

RoHS

Compatible

CUSTOMER

PART NO

REV.

DESCRIPTION

DATE

A

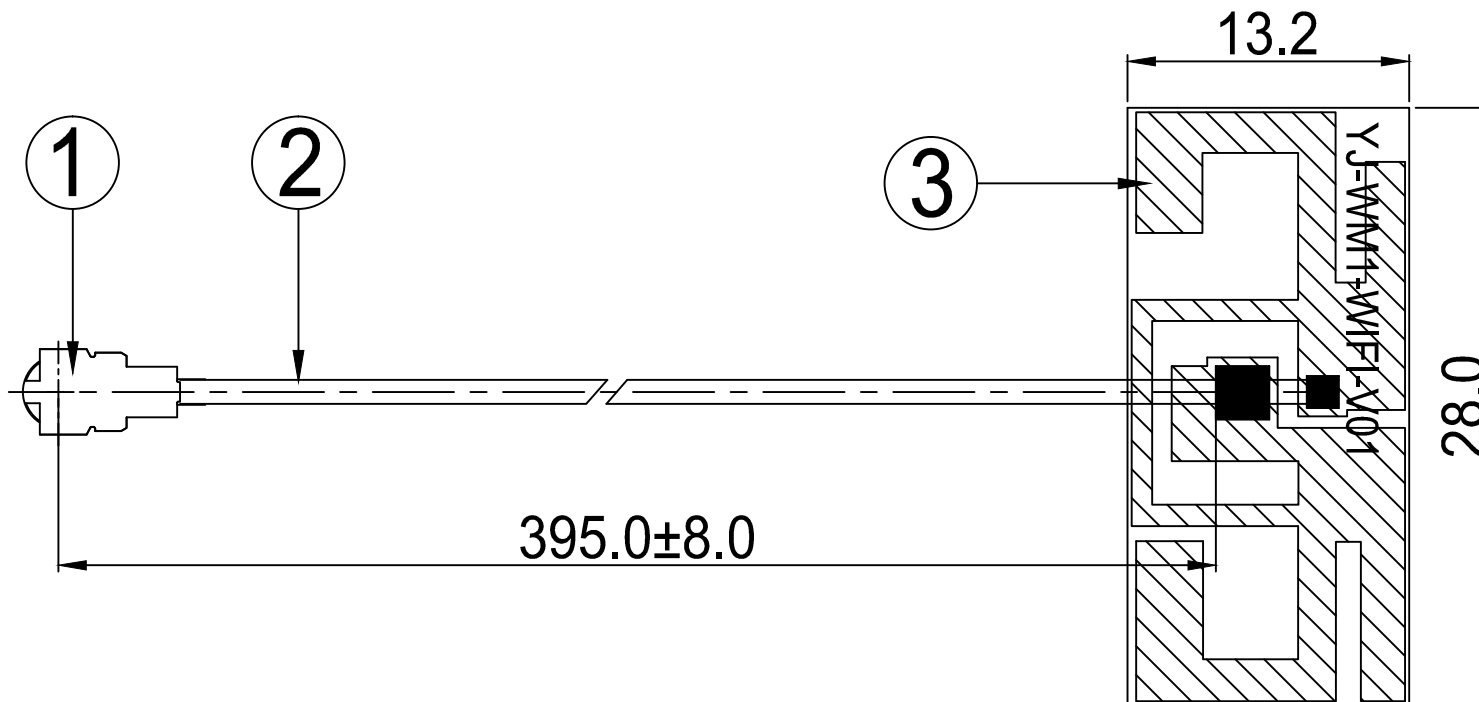
首次发行

2023-07-05

B

修改线长

2023-09-13



东莞市一佳电子通讯科技有限公司

Tel :0769-82586086

Dongguan YiJia Electronics Communication Technology Co.,Ltd. Fax:0769-82586086

PART NAME: WIFI Antenna L=395.0mm MHF

PART NO.: YJL01.102.023.301A

DATE: 2023-09-13

APPROVED BY

CHECKED BY

DESIGNED BY



Tolerance

X.X ±0.50

何清军

林斌

陈俊

UNITS: mm

X.XX±0.15

SCALE: 1/1

REVISION: B

X° ±3°

3	FPC	28.0*13.2mm	FPC	FPC11XXXA.P01	1
2	Coaxial Cable	O.D.1.13 Black Low Loss	O.D.1.13	COA100XXA.P01	1
1	Mini Connector	Au Plated 1代	Cu	TER100XXA.P01	1
NO	PART NAME	DESCRIPTION	Material	Part Number	Q.TY



天线规格

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	WiFi1: 7.3 dBi@2.4-2.5GHz 8.5 dBi@5.15-5.85GHz WiFi2: 7.5 dBi@2.4-2.5GHz 7.4 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear

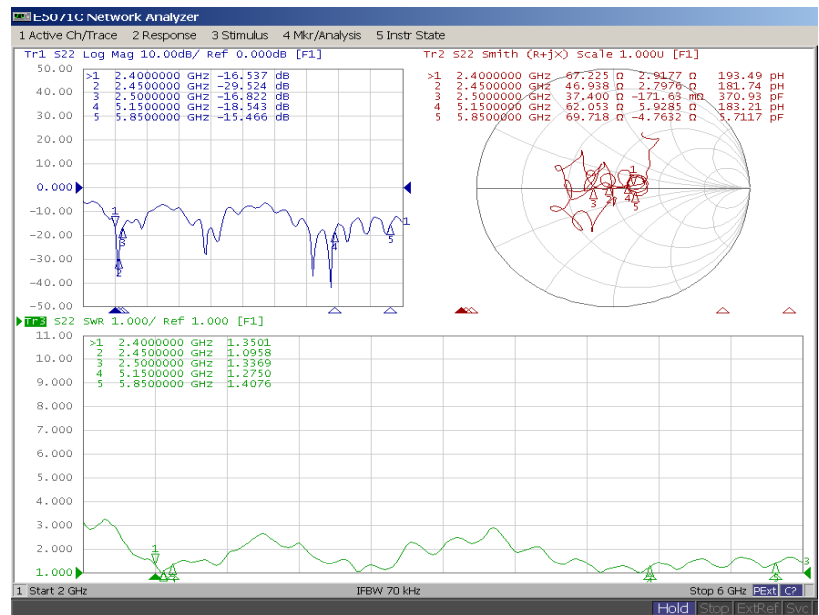
Physical Properties

Connector	1代IPEX
Cable Type	O.D.1.13mm低损耗
Cable Length	395mm
Cable Color	Black
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%

add: 东莞市长安镇沙头社区木鱼路59号元富工业区 Tel:0769-82586086 Fax:0769-82586086

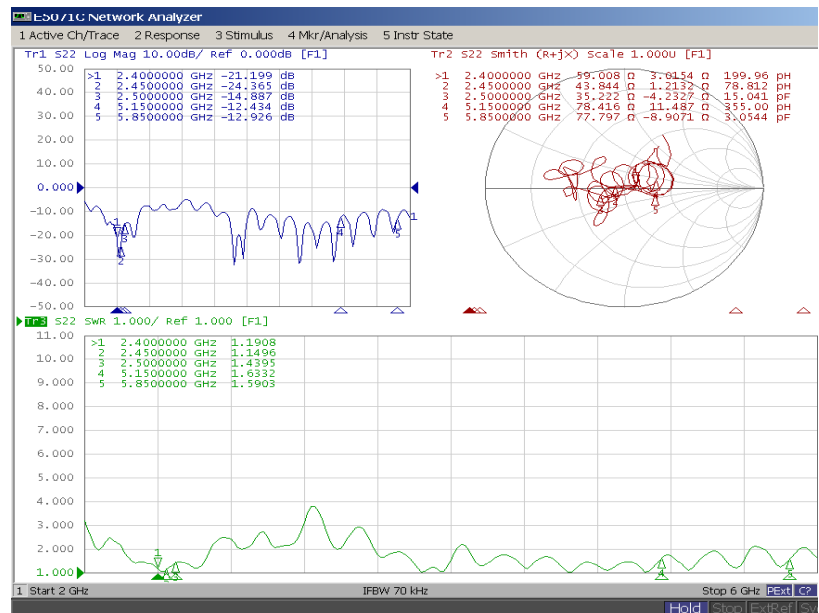


Agilent E5071C S Parameter Test // WiFi1 Antenna



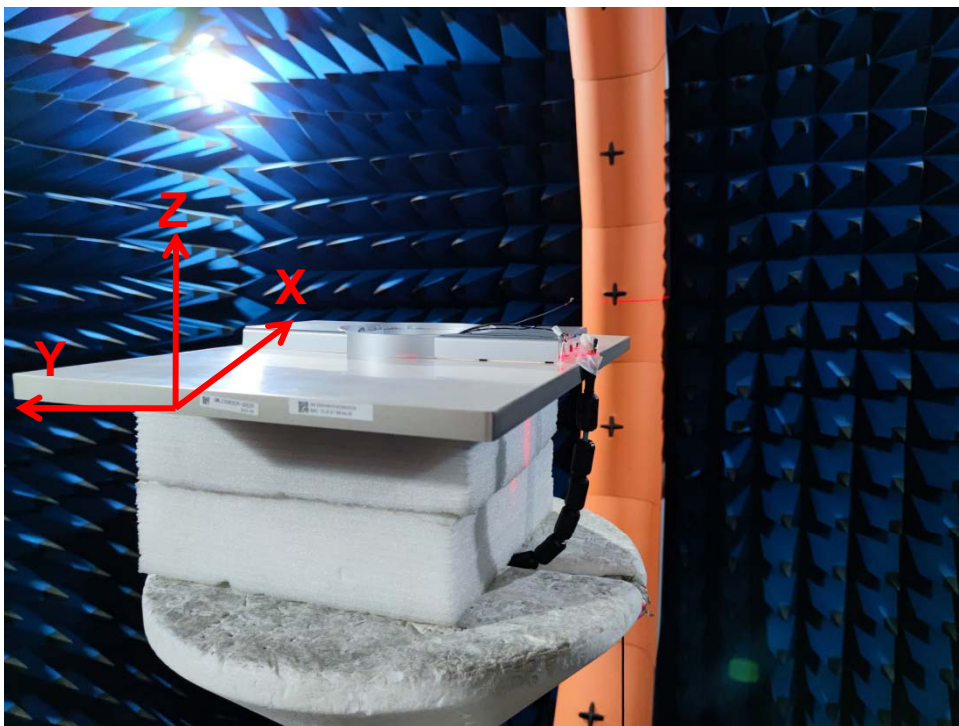
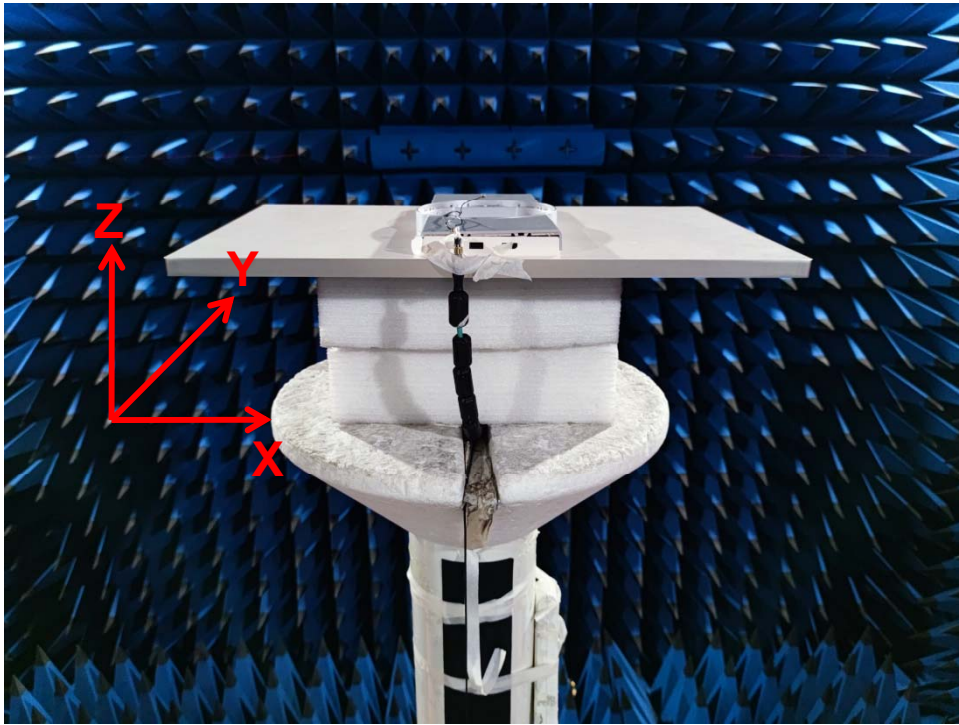


Agilent E5071C S Parameter Test // WiFi2 Antenna





Antenna Passive Test





Passive Test For WiFi1 Antenna(2.4G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	59.7	-2.2	7.1
2410	61.9	-2.1	7.2
2420	62.5	-2.0	7.3
2430	61.8	-2.1	7.3
2440	62.5	-2.0	7.3
2450	62.8	-2.0	7.2
2460	61.7	-2.1	7.2
2470	60.7	-2.2	7.0
2480	60.3	-2.2	6.9
2490	59.7	-2.2	6.7
2500	57.7	-2.4	6.2



Passive Test For WiFi1 Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	56.6	-2.5	6.1
5200	53.1	-2.8	5.8
5250	52.7	-2.8	5.9
5300	56.1	-2.5	5.9
5350	53.5	-2.7	5.0
5400	52.7	-2.8	5.8
5450	48.3	-3.2	6.0
5500	47.0	-3.3	6.4
5550	57.2	-2.4	7.5
5600	52.6	-2.8	7.3
5650	46.9	-3.3	6.9
5700	44.3	-3.5	6.6
5750	50.0	-3.0	7.4
5800	52.4	-2.8	8.3
5850	49.3	-3.1	8.5



Passive Test For WiFi2 Antenna(2.4G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	62.7	-2.0	7.4
2410	63.0	-2.0	7.5
2420	60.5	-2.2	7.4
2430	57.9	-2.4	7.1
2440	57.7	-2.4	7.0
2450	57.3	-2.4	6.9
2460	55.5	-2.6	6.6
2470	55.0	-2.6	6.3
2480	54.6	-2.6	5.8
2490	54.1	-2.7	5.8
2500	52.1	-2.8	6.0

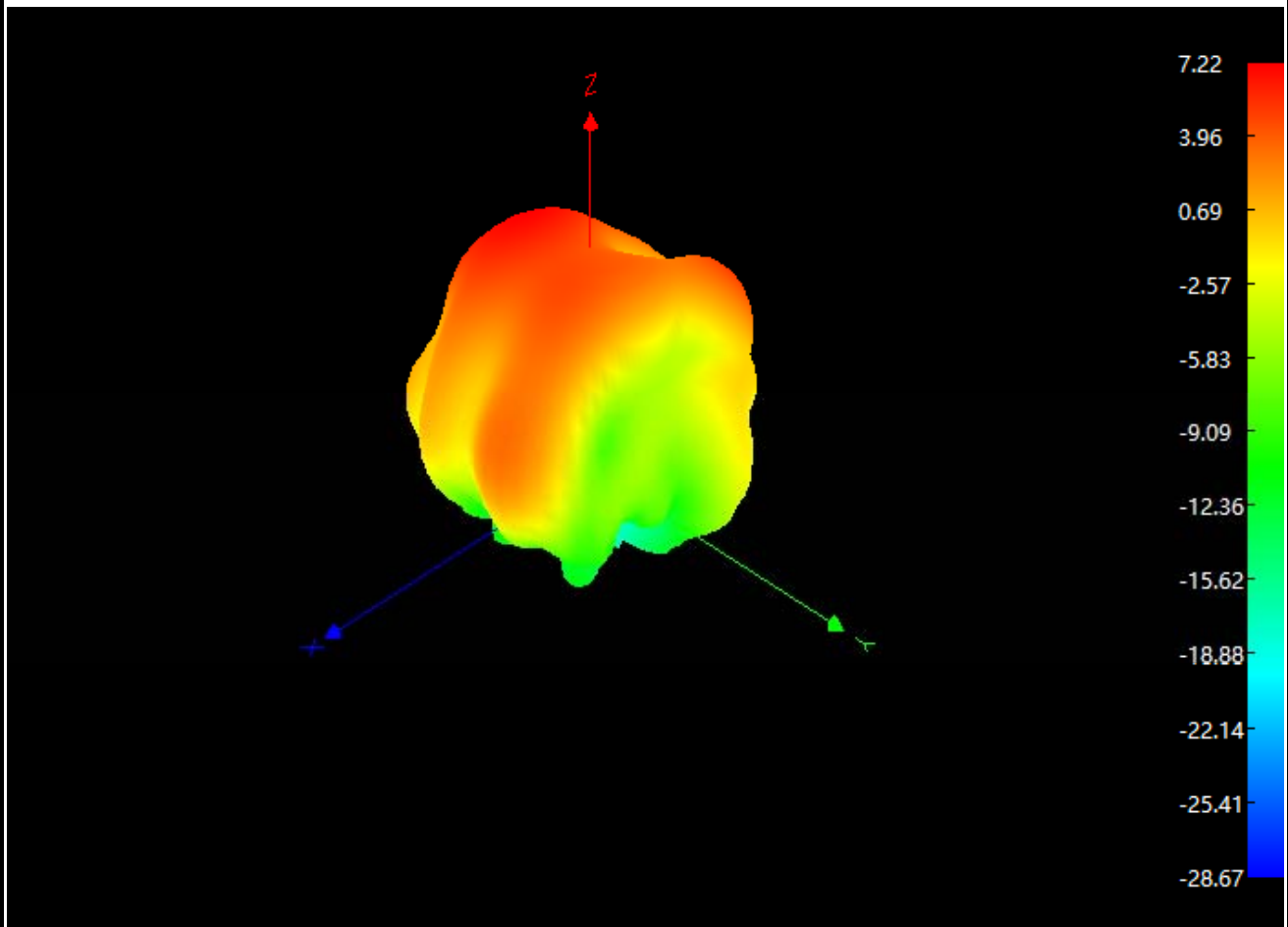


Passive Test For WiFi2 Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	57.9	-2.4	7.0
5200	53.9	-2.7	6.6
5250	54.1	-2.7	6.5
5300	56.8	-2.5	6.8
5350	55.2	-2.6	6.6
5400	54.9	-2.6	7.0
5450	49.6	-3.0	6.4
5500	46.6	-3.3	6.4
5550	53.7	-2.7	7.4
5600	49.1	-3.1	7.1
5650	44.0	-3.6	6.7
5700	41.4	-3.8	6.4
5750	44.0	-3.6	7.0
5800	46.2	-3.4	7.4
5850	44.1	-3.6	7.0

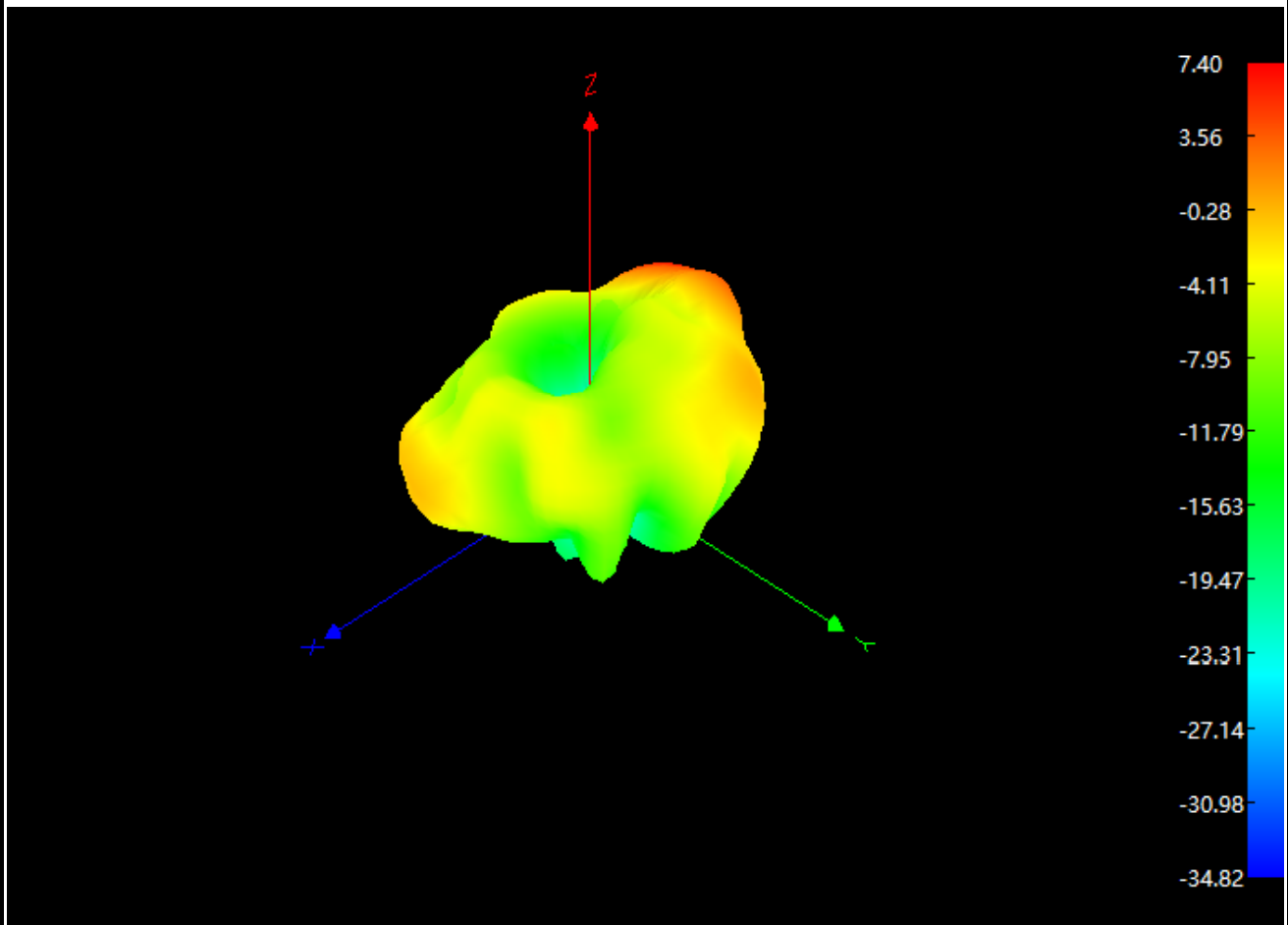


Radiation Pattern For WiFi1 Antenna(2.4G)





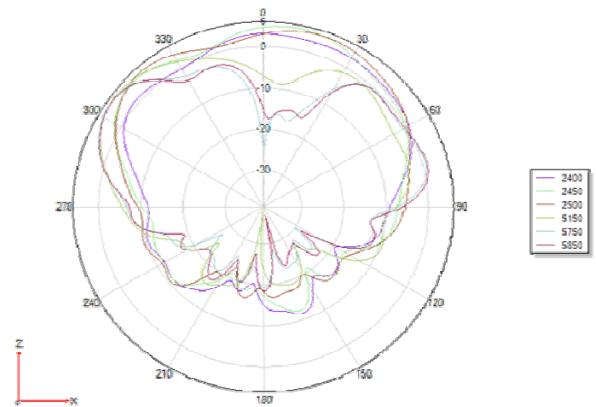
Radiation Pattern For WiFi1 Antenna(5.8G)



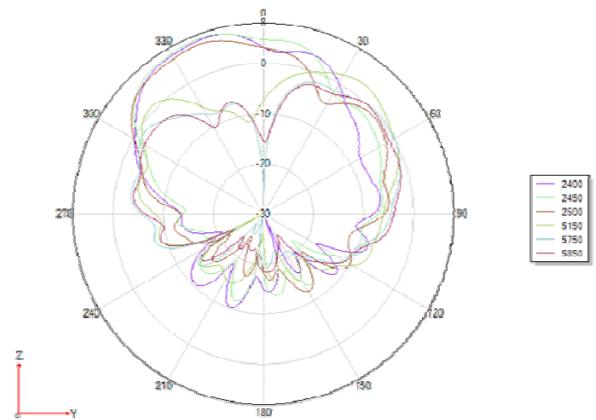


Radiation Pattern For WiFi1 Antenna

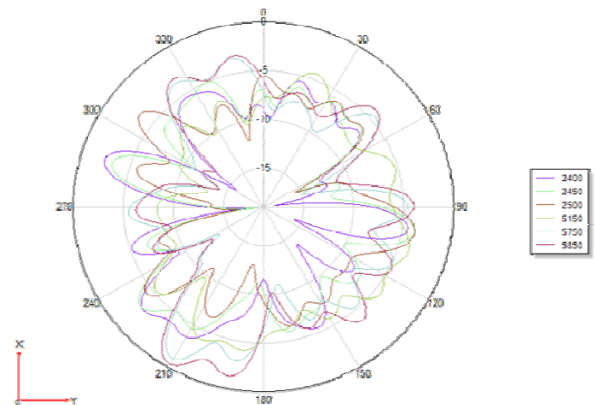
Phi 0°



Phi 90°

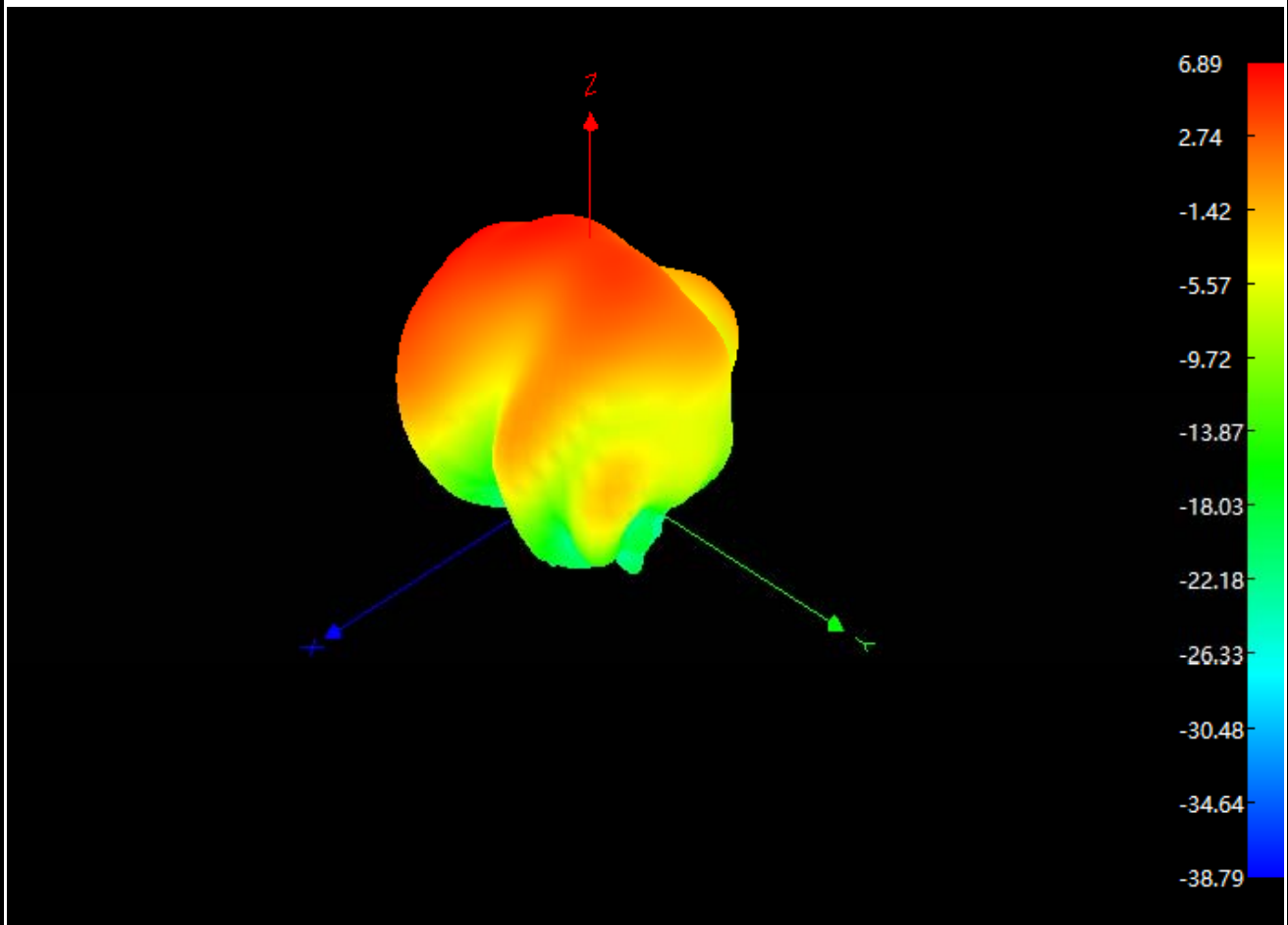


Theta 90°



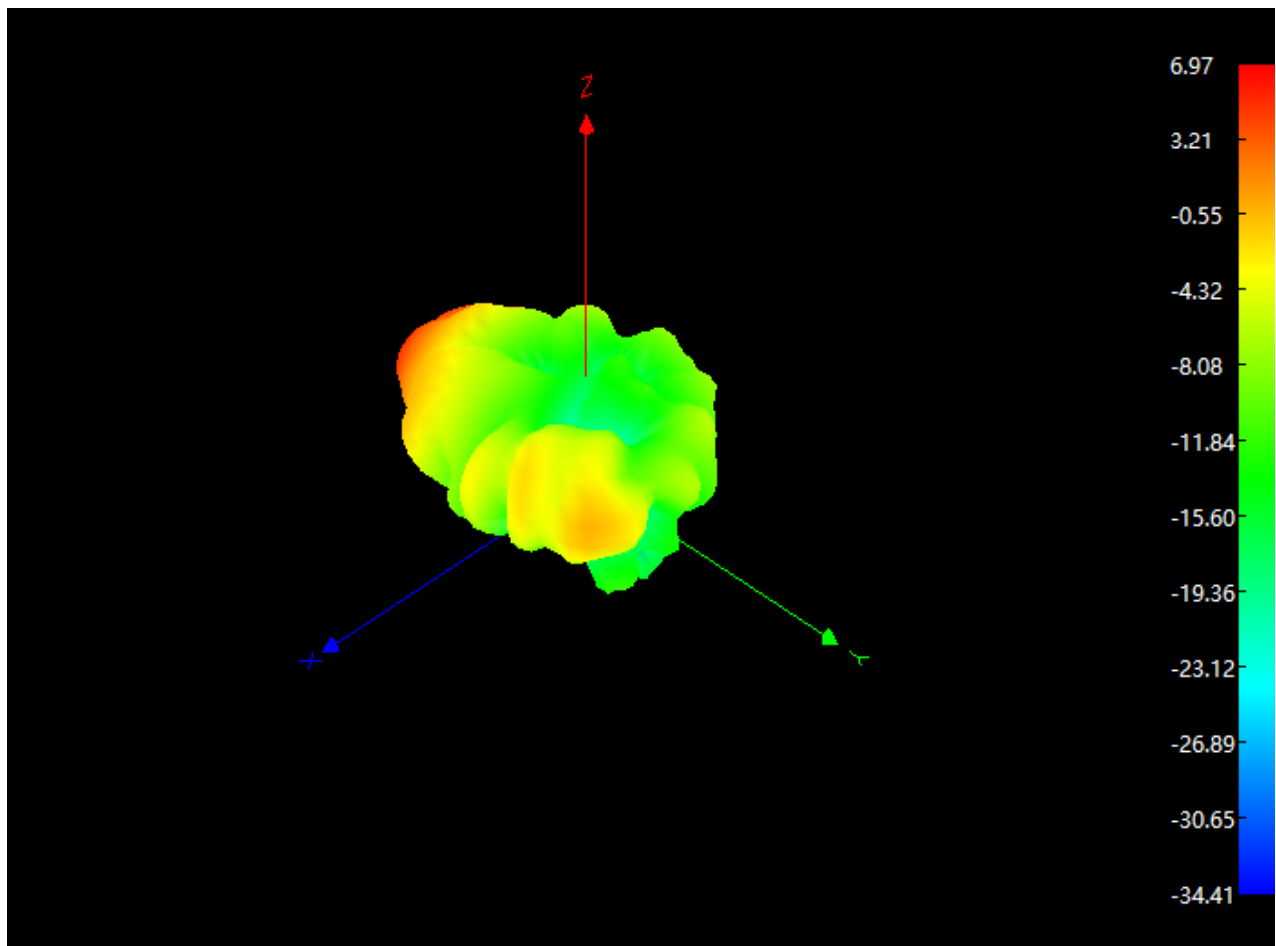


Radiation Pattern For WiFi2 Antenna(2.4G)





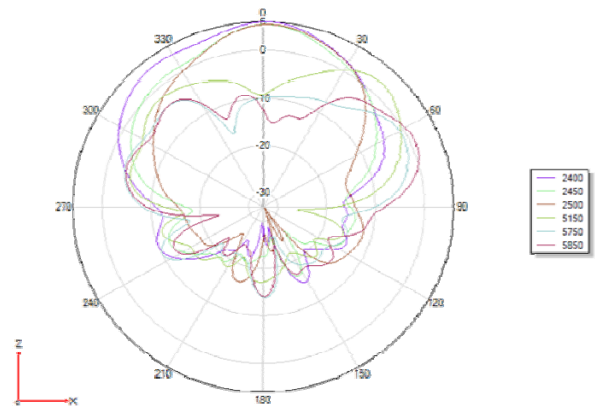
Radiation Pattern For WiFi2 Antenna(5.8G)



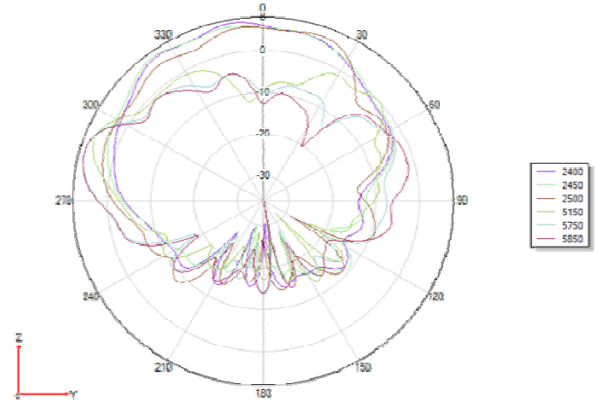


Radiation Pattern For WiFi2 Antenna

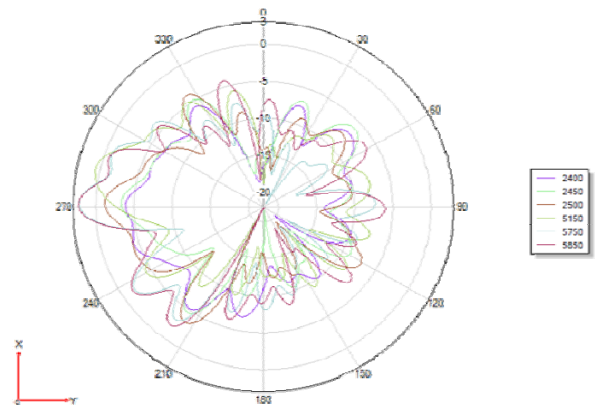
Phi 0°



Phi 90°



Theta 90°





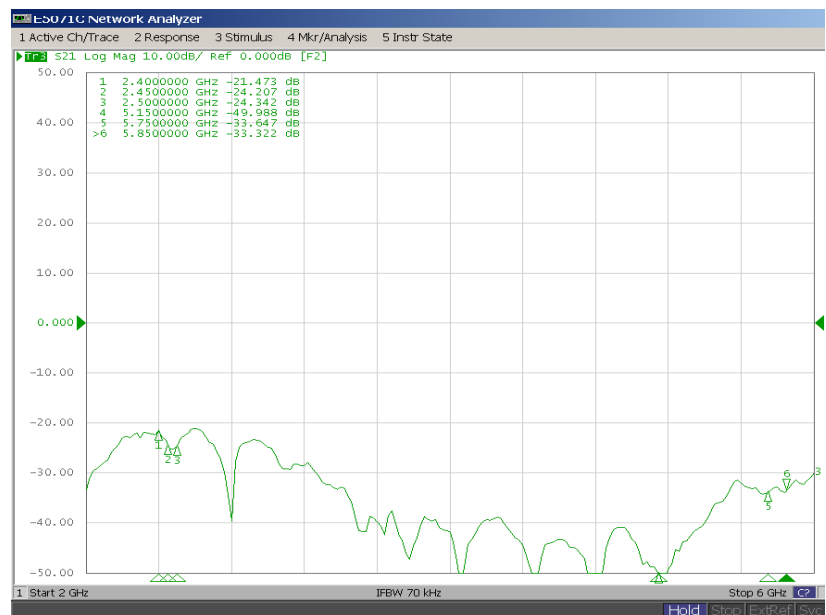
Active Test For WiFi Antenna

Band	Channel	Data Rate	TRP	EIRP	Data Rate	TIS	EIS
WIFI 2.4G 802.11b	1	11Mbps	16.0	24.8	11Mbps	-85.0	-92.7
	7		16.5	25.5		-83.8	-92.0
	13		15.4	24.7		-83.6	-92.1
WIFI 2.4G 802.11g	1	54Mbps	14.3	21.4	54Mbps	-75.5	-82.7
	7		13.9	21.2		-74.7	-81.1
	13		13.4	21.3		-74.2	-80.7
WIFI 2.4G 802.11n	1	65Mbps	16.2	22.7	65Mbps	-71.6	-78.6
	7		16.0	22.4		-69.6	-76.4
	13		14.9	21.1		-70.0	-76.8
WIFI 5G 802.11a	149	54Mbps	14.9	21.0	54Mbps	-75.0	-85.7
	157		15.0	21.0		-74.9	-85.8
	165		14.7	20.5		-74.2	-85.3



Isolation Test

**Agilent
E5071C
S
Parameter
Test //
WiFi1 &
BT
Antenna**



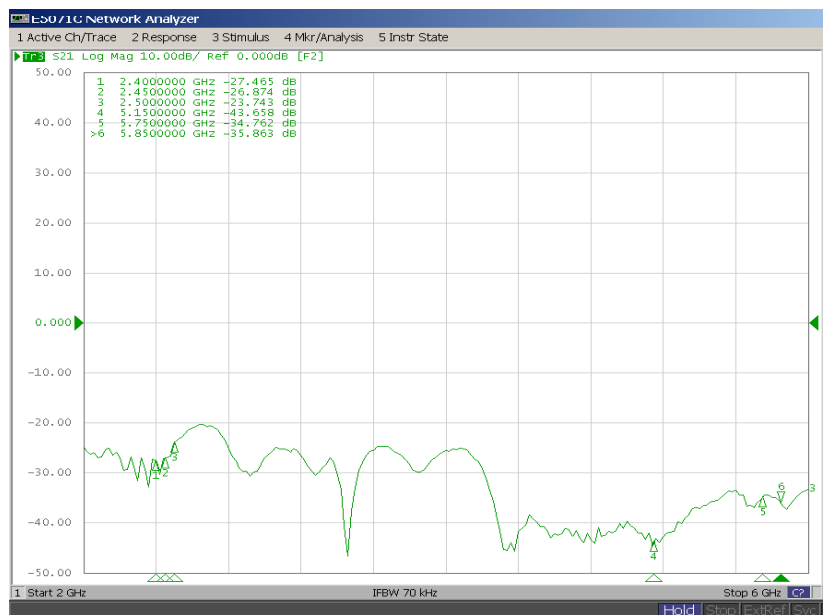


**Agilent
E5071C
S
Parameter
Test //
WiFi2 &
BT
Antenna**





**Agilent
E5071C
S
Parameter
Test //
WiFi1 &
WiFi2
Antenna**



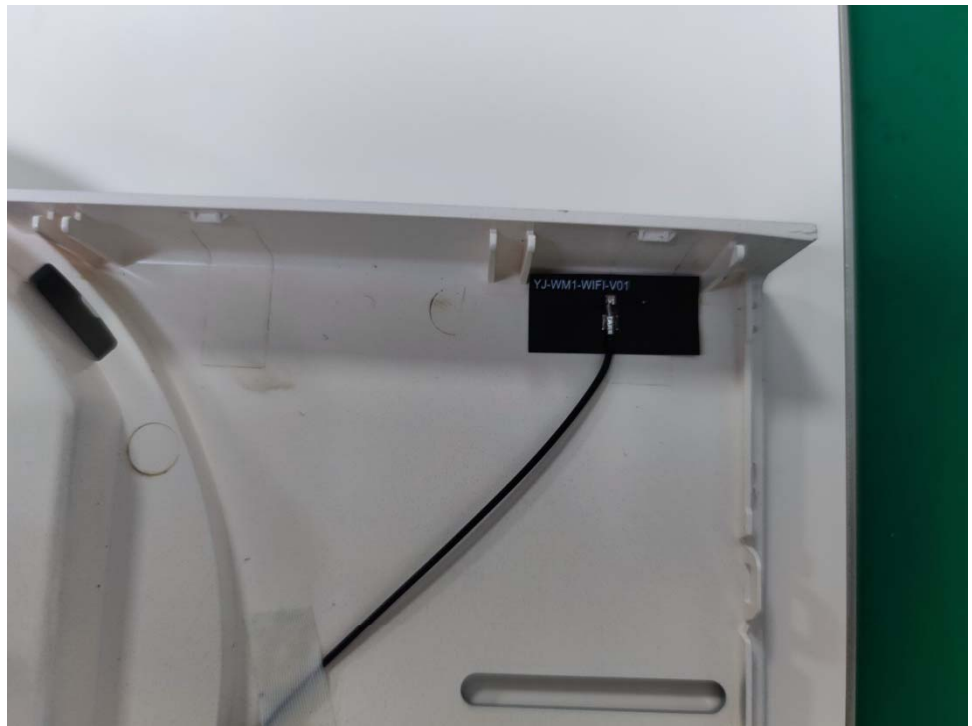


Device





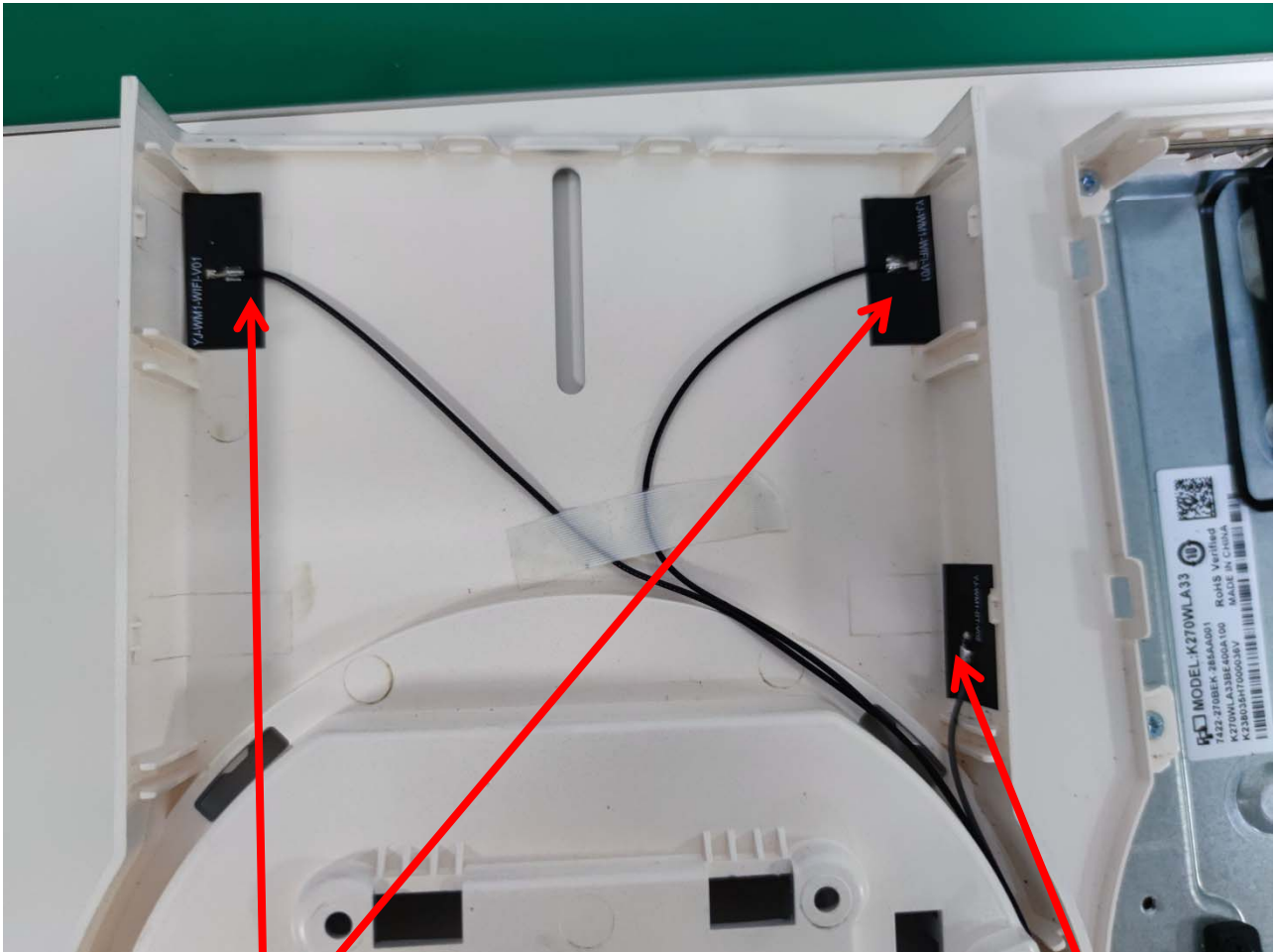
Antenna WiFi1





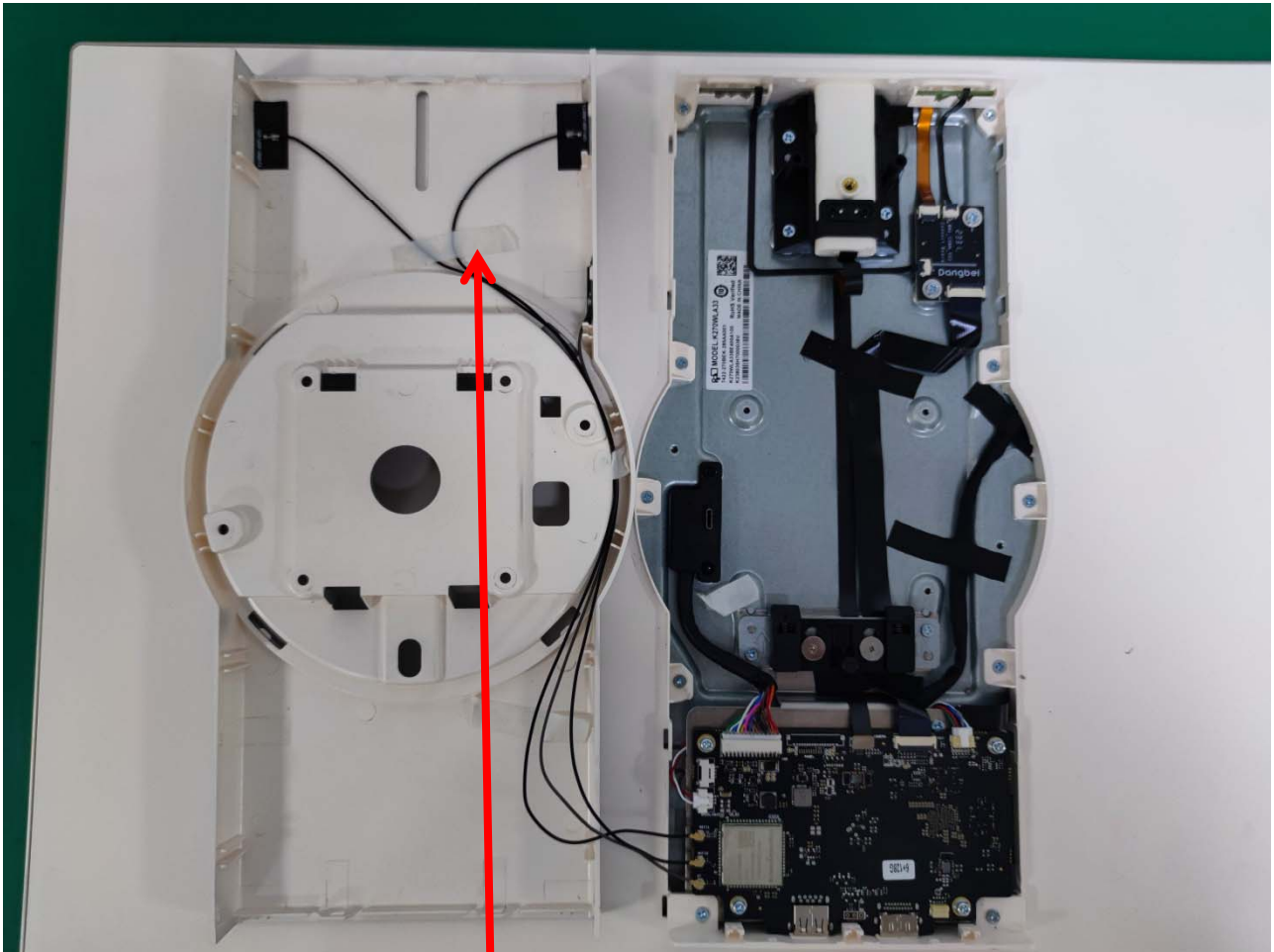
Antenna WiFi2





WiFi Antenna

BT Antenna



线缆固定

