

Antenna SPEC

Supplier Name	Sunnyway Technology(China).Co.Ltd				
Material Name	WIFI/BT Antenna				
Specifications	33.4*12.6 Black FPC(L343/Sunnyway)				
Project Model	L343-WiFi Antenna		Pigment	Black	
Material code/material number	KR3317L34390100				
Environmental requirements	<input checked="" type="checkbox"/> RoHS compliant <input type="checkbox"/> no-RoHS <input type="checkbox"/> Confirmed to REACH <input type="checkbox"/> no-REACH				
Type	<input type="checkbox"/> New product recognition <input type="checkbox"/> Material change will be admitted <input type="checkbox"/> Specification changes will be admitted				
State	<input type="checkbox"/> Structure sample qualified <input type="checkbox"/> Appearance sample qualified <input type="checkbox"/> Color samples qualified				
Description of replacement material					
Date	Change description			Signature	
Fill in by supplier					
Producer/Date		Reviewer/Date		Approver/Date	
Fill in by the company					
Structural recognition	Project recognition	Procurement recognition	Quality recognition	Hardware recognition	



尚远科技（中国）有限公司

Sunnyway Technology (China) Co. Ltd.

Antenna SPEC

Customer name: JimiloT		Entry name: L343
Working frequency band: 2.4G WIFI		
Motherboard version:		
Sunnyway Material specification		
Specification type	Sunnyway number	Customer number
WIFI/BT Antenna	SZ21517IB77	

Revision history			
Date of preparation/change	Change content	Altered person	Edition
2022.03.02	New issue	Yang XIN	A

Sunnyway Countersign column				
RD	ME:	To examine:	QE:	Approval:
	RF:	To examine:		
Customer will sign the column				
Electronic Engineer	Project manager	Structural Engineer	Quality Engineer	

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ITEM

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1. PROJECT PICTURES

project pictures shown below:



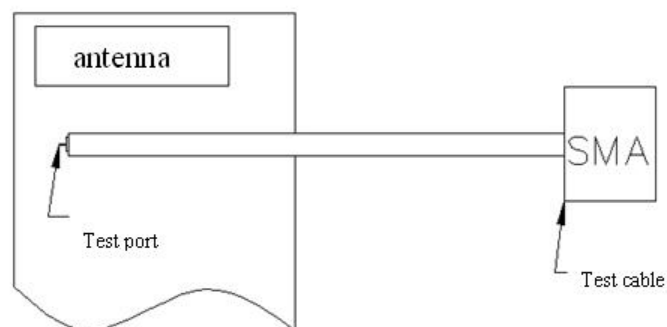
PS:

To ensure that the antenna shipment quality, the final prototype Clients validated the antenna's performance, should be kept in our company for at least a year time, facilitate solving antenna amount during abnormal situation,

2. TEST FIXTURE

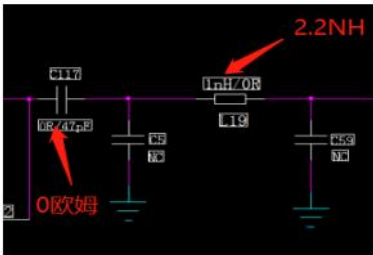
Purpose: To test antenna passive parameters as accurately as possible。

methods: the fixture is to use a 50 ohm coaxial cable, one end is connected to the pad after the antenna's matching circuit (the front of the antenna switch) , and the other end is connected to the SMA connector.



3. MATCHING CIRCUIT

The matching circuit has been changed as follows:



		L19	c117	
主天线		2.2NH	0欧姆	静电管去掉
BT		匹配位不变		静电管去掉
RFID		匹配位不变		
WIFI		匹配位不变		

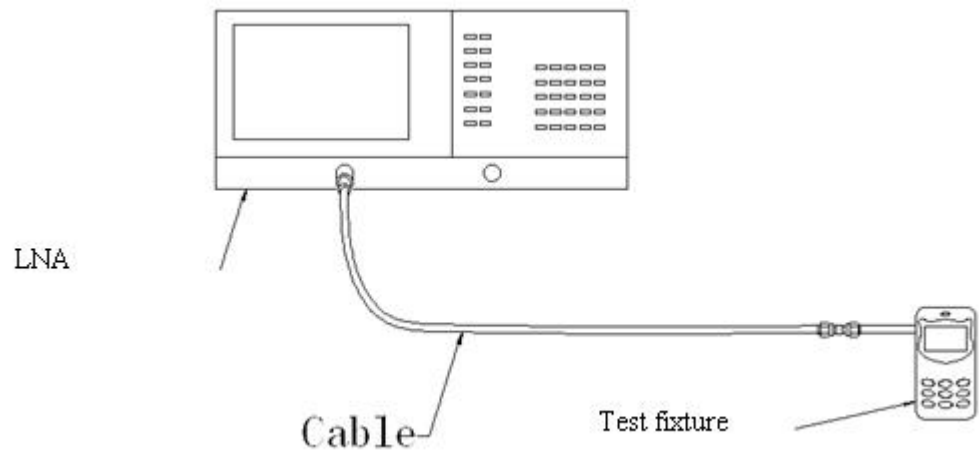
4. S11 test

4.0 S11 test method instructions

Test equipment: LNA (Agilent E5071B)

Test method: With a 50 ohm CABLE ,CABLE export from instrument testing port , After the calibration with calibration Key, connected to the SMA connector, Records the return loss and VSWR of the related frequency points.

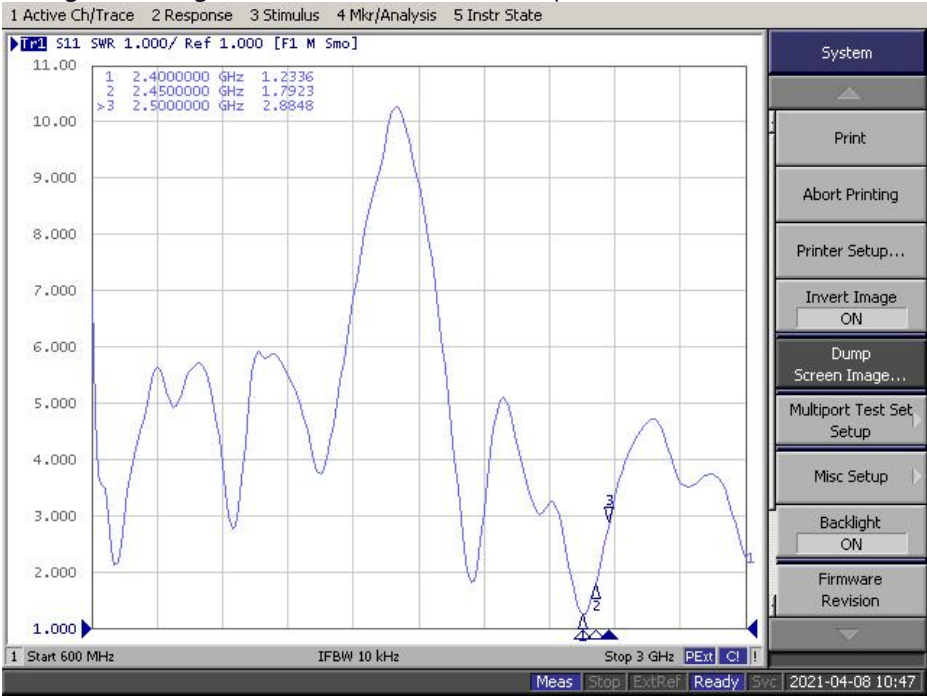
Test schematic diagram is as follows:



Test schematic diagram

4.1 S11 parameter

Picture of voltage standing wave ratio of switch RF1 in parallel O ohms



频率 (MHz)	2400	2450	2500
VSWR	1.23	1.79	2.88

5. CHAMBER TEST DATA

Test equipment

Test system: chamber

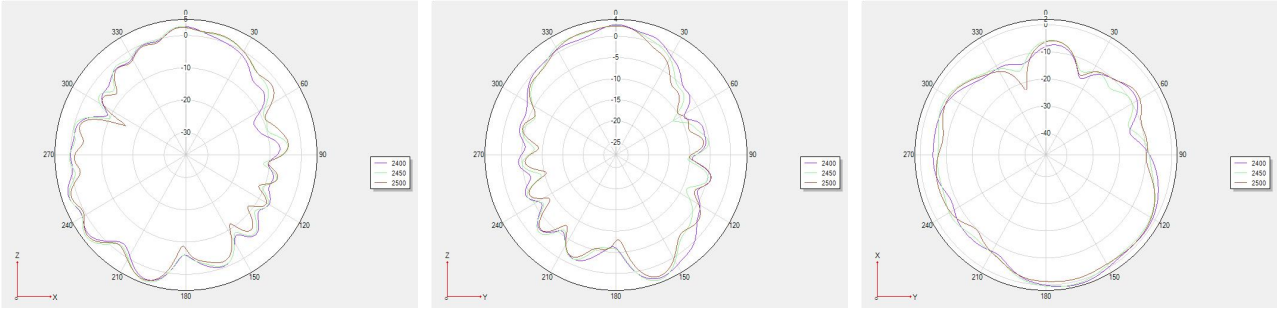
Test environment: the temperature of 22 °C + 3 °C, humidity of 50% plus or minus 15%

Test equipment: to test passive status , use Agilent 5071C to test active status, use CMW500.

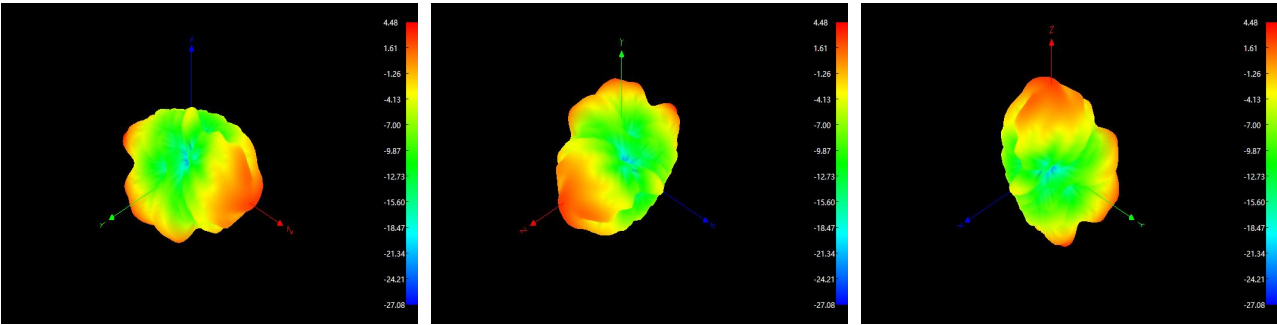
Efficiency and gain

Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	56.1	4.42
2410	53.33	4.27
2420	54.45	4.24
2430	53.46	4.44
2440	53.95	4.23
2450	53.58	4.48
2460	51.17	3.97
2470	54.95	4.58
2480	54.83	4.27
2490	54.58	4.73
2500	52.6	4.37

Radiation pattern



3D For 2450MHz



6. Antenna environment processing and mounting position

Environmental treatment is not added, according to the customer's original environmental treatment.

7. Mass production antenna Spec

During Mass production, to test VSWR as production test standard

According to the difference of the project itself, the following specification:

Frequency	SPEC , Mass Production
2400-2500MHz	VSWR (MP performance) <VSWR(Verify performance)+0.5

8. Structural drawings

5		6		7	
版本	修改内容	修改人	日期		

黑色天线丝印亮白色字符

正面

背面

使用一对半材质

技术要求

- 出货包装要求：(单pcs出货)
- 铜泊表面涂黑色哑光油墨；
- 油墨要均匀；
- 带“*”符号尺寸为重点尺寸；
- 背胶用3M 467MP；
- 基材使用PI T=1.0MIL；
- 铜箔厚0.5oz；
- 金手指镀金0.5u”，盐雾测试过24h；
- 未注倒圆角均为0.2，工艺沿边为0.2mm；
- 产品符合RoHS要求。

镀金区域

线路区域

无胶区域

商 远 科 技 (中 国) 有 限 公 司				
	PART NAME: WIF/BT天线 (LL701)	DATE:	2022.06.01	
TOLERANCE X.X ±0.20 .XX ±0.10 .XXX±0.05 ANGULAR ≤±0.5°	PART NO: S221621IB75-2	DRAWN:	杨鑫	
	MATERIAL: PFC	CHECKED:	陈敏	
UNIT: mm	COLOUR: 黑哑光	SCALE: 1:1	REV:	T:A