



Shenzhen CTV Int Cloud
Technology Co., Ltd

Sample acknowledgement

Supplier name: Shenzhen Yingjia Chuang electronic technology Co., LTD

Material code: YJC-6N000-B315

Material name: 2.4G metal built-in antenna

Specification description: 2.4G metal built-in antenna

Confirmation field:

Identifying person	examine	Give permission to



Shenzhen Yingjia Chuang electronic technology Co., LTD

<http://www.szsyjc.com>

APPROVAL SHEET

CUSTOMER NAME	Zhiyun looks after the house	
CUSTOMER P/N		
PART NAME	2.4G metal built-in antenna	
P/ N	YJC-6N000-B315	
APPROVAL REV.	A2	
DELIVERY DATE	May 09, 2023	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Chauhan	
Customer Approved		
Approved By	Checked By	Prepared By

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resume:

Version	Changes and reasons	date	publish
A/0	Initial release	April 18, 2022	
A/1	Update test data	September 06, 2022	
A/2	stamping	May 09, 2023	



Antenna plan:

A	B	C	D	E	F	G																														
RoHS																																				
* The red part is to add steel marks T: 0.4MM Remarks: 1. Material: stainless steel 201 soft material 2. Nickel plating on product surface 3. Version V1.0 Requirement: 1. The finished product must be tested 100% through OK 2. The finished product shall be subject to 100% full inspection OK. 3. Adopt environmental protection process. Finished product 4. Meet ROHS requirements 5. No tolerance shall be subject to general tolerances 6. * mark the dimensions with emphasis					<table border="1"><thead><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th><th>NAME</th></tr></thead><tbody><tr><td>M</td><td>2023-03-23</td><td>NEW</td><td>Yin Feijia</td></tr><tr><td>A1</td><td>2023-05-09</td><td>Stamping</td><td>Yin Feijia</td></tr></tbody></table>		REV	DATE	DESCRIPTION	NAME	M	2023-03-23	NEW	Yin Feijia	A1	2023-05-09	Stamping	Yin Feijia																		
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Antenna technical parameters and environmental testing:

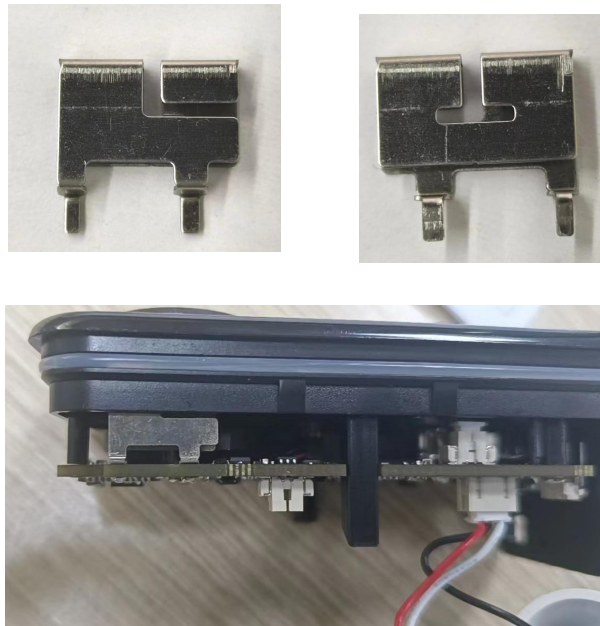
Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500MHz	Antenna material	Stainless steel
VSWR	<1.92	Input connector	OPEN
Input Impedance	50 Ω	Working Temperature	-40℃~+85℃
Direction	All	Working Humidity	20~80%
Gain	2.0±1dBi		

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 performace 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 mechinery 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 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 physical diagram and attached location diagram:



Antenna performance test diagram:

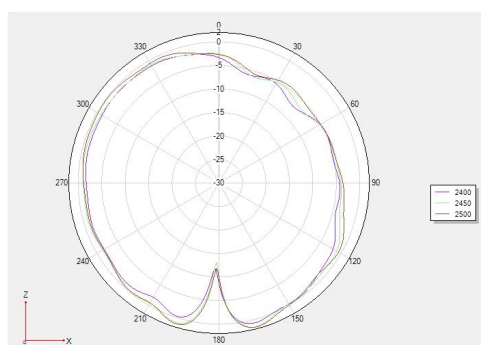




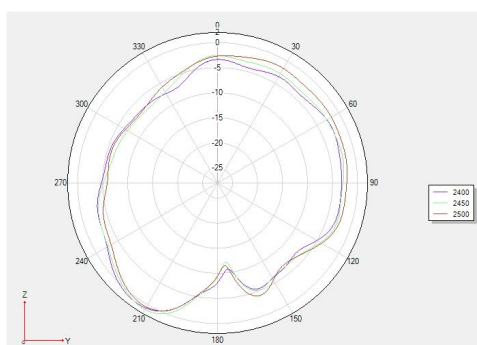
2D and 3D test data (2.4G):

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	51.29	1.64
2410MHz	51.29	2.24
2420MHz	52.72	1.98
2430MHz	52.24	2.16
2440MHz	52.72	1.88
2450MHz	55.21	2.62
2460MHz	54.83	2.25
2470MHz	53.70	2.47
2480MHz	55.46	2.63
2490MHz	55.59	2.88
2500MHz	55.08	2.77

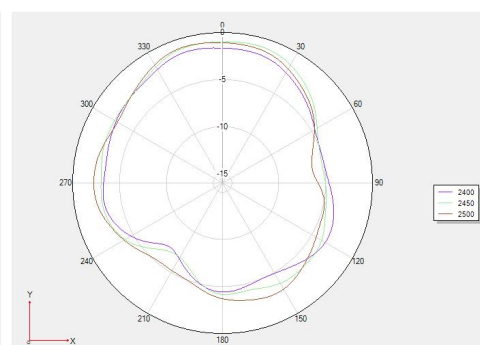
Phi 0 2D



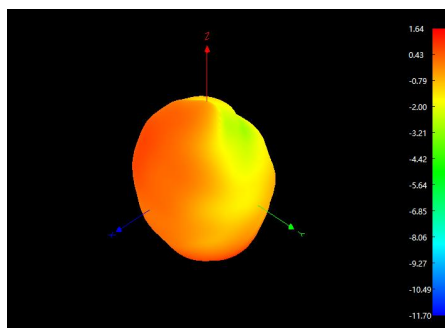
Phi 90 2D



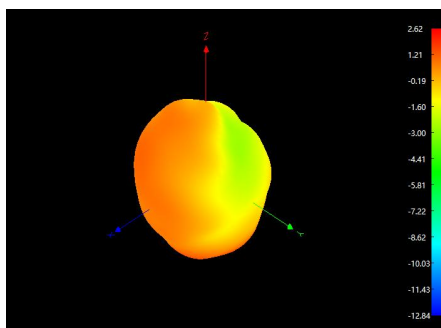
Theta 90 2D



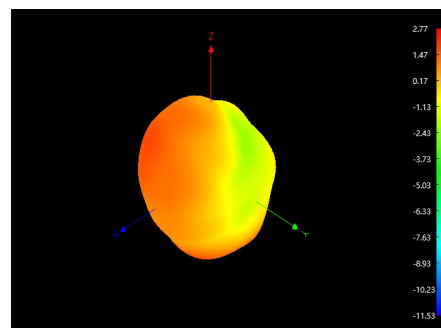
3D 2400:



3D 2450:



3D 2500:





OTA active test data statistics:

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	20.42
2	TRP	WIFI_B (11M)	6	2437	20.5
3	TRP	WIFI_B (11M)	11	2462	20.35
4	TIS(EIRP)	WIFI_B (11M)	1	2412	-87.07
5	TIS(EIRP)	WIFI_B (11M)	6	2437	-87.04
6	TIS(EIRP)	WIFI_B (11M)	11	2462	-87.26
7	TRP	WIFI_G (54M)	1	2412	16.67
8	TRP	WIFI_G (54M)	6	2437	16.29
9	TRP	WIFI_G (54M)	11	2462	15.7
10	TIS(EIRP)	WIFI_G (54M)	1	2412	-73.89
11	TIS(EIRP)	WIFI_G (54M)	6	2437	-73.97
12	TIS(EIRP)	WIFI_G (54M)	11	2462	-73.31
13	TRP	WIFI_N_ISM (65M)	1	2412	16.26
14	TRP	WIFI_N_ISM (65M)	6	2437	15.88
15	TRP	WIFI_N_ISM (65M)	11	2462	16.07
16	TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-71
17	TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-70.47
18	TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-70.68



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
Copper part	201stainless stee	SHAPH23005654512	SGS	23/05/24	ND	ND	ND	ND	ND	ND	PASS