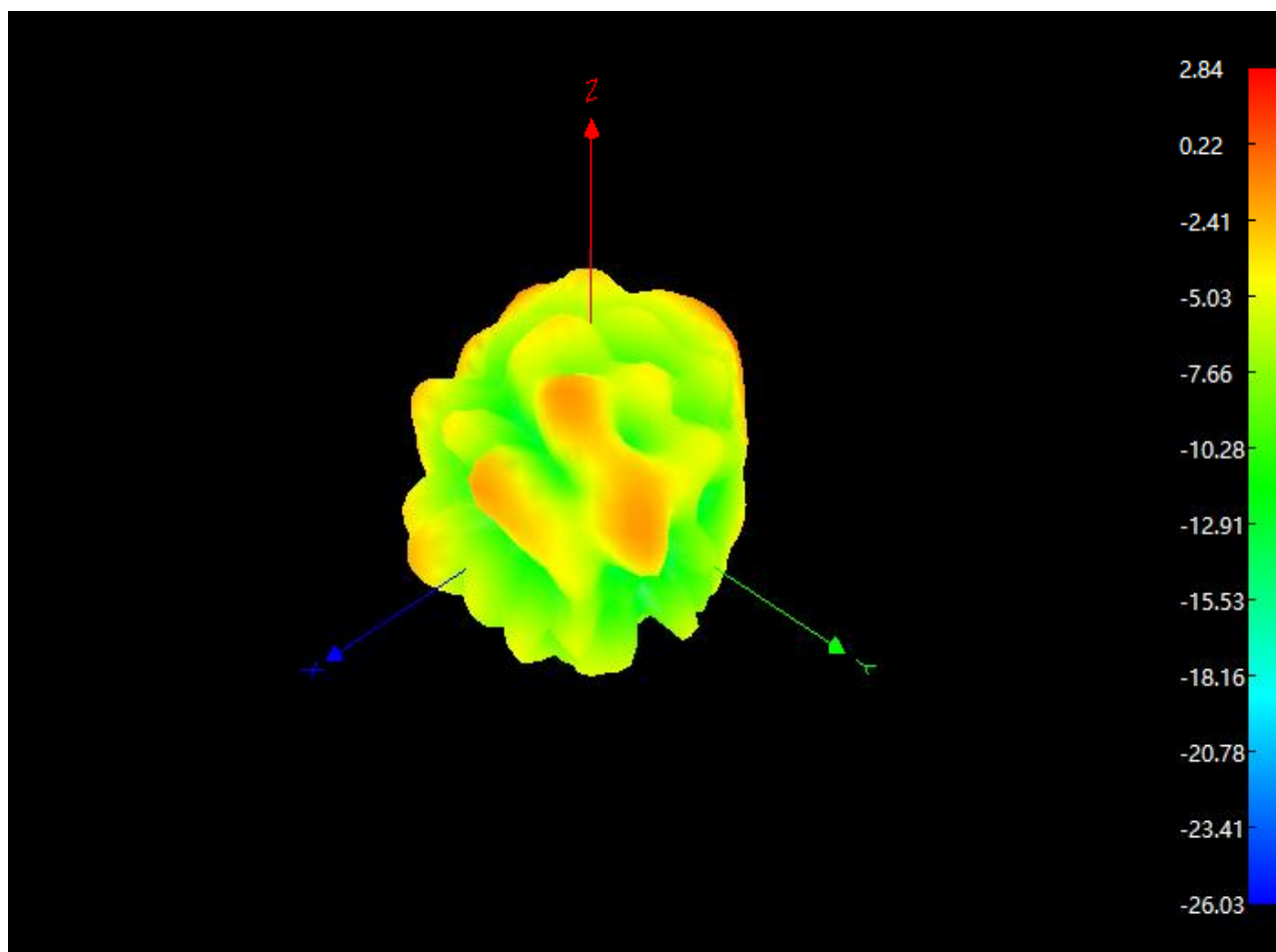


Radiation Pattern For WiFi Main Antenna (2500MHz)



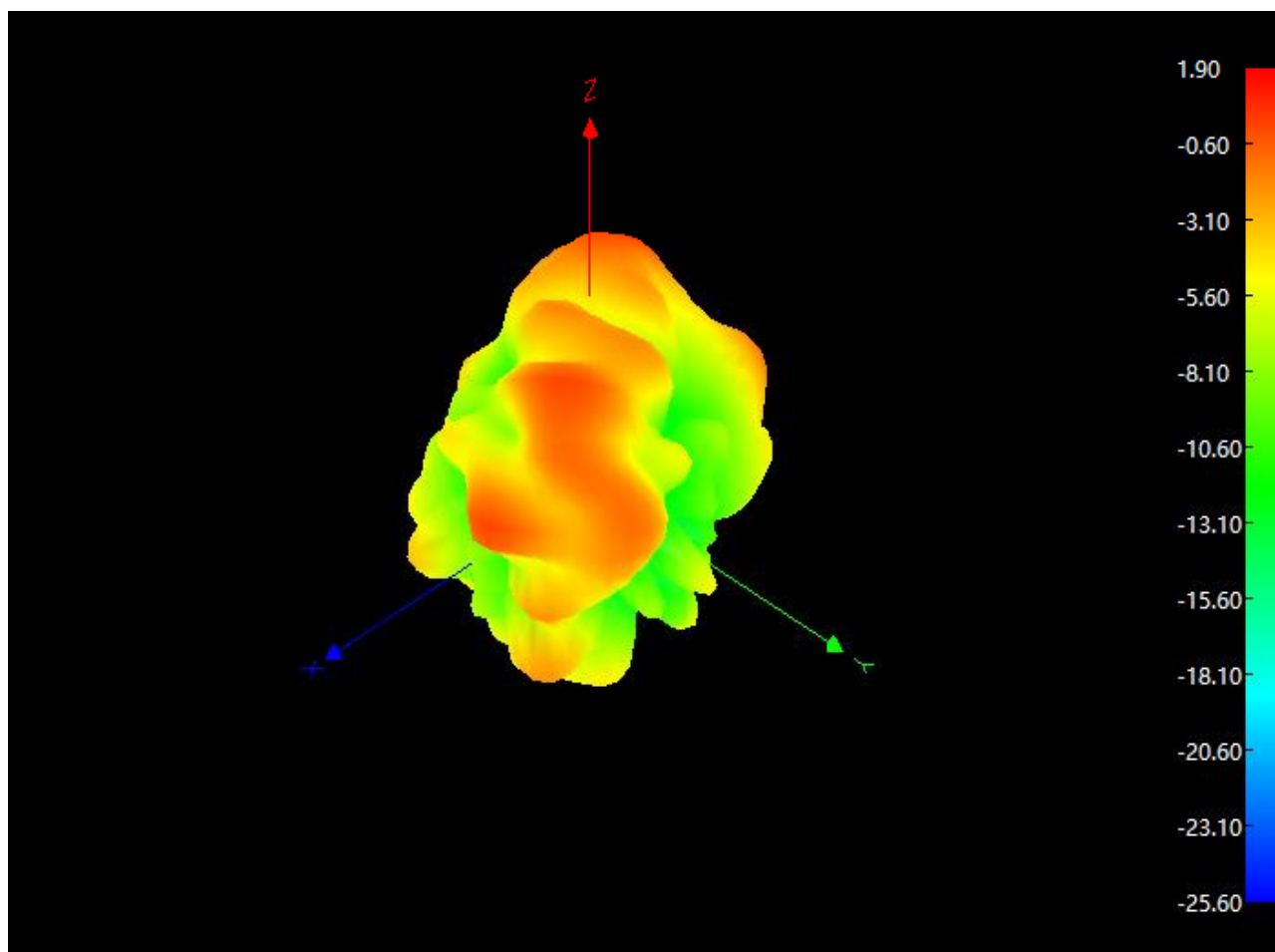


Radiation Pattern For WiFi Main Antenna (5150MHz)



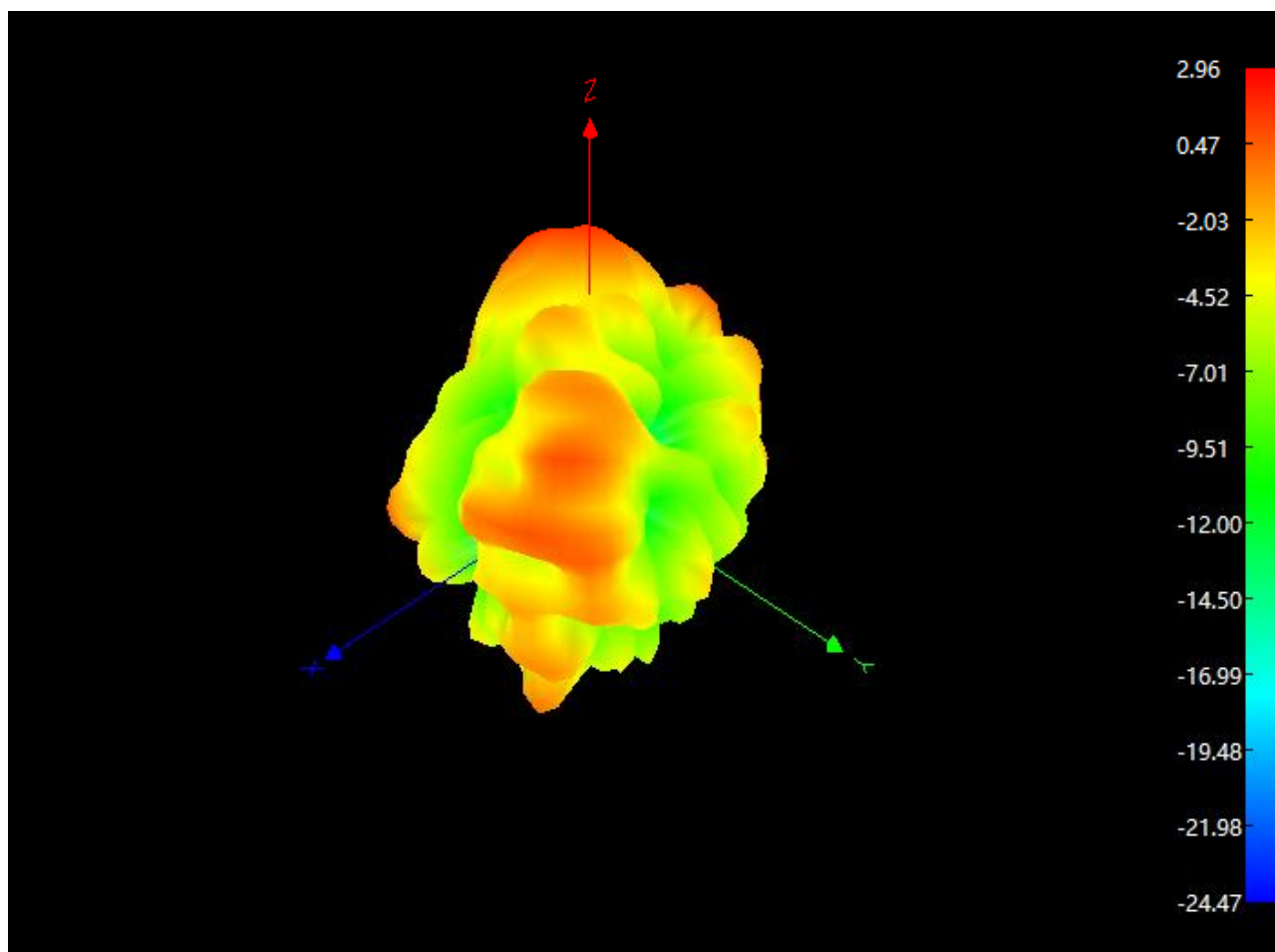


Radiation Pattern For WiFi Main Antenna (5500MHz)





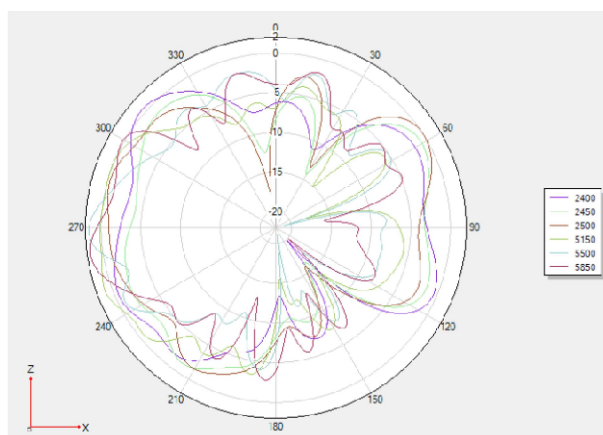
Radiation Pattern For WiFi Main Antenna (5850MHz)



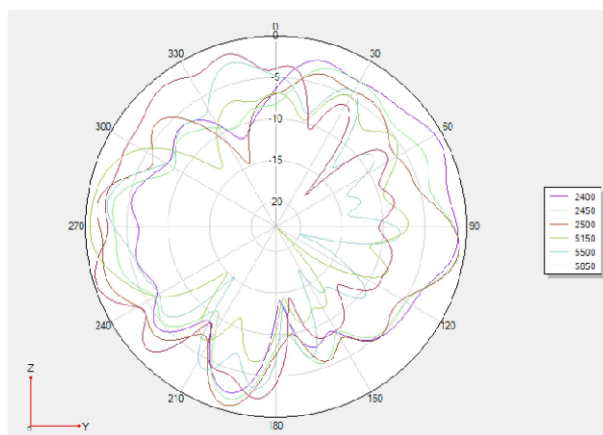


Radiation Pattern For WiFi Main Antenna

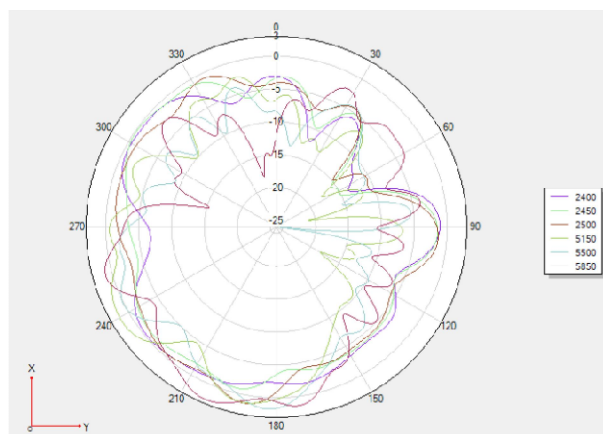
Phi 0°



Phi 90°

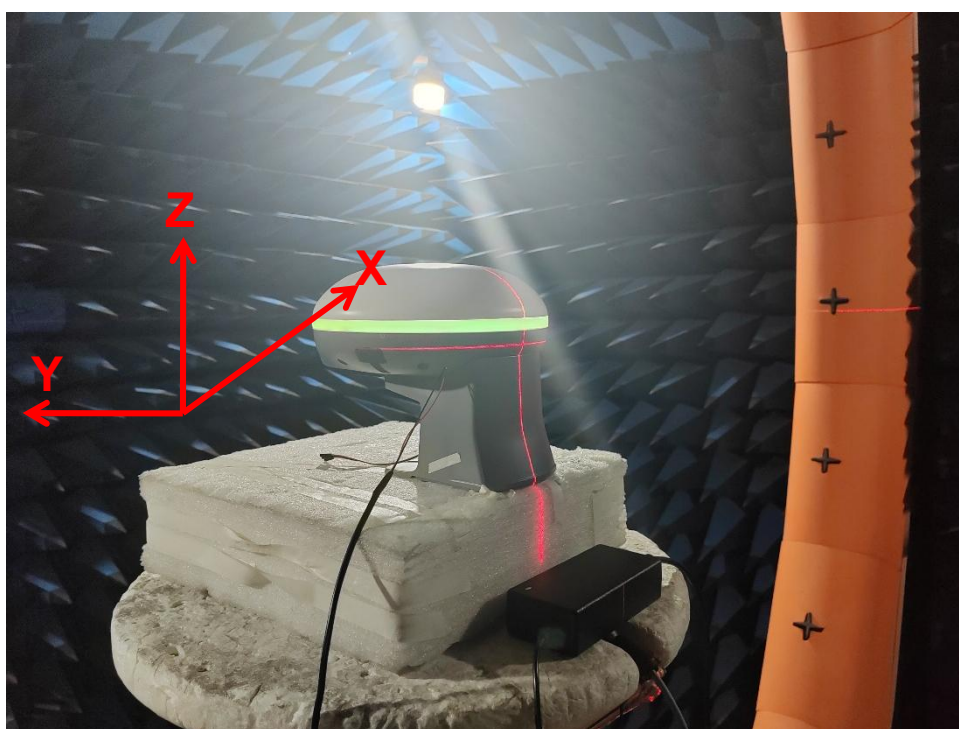
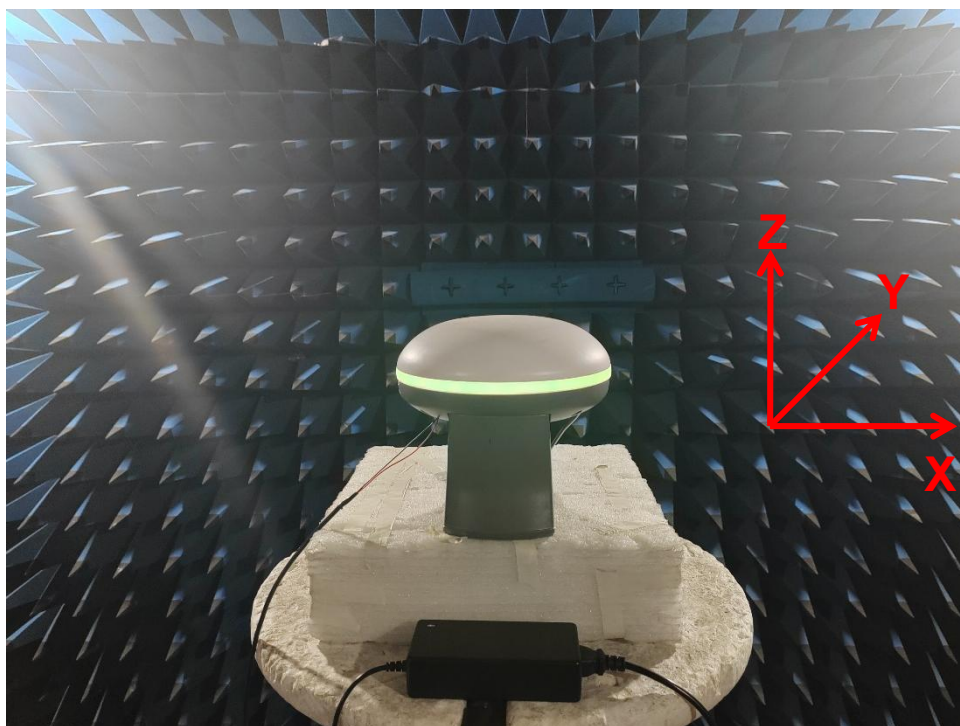


Theta 90°





Antenna Active Test





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





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

Device

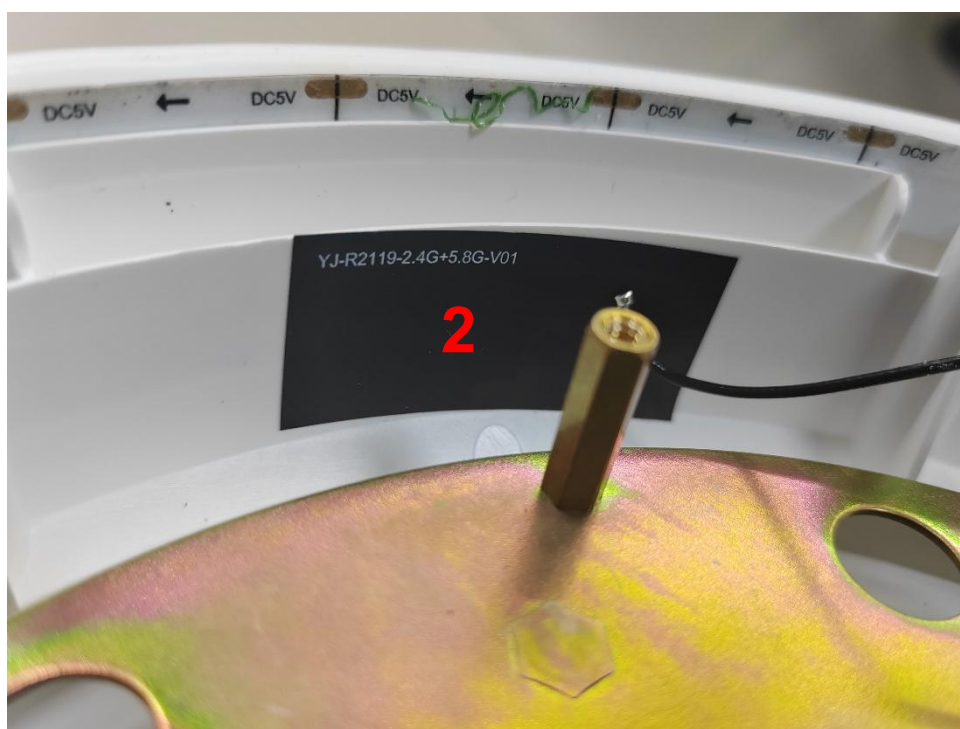


Yuanfu Industrial Park, No.59, Muyu Road, Shatou Community, Chang'an Town, Dongguan, Guangdong



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

*WiFi
Main
Antenna*

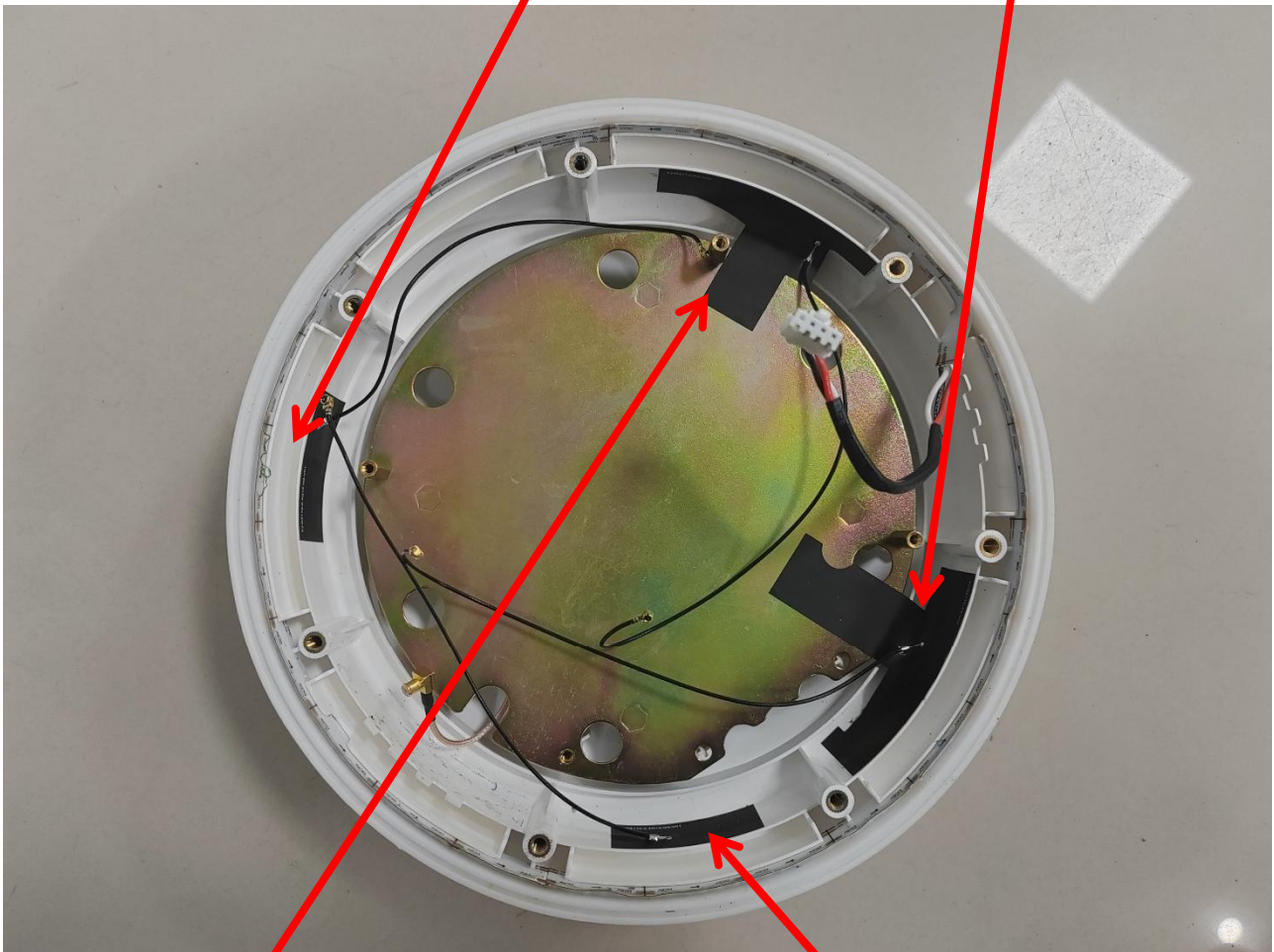


Yuanfu Industrial Park, No.59, Muyu Road, Shatou Community, Chang'an Town, Dongguan, Guangdong



WiFi Main ANT

LTE Main ANT



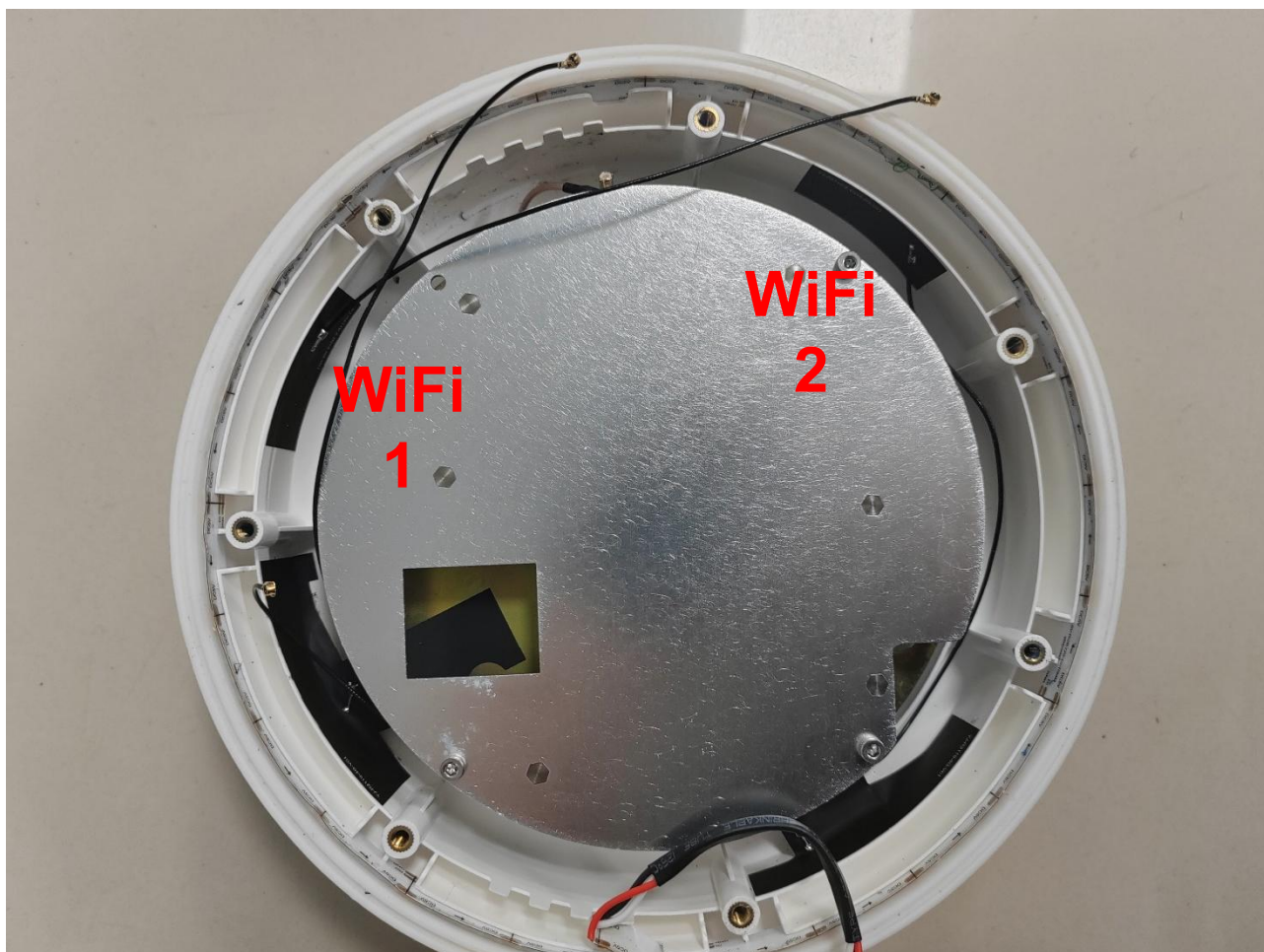
LTE Div ANT

WiFi Aux ANT





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



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

