APPROVAL SHEET

承认书

CUSTOMER NAME 客户名称		
CUSTOMER P/N 客户料号	23040237	
PART NAME 品　　名	WIFI2 black FPC built-in antenna, 1.13 Blcak L=275MM (For model: H93A)	
P/ N 料　　号	YJC-6N275-B02	
APPROVAL REV. 版　　次	A0	
DELIVERY DATE 送样日期	2023-03-07	
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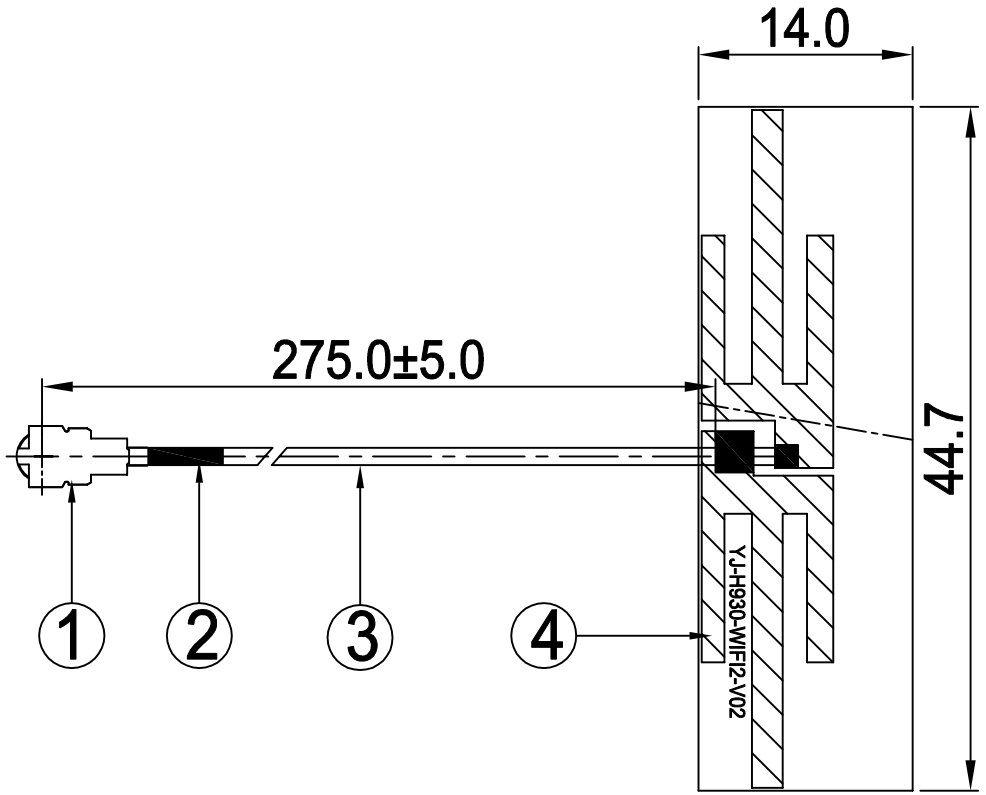
RoHS Compatible

CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
A	首次发行	2022-07-12
B	修改FPC及线长，添加EVA	2022-09-16
C	修改线长	2022-10-14
D	修改线长,去掉EVA	2022-10-17
E	修改线长	2022-10-28
F	增加套管	2022-11-04



NO	PART NAME	DESCRIPTION	Material	Part Number	Q.TY
4	FPC	44.7*14.0mm	FPC	FPC11XXXA.P01	1
3	Coaxial Cable	O.D.1.13 Black	O.D.1.13	COA100XXA.P01	1
2	Shrink Tube	Ø1.5*5.0MM Blue	EVA	TUB10019A.E01	1
1	Mini Connector	Au Plated 1代	Cu	TER100XXA.P01	1

零件名称 (PART NAME) 组立图		单位 (UNIT) mm	比例 (SCALE)	版本 (REV) A0	幅面 (SIZE) A4
产品名称 WIFI2 黑色FPC内置天线		产品规格 XD,1.13黑色线 L=275MM		产品料号 (PRODUCT NO.) YJC-6N275-B02	
设计 DS.	殷飞杰	第1页,共1页		第1版日期 (ORIGINAL DATE) 2023-03-07	
审核 CHK.	方文锋	深圳市英佳创电子科技有限公司 SHENZHEN YINGJIACHUANG TECHNOLOGY ELECTRONIC CO.,LTD			
核准 APPD.					

一般公差 (GENERAL TOLERANCE)
直线尺寸 (DIMENSION) 角度 (ANGLES)
0~1 ±0.1 | 1~10 ±0.3 | 10~30 ±0.8 | 30~100 ±1 | 100~300 ±2
X° ±1° | X.X° ±0.5°

Antenna technology parameters:

Electrical Specifications	
Frequency Range	2400-2500/5150-5850MHz
VSWR	＜1.92
Input Impedance	50 Ω
Direction	All
Gain(2.4G)	3.0dBi
Gain(5.8G)	3.0dBi
Mechanical Specifications	
Cable Color	Black
Input connector	XD
Cable length	275mm
Working Temperature	-20℃~+70℃
Working Humidity	20%~80%

Environmental performance test:

project	test condition	standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows: 1. Temperature is - 20 ℃ ~ + 70 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical properties is normal
high and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 ℃. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical properties is normal
fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical properties is normal

Antenna performance test chart:

Frequency（MHZ）	2400	2450	2500	5150	5725	5850
VSWR（dB）	1.64	1.57	1.56	1.36	1.35	1.36

WIFI2 and WIFI1 isolation test diagram

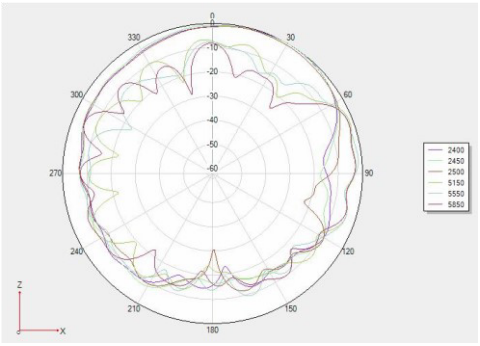
WIFI2 and BT isolation test diagram

Frequency (MHz)	2400	2450	2500	5150	5725	5850
WIFI1 and WIFI2 isolation (dB)	-17	-18	-19	-28	-29	-31
WIFI2 and BT isolation (dB)	-21	-21	-19	-32	-34	-39

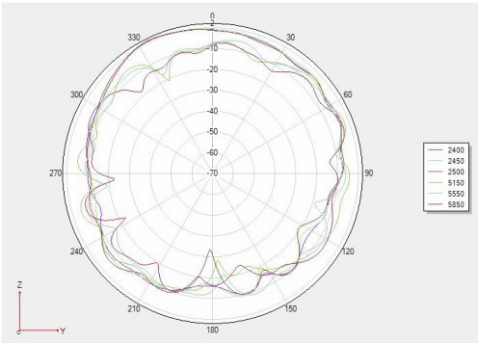
2D,3D test data (WIFI 2)：

Frequency	Efficiency (%)	Gain.(dBi)
2400MHz	45.71	1.26
2410MHz	50.23	1.75
2420MHz	43.45	1.57
2430MHz	50.47	1.82
2440MHz	42.76	3.00
2450MHz	51.64	1.53
2460MHz	45.92	1.86
2470MHz	51.05	1.89
2480MHz	43.65	1.37
5150MHz	24.1	3.00
5750MHz	30.48	2.98
5850MHz	28.18	3.00

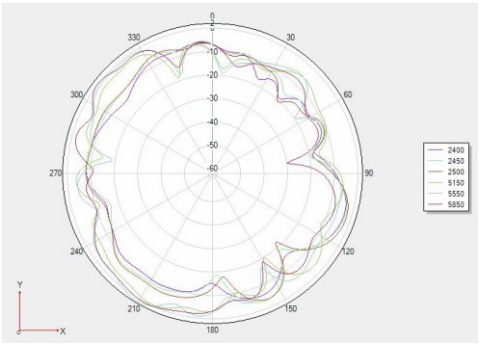
Phi 0 2D diagram:



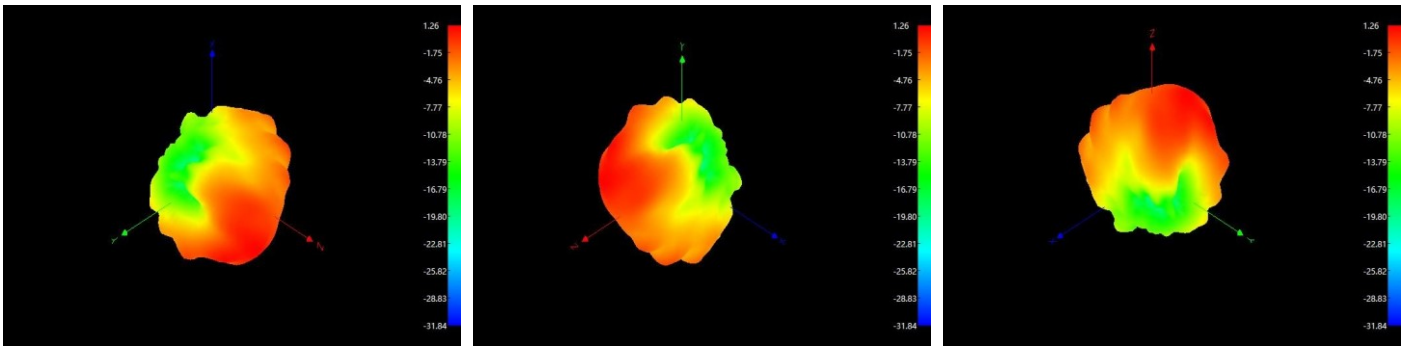
Phi 90 2D diagram



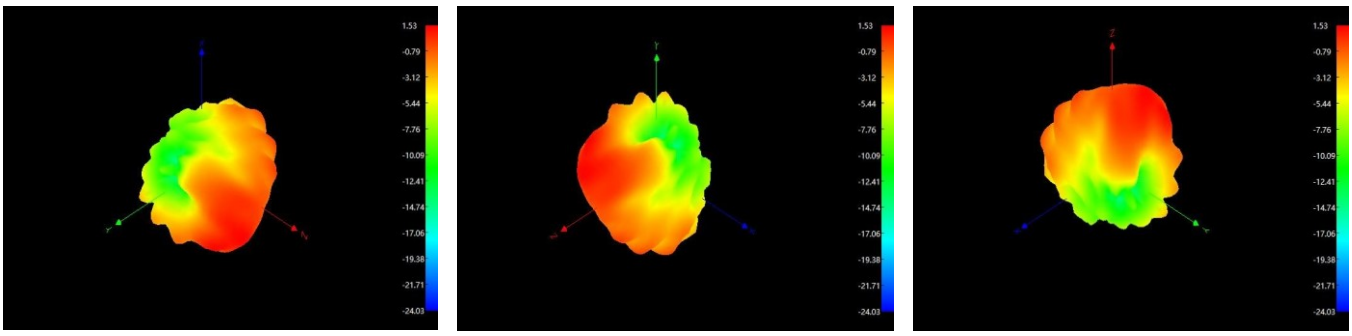
Theta 90 2D diagram



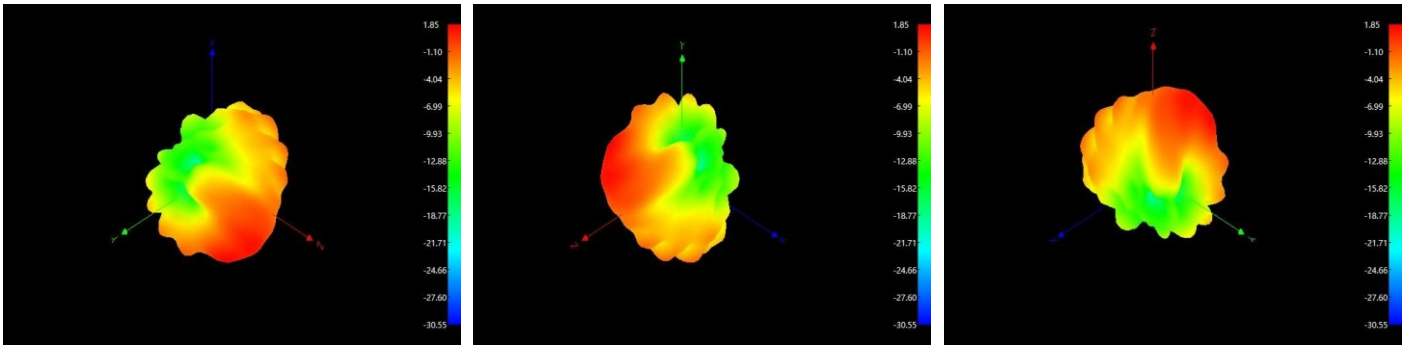
3D 2400：



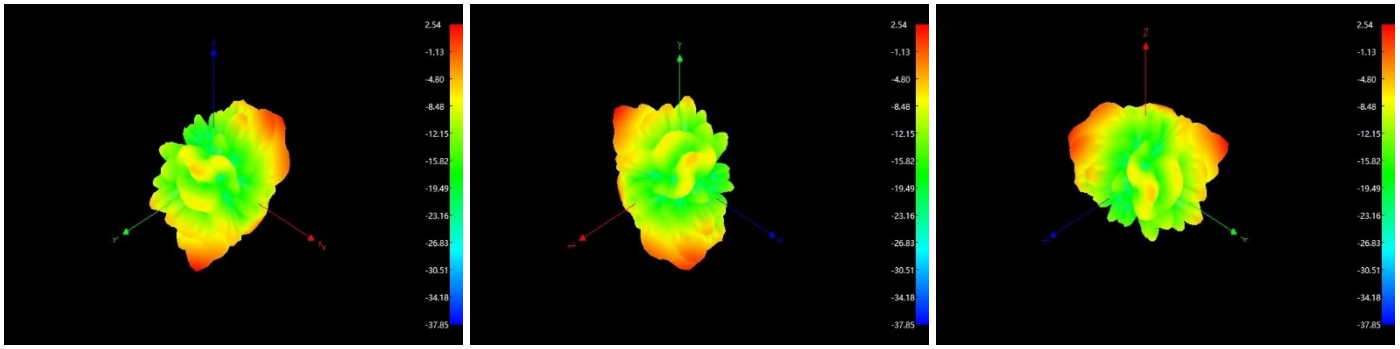
3D 2450：



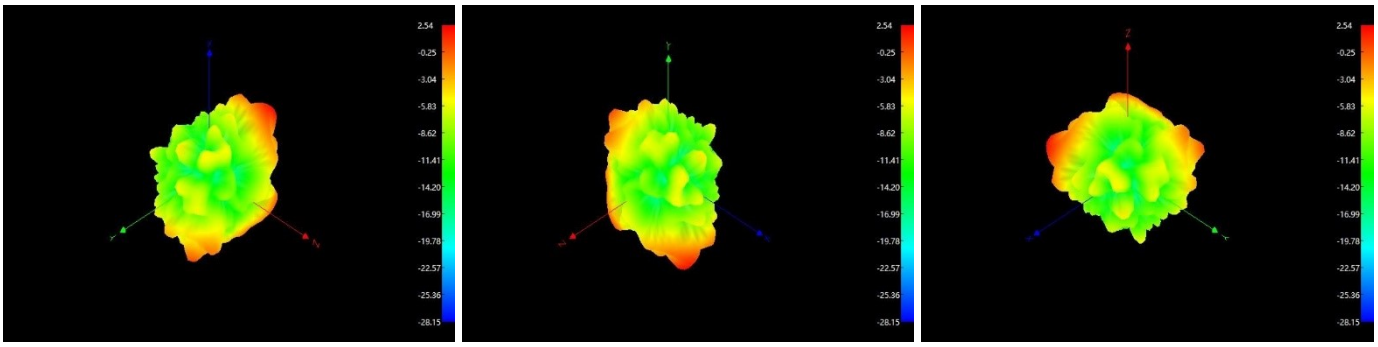
3D 2500：



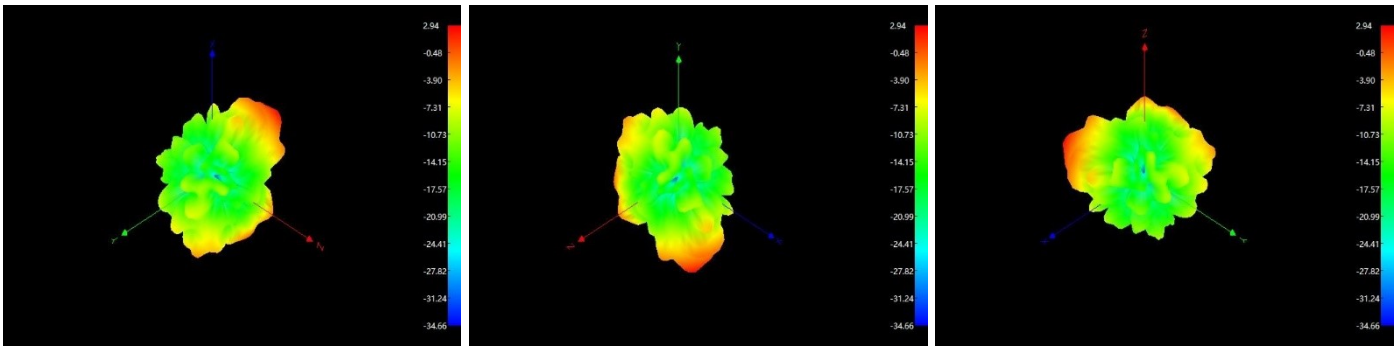
3D 5150：



3D 5500：



3D 5850：



OTA active test data

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	13.67
2	TRP	WIFI_B (11M)	6	2437	14.17
3	TRP	WIFI_B (11M)	11	2462	13.86
4	TIS(EIRP)	WIFI_B (11M)	1	2412	-83.96
5	TIS(EIRP)	WIFI_B (11M)	6	2437	-81.57
6	TIS(EIRP)	WIFI_B (11M)	11	2462	-83.62
7	TRP	WIFI_G (54M)	1	2412	14.63
8	TRP	WIFI_G (54M)	6	2437	14.1
9	TRP	WIFI_G (54M)	11	2462	14.37
10	TIS(EIRP)	WIFI_G (54M)	1	2412	-69.7
11	TIS(EIRP)	WIFI_G (54M)	6	2437	-70
12	TIS(EIRP)	WIFI_G (54M)	11	2462	-69.48
13	TRP	WIFI_N_ISM (65M)	1	2412	14.13
14	TRP	WIFI_N_ISM (65M)	6	2437	13.65
15	TRP	WIFI_N_ISM (65M)	11	2462	13.99
16	TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-67.81
17	TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-68.78
18	TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-68.19
19	TRP	WIFI_A (54M)	36	5180	13.67
20	TRP	WIFI_A (54M)	100	5500	13.42
21	TIS(EIRP)	WIFI_A (54M)	36	5180	-71.85
22	TIS(EIRP)	WIFI_A (54M)	100	5500	-71.05

产品规格 Product Type	1.13线
结构图 Structure Drawing	

结构特性 Structure Characteristics

结构 Structure	项目 Item	标准值Standard Value
内导体 Inner Conductor	材质Material	镀银铜线 Silver plated copper wire
	构成(根/mm/Composition(No./mm)	7/0.08±0.005
	标称外径Nom.Dia(mm)	Φ0.24±0.01
绝缘层 Insulation	材质Material	聚全氟乙丙烯/FEP
	标称外径Nom.Dia(mm)	Φ0.7±0.03
外导体 Outer Conductor	材质Material	镀锡铜线 Tinned copper
	形式From	编织/Weaving
	遮蔽率/ Shielding rate	≧90%
	标称外径Nom.Dia(mm)	Φ0.92±0.03
护套 Jacket	材质Material	聚全氟乙丙烯/FEP
	标称外径Nom.Dia(mm)	Φ1.13±0.05

电气性能 Electrical Characteristics

项目 Item	标准值 Standard Value	项目 Item	频率 Frequency	标准值 Standard Value
阻抗Impedance（Ω）	50±3	衰减 Attenuation@20℃ (dB/100m)	1GHz	≤2.23
电容Capacitance(pF/m)	98		2GHz	≤3.15
抗拉强度 Tensile strengthkgf/mm²	1.76		3GHz	≤3.96
驻波比 VSWR	≤1.40@0-6GHz		4GHz	≤4.6
耐压强度 Dielectric Strength（A.C V/1min)	1000		5GHz	≤5.15
最大工作频率（MHz） Max.oper. frequency	6000		6GHz	≤5.7

可靠性 Dependability

最小弯曲半径(单次)Min.Bending Radius/Single	mm	4
最小弯曲半径（重复）Min.Bending Radius/Repeated	mm	8
工作温度范围 Operating Temperature	℃	-20~+80

包装 Packing

包装方式 Packing Mode	1000（m/盘）成卷 Reel

使用提示 Trips for Use

存储环境 Storage Environment	温度：30℃以下，湿度：20-65%
铁氟龙收缩 Teflon Shrink	绝缘层收缩≤0.2mm；护套层收缩≤0.3mm
加工温度 Processing temperature	250℃~260℃的情况下，可短时间承受；300℃以上会出现热分解现象
最佳保存周期 The best save cycle	2 个月，2 个月以上锡效果变差,但电性能不受影响，夏季高温高湿环境开剥后需尽快流转

Material RoHS conformity declaration form

This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engine ord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)

About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr $^{6+}$	PBB	PBDE	PASS
FPC	FPC	A22202052922010 01E	SGS	22/06/14	ND	ND	ND	ND	ND	ND	PASS
Wire Rod	RG/RF Series Coaxial Cables	SZXEC2202766604	SGS	22/08/18	ND	ND	ND	ND	ND	ND	PASS
Termina l	Copper	CANEC2301145810	SGS	23/02/08	ND	5	ND	ND	ND	ND	PASS
	Au plating	A22204048601010 01C	CTI	22/09/17	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A22300350371010 02E	SGS	23/02/06	ND	ND	ND	ND	ND	ND	PASS
Heat shrinkable sleeve	Heat shrinkable sleeve	CANEC2211474412	SGS	22/06/08	ND	ND	ND	ND	ND	ND	PASS