

东莞市众驰电子有限公司

承认书

Approval Sheet

Customer : SEEED

Customer No. : /

Product No. : ZCN2450-FPC1331BHF

Product Name : 2.4/5.8G Antenna

Product Number: ZCN2450-FPC1331BHF
Product Name: 2.4/5.8G Antenna

Index:

- 1. Revision History / Page 3**
- 2. Specification / Page 4**
- 3. Characteristics and Reliability Test / Page 5**
- 4. Antenna - S Parameter Test Data / Page 6**
- 5. Antenna - Radiation Pattern Test Data / Page 7**
- 6. Mechanical and Packing Drawing / Page 8**

Product Number: ZCN2450-FPC1331BHF

Product Name: 2.4/5.8G Antenna

1. Revision History

Revision	Date	Change Notification	Description
1.0	2021.09.10	初版	

Product Number: ZCN2450-FPC1331BHF

Product Name: 2.4/5.8G Antenna

2. Specification

Sample Photo	
A. Electrical Characteristics	
Frequency	2400-2500MHz /5100-5800Mhz
S.W.R.	$\leq 3.0/\leq 2.0$ Test data from the model test
Peak Gain (dBi)	≤ 2.0 dBi/≤ 4.0
Antenna Efficiency	2.4G $\geq 48\%$/5.8G$\geq 30\%$
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	FPC
Cable Type	OD 1.13mm
Connector Type	Mini Connector
Connector Pull Test	≥ 1 Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

Product Number: ZCN2450-FPC1331BHF

Product Name: 2.4/5.8G Antenna

3. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%(
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2011/65/EU
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

Product Number: ZCN2450-FPC1331BHF

Product Name: 2.4/5.8G Antenna

4. Antenna - S Parameter Test Data



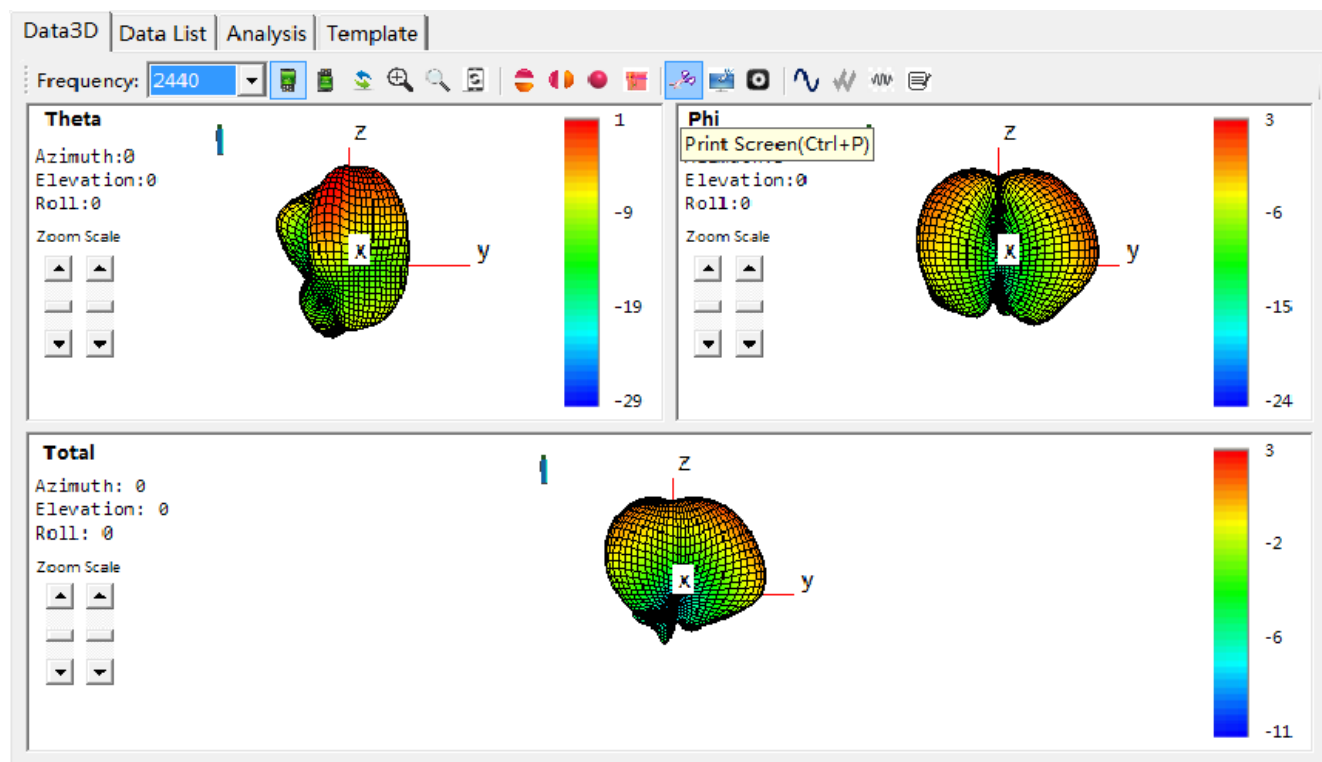
Frequency (MHz)	Efficiency (%)	Peak gain(dBi)
2400	49	1.58
2420	51	1.90
2440	53	2.04
2460	55	1.97
2480	56	1.90
2500	56	1.94
5150	35	1.18
5200	30	1.85
5250	32	2.15
5300	33	2.46
5350	33	2.60
5400	36	3.14
5450	34	2.84
5500	37	2.15
5550	39	0.28
5600	36	-0.62
5650	37	0.53
5700	40	1.73
5750	38	3.08
5800	41	3.45

Product Number: ZCN2450-FPC1331BHF

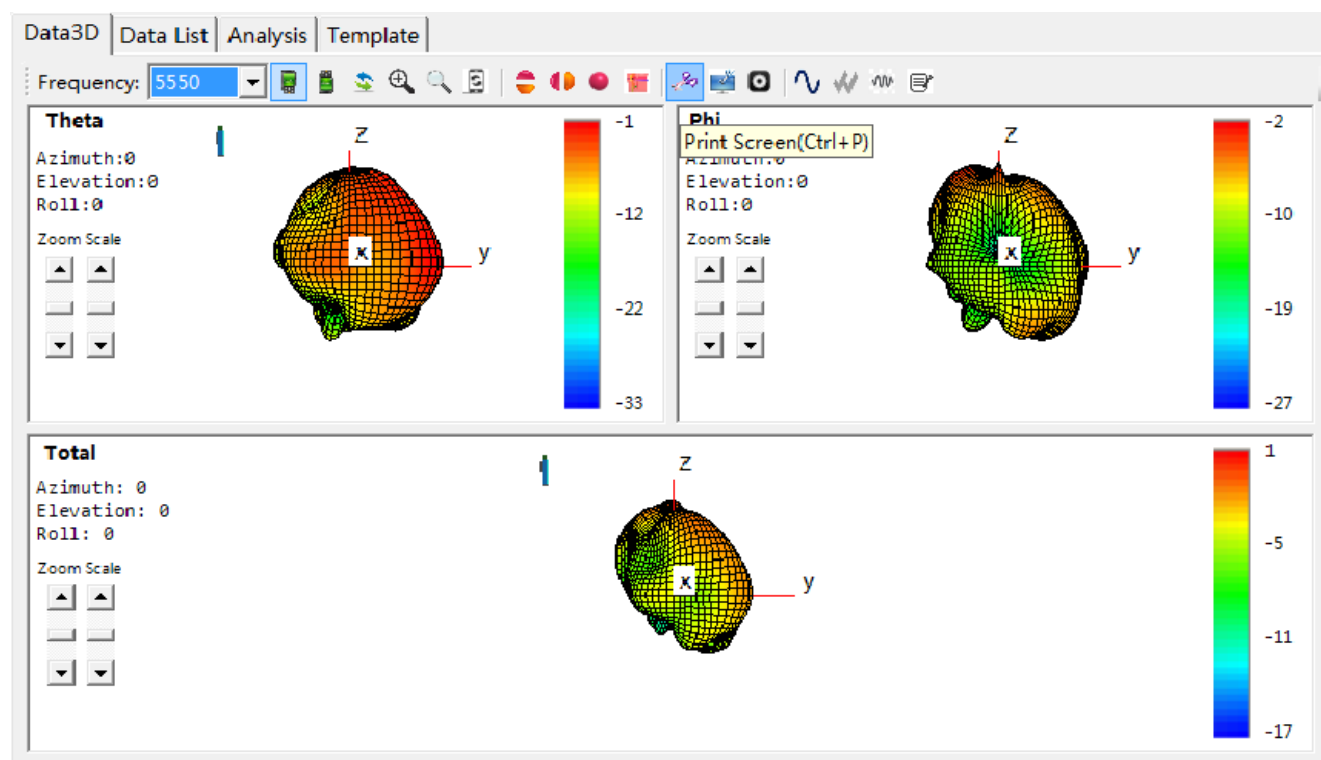
Product Name: 2.4/5.8G Antenna

5. Antenna - Radiation Pattern Test Data

2.4G天线

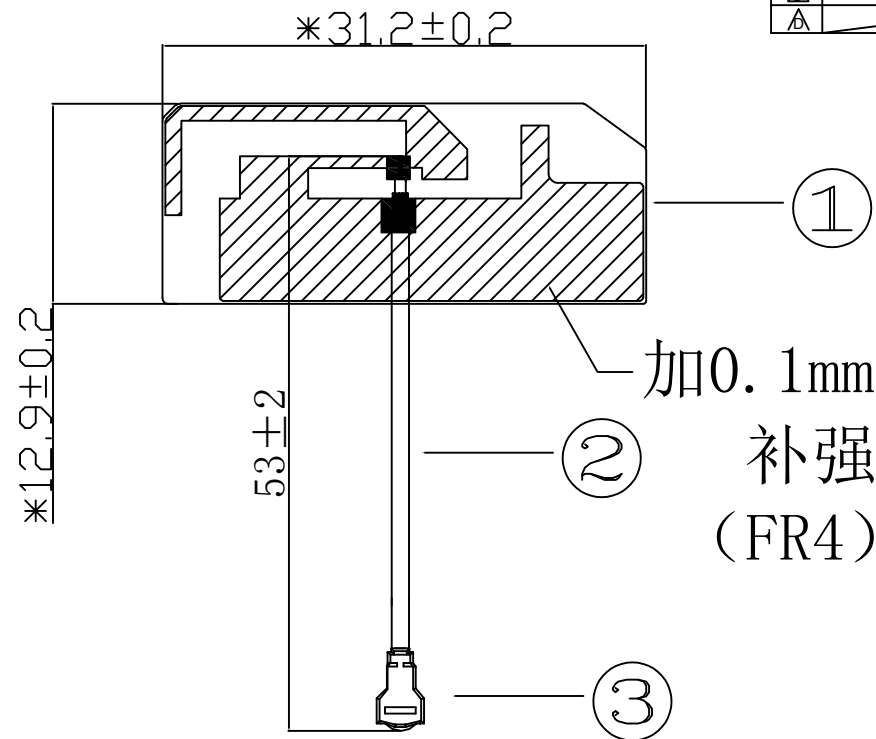


5.8G天线



RoHS

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



技术要求:

- 1、FPC基材: PI(半对半), 阴影部分为铜箔(T:0.018mm), 正表面上亚黑油。
- 2、背胶型号: 3M9471。
- 3、黄色焊盘区域 OSP;表面无油污, 杂质, 毛刺等。
- 4、手撕位离型纸切断勿伤及线路。
- 5、重要尺寸用“*”标注(制作模具要控制, 模具验收必测);
- 6、原料商供应商: 台虹、九江、新高, 不经过RN公司确认材料不能随意更改。
- 7、FPC 镀点镀金厚度: 1uin-3uin; 镀镍厚度: 80uin-280uin。
- 8、包装以及品质标准分别参考RN包装规范和RN品质标准。
- 9、产品必须符合ROHS的要求。
10. 模具排版时所有焊盘朝向方向一致, 以方便焊接操作。

3	UFL	1代连接器	CU		1
2	Cable	RG1.13			1
1	FPC				1
No.	Part Number	Name	Material	Finished	Q'ty

东莞市众驰电子有限公司

TITLE: 2.4/5.8G FPC Adhesive Antenna					
PART NO.: ZCN2450-FPC1331B353HF			CUSTOMER P/N: ANT-433-FPC-UFL-100		
APP BY	CHK BY	RF BY	DES BY		Tolerance
		Bright 2021/09/24	zlb 2021/09/24	UNITS: mm	X.X ±1
				SCALE: 1/1	X.XX ±0.5
				REVISION: A	X° ±1