



APPROVAL SHEET

CUSTOMER NAME	Shenzhen Auto-vox Technology Co., Ltd.	
Address	Factory Building 501, Building F, No. 10, East Dis Shangxue Technology Industrial City, Xinxue Commun, Longgang District, Shenzhen, China	
Type of Antenna	Glue stick Antenna	
P/ N	WF1	
APPROVAL REV.	A0	
DELIVERY DATE	March 11, 2022	
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Customer Approved		
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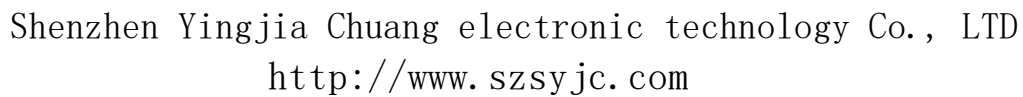
catalogue

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resume:

edition	Content of change and reasons for change	date	release
A0	Initial releas	June 27, 2023	



4



Antenna technical parameters and environmental testing:

Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500MHz	Antenna Color	Black
VSWR	<1.92	Input connector	SMA
Input Impedance	50 Ω	Cable length	108mm
Direction	All	Working Temperature	-30℃~+70℃
Gain	3.9dBi	Working Humidity	20%~80%

Environmental performance test:

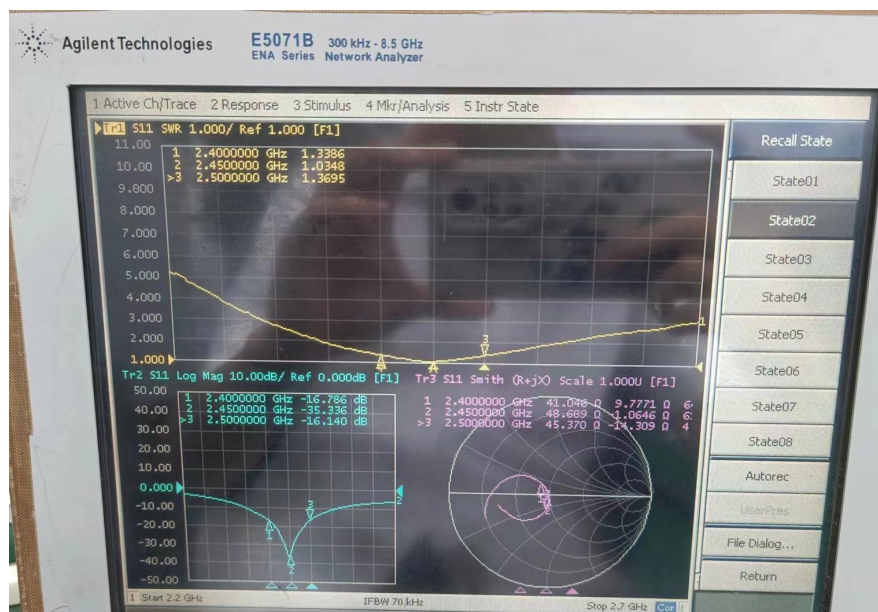
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low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



Antenna diagram:



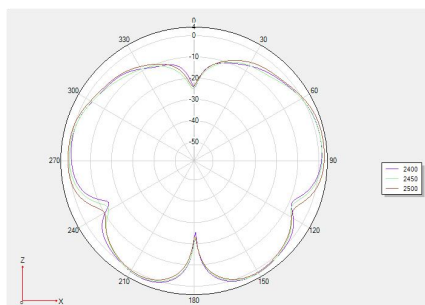
Antenna performance test diagram:



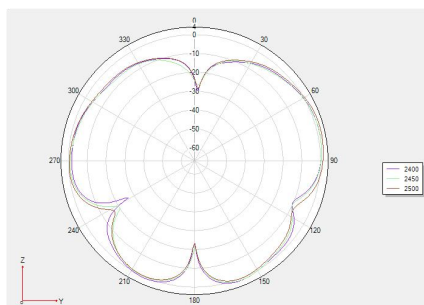
2D and 3D test data: (2.4G):

Frequency (MHz)	Efficiency (%)	Gain. (dBi)
2400MHz	69.18	2.88
2410MHz	63.68	2.78
2420MHz	78.16	3.6
2430MHz	65.46	2.7
2440MHz	75.16	3.23
2450MHz	69.34	2.79
2460MHz	74.47	3.23
2470MHz	69.34	3.15
2480MHz	79.25	3.7
2490MHz	75.68	3.9
2500MHz	76.21	3.75

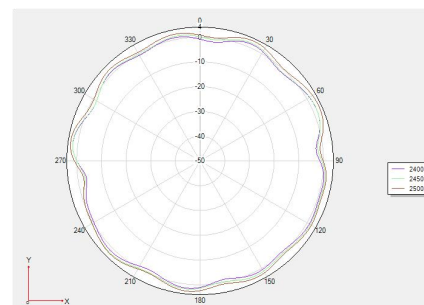
Phi 0 2D



Phi 90 2D

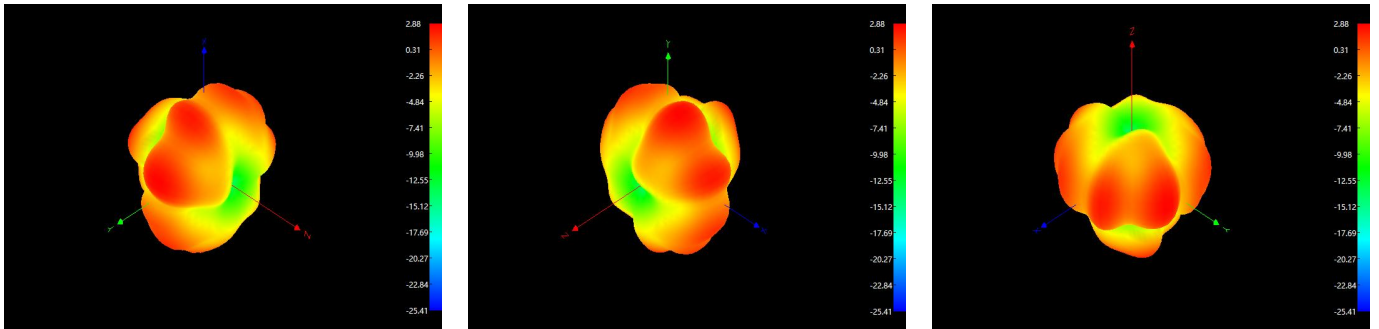


Theta 90 2D

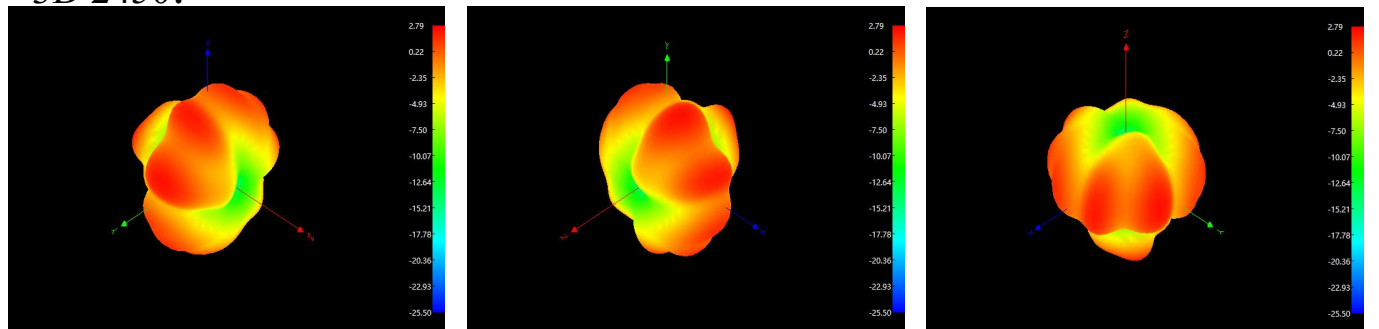




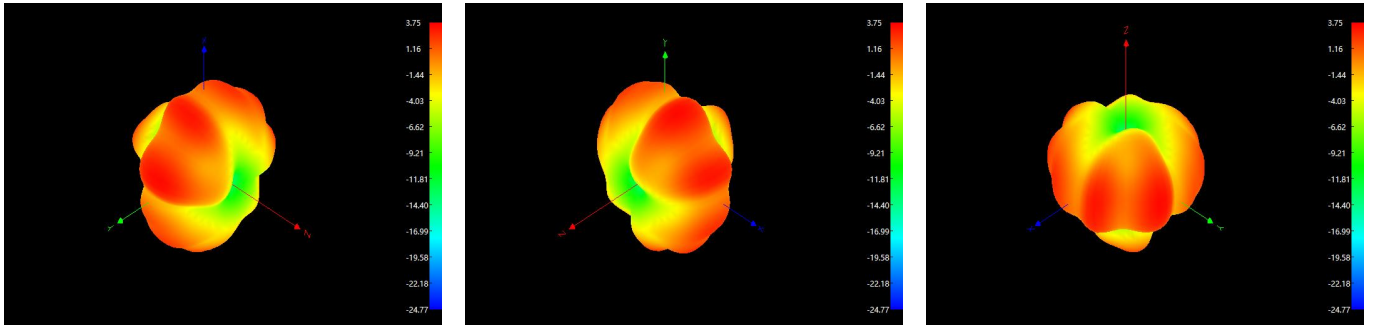
3D 2400:



3D 2450:

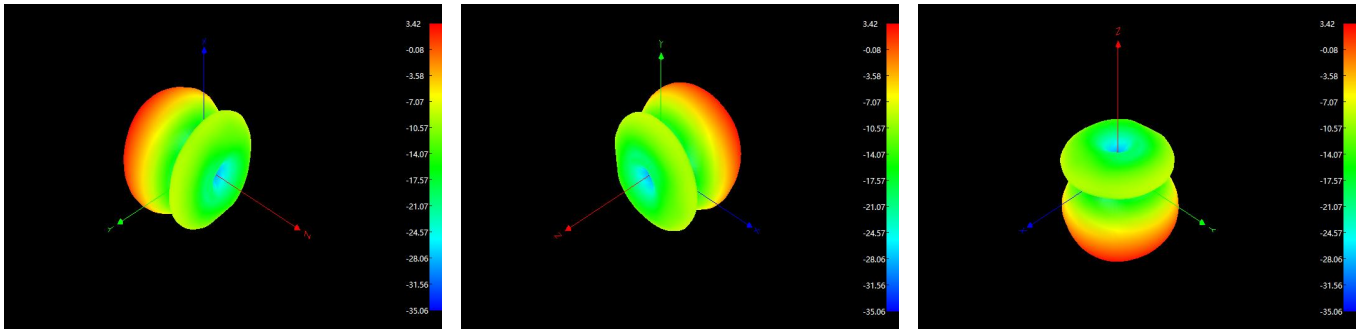


3D 2500:

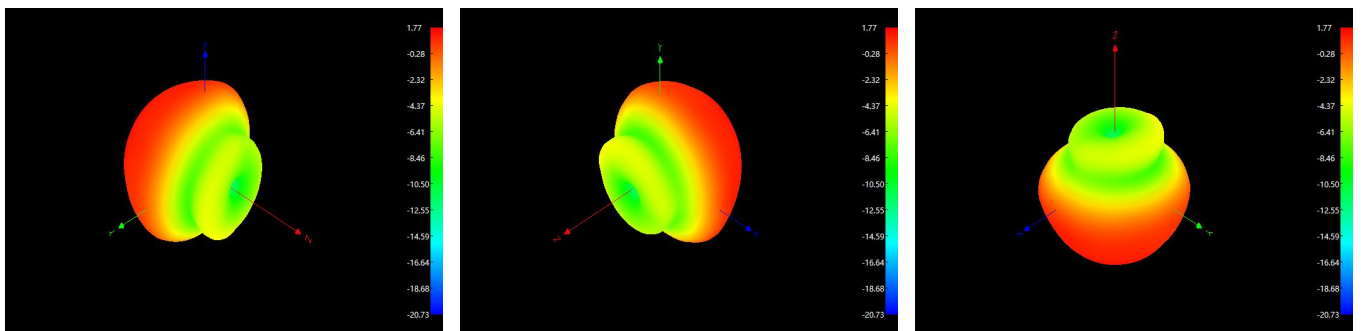




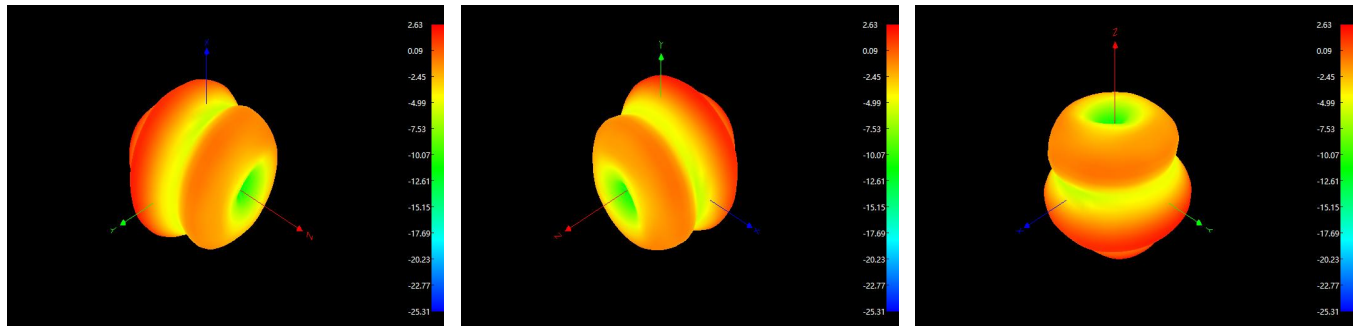
3D 1710:



3D 2250:



3D 2700:





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	ABS	CANPC23001081808	SGS	23/03/24	ND	ND	ND	ND	ND	ND	PASS
	PC+PBT	CANEC23000452601	SGS	23/03/02	ND	ND	ND	ND	ND	ND	PASS
SMA	Rubber core	SHAEC22000767001	SGS	22/08/23	ND	ND	ND	ND	ND	ND	PASS
	Brass stick	SZXML2203394401	SGS	22/10/21	ND	28050	ND	ND	ND	ND	PASS
	Nickel coating	SZXEC2203378506	SGS	22/10/25	ND	ND	ND	ND	ND	ND	PASS
	Gold coating	SZXEC2203378502	SGS	22/10/25	ND	13	ND	ND	ND	ND	PASS
PCB	PCB	CANEC2221844502	SGS	22/10/20	ND	12	ND	ND	ND	ND	PASS
Wire rod	Teflon coaxial cable	SZXEC2202766604	SGS	22/08/18	ND	ND	ND	ND	ND	ND	PASS



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<http://www.szsyjc.com>

Eco-friendly tin wire	Eco-friend ly tin wire	ZXEC2203054802	SGS	22/09/19	ND	46	ND	ND	ND	ND	PASS
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