



# APPROVAL SHEET

CUSTOMER NAME	A broad view of heaven and earth	
CUSTOMER P/N	28000021	
PART NAME	2.4G/5G black FPC built-in antenna 1.13 black wire L=70MM (Applicable model: 94F5W) Case 2	
P/ N	YJC-6N070-B121	
APPROVAL REV.	A0	
DELIVERY DATE	November 4, 2024	
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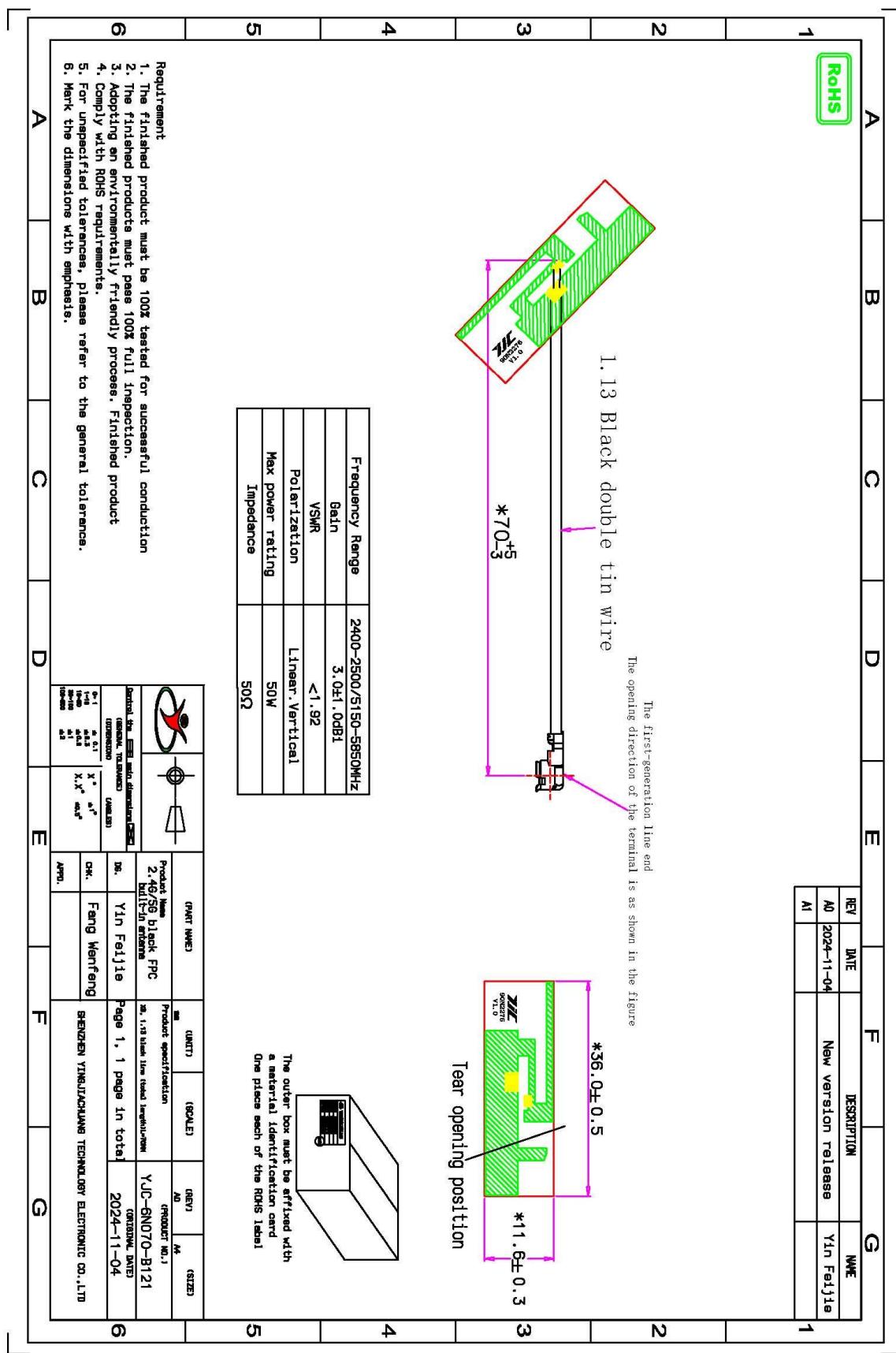


**Resume:**

Version	Change content and reasons for the change	Date	Issue
A/0	First edition release	November 4, 2024	



Antenna plan view:





## Antenna technical parameters and environmental testing:

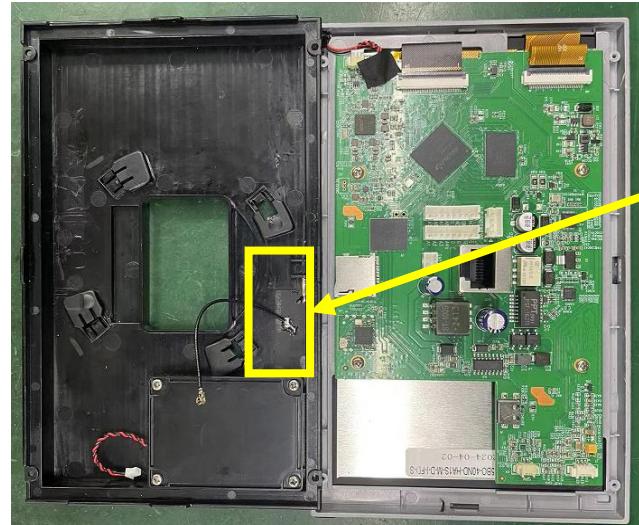
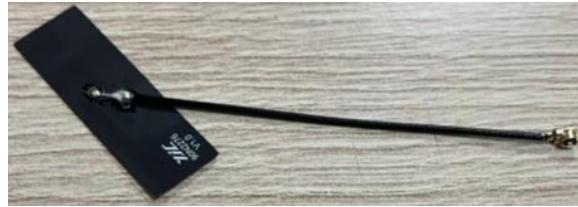
Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500/5150-5850M Hz	Wire Color	Black
VSWR	<1.92	Input connector	XD
Input Impedance	50 Ω	Wire Length	70MM
Direction	All	Working Temperature	-20°C ~ +70°C
Gain	3.0±1dBi	Working Humidity	20%~80%

## Environmental performance test:

Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is -30 °C ~ +80 °C 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performance is normal
High and low temperature test	Between 70 °C and -20 °C for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of machinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 °C. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and meet the performance of machinery and electric.
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical performance is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performance is normal

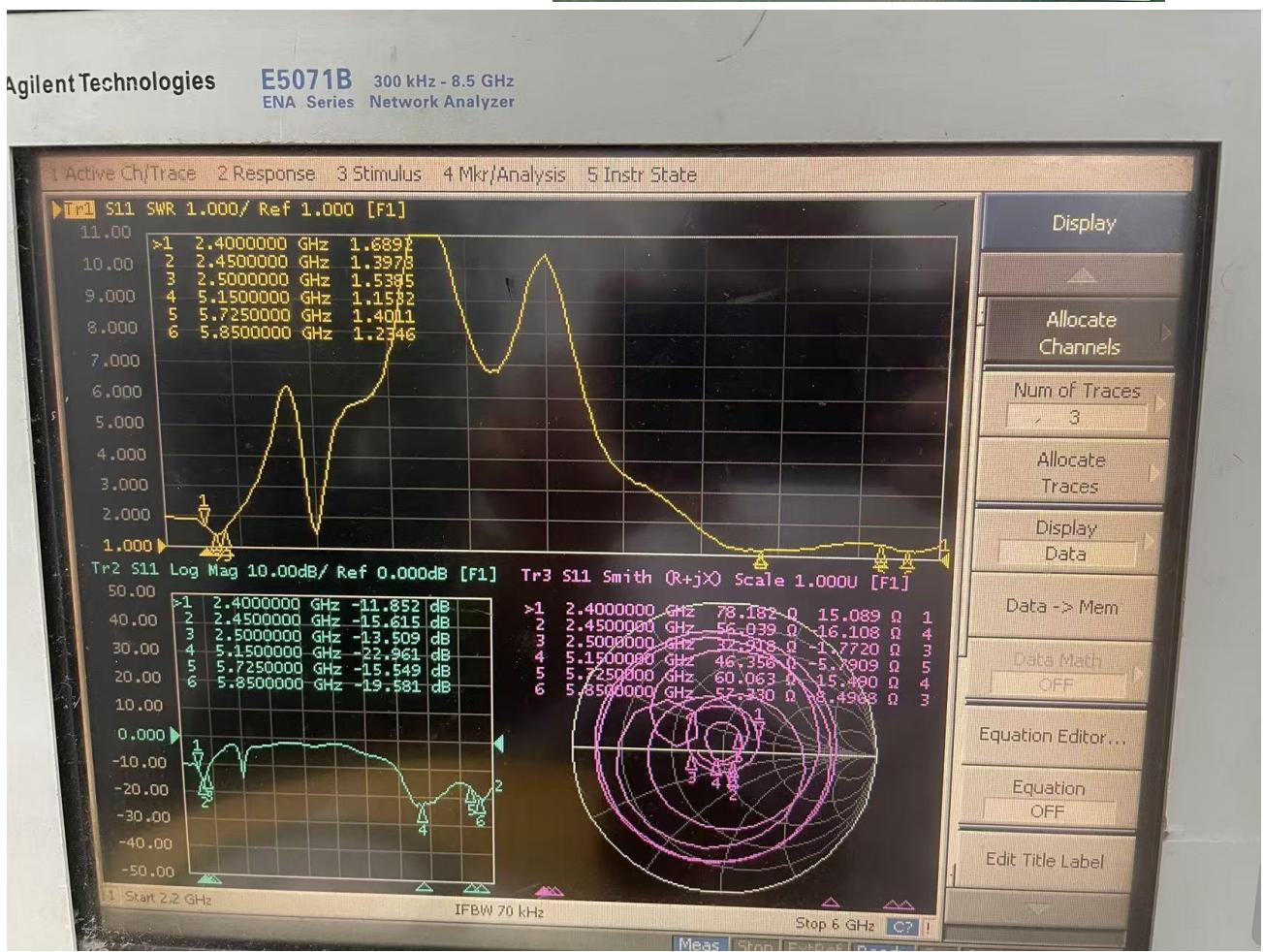


Physical antenna picture and attachment position picture:



Antenna  
attachmen  
t position

Antenna performance test diagram:

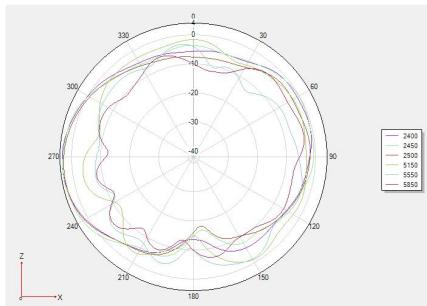




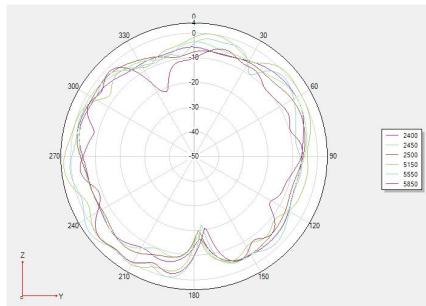
## 2D and 3D test data (2.4G/5G):

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	55.55	3.41
2410MHz	52.55	3.09
2420MHz	53.82	3.11
2430MHz	53.52	3.22
2440MHz	54.55	3.31
2450MHz	55.22	3.38
2460MHz	54.3	3.22
2470MHz	52.92	3.27
2480MHz	52.61	3.08
2490MHz	50.07	2.91
2500MHz	52.95	3.01
5150MHz	59.11	3.17
5250MHz	55.4	3.25
5350MHz	54.28	3.31
5450MHz	56.11	3.36
5550MHz	60.98	3.47
5650MHz	56.36	3.26
5750MHz	55.88	3.18
5850MHz	54.51	3.05

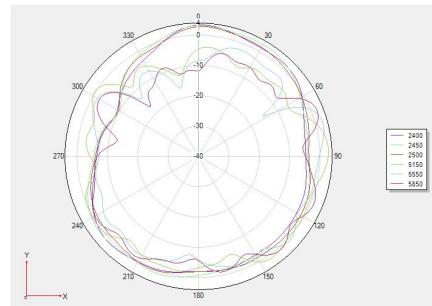
Phi 0 2D:



Phi 90 2D

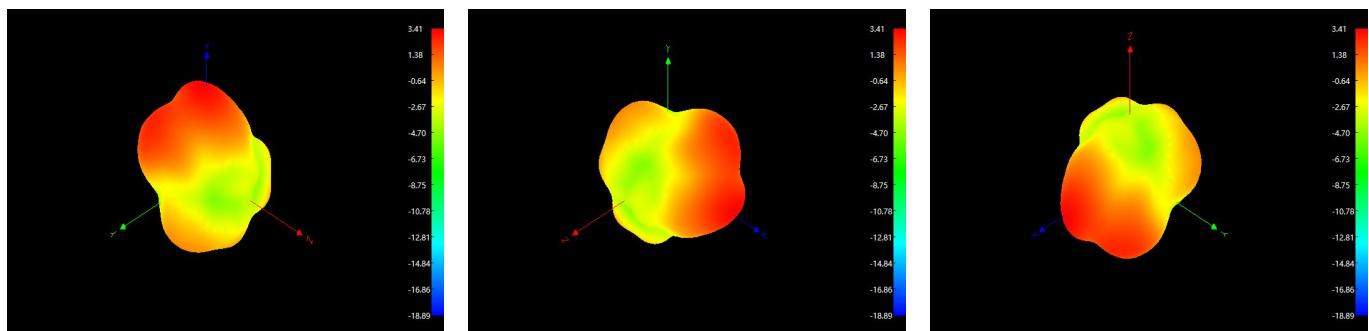


Theta 90 2D

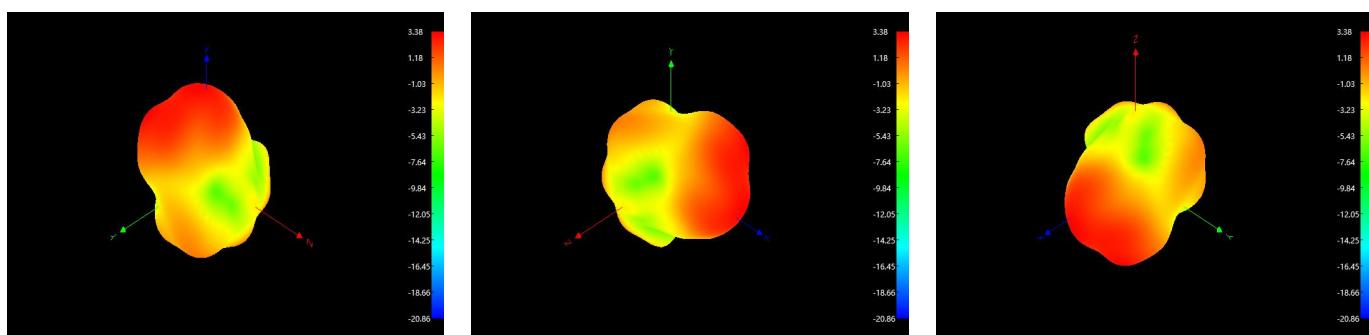




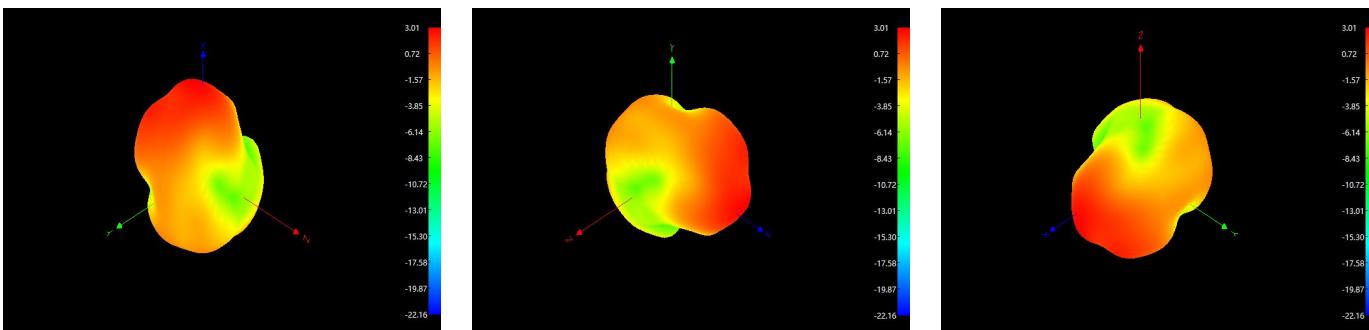
3D 2400:



3D 2450:

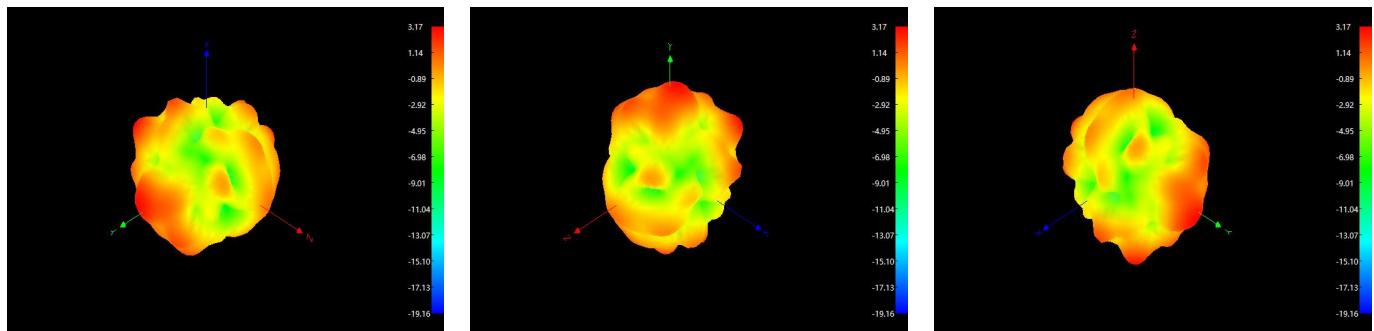


3D 2500:

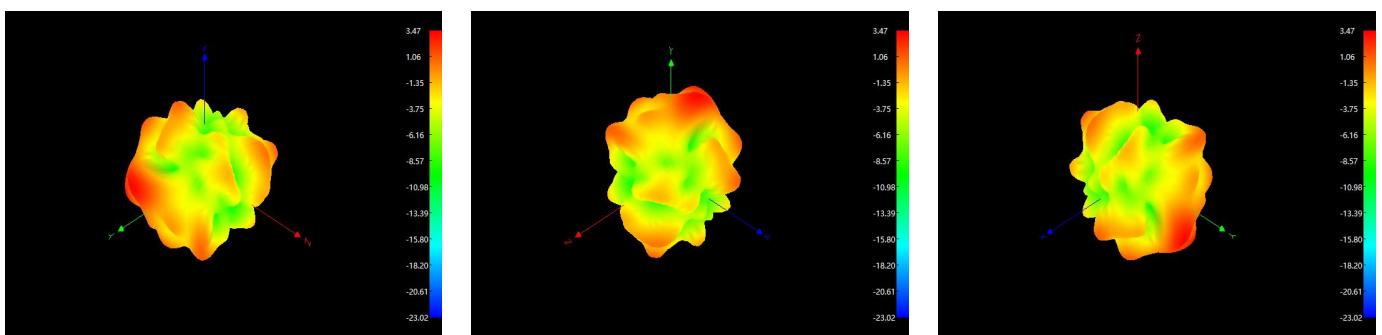




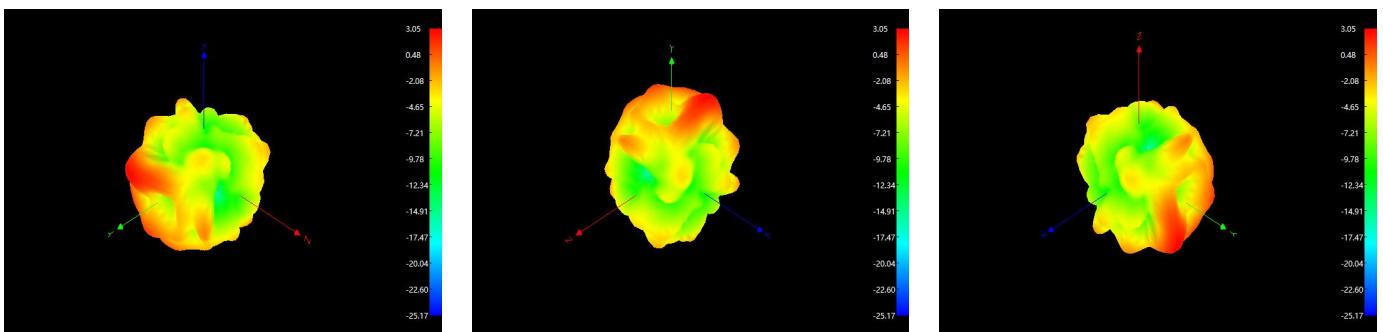
3D 5150:



3D 5550:



3D 5850:





### OTA active test data statistics:

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	13.74
2	TRP	WIFI_B (11M)	6	2437	14.54
3	TRP	WIFI_B (11M)	11	2462	15.06
4	TIS(EIRP)	WIFI_B (11M)	1	2412	-80.28
5	TIS(EIRP)	WIFI_B (11M)	6	2437	-80.41
6	TIS(EIRP)	WIFI_B (11M)	11	2462	-81.26
7	TRP	WIFI_G (54M)	1	2412	10.23
8	TRP	WIFI_G (54M)	6	2437	10.57
9	TRP	WIFI_G (54M)	11	2462	10.81
10	TIS(EIRP)	WIFI_G (54M)	1	2412	-66.02
11	TIS(EIRP)	WIFI_G (54M)	6	2437	-67.02
12	TIS(EIRP)	WIFI_G (54M)	11	2462	-66.47
13	TRP	WIFI_N_ISM (65M)	1	2412	10.05
14	TRP	WIFI_N_ISM (65M)	6	2437	10.38
15	TRP	WIFI_N_ISM (65M)	11	2462	11.87
16	TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-65.98
17	TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-63.79
18	TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-64.41
19	TRP	WIFI_A (54M)	36	5180	11.02
20	TRP	WIFI_A (54M)	149	5745	12.18
21	TRP	WIFI_A (54M)	165	5825	12.47
22	TIS(EIRP)	WIFI_A (54M)	36	5180	-67.59
23	TIS(EIRP)	WIFI_A (54M)	149	5745	-68.19
24	TIS(EIRP)	WIFI_A (54M)	165	5825	-67.53



Material RoHS conformity declaration form										
This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engineering are accord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)										
About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:										
Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)					
					Cd	Pb	Hg	Cr <sup>6+</sup>	PBB	PBDE
Wire	Coaxial cable	CANEC24002746203	SGS	24/02/22	ND	ND	ND	ND	ND	ND
Environmentally friendly tin wire	Environmentally friendly tin wire	SHAEC24006459102	SGS	24/04/10	ND	78	ND	ND	ND	ND
Terminal	Phosphor bronze	CANEC24000977302	SGS	24/01/22	ND	6	ND	ND	ND	ND
	Gold plating layer	A2240410234101001E	CTI	24/07/16	ND	ND	ND	ND	ND	ND
	Rubber core	A2240126395101003E	CTI	24/03/16	ND	ND	ND	ND	ND	ND
FPC	Ink	ETR24902229M01	SGS	24/09/23	ND	ND	ND	ND	ND	ND
	3M9471LE	SHAEC23021627701	SGS	23/12/27	ND	ND	ND	ND	ND	ND
	Copper foil substrate	A2240082746101006E	CTI	24/03/01	ND	ND	ND	ND	ND	ND