

样品承认规格书

PART SHEET FOR APPROVAL

产品名称: Part Description:	PCB WIFI双频天线 PCB WIFI dual-band antenna
规格型号: Model No:	P48496- T11374BG
物料编码: Cust P/N:	360100251
日期: Issued Date:	2021.08.26

地址: 深圳市南山区高新科技园科技南十二路 18 号长虹科技大厦 19 层

Address: 19/F, Changhong Science & Technology Mansion, No.18, Keji South 12th Road, High-tech Industrial Park, Nanshan District, Shenzhen, China

1. Revision History

Revision	Date	Change Notification	Description
1.0	2021.08.24	初版 (First Edition)	

2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400~ 2500MHz 5150~5850MHz
V.S.W.R.	<= 2.0 @ 2400-2500 MHz <= 2.0 @ 5150-5850MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	PCB
Material of Plastic	
Cable Type	1.13 Black wire
Connector Type	First generation terminal
Radiation Efficiency	20-70%
Operation Temperature	- 40 °C ~ + 75 °C
Storage Temperature	- 40 °C ~ + 85 °C

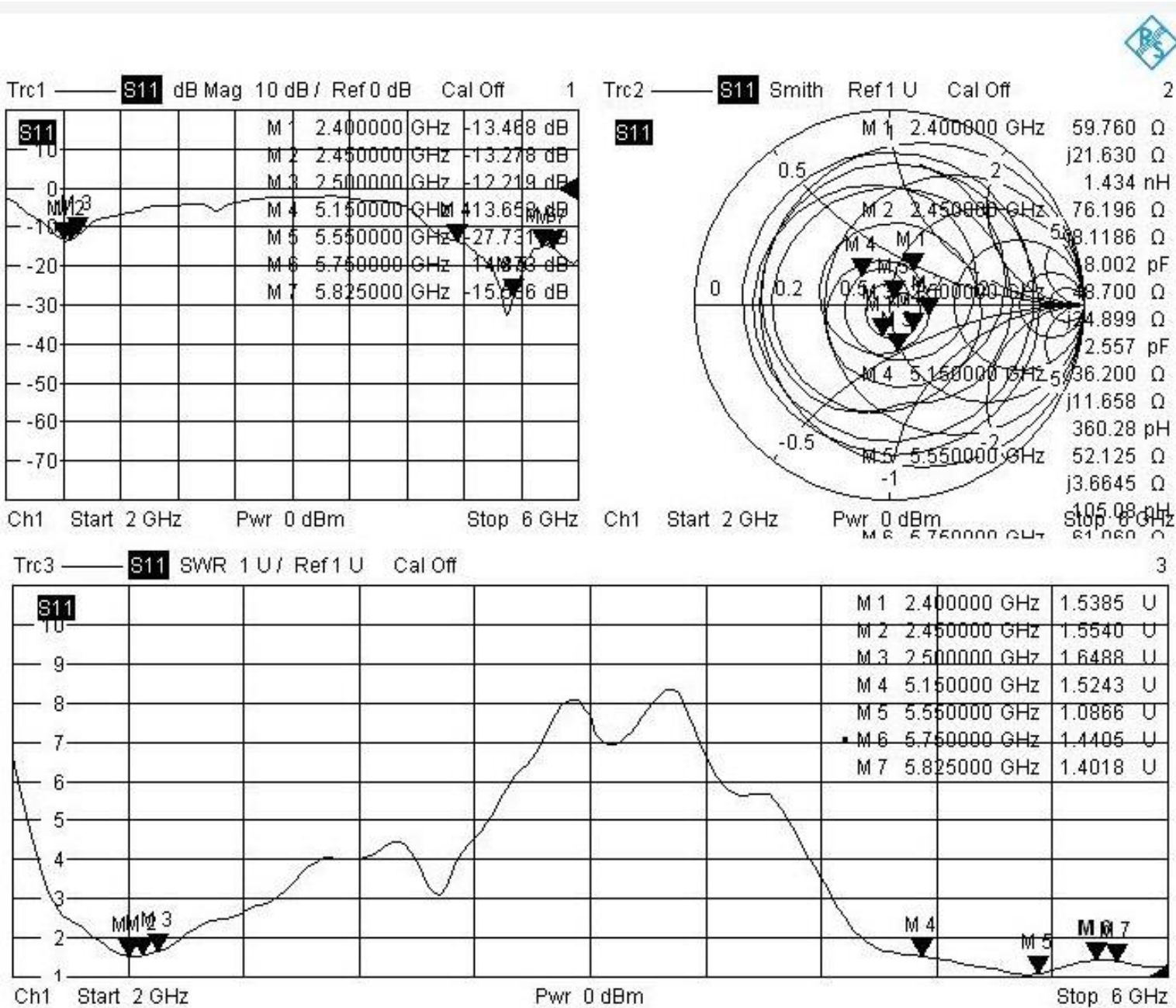
天线安装
位置图



3. Characteristics and Reliability Test

Test Items 測試項目		Test Condition and Procedure 測試方法	Requirements 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
C3	Antenna 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
M1	Vibration 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.≤5% 無明顯外觀不良;頻率偏移≤5%	PASS
M2	Random 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.≤5% 產品無脫落、斷裂;頻率偏移≤5%	PASS
M4	Pull Test 拉力	Holding with individual specification; force applied to axis of terminal .單獨定義產品端子拉力	1. Directive DUT specification 2. Frequency Tol.≤5% 符合待測物規範;頻率偏移≤5%	PASS
M6	Dimension 尺寸	Inspection of dimension, color, material, package, surface process.檢查尺寸,顏色,材料,包裝,表面處理	Directive DUT specification 符合待測物規範	PASS
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	1. No Visual Damage 2. Frequency Tol.≤5% 無明顯外觀不良;頻率偏移≤5%	PASS
E3	Temperature 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 1. No Visual Damage 2. Frequency Tol.≤5% 恢復 2H 后, 無明顯外觀不良;頻率偏移≤5%	PASS
E4	Thermal 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 1. No Visual Damage 2. Frequency Tol.≤5% 恢復 2H 后, 無明顯外觀不良;頻率偏移≤5%	PASS
E5	Aging test 老化	GB / T 2423.2 - 2008 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage	PASS
		溫度 80°C, 測試 24H	2. Frequency Tol.≤5% 無明顯外觀不良;頻率偏移≤5%	
R1	RoHS	With Reference to IEC 62321:2008 with flow chart 參考 IEC 62321 測試流程	Directive RoHS 2015/863/EU 符合 RoHS 2015/863/EU 標準	PASS

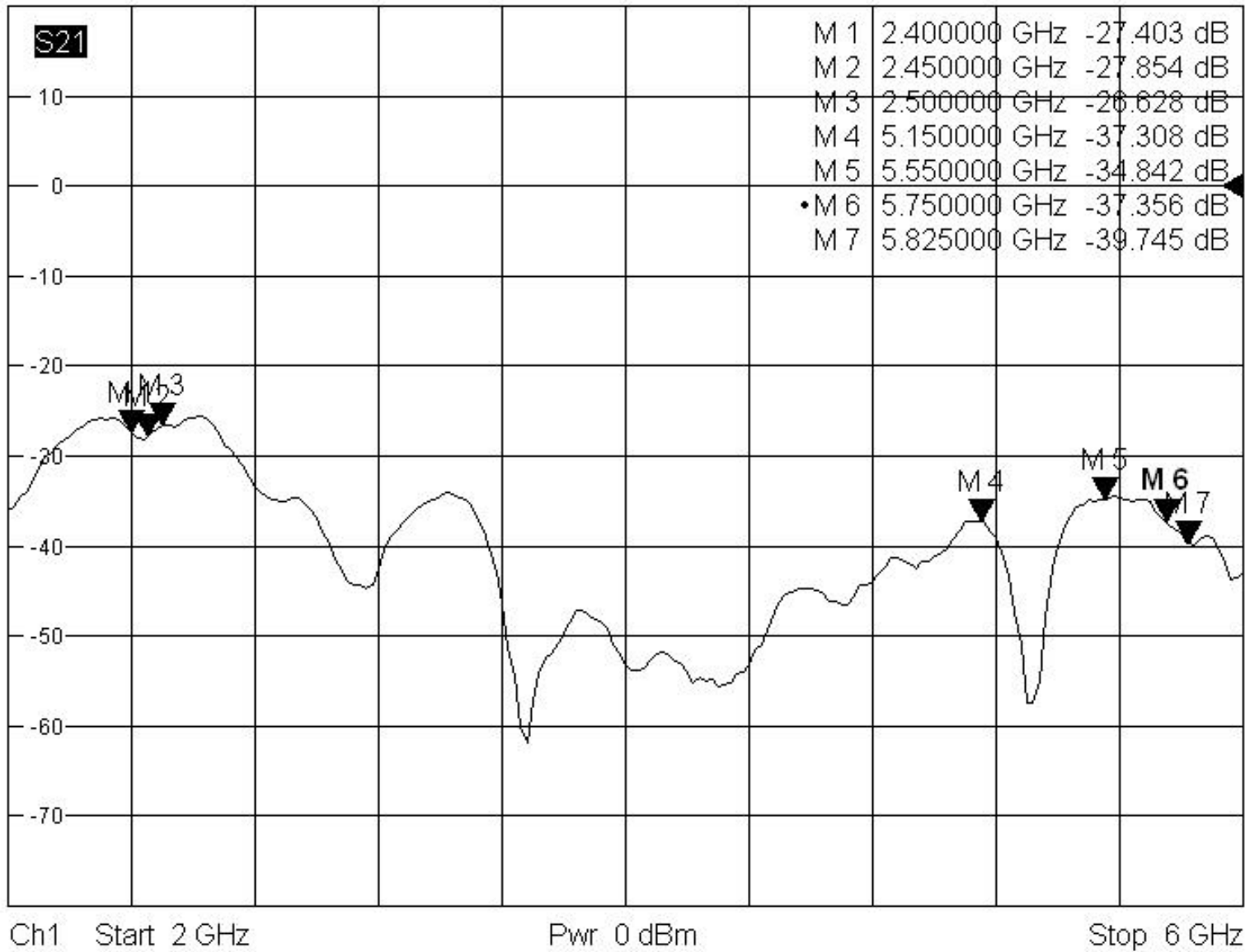
4. Antenna - S Parameter Test Data





Trc1 — **S21** dB Mag 10 dB / Ref 0 dB Cal Off

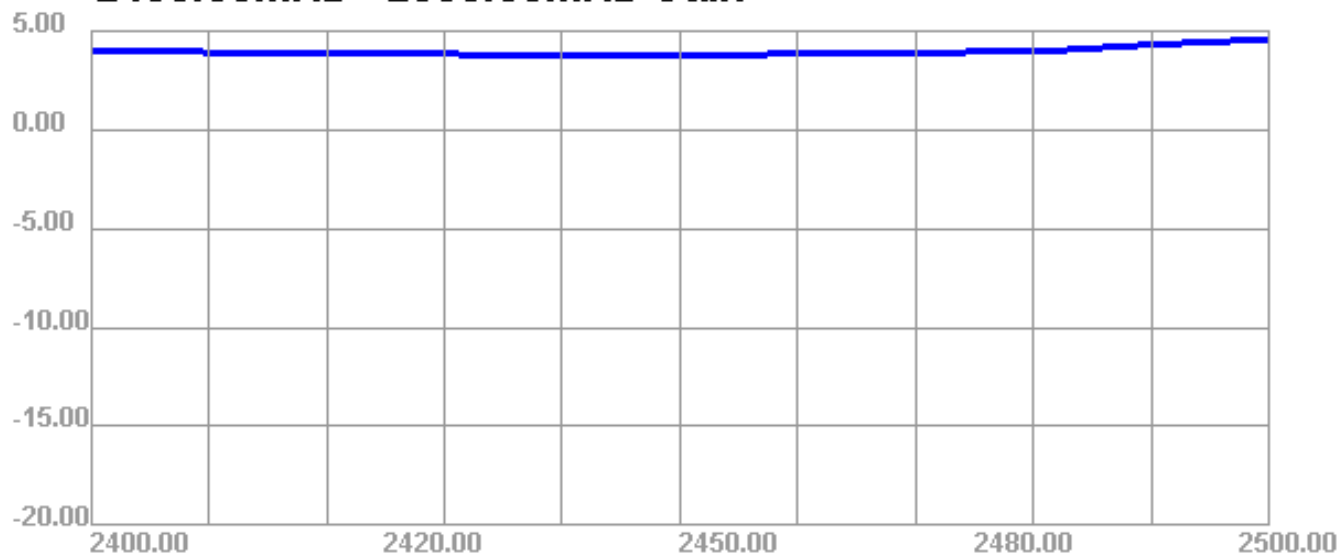
1 of 3 (Max)



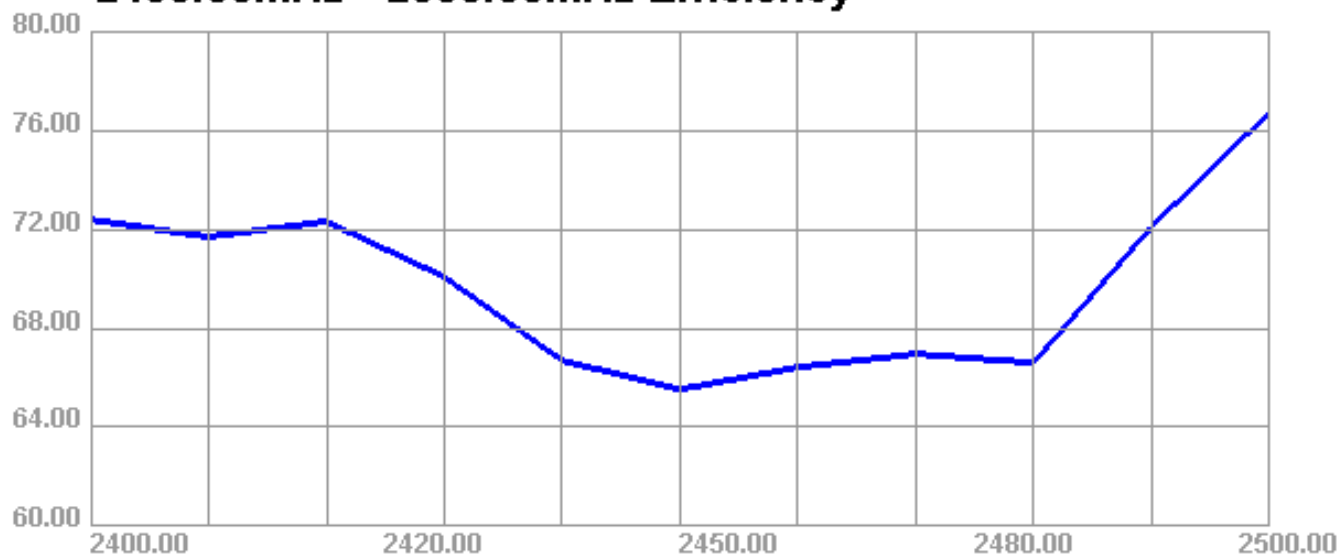
Efficiency and Gain Test Data

Passive Test For WIFI2400										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)
2400	72.39	-1.4	3.98	1.83	48.273	24.12	3.98	-20.27	5.38	60
2410	71.7	-1.44	3.92	1.77	47.639	24.064	3.92	-21.47	5.36	60
2420	72.32	-1.41	3.9	1.75	47.956	24.367	3.9	-21.9	5.31	60
2430	70.08	-1.54	3.82	1.67	46.436	23.643	3.82	-21.42	5.37	60
2440	66.7	-1.76	3.7	1.55	44.21	22.487	3.7	-20.1	5.46	60
2450	65.54	-1.84	3.72	1.57	43.413	22.125	3.72	-18.88	5.55	60
2460	66.43	-1.78	3.84	1.69	43.924	22.502	3.84	-17.68	5.62	60
2470	66.97	-1.74	3.92	1.77	44.249	22.718	3.92	-17.02	5.66	30
2480	66.61	-1.76	3.93	1.78	44.011	22.6	3.93	-17.19	5.69	30
2490	72.1	-1.42	4.29	2.14	47.647	24.456	4.29	-17.26	5.72	30
2500	76.72	-1.15	4.57	2.42	50.726	25.996	4.57	-17.16	5.72	30

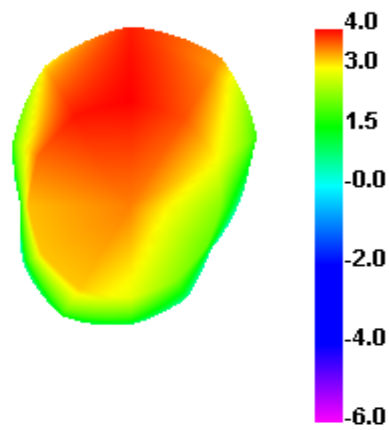
2400.00MHz - 2500.00MHz Gain



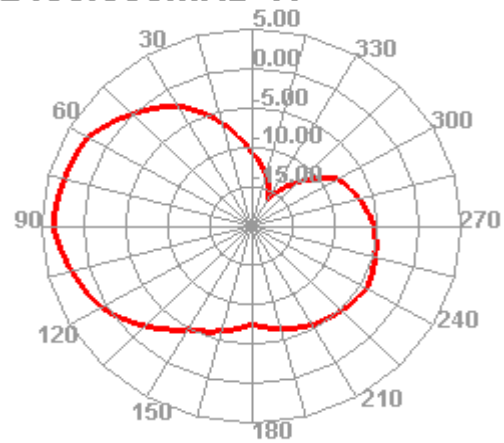
2400.00MHz - 2500.00MHz Efficiency



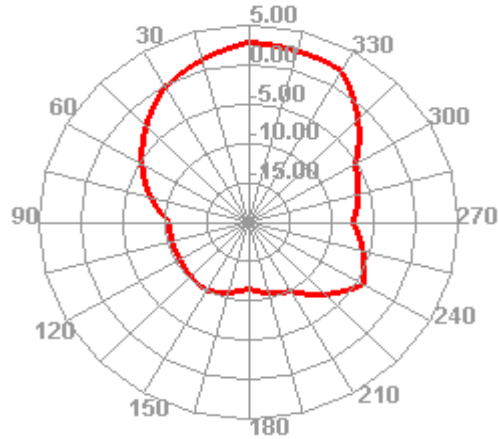
2400.000MHz



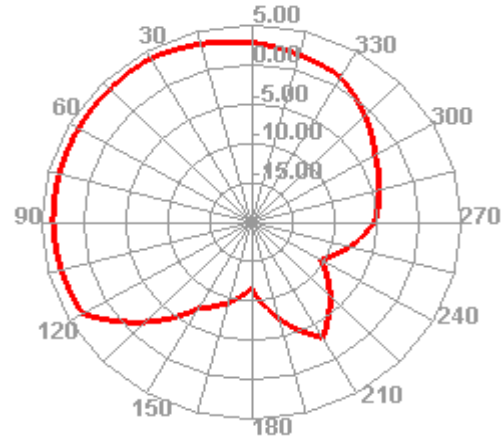
2400.000MHz H



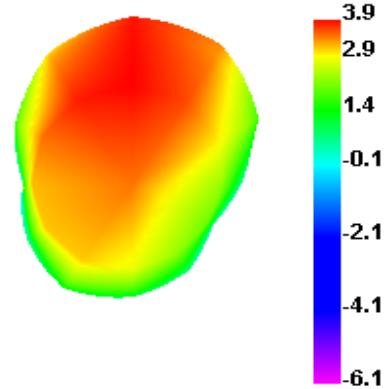
2400.000MHz E1



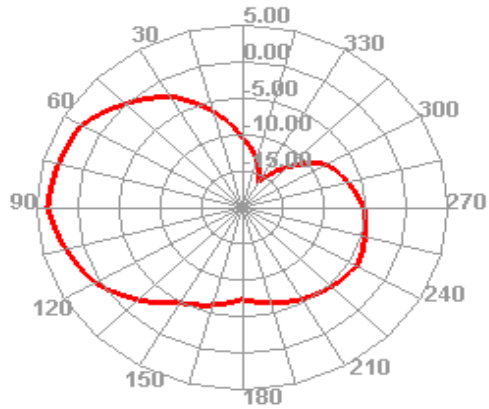
2400.000MHz E2



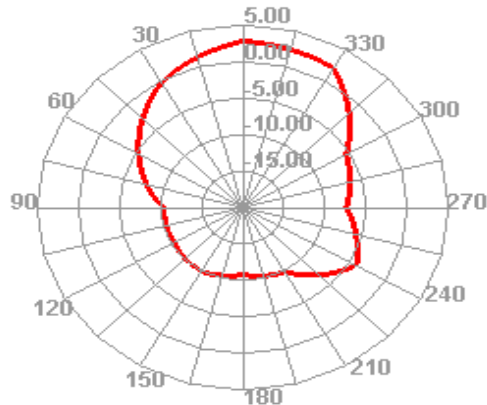
2410.000MHz



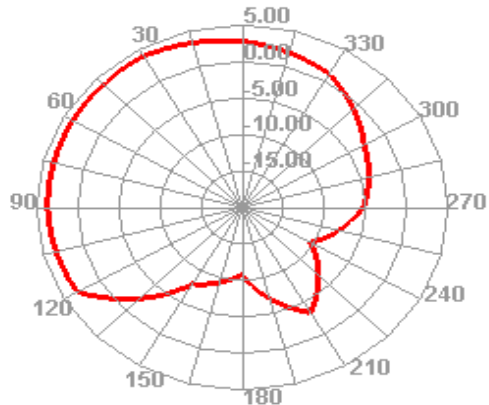
2410.000MHz H



2410.000MHz E1

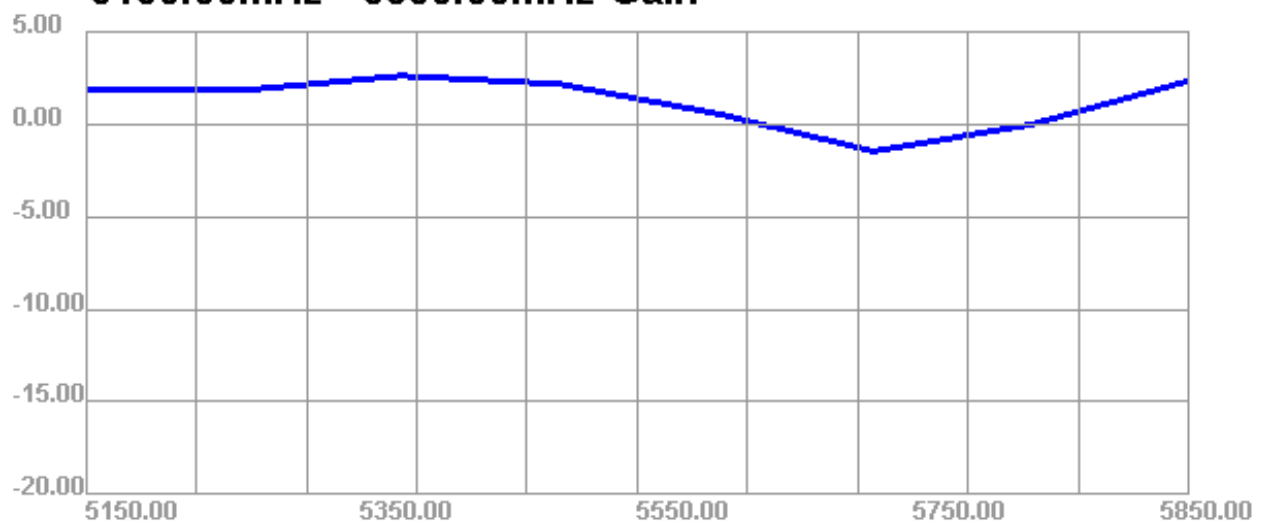


2410.000MHz E2

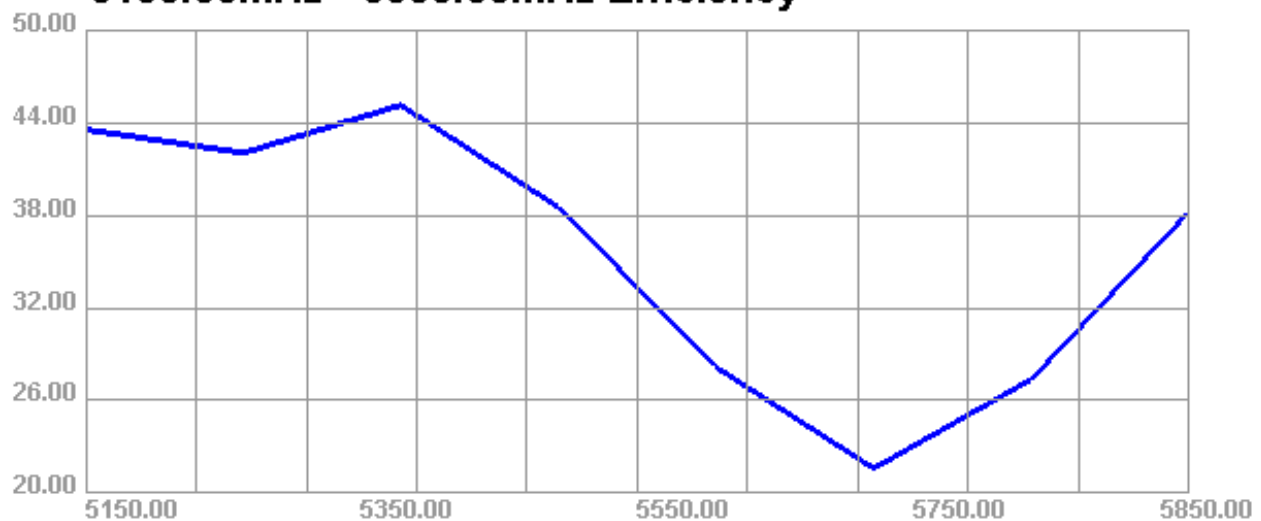


Passive Test For WIFI-5G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)
5150	43.56	-3.61	1.82	-0.33	22.523	21.038	1.82	-15.1	5.43	0
5250	42.05	-3.76	1.83	-0.32	21.814	20.233	1.83	-20.55	5.6	0
5350	45.14	-3.45	2.61	0.46	23.108	22.036	2.61	-15.93	6.06	30
5450	38.52	-4.14	2.17	0.02	19.118	19.405	2.17	-13.62	6.31	0
5550	28.17	-5.5	0.58	-1.57	13.7	14.468	0.58	-15.79	6.08	0
5650	21.61	-6.65	-1.46	-3.61	10.256	11.354	-1.46	-17.96	5.19	0
5750	27.37	-5.63	-0.02	-2.17	12.618	14.753	-0.02	-16.95	5.6	0
5850	38.22	-4.18	2.34	0.19	17.22	21	2.34	-16.18	6.51	0

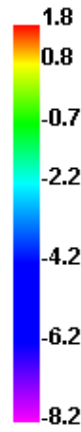
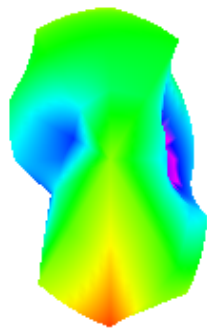
5150.00MHz - 5850.00MHz Gain



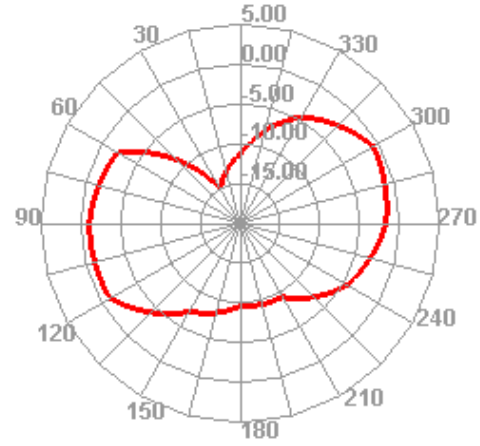
5150.00MHz - 5850.00MHz Efficiency



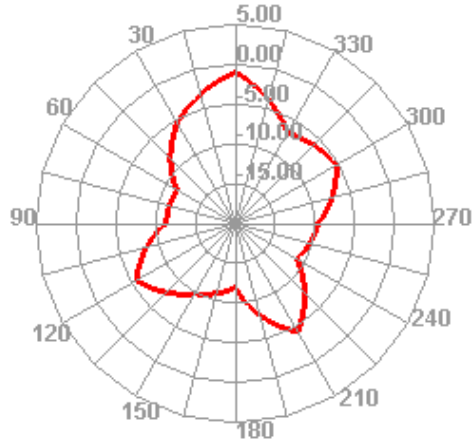
5150.000MHz



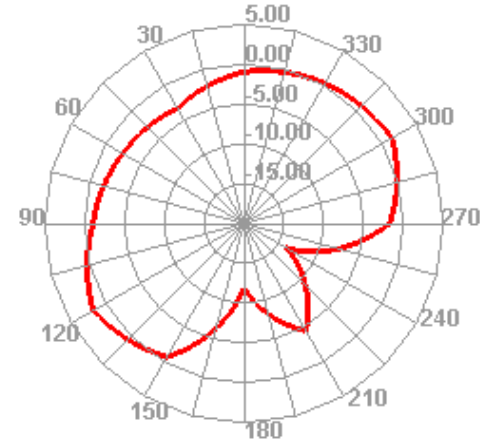
5150.000MHz H



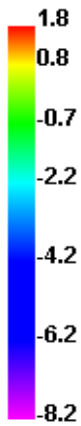
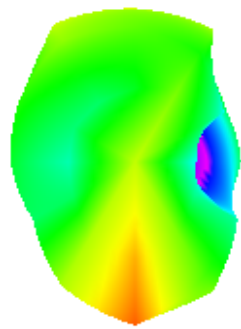
5150.000MHz E1



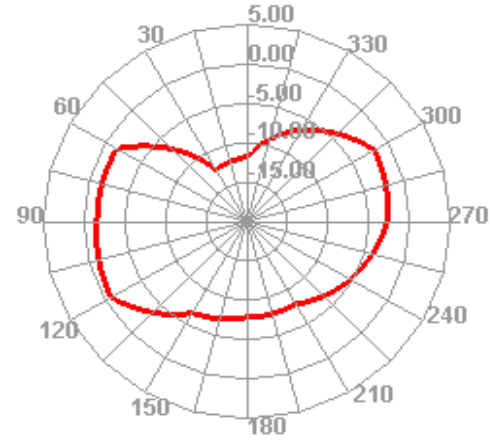
5150.000MHz E2



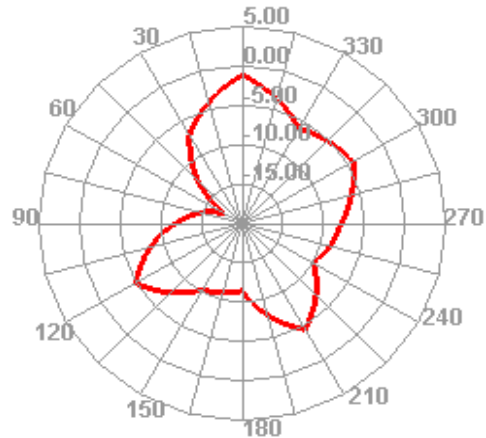
5250.000MHz



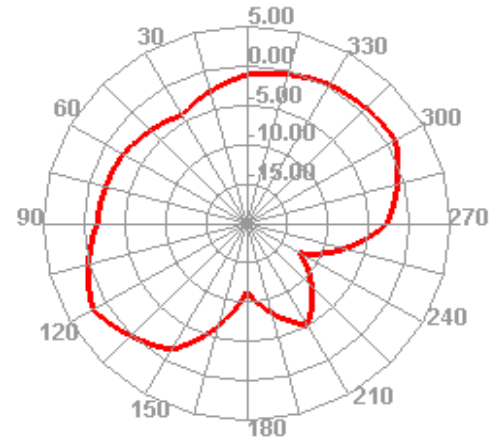
5250.000MHz H



5250.000MHz E1



5250.000MHz E2



HF

RoHS

REACH

CONFIDENTIAL

SIGN

DATE

DESCRIPTION

APPROVER

1

Ø1.13mm Cable

Color:Black

2

3

IPEX

74.0±2.0

48.4

9.6

DV8547-WIFI-A

Note:

1. The wire is RF1.13 black wire, the characteristic impedance is 50 Ohm

Network test: Test frequency band: WIFI dual-band VSWR: 2. OMAX

2. * is the key inspection size

3. The PCB must not be damaged, exposed copper, etc.

3

Adhesive

BJ-48092-01MA

Adhesive L48*W9.2mm Material model: 3M 9448A

PC

1

2

PCB

P-48496-05FB

L48.4*W9.6mm Material FR4 Black lower right corner printing DV8547-WIFI-A

PC

1

1

Wire

X-113B-100-29

1.13 Black wire is 100mm long, one end is tinned and the other end is terminal.

PC

1

Serial number

name

Part No

Item Description

unit

quantity

PART NO.: P48496-T11374BG

APP BY

City

2021/10/12

1

2

3

4

5

6

7

8

b

SINBOLIN

东莞市信博联电子科技有限公司

Dongguan Sinbolin Electronic Technology Co.LTD

TITLE: WIFI dual-band antenna

CUSTOMER P/N: /

⌀

□

Standard Tolerance

X.X ±0.5

○ 0.02

X.XX ±0.3

◎ 0.03

X° ±1

▤ 0.05

UNITS: mm

// 0.03

SCALE: 1/1

⊥ 0.05

REVISION: A

≡ 0.05

CHK BY

RF BY

DES BY

Yixin

2021/10/12

YJH

2021/10/12

请输入以下报告正确资料及检查码以便查核

- 1.报告编码
- 2.报告日期 (YYYY/MM/DD)
- 3.产品名称 (输入前10个字不含空白)
- 4.图示检查码(依指示画面)

										检测报告编号	测试日期	测试名称
序号	物料型号	成名称		Cd	Pb	Hg						
1	PCB	PCB	FR-4	N.D.	9	N.D.	N.D.	N.D.	N.D.		.06.28	SGS
2	CABLE-113BS		FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		.01.27	SGS
			镀锡铜	N.D.	2	N.D.	N.D.	N.D.	N.D.		2021.03.31	CTI
		Mini	PBT黑色	N.D.	3.3	N.D.	N.D.	N.D.	N.D.		.08.21	SGS
3	CI-113		铜	N.D.	5	N.D.	N.D.	/	/		.02.25	SGS
			镀金层	N.D.	N.D.	N.D.	N.D.	/	/		0.26	CTI