

Acknowledgement

CUSTOMER NAME customer name	Jichen Technology	
Customer P/N Customer material number		
PART NAME name of a part	2.4G Metal built-in antenna	
P/N P / N	YJC-6N000-B446	
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Customer Approved Client acceptance		
Prepared By Undertaking	Checked By 审核	Approved by 核准

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curriculum
VITAC :

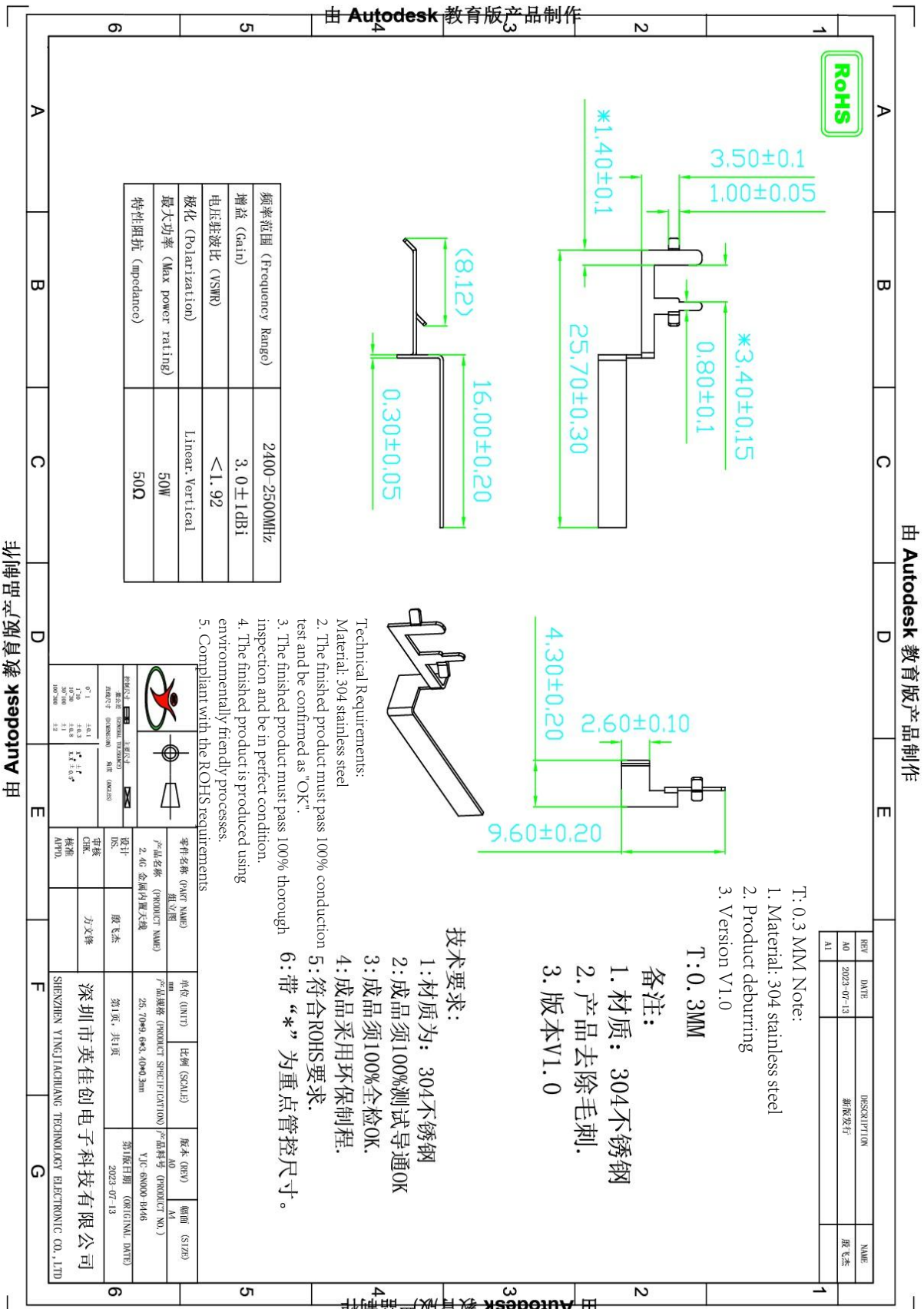
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A0	First edition is- sued	July 13,2023	



深圳市英佳创电子科技有限公司

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天线平面图:



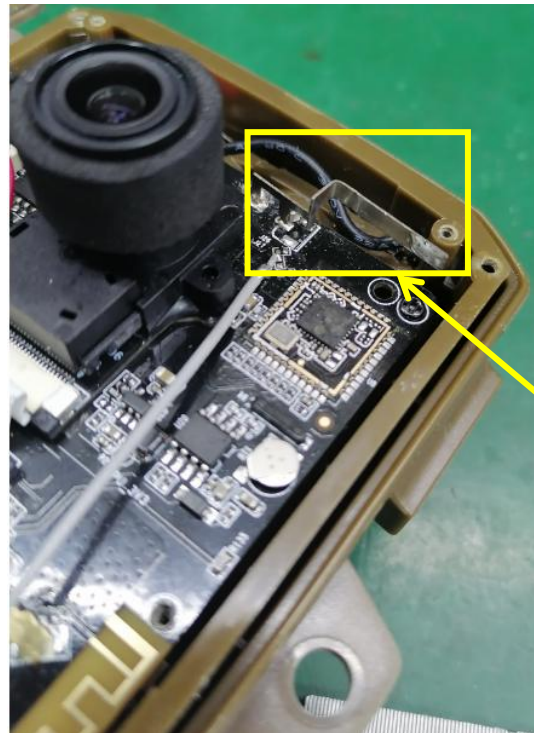
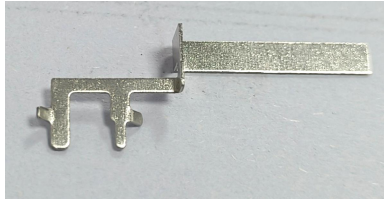
Antenna technical parameters and environmental test:

Electrical technical parameters			
Electrical performance indicators		Electrical Specifications	
frequency range	2400-2500MHz	Frequency Range	2400-2500MHz
voltage standing-wave ratio	<1.92	VSWR	<1.92
input impedance	50 Ω	Input Impedance	50 Ω
direction	omnidirectional	Direction	All
gain	3.0±1dBi	Gain	3.0±1dBi
Mechanical indicators		Mechanical Specifications	
Wire material	304 stainless steel	Wire material	304 stainless steel
Interface format		Input connector	
working temperature	-20℃~+70℃	Working Temperature	-20℃~+70℃
Humidity at work	20~80%	Working Humidity	20~80%

Environmental performance test:

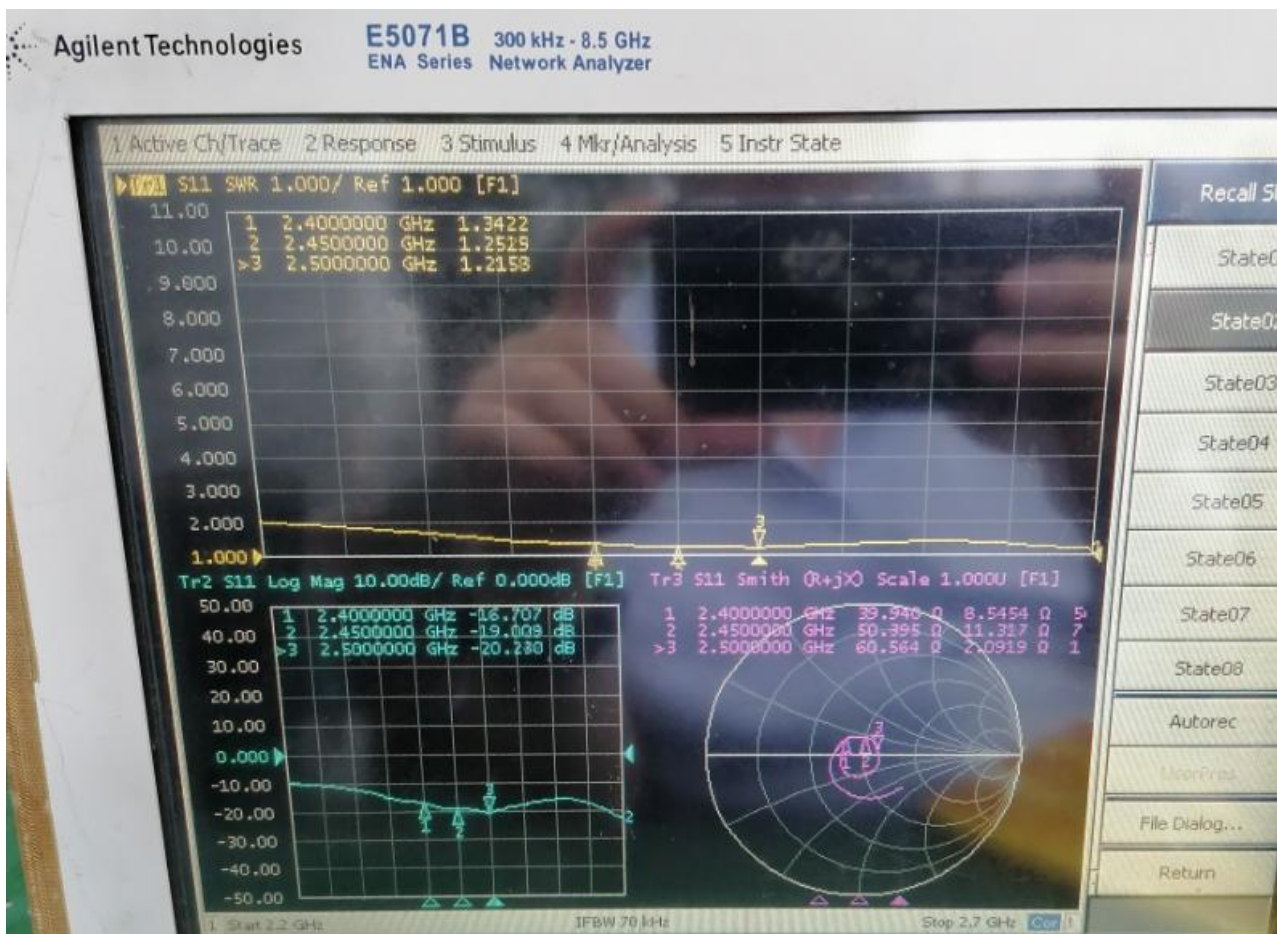
project	test condition	specifications
Storage environment	In the absence of a specification, test temperature, humidity and air pressure as follows: 1. The temperature is -20℃~+70℃ 2. The relative humidity is 45%-85% 3. The air pressure is 86kpa-106kpa	Electrical and mechanical properties are normal
thermocycling	Perform five cycles between 70℃ and -20℃, then check the appearance quality under normal conditions for 1-2H.	Size should meet the requirements and be suitable for mechanical and electrical properties
Constant damp heat resistance test	Relative humidity 95±3%, test temperature: 40℃. After 2H of action, electrical properties are measured within 5min after the test sample is taken out. The test sample is under normal conditions for 1-2H, and the appearance quality is checked.	Size should meet the requirements and be subject to mechanical and electrical properties
vibration test	Vibration frequency range 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, scan frequency cycle: 30 times	Electrical and mechanical properties are normal
fall-down test	1M drop freely along the perpendicular axis direction for 3 times	Electrical and mechanical properties are normal

Antenna physical diagram and attachment position diagram:



Location of the Wire attachment

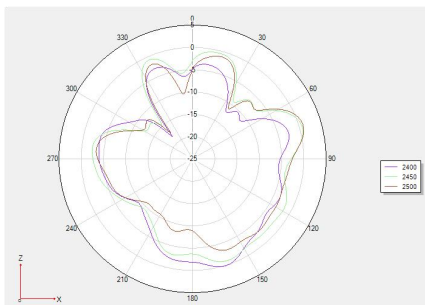
Antenna performance test diagram:



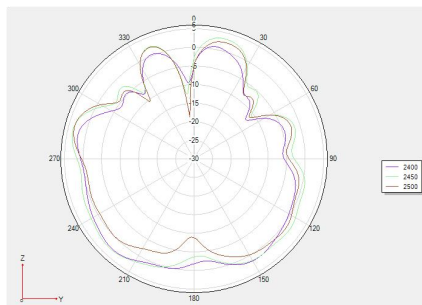
2D,3D (2.4G) test data:

Frequency (MHz)	Efficiency (%)	Gain. (dBi)
2400MHz	60.26	3.14
2410MHz	60.81	3.06
2420MHz	61.81	3.22
2430MHz	67.26	3.68
2440MHz	66.93	3.69
2450MHz	68.72	3.82
2460MHz	67.83	3.62
2470MHz	63.11	3.34
2480MHz	67.11	3.75
2490MHz	62.46	3.24
2500MHz	69.26	3.63

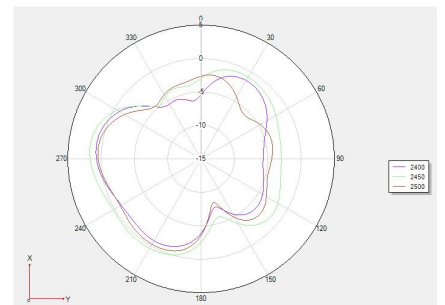
Phi 0 2D graph:



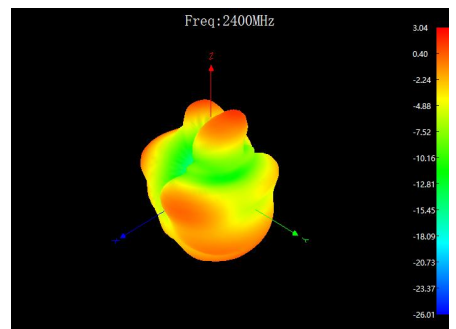
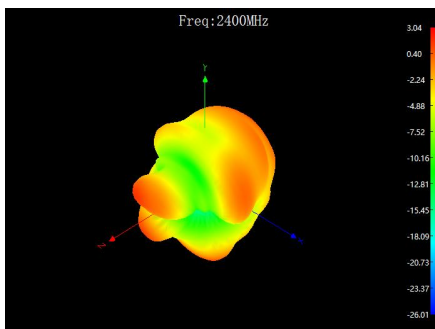
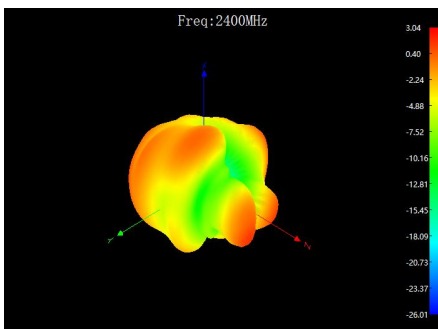
Phi90 2D graph



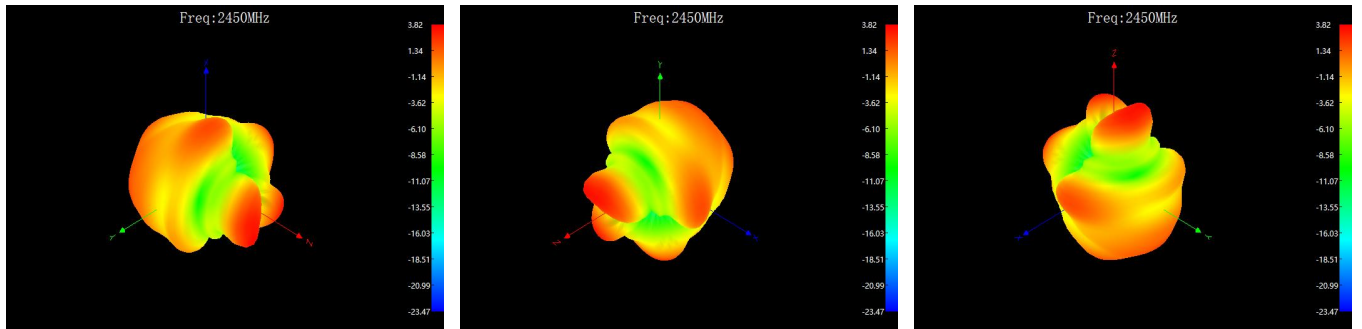
Theta90 2D graph



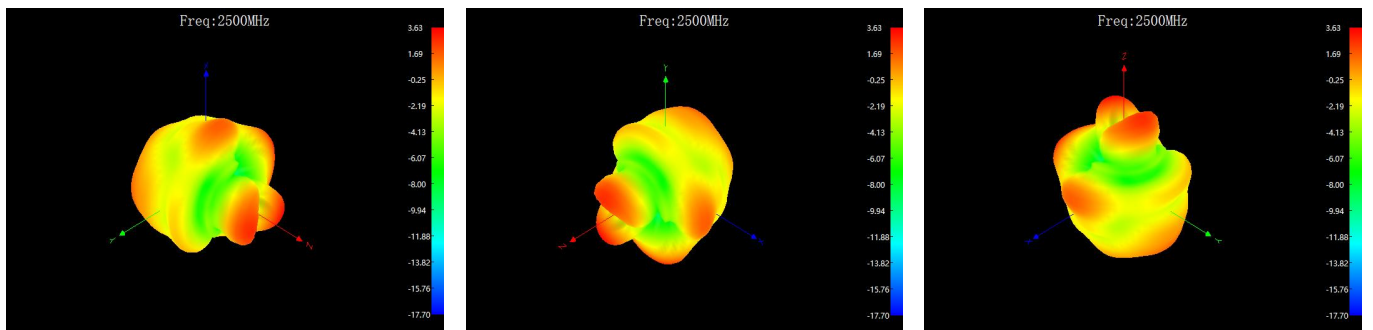
3D 2400:



3D 2450:



3D 2500:



ROHS Material Control Report											
It is hereby certified that the raw materials used in the delivery of components and auxiliary materials to your company, as well as additives used in the production process, comply with the environmental requirements of the RoHS Directive on the restriction of hazardous substances (RoHS Directive 2011/65/EC)											
The composition of the raw materials used for components, auxiliary materials, packaging materials and additives used in the production process is reported as follows:											
Name of component material Component /Part Name	Composition Materials Composition	ICP report number ICP report #	Test Agency Test Org.	testing time Test Date	Contamination content (ppm)						Are they qualified?
					Cd	Pb	Hg	Cr ⁶⁺	PBB	PBDE	PASS?
Copperware	304 stainless steel	A2230142930101003	SGS	23/04/06	ND	ND	ND	ND	ND	ND	PASS