

## Yuanchuangxing Electronics (Shenzhen) Co., Ltd.

Yuanchuangxing electronics (Shenzhen)CO.,LTD.

client's name: General

Client model: \_\_\_\_\_

Customer part number: \_\_\_\_\_

Customer specification description: \_\_\_\_\_

Yuanchuangxing material number: YCX08W-W704-SMA

Yuanchuangxing specification description: White blade 2.4G5DBI SMA male and female pin antenna

## Specifications

Confirm signature and seal					
Yuan Chuang Xing confirmed			client confirmation		
Sample preparation review	Approval		Verification	Review	Approval
Zou Yangchen	Wang Chunjiang				
Yuanchuangxing signature cover sheet			Customer signature cover sheet		
Date	2023-2-13		date	2023-2-13	



### 3. Directory

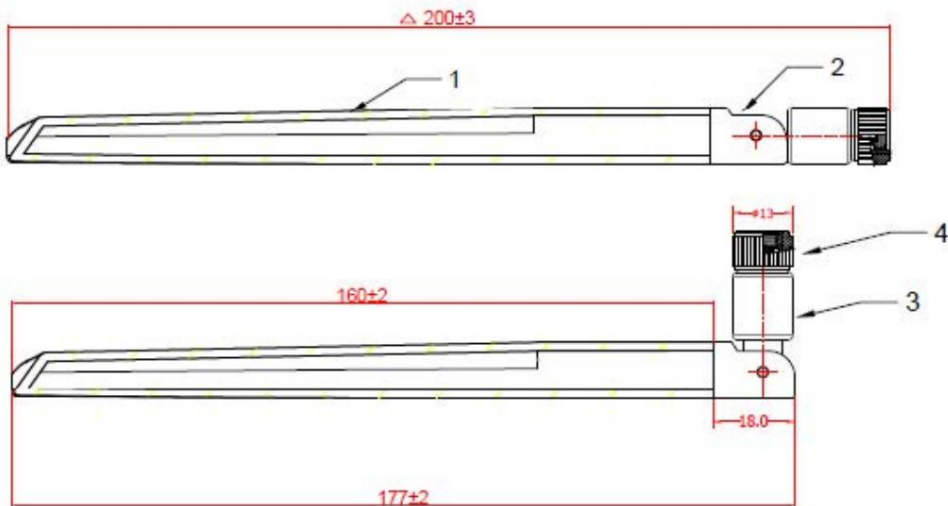
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4. Product drawings

www.yuanchuangxing.cn

REV	CHANGE DESCRIPTION	DATE	SIGNATURE
A1	New	2021.03.09	lives



Technical requirements: 1.  
 Electrical parameters: 1.1  
 Impedance 1.2 : 50 $\Omega$  :  
 Frequency 1.3 : 2400-2500MHz : <  
 VSWR 1.4 : 2.0 :  
 Peak Gain 1.5 : 4.61dBi :  
 Polarization 1.6 : Linear  
 Radiation Patten: Omni directional 2. Mechanical  
 properties:  
 2.1 Storage Temperature Range: -40 TO +85°C  
 2.2 Operating Temperature Range: -40 TO +85°C 3.  
 All material must meet ROHS request 4.  
 Mark(  $\Delta$  )as the key control dimensions

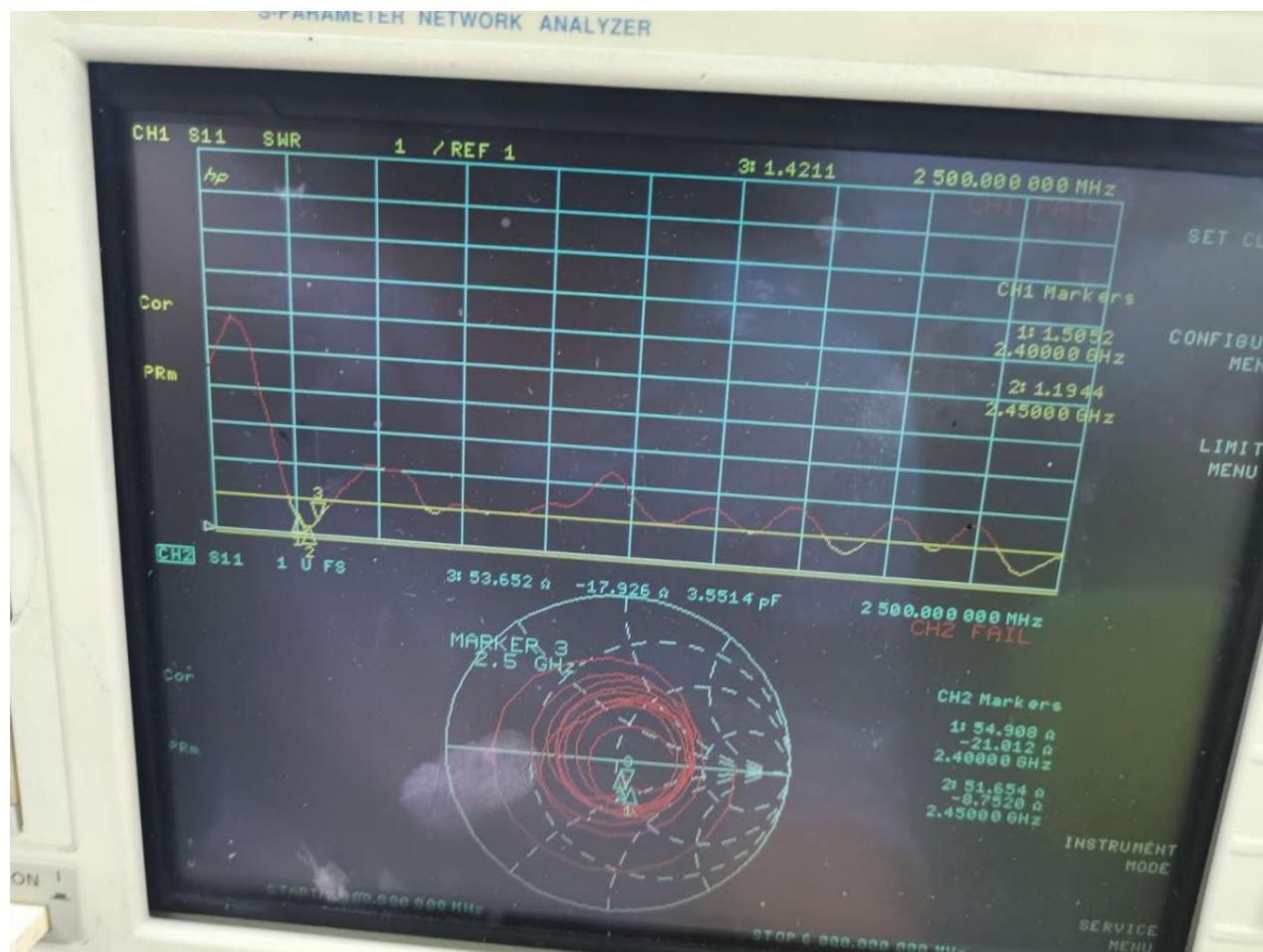
				TOLERANCE			
⑥				PCS	±0.05		
⑤				PCS	.XXX .XX ±0.1		
④		SMA Connector Female Pin White		PCS	.x ±0.2	DRAWN BY	lives
③		L25.3*y13 white		PCS	x. ±0.25	CHECKED BY	
②		L26.2*y13 white		PCS	xx. ±1	PART NO.: YCX08W-W704-SMA	
①		L154*y13 white		PCS	xxx. ±2	TITLE:	
NO. IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		UNIT	UNIT	White Blade 2.4G5DBI SMA Male Female Pin Antenna	
				UNIT	MATERIAL AS DIMENSION	White Blade 2.4G5DBI SMA Male Female Pin Antenna (Shenzhen)CO.,LTD.	
				UNIT		SCALE 1:1	CAD FILE:
				UNIT		DWG TYPE: PRODUCT DRAWING	
				UNIT		www.yuanchuangxing.cn	

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## 5. Passive performance test parameters

Frequency(GHz)	2.4	2.45	2.5
VSWR	1.58	1.19	1.42



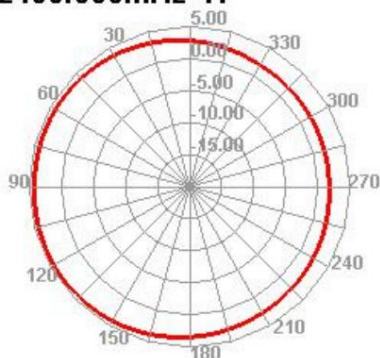
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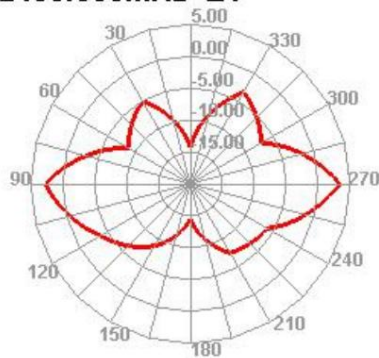
6. 2D and 3D performance graphs

Passive Test For WiFi2.4G				
Freq (MHz)	Effi (%)	Gain (dBi)		
2400	80	4.61		
2450	80	4.34		
2500	78	4.60		

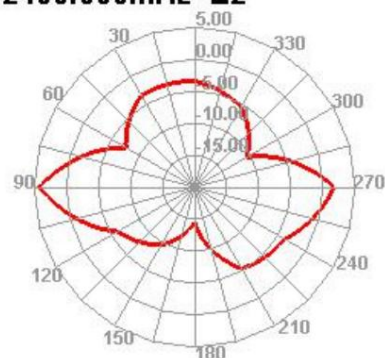
2400.000MHz H



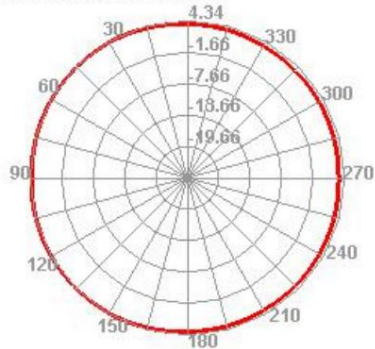
2400.000MHz E1



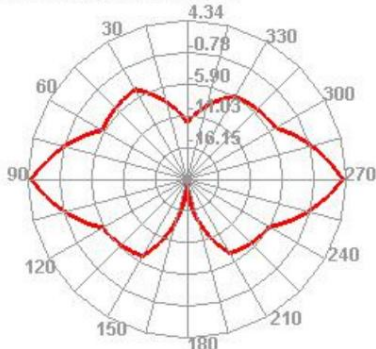
2400.000MHz E2



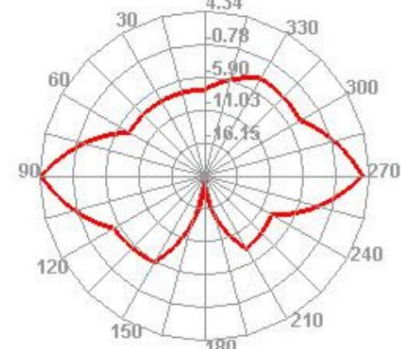
2450.000MHz H



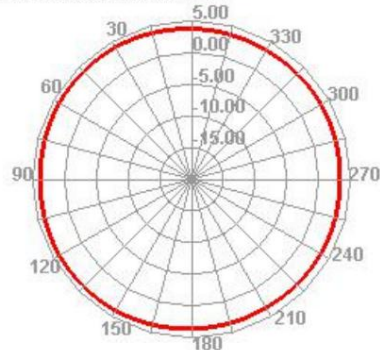
2450.000MHz E1



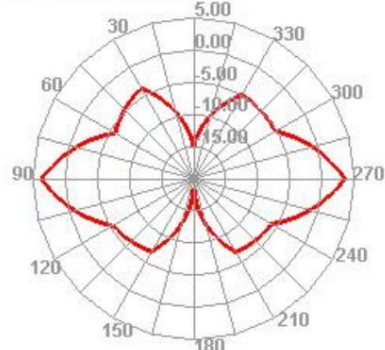
2450.000MHz E2



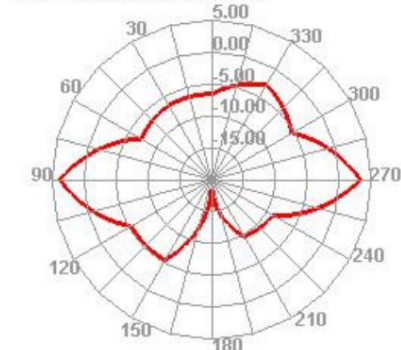
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



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## 7. Electrical performance parameters

Electrical parameters	
Frequency Range	2.4GHz-2.5GHz
input resistance	50 $\Omega$
VSWR	<2.0 Control sample test pattern
gain	2.4G-2.5G
	5.15G-5.85G
Polarization vertical polarization	5 $\pm$ 1dBi
Radiation direction is omnidirectional	
Connection method SMA	
Mechanical parameters	
see line length	
Sustainability	
Coaxial Cable RG178 Brown	
Salt spray test 24H	
Environmental parameters	
Operating temperature	-40~85 $\text{^\circ}$

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## 8. Reliability test report

## 8.1. Constant temperature and humidity test

Test/Test Item Constant temperature and humidity test	Inspection order number
Product Name/Specification 2.4G-5dBi White SMA Antenna	Test Quantity: 5PCS
Inspection date: 2023-2-10	Completion date: 2023-2-11
Test/inspection equipment: 1. Programmable constant temperature and humidity test box 2. 8753ES network analyzer	
Test/inspection conditions: 1. Test at constant temperature -40°C for 12H 2. Test at +85°65~70%RH for 12H, a total of 24 hours;	
<b>test results</b>	
Judgment criteria: 1. There are no cracks, wrinkles, separation, etc. on the metal surface; discoloration, cracking, deformation, degumming, etc. should not occur on non-metallic parts; 2. The electrical test meets the standard requirements; the voltage standing wave ratio test is qualified	
Test/inspection judgment: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Unqualified <input type="checkbox"/> No judgment	
Test: Li Chunqiang	Reviewer: Wang Chunjiang



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## 8.2 High and low temperature thermal shock

Test/test items High and low temperature thermal shock	Inspection order number
Product Name/Specification 2.4G- 5dBi White SMA Antenna	Test Quantity: 5PCS
Inspection date: 2023-2-10	Completion date: 2023-2-11
Test/inspection equipment: 1. High and low temperature alternating humid heat box 2. 8753ES network analyzer	
Test/inspection conditions: -30°C (2H)---interval 80°C (2H), 6 cycles, 24 hours in total;	
<b>test results</b>	
Judgment criteria: 3. Metal surface coating should be free of peeling, cracks, wrinkling, separation, etc.; non-metallic parts should not have discoloration, cracking, deformation, degumming, etc.; 4. The electrical test meets the standards; the voltage standing wave ratio test is qualified.	
Test/inspection judgment: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Unqualified <input type="checkbox"/> No judgment	
Test: Li Chunqiang <span style="margin-left: 200px;">Reviewer: Wang Chunjiang</span>	

## Yuanchuangxing Electronics (Shenzhen) Co., Ltd.

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Structural component sample inspection			
specification The structural component sample inspection results shall include the following contents:			
Category	Specification	Category	Specification item
Appearance & Specification Inspection	item 1. Check whether there are water marks, air marks, shrinkage, whitening, scratches, bruises, material flowers, oil stains, etc. on the surface	reliability performance test	1. Storage temperature range
	2. Check the corners, glue pillars, limits, orifices, panes, slots, etc. for batch peaks, uneven glue movement, broken pillars, edge collapse, sprue cut flat, and material brittleness, etc.		2. Operating temperature range
			3. Smoldering
	3. Screw in the corresponding specification screws, and there should be no whitening, bursting		4. Drop test
	or sliding teeth. 4. Check the surface treatment (oil injection, silk screen printing, bronzing color, silk screen content, processing effect: Silk screen bronzing parts--whether there are defects, cracks, etc. Tooth, fat, ghosting, uneven thickness and missing; Oil spray bronzing parts--whether the oil color is uniform, yin and yang, graining, scratches, variegated, burnt and impurities, etc., whether the silk screen and bronzing positions are There are displacement, deflection and misalignment		5. 3M gummed paper/white grid/rubber/alcohol (75%-80% concentration) test (4 items in total, for silk screen printing materials)
	Test result: qualified		Test result: qualified
	Remark		Note 1.
Dimensions & mechanical properties	1. Diagram size inspection (according to the tolerance range, focus on checking that the CPK has a mark or indicates the size)	Material & Packaging, etc. Others	Confirmation of material composition report
	2. Flatness test and other accessories to confirm the tightness 3. Lens, light		2. Packaging method and other precautions:
	guide column light transmission test confirmation		
	Test result: qualified		Test result: qualified
	Remark		Remark
Sample test results: qualified		Inspection person in charge: Zheng Yunxia	