



Shenzhen Yingjiachuang Electronic Technology Co., LTD

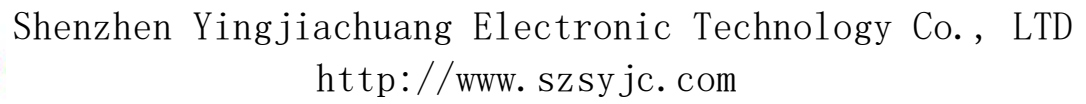
<http://www.szsyjc.com>

APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	2.4G/5G black FPC built-in antenna, 1.13 black wire L=80MM	
P/ N	YJC-6N080-B111	
APPROVAL REV.	A0	
DELIVERY DATE	October 14, 2024	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Xiao Han	
Customer Approved		
Prepared By	Checked By	Approved By

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Dongguan Branch: Yingjiachuang Industrial Park, No. 2 Yinhe 3rd Road, Shishuikou, Qiaotou Town, Dongguan City
Hangzhou Office: 212, Building B, Dahua Jianghong International Innovation Park, 369 Internet of Things Street, Binjiang District, Hangzhou
Mianyang Office: No. 4F-34 Wanxiang High-tech International, No. 35 Mianxing East Road, Mianyang High-tech Zone, Sichuan

Province telephone: 0755-27810060 fax: 0755-27810057 website: <http://www.szsyjc.com>



catalogue

[illegible]



Resume:

Version	Change content and reasons for the change	Date	Issue
A0	First edition release	October 14, 2024	



A	B	C	D	E	F	G																								
RoHS					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>NWE</th> </tr> <tr> <td>A0</td> <td>2024-10-14</td> <td>New edition issue</td> <td>Yin FeiJie</td> </tr> <tr> <td>A1</td> <td></td> <td></td> <td></td> </tr> </table>		REV	DATE	DESCRIPTION	NWE	A0	2024-10-14	New edition issue	Yin FeiJie	A1															
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Technical requirements: 1: OK The finished product must be 100% test conduction OK 2: The finished product must be 100% inspected OK. 3: The finished product uses an environmentally friendly process. 4: ROHS+HF requirements. 5: No tolerance is specified. 6: "*" indicates the key dimensions Material label card shall be to the outer box 1PCS for each RoHS label																														
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SHENZHEN YINFEIJIE TECHNOLOGY ELECTRONIC CO.,LTD																														



Antenna technical parameters and environmental testing:

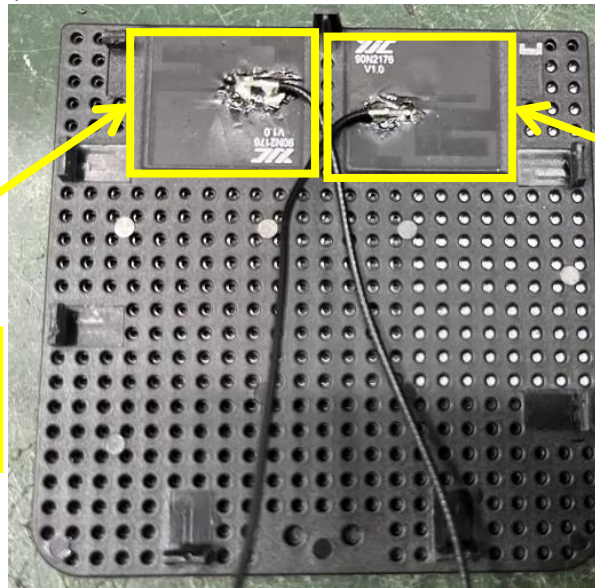
Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500/5150-5850MHz	Wire Color	Black
VSWR	<1.92	Input connector	XD
Input Impedance	50 Ω	Wire Length	80MM
Direction	All	Working Temperature	-20℃~+70℃
Gain	4dBi	Working Humidity	20%~80%

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 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of mechnery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 ℃. 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 mechnery 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 performace is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performace is normal



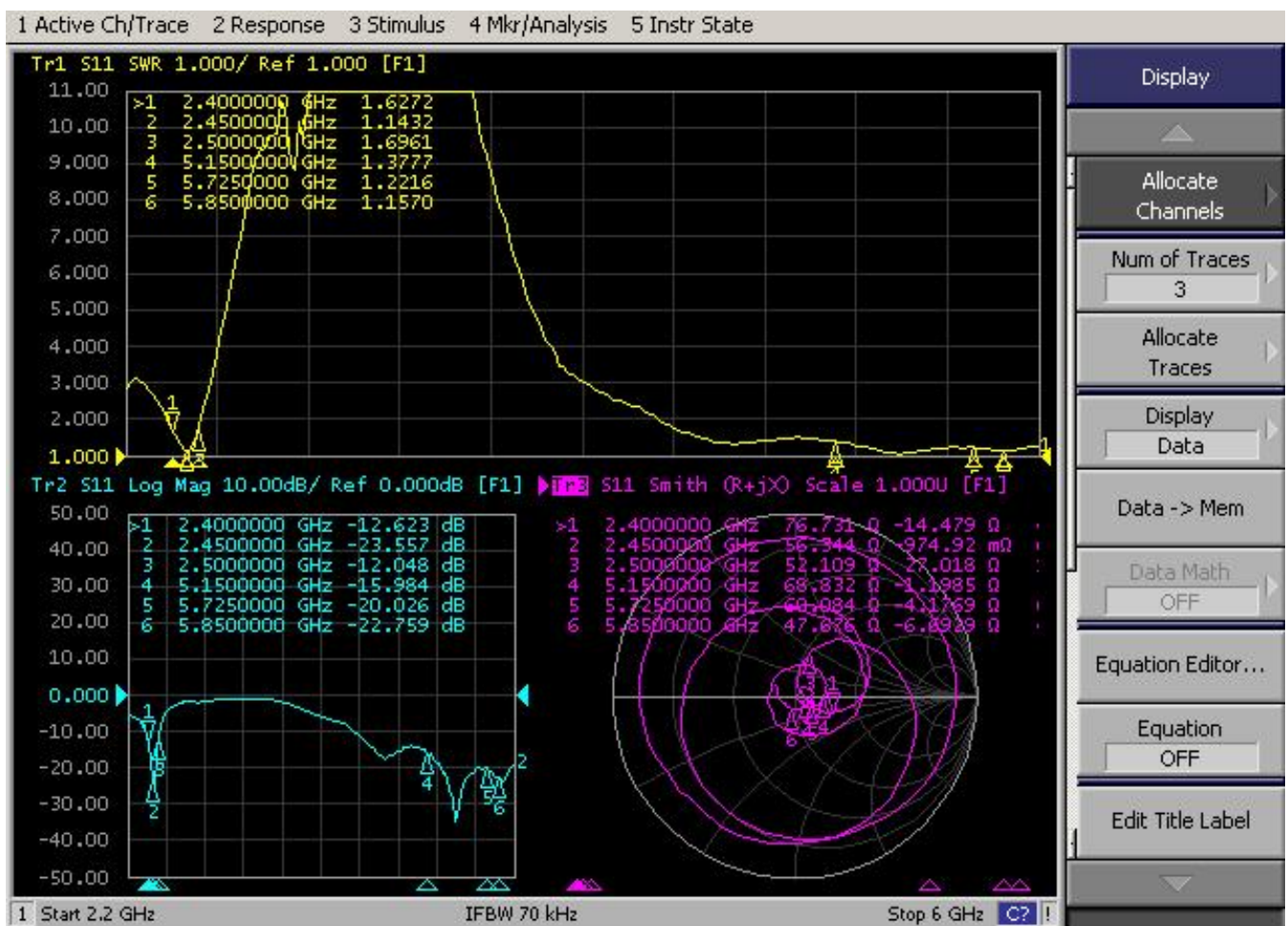
Physical picture of the antenna:



Antenna attachment position
Antenna 1

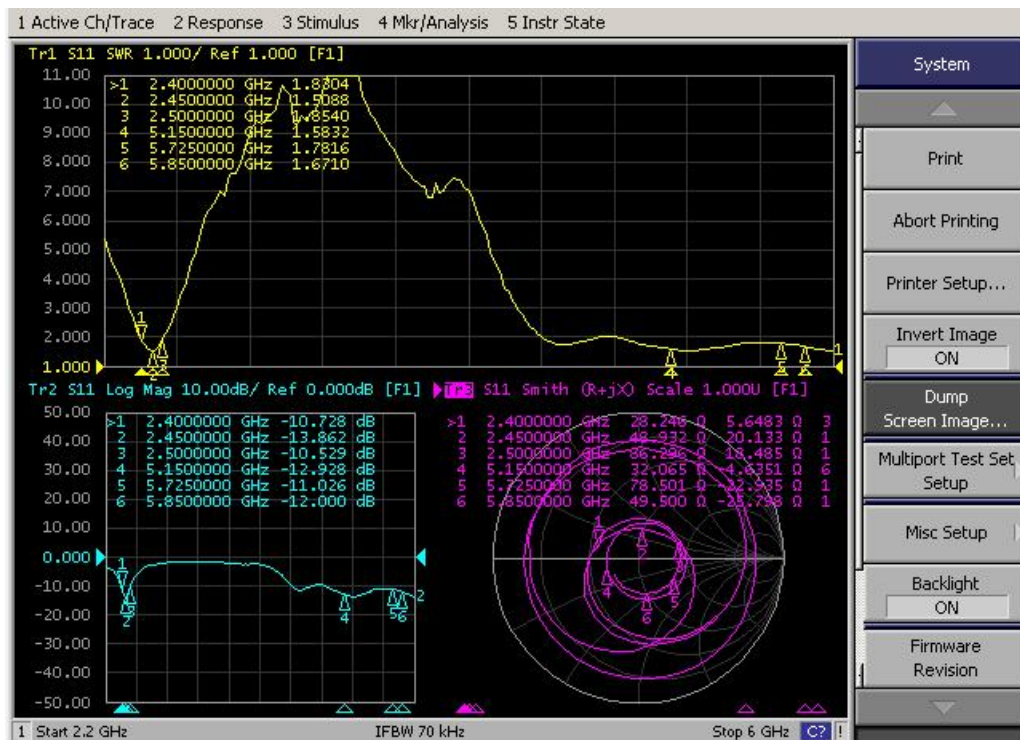
Antenna attachment position
Antenna 2

Antenna performance test diagram: (Antenna 1)





Antenna performance test diagram: (Antenna 2)

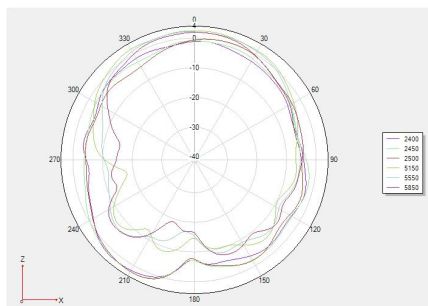


2D and 3D(5G) test data :(Antenna 1)

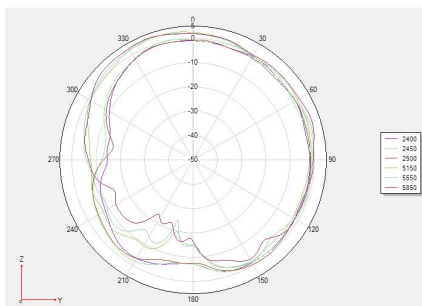
Frequency (MHz)	Efficiency (%)	Gain. (dBi)
2400MHz	42.34	2.51
2410MHz	43.31	2.67
2420MHz	41.32	2.75
2430MHz	42.45	2.82
2440MHz	39.56	2.77
2450MHz	41.27	2.73
2460MHz	42.85	2.65
2470MHz	38.45	2.67
2480MHz	40.78	2.55
2490MHz	36.39	2.51
2500MHz	36.73	2.47
5150MHz	42.12	4.09
5250MHz	43.70	3.91
5350MHz	46.23	3.85
5450MHz	45.53	3.88
5550MHz	44.12	3.91
5650MHz	48.75	3.52
5750MHz	43.58	3.86
5850MHz	41.60	4.02



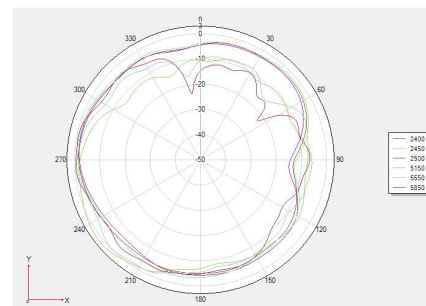
Phi 0 2D:



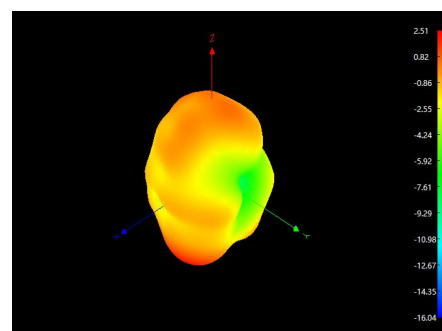
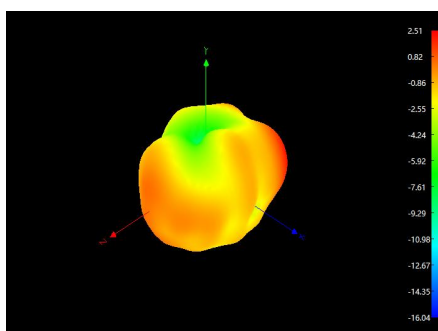
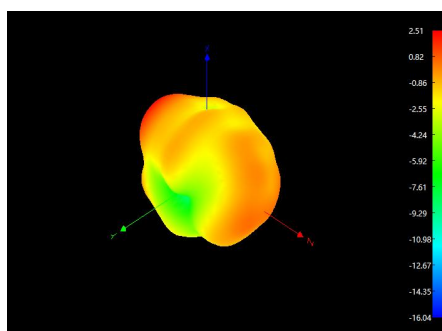
Phi 90 2D



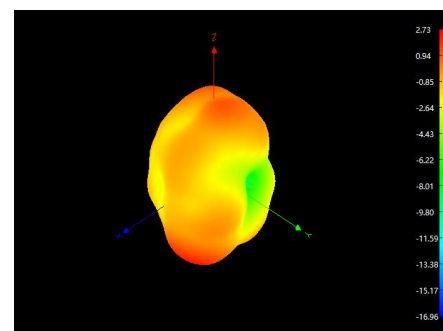
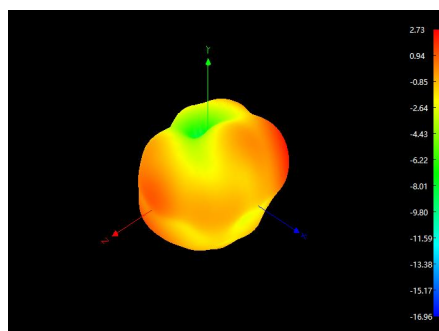
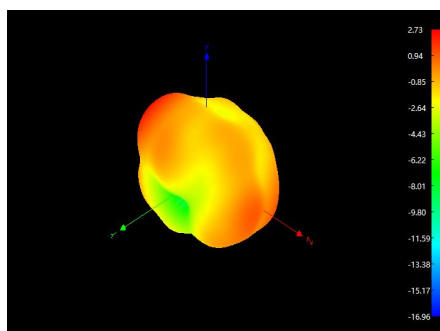
Theta 90 2D



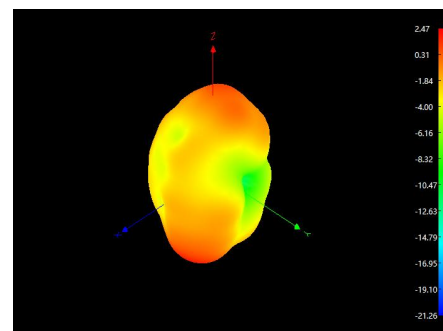
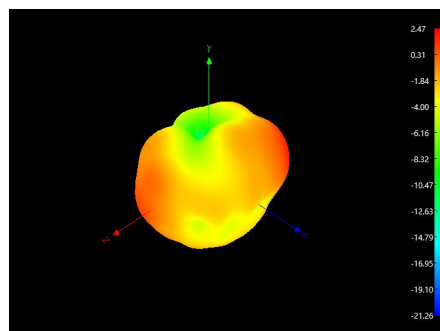
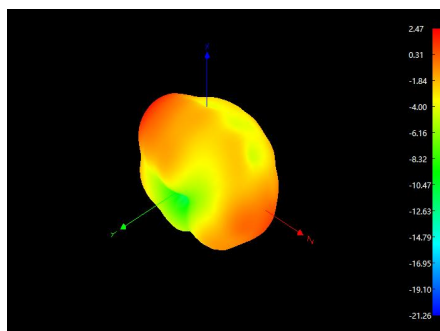
3D 2400



3D 2450

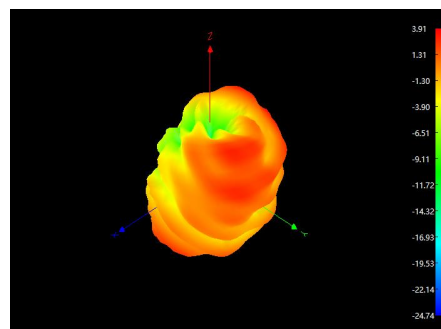
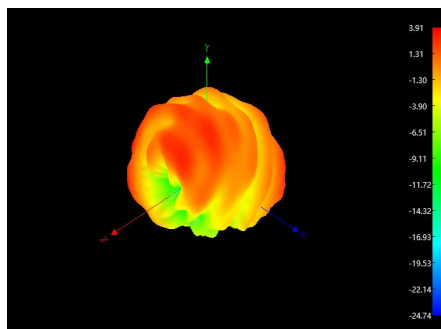
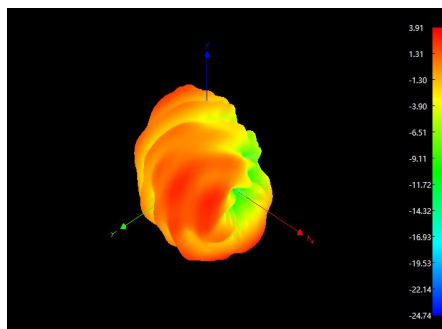


3D 2500

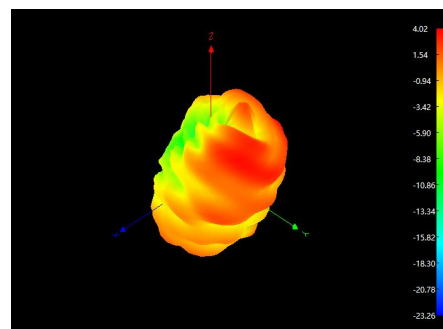
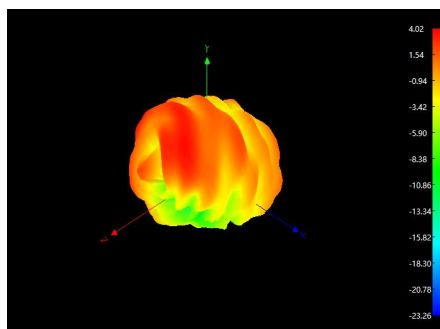
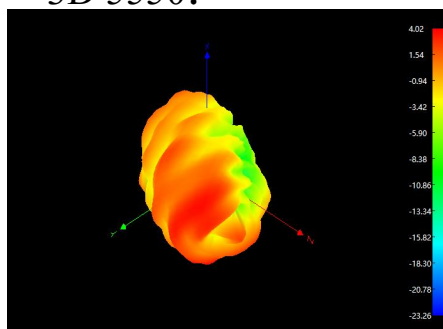




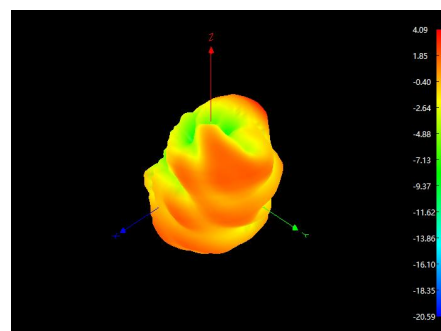
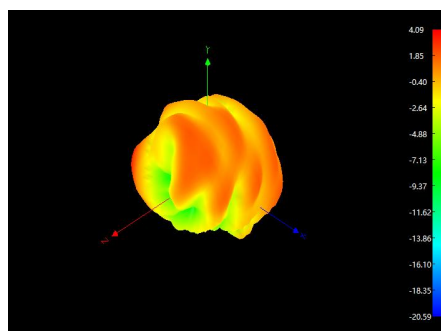
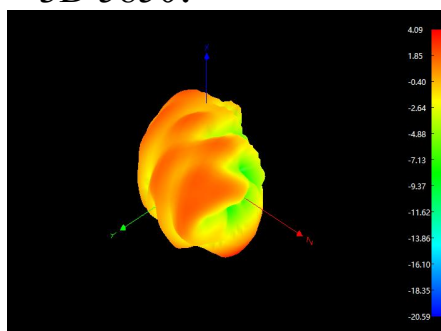
3D 5150:



3D 5550:



3D 5850:

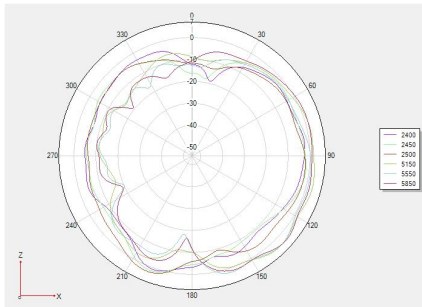




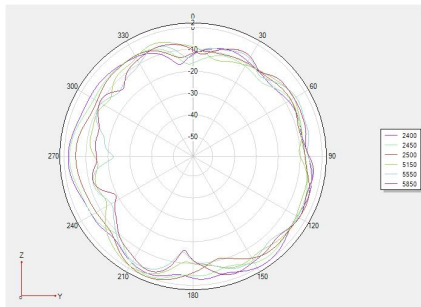
2D and 3D(5G) test data :(Antenna 2)

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	34.64	2.7
2410MHz	36.97	2.73
2420MHz	36.83	2.75
2430MHz	35.17	2.77
2440MHz	38.28	2.68
2450MHz	36.2	2.64
2460MHz	38.81	2.66
2470MHz	36.06	2.58
2480MHz	39.34	2.46
2490MHz	35.04	2.41
2500MHz	36.76	2.57
5150MHz	46.02	4.16
5250MHz	45.64	3.89
5350MHz	44.03	3.99
5450MHz	47.16	4.14
5550MHz	46.74	3.95
5650MHz	47.31	3.85
5750MHz	44.27	4.09
5850MHz	42.94	3.93

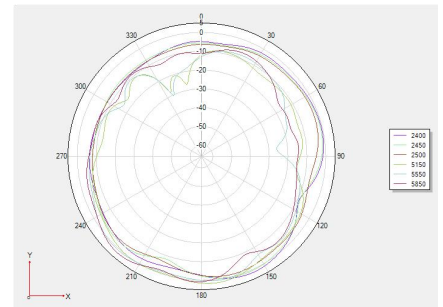
Phi 0 2D:



Phi 90 2D

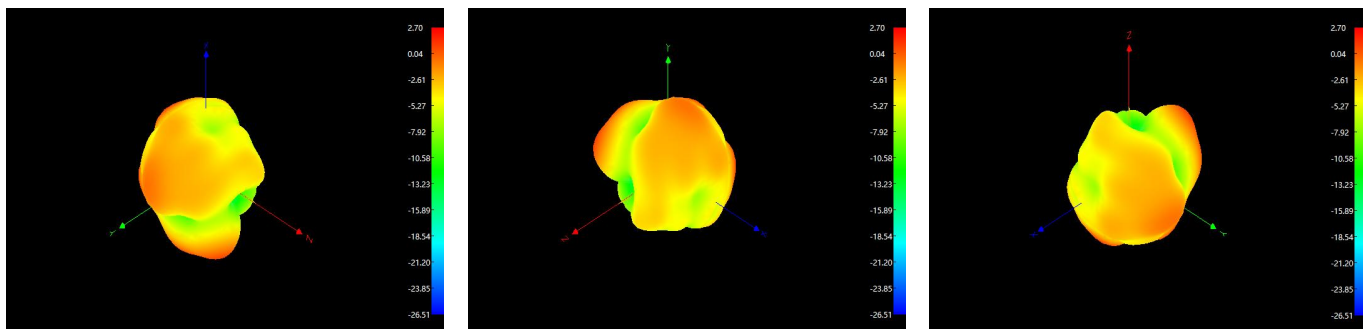


Theta 90 2D

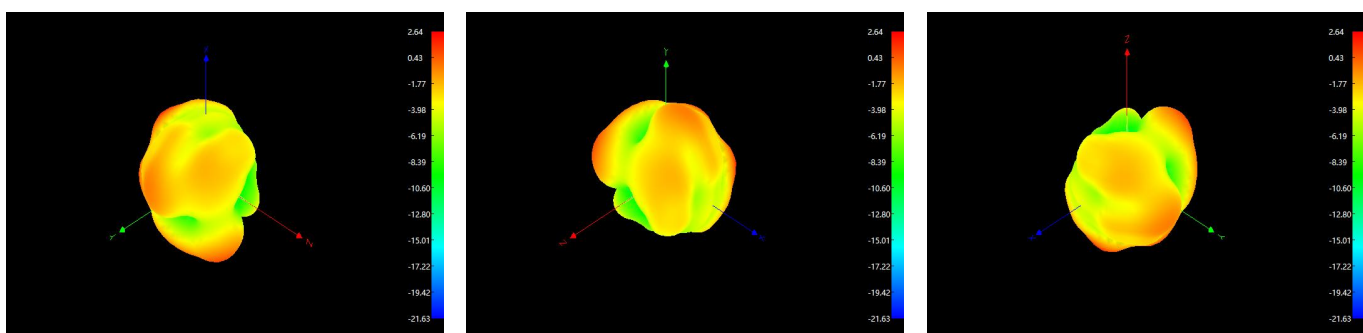




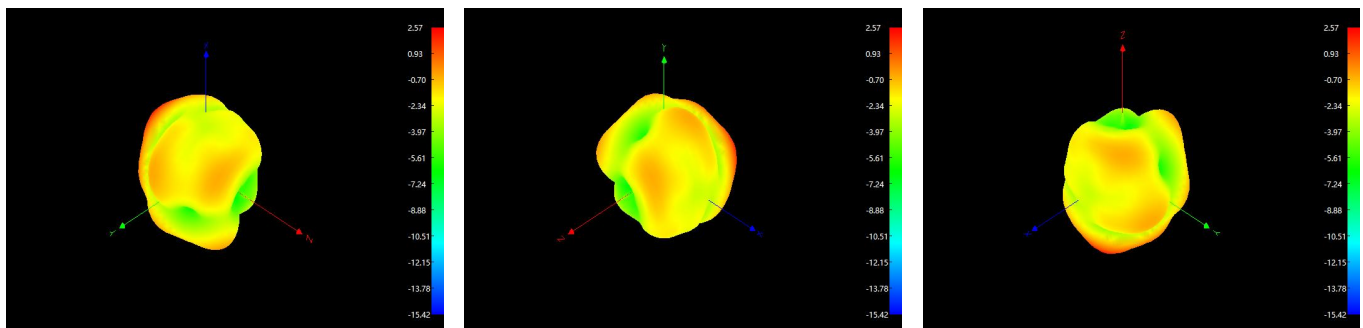
3D 2400:



3D 2450:

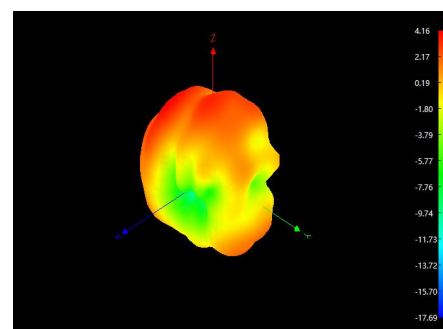
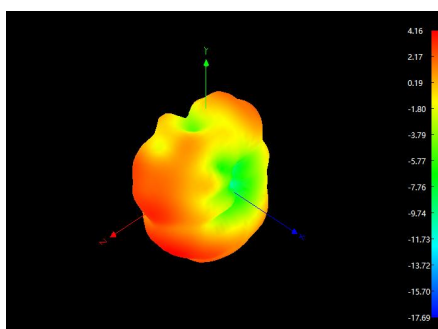
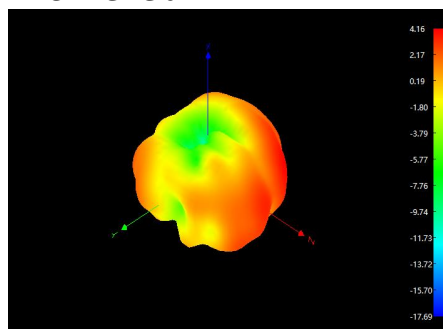


3D 2500:

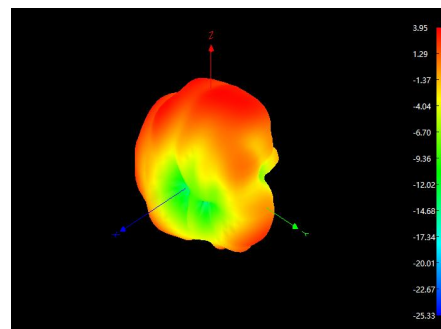
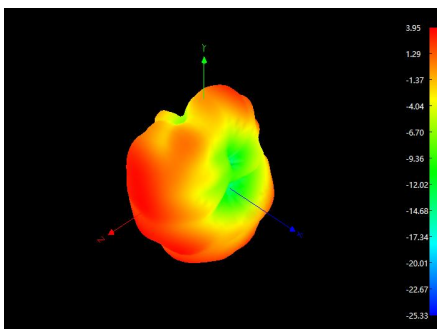
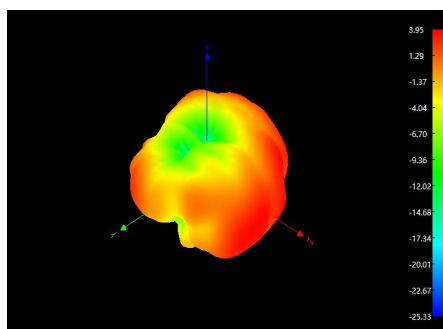




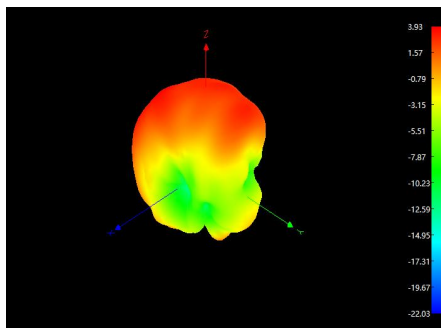
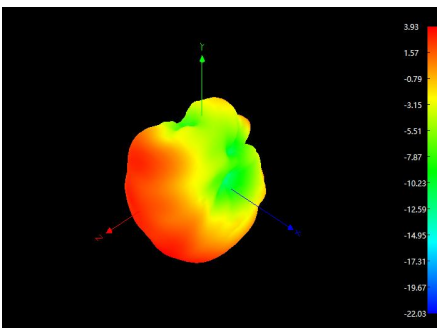
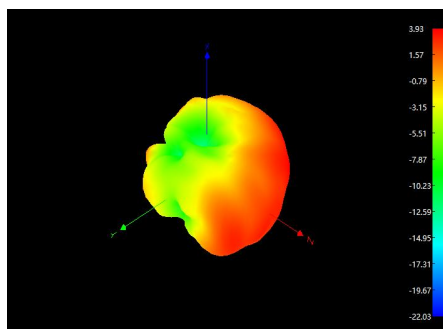
3D 5150



3D 5550



3D 5850





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)						PASS?
					Cd	Pb	Hg	Cr ⁶⁺	PBB	PBDE	PASS
Wire	Coaxial cable	CANEC24002746206	SGS	24/02/23	ND	ND	ND	ND	ND	ND	PASS
Environmentally friendly tin wire	Environmentally friendly tin wire	SHAEC24006459102	SGS	24/04/10	ND	78	ND	ND	ND	ND	PASS
Terminal	Phosphor bronze	CANEC24000977302	SGS	24/01/22	ND	6	ND	ND	ND	ND	PASS
	Gold plating layer	A2240410234101001E	CTI	24/07/16	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A2240126395101003E	CTI	24/03/16	ND	ND	ND	ND	ND	ND	PASS
FPC	Ink	ETR23A00862M01	SGS	23/10/13	4.86	ND	ND	ND	ND	ND	PASS
	3M9471LE	SHAEC23021627701	SGS	23/12/27	ND	ND	ND	ND	ND	ND	PASS
	Copper foil	A2240082746101006E	CTI	24/03/01	ND	ND	ND	ND	ND	ND	PASS