APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	2.4G/5G black custom waterproof external antenna	
P/ N	YJC-60302-B48	
APPROVAL REV.	A0	
DELIVERY DATE	December 20, 2023	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Chauhan	
Customer Approved		
Prepared By	Checked By	Approved By

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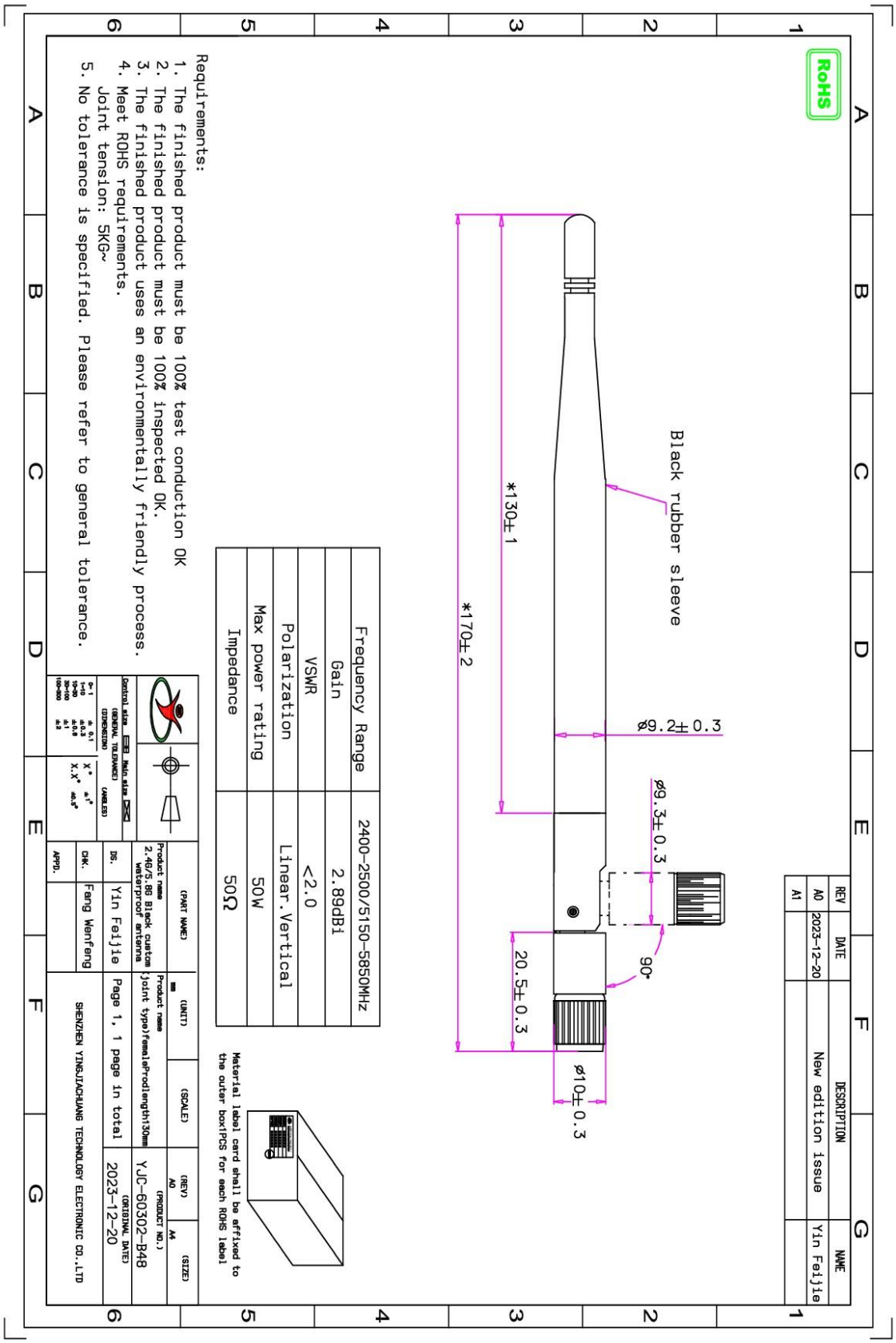
catalogue

resume：

edition	Content of change and reasons for change	date	release
A0	Initial release	December 20, 2023	

Antenna plan：



Antenna technical parameters and environmental testing:

Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500/5150-5850MHz	Antenna Color	BLACK
VSWR	＜2.5	Working Temperature	-20℃~+70℃
Input Impedance	50 Ω	Working Humidity	20%~80%
Direction	All	Gain	2.89dBi

Environmental performance test:

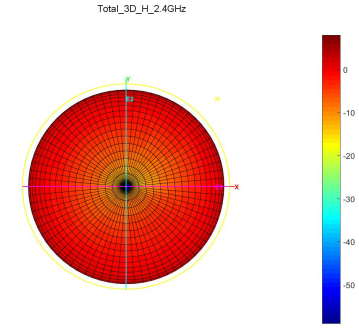
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low 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 mechinery 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 mechinery 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

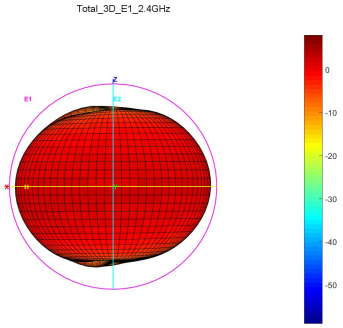
Antenna diagram：

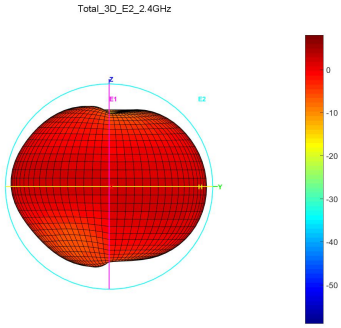
Antenna performance test diagram：

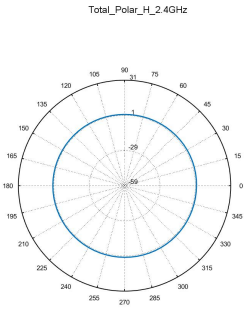
2D and 3D test data (2.4G):

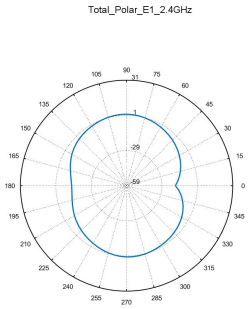
Frequency	Efficiency (%)	Gain.(dBi)
2400MHz	84.92	2.21
2410MHz	86.70	2.30
2420MHz	87.70	2.49
2430MHz	89.54	2.59
2440MHz	87.90	2.60
2450MHz	87.30	2.68
2460MHz	87.70	2.77
2470MHz	87.10	2.89
2480MHz	84.92	2.83
2490MHz	86.50	2.81
2500MHz	84.14	2.64

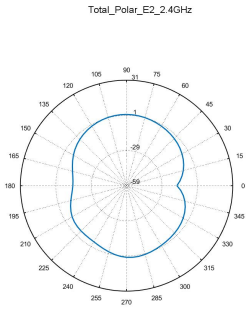












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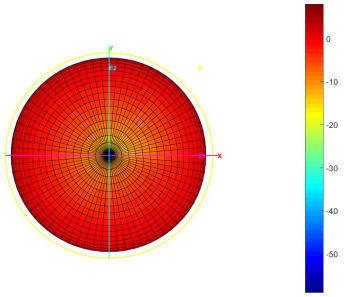

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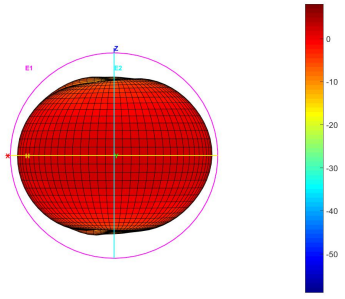

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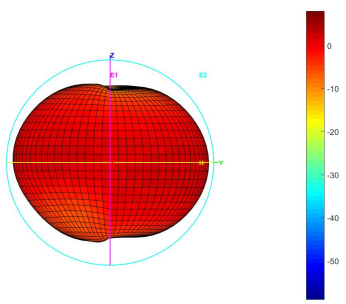

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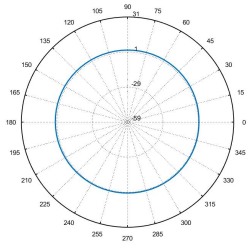

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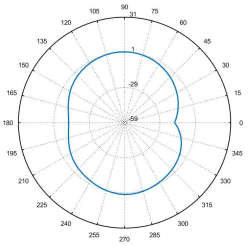

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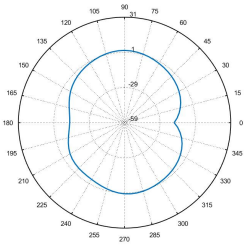

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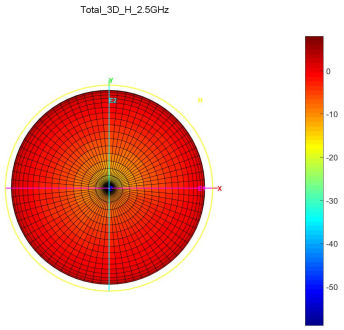

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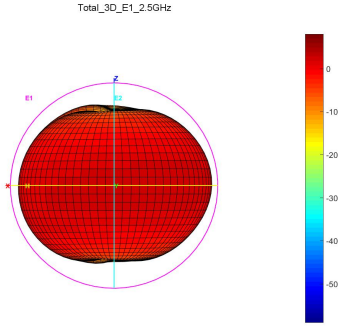

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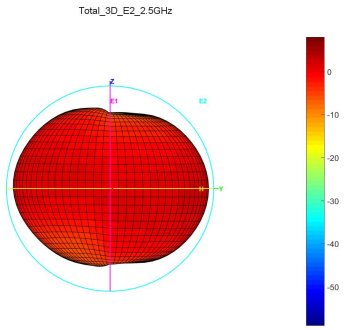

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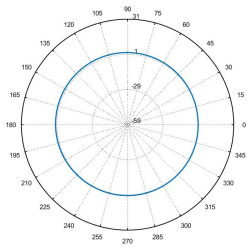

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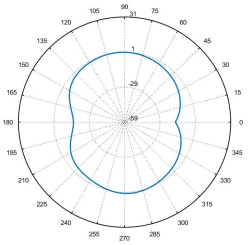

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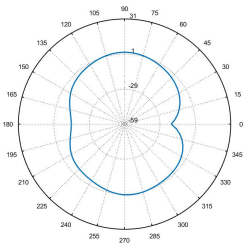
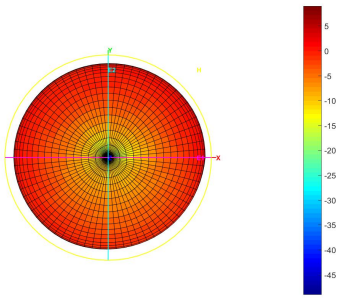


2D and 3D test data (5.8G):

Frequency	Efficiency (%)	Gain.(dBi)
5150MHz	66.53	1.44
5250MHz	78.16	2.02
5350MHz	74.64	2.32
5450MHz	81.10	2.55
5550MHz	73.62	2.06
5650MHz	73.96	1.98
5750MHz	71.12	2.19
5850MHz	62.52	1.47

Total_3D_H_5.15GHz



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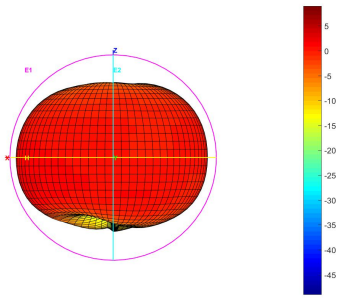

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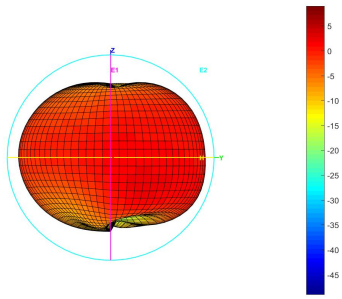

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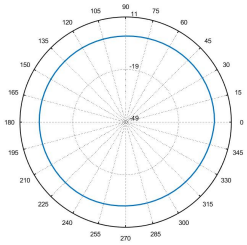

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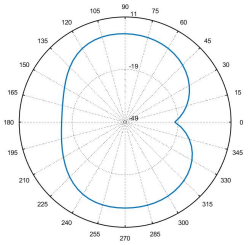

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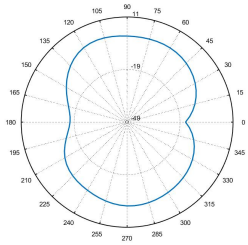

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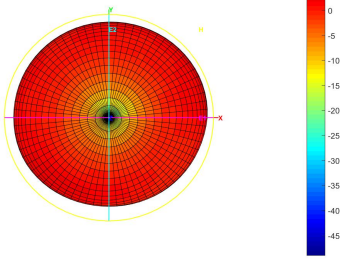

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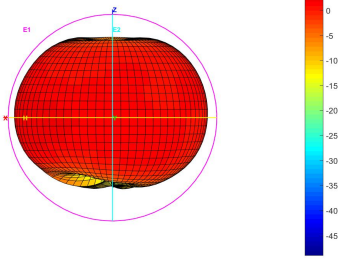

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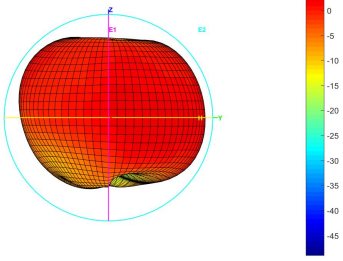

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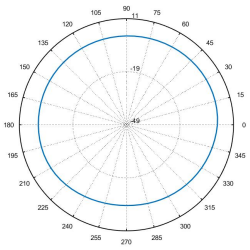

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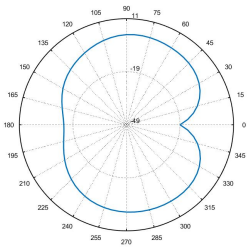

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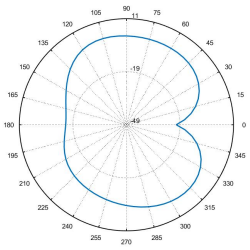

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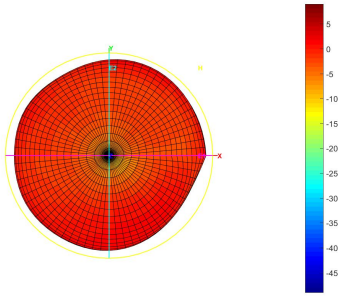

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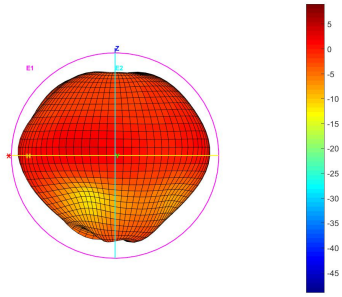

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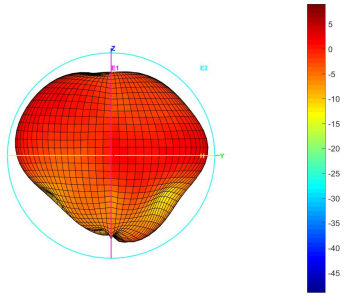

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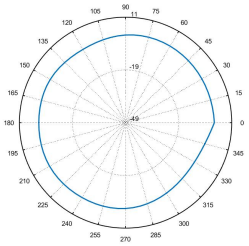

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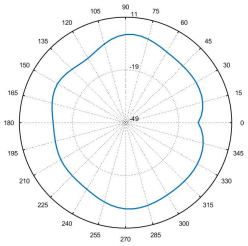

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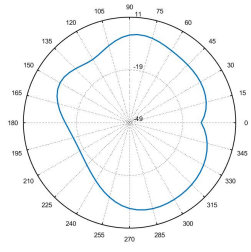

Material RoHS conformity declaration form

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
Plastic parts	TPEE	A2240057268120001	SGS	24/03/13	ND	ND	ND	ND	ND	ND	PASS
	PC +PBT	A2240057268112001	CTI	24/03/05	ND	ND	ND	ND	ND	ND	PASS
	PC	SZXPC24000015502	SGS	24/01/09	ND	ND	ND	ND	ND	ND	PASS
	POM	CANEC24000208014	SGS	24/01/10	ND	ND	ND	ND	ND	ND	PASS
bullet	Brass strip	NGBEC23001873103	SGS	23/05/18	ND	17	ND	ND	ND	ND	PASS
Eco-friendly tin wire	Eco-friendly tin wire	SHAEC23006357502	SGS	23/05/23	ND	43	ND	ND	ND	ND	PASS
Wire rod	RG178 Coaxial cable	CANEC2301851701	SGS	23/02/23	ND	ND	ND	ND	ND	ND	PASS
Heat shrink bushing	Heat shrink bushing	CANEC23003082908	SGS	23/05/25	ND	ND	ND	ND	ND	ND	PASS
Silicone ring	HTV	CANEC2227525408	CTI	23/01/13	ND	ND	ND	ND	ND	ND	PASS

SMA	Orichalcum	CANEC2300141006	SGS	23/01/10	ND	26046	ND	ND	ND	ND	PASS
	Rubber core	TAOEC2305841002	SGS	23/08/17	ND	ND	ND	ND	ND	ND	PASS
	Gold coating	SZXPC23000130502	SGS	23/03/01	ND	ND	ND	ND	ND	ND	PASS
	Nickel coating	SZXPC23000130506	SGS	23/03/01	ND	ND	ND	ND	ND	ND	PASS