

东莞市乔木电子科技有限公司

Dongguan Jomu electronic technology Co., LTD

规格书

SPECIFICATION FOR APPROVAL

客 户 名 称:

客户项目名称: 2.4G WIFI天线

客 户 料 号:

物 料 名 称:

乔 木 料 号:

日 期:

版 别:

	MANUFACTURE SIGNATURE	CUSTOMER SIGNATURE
CHECKED BAY:	周文彬	
AUDITOR BAY:		
APPROVED BAY	谭文锋	
DATE:	2023-04-27	

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Product Number: DF5DBI82564/5-40

Product Name: Antenna

Index:

- 1. Revision History / Page 3**
- 2. Specification / Page 4**
- 3. Characteristics and Reliability Test / Page 5 ~ 6**
- 4. Antenna - S Parameter Test Data / Page 7**
- 5. Antenna - Radiation Pattern Test Data / Page 8**
- 6. Mechanical and Packing Drawing / Page 9**

Product Number: DF5DBI82564/5-40

Product Name: Antenna

1. Revision History

Revision	Date	Change Notification	Description
1.0	2023-04-27	initiate	

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2. Specification

Sample Photo	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
S.W.R.	≤ 2.0
Antenna Gain	2.dBi@ 2450 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	
Material of Plastic	Body: ABS Hinge: ABS Base: PC+PBT
Cable Type	1.13黑色线 120MM一代端子
Connector Type	
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

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3. Characteristics and Reliability Test

Test Items 測試項目		Test Condition and Procedure 測試方法	Requirement s 要求	Result 結果
C1 V	.S.W.R. 電壓駐波比	Set DUT on Network Analyzer; make individual calibration to test 設置網路分析儀參數進行測試	Directive DUT specification 符合待測物規範	PASS
C2 In	sersion Loss 插入損失	Set DUT on Network Analyzer; make individual calibration to test 設置網路分析儀參數進行測試	Directive DUT specification 符合待測物規範	N/A
C3 Ant	enna Gain 天線增益	Set DUT on Antenna Chamber; make individual calibration to test 設置天線暗室參數進行測試	Directive DUT specification 符合待測物規範	PASS
C4 V	oltage Breakdown 耐電壓	Test voltage should be applied between insulated portions, or between ground as specified. 在绝缘部分测试电压,或指定接地面之间	Max Voltage $\geq$ 500 V or directive material specification 最大電壓 $\geq$ 500V 或符合材料規範	N/A
C5 In	sulation Resistance 絕緣阻抗	Set Voltage: 500 $\pm$ 50V; between the insulated portions, or between ground as specified. 設置電壓 500 $\pm$ 50V,在绝缘部份測試或指定接地面之间	Resistance $\geq$ 500 M ohm or directive material specification 阻抗 $\geq$ 500M ohm 或符合材料規範	N/A
C6 Cont	act Resistance 接觸阻抗	Air Temp: 26°C; measured with test equipment 室溫 26°C, 指定量測設備	Directive material specification 符合材料規範	N/A
M1 V	ibration 震動	GB / T2423.48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction 振幅 1.5mm ; 頻率 20~80~20Hz ; 3 個方向各 2H	1. No Visual Damage 2. Frequency Tol. $\leq$ 5% 無明顯外觀不良; 頻率偏移 $\leq$ 5%	PASS
M2 Rand	om Drop 跌落	GB / T2423.8-1995 Single : Height: 1.0 Meter; 3 directions; 1 time for each direction 單支天線, 高 1m ; 3 個方向各 1 次	1. No parts separated 、fracture 2. Frequency Tol. $\leq$ 5% 產品無脫落、斷裂; 頻率偏移 $\leq$ 5%	PASS
		Packing : Height: 0.76 Meter; 1 corner, 3 edges, 6 surface 包裝: 高 0.76m , 一角、三棱、六面各一次		PASS
		Antenna+Machine: Height: 0.76 Meter; 1 corner, 3 edges, 6 surface. 整機: 高 0.76m , 一角、三棱、六面各一次		N/A
M3	Solderability	GB / T2423.28-2005	Tin evenly on full	N/A

Product Number: DF5DBI82564/5-40

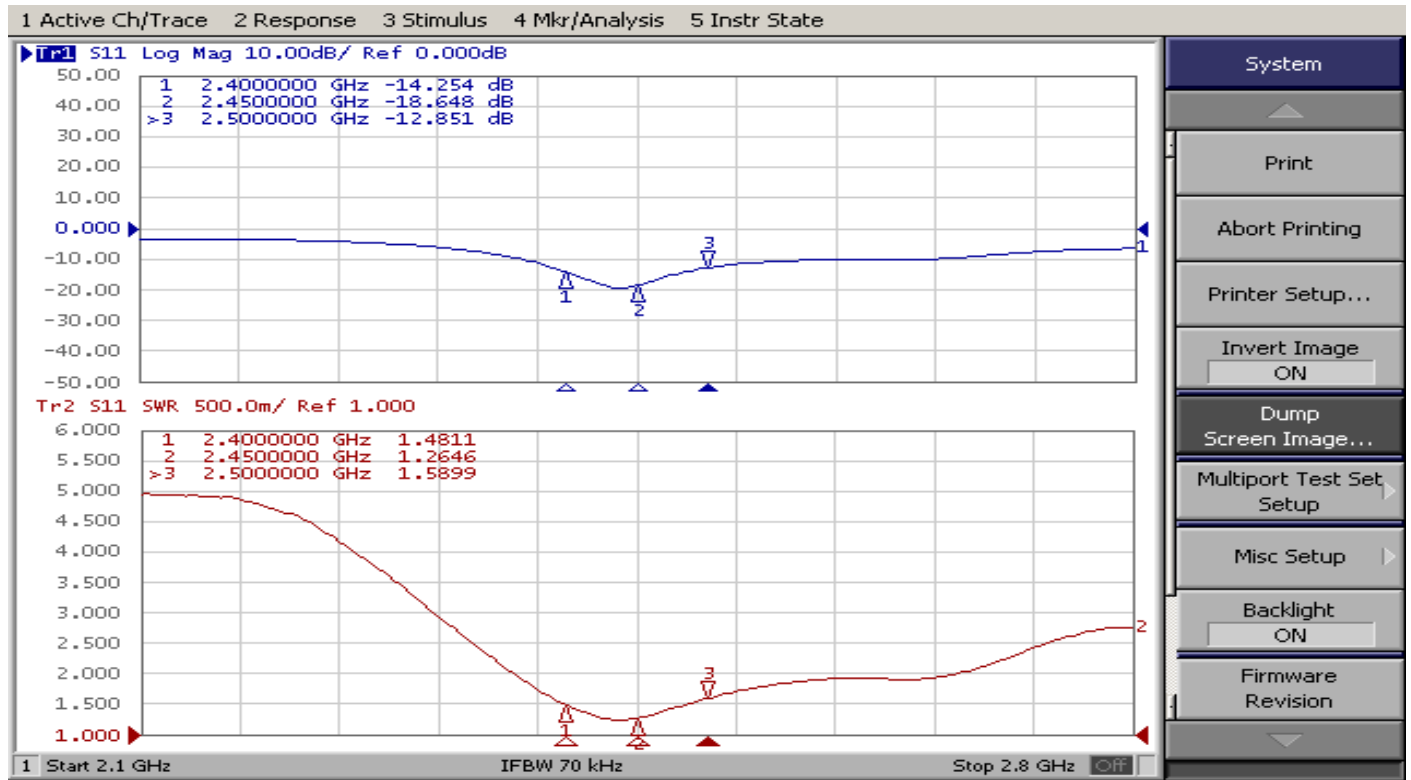
Product Name: Antenna

	可焊性	Temp: 260±5° C;Duration: 5 seconds 溫度 260±5° C;持續 5 秒	上錫均勻飽滿	
M4 P	ull Test 拉力	Holding with individual specification; force applied to axis of terminal .單獨定義產品端子拉力	Directive DUT specification Frequency Tol.≤5% 符合待測物規範;頻率偏移≤5%	PASS
M5 T	o rque Test 扭力	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal 單獨定義產品端子之順時針及逆時針扭力	Directive DUT specification Frequency Tol.≤ 5% 符合待測物規範;頻率偏移≤5%	N/A
M6 D	imension 尺寸	Inspection of dimension, color, material, package, surface process.检查尺寸,颜色,材料,包装,表面處理	Directive DUT specification 符合待測物規範	PASS
E1 W	aterproof 防水	With Reference to IEC 60529 // IP Code Definition 參考 IEC60529 IP 定義	Directive DUT specification 符合待測物規範	N/A
E2	Salt Spray 鹽霧	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%;Time: 24H 溫度 35°C; 濕度≥95%;鹽水濃度≥5%; 測試 24H	No Visual Damage Frequency Tol.≤5% 無明顯外觀不良;頻率偏移≤5%	PASS
E3 T	emperature and Humidity Chamber 恒溫恒濕	GB / T 2423.3-2006 Temp: 80°C / 12 H; -40°C / 12H RH: ≥ 90 %; Time: 24H 溫度 80°C 測試 12H 轉-40°C 測試 12H; 濕度≥90 %; 時間 24H	After 2 Hours Recovery No Visual Damage Frequency Tol.≤5% 恢復 2H 后, 無明顯外觀不良;頻率偏移≤5%	PASS
E4 T	ermal Shock 冷熱衝擊	GB / T 2423.22 - 2008 40° C (30 minutes) to + 80° C (30 minutes); Cycles: 24 40° C 測試 30 分轉 80° C 測試 30 分為一個週期; 共 24 週期	After 2 Hours Recovery No Visual Damage Frequency Tol.≤5% 恢復 2H 后, 無明顯外觀不良;頻率偏移≤5%	PASS
E5 A	ging test 老化	GB / T 2423.2 - 2008 Temp: 80°C; Time: 24 hours 溫度 80° C, 測試 24H	After 2 Hours Recovery No Visual Damage Frequency Tol.≤5% 無明顯外觀不良;頻率偏移≤5%	PASS
E6 H	igh Temp. 高溫	Temp. 270±10° C; Times: 120 seconds 溫度 270±10° C, 測試時間 120 秒	No Visual Damage 無明顯外觀不良	N/A
R1	RoHS	With Reference to IEC 62321:2008 with flow chart 參考 IEC 62321 測試流程	Directive RoHS 2011/65/EU 符合 RoHS 2011/65/EU 標準	PASS
R2	PFOS	With Reference to USA EPA 3550C:1996 by LC/MS 參考 USA EPA 3550C 測試流程	Directive RoHS 2006/122/EC 符合 RoHS 2011/65/EU 標準	PASS

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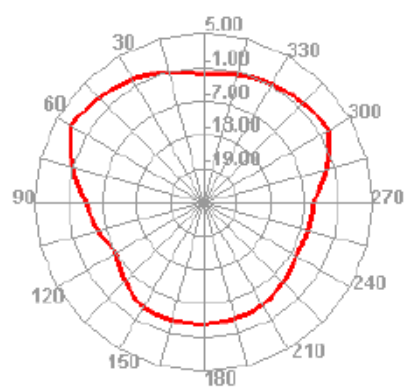
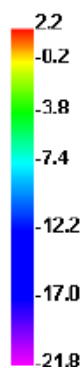
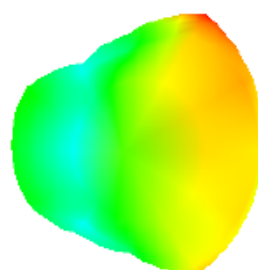
4. Antenna - S Parameter Test Data



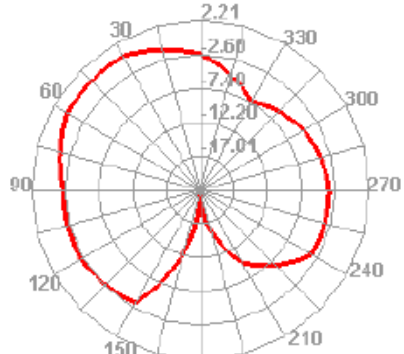
5. Antenna - Radiation Pattern Test Data

Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)
2400	41.07	-2.09	1.63
2410	41.62	-2.50	1.59
2420	41.98	-2.69	1.75
2430	41.81	-2.09	1.38
2440	41.54	-2.34	1.75
2450	41.83	-2.42	1.55
2460	41.15	-2.49	1.69
2470	41.26	-2.88	1.89
2480	41.78	-2.87	1.94
2490	41.05	-2.07	2.00
2500	41.07	-2.09	1.71

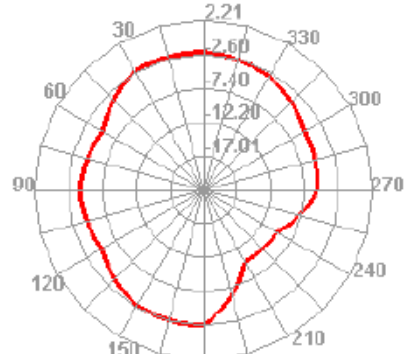
2450.000MHz



2450.000MHz E1



2450.000MHz E2



6. Antenna drawing (mm) :

