

SPECIFICATION FOR APPROVAL/产品承认书

Customer Name

客户名称:

北京映翰通网络技术股份有限公司

Customer P/N.

客户料号:

AANT060031

Product Description

产品描述:

INHAND-FWA-SKL 5G CPE WIFI-4 线长90mm

FIBOCOM P/N

广和通料号:

YHT-003E (ver.RA)

Manufacturer

制造商:

深圳市广和通无线股份有限公司

Approve Date

承认日期:

2023/8/9

Customer Sign and Seal/客户签章

Change the content/变更内容	Version/版本	Date/日期
First Release/初版	RA	2023/8/9

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1. Antenna Specification/ 天线技术参数

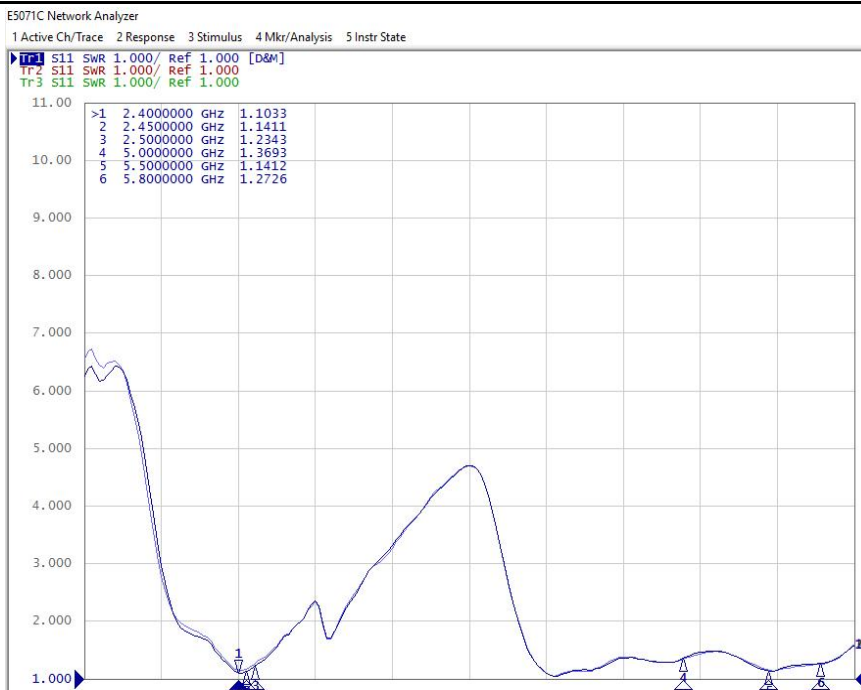
1.1: Electrical Specification/ 电气特性	
Freq.Range/ 频段范围 (MHz)	2400-2500; 5000-5800
Impedance/ 阻抗 (Ω)	50
VSWR/ 驻波比	≤ 3.0
Directional/ 辐射方向	Omni directional
Polarization/ 极化方式	Linear
Gain/ 增益 (dBi)	2400-2500: 4.13
	5000-5800: 4.9
1.2: Mechanical Specification/ 机械指标	
Material/ 材质	FR4
RF Cable Type/ 射频线型号	RF1.13
Connector Type/ 连接器类型	MHF- I plug/ 一代端子
1.3: Environmental Specification/ 环境指标	
Operation temp/ 工作温度	-40 $^{\circ}$ C ~ +85 $^{\circ}$ C
Long-term storage temperature/ 长期储存温度	+19 $^{\circ}$ C ~ +23 $^{\circ}$ C

3. Test Report/测试报告

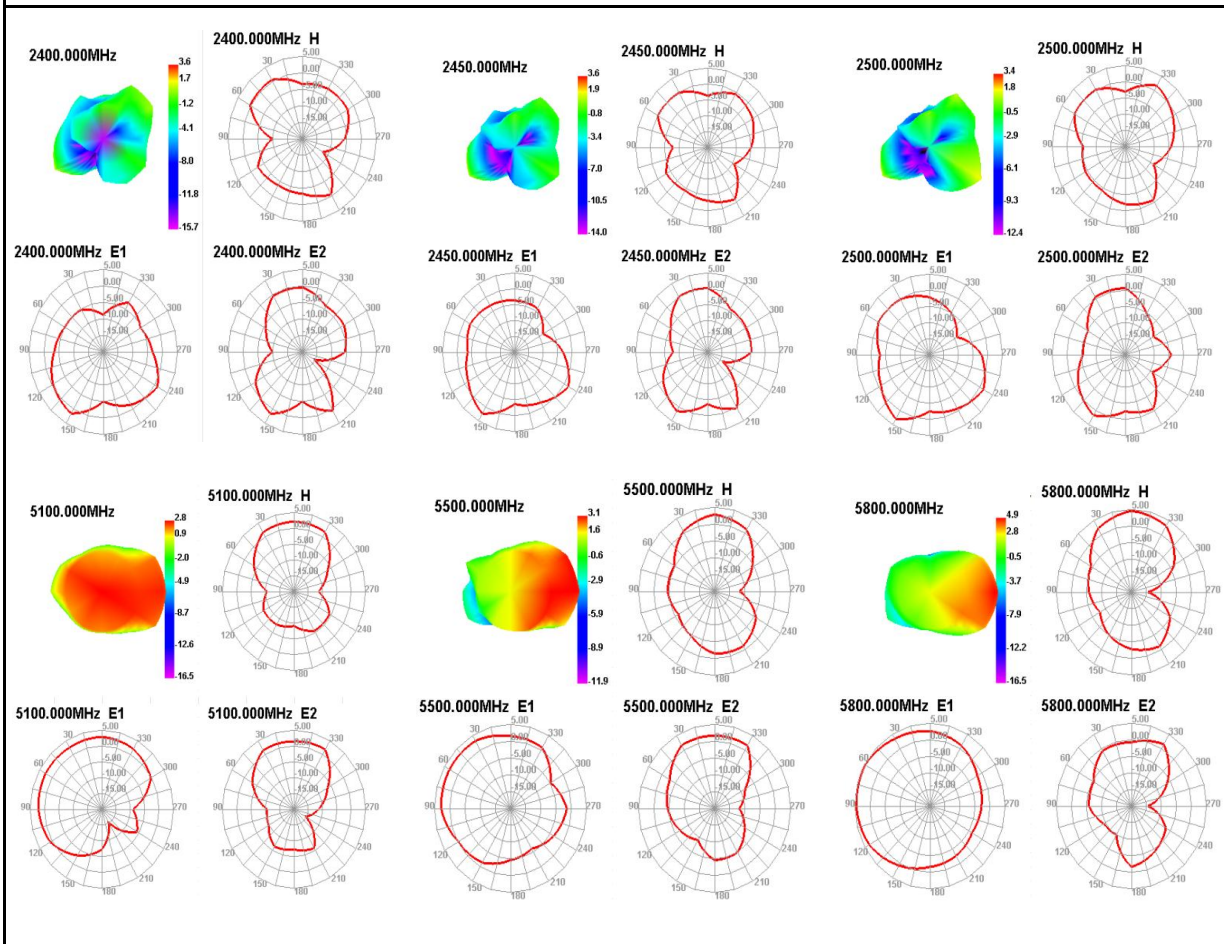
3.1: Antenna efficiency/天线效率

2400-2500MHz			5000-5800MHz					
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (%)
2400	71.25	3.61	5000	63.1	2.67	5400	66.21	3.25
2410	68.98	3.58	5020	63.53	2.79	5440	66.83	3.26
2420	67.85	3.59	5040	67.3	2.98	5460	61.66	3.13
2430	69.99	3.68	5060	69.98	3.09	5480	64.71	3.35
2440	69.74	3.52	5080	71.45	3.36	5500	66.79	3.13
2450	70.89	3.64	5100	64.86	2.83	5520	65.16	3.67
2460	68.56	3.75	5120	65.77	3.23	5540	66.22	3.78
2470	70.52	4.13	5140	70.15	3.44	5560	64.42	3.38
2480	70.89	4.07	5160	69.02	3.4	5580	58.88	3.68
2490	69.74	4.04	5180	71.28	3.31	5600	62.37	3.8
2500	68.45	3.41	5200	71.79	3.46	5620	69.66	3.6
			5220	69.5	3.1	5640	68.55	3.6
			5240	66.22	3.55	5660	65.01	4.16
			5260	68.39	3.51	5680	60.26	4.24
			5280	69.95	3.67	5700	64.12	4.37
			5300	70.45	3.88	5720	68.87	4.45
			5320	70.15	3.64	5740	67.28	4.59
			5340	67.45	3.54	5760	65.16	4.54
			5360	66.07	3.94	5780	66.07	4.51
			5380	69.5	3.63	5800	62.23	4.9

3.2: VSWR /驻波图



3.4: Directional diagram/方向图



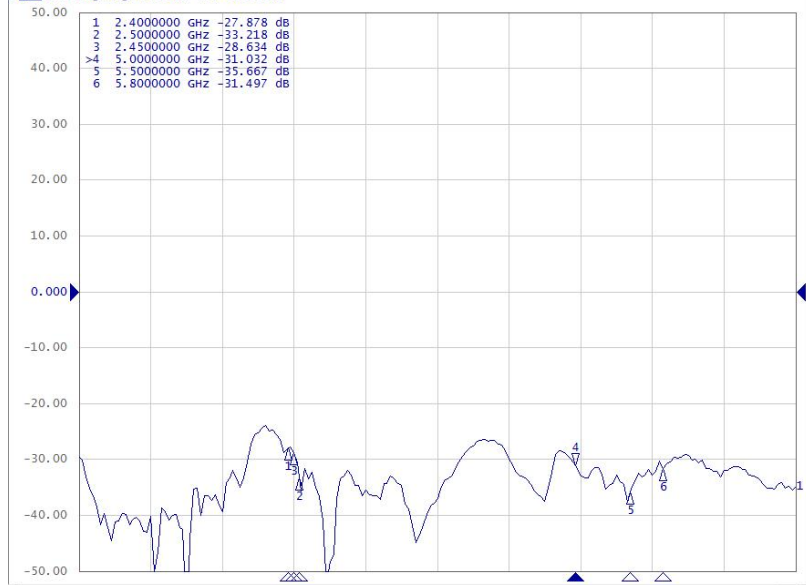
3.5: Isolation/隔离度

WIFI-1 & WIFI-2

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

1 s12 Log Mag 10.000db/ Ref 0.000db

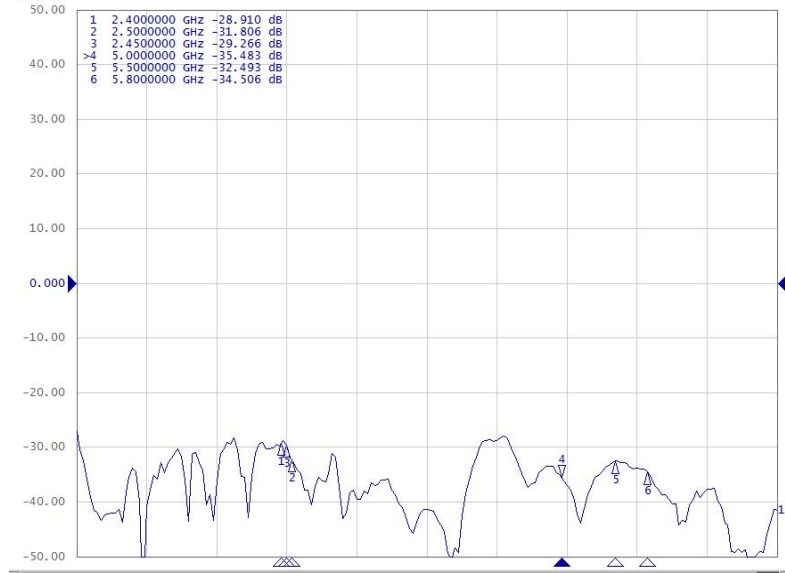


WIFI-2 & WIFI-3

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

S12 Log Mag 10.00dB/ Ref 0.000dB

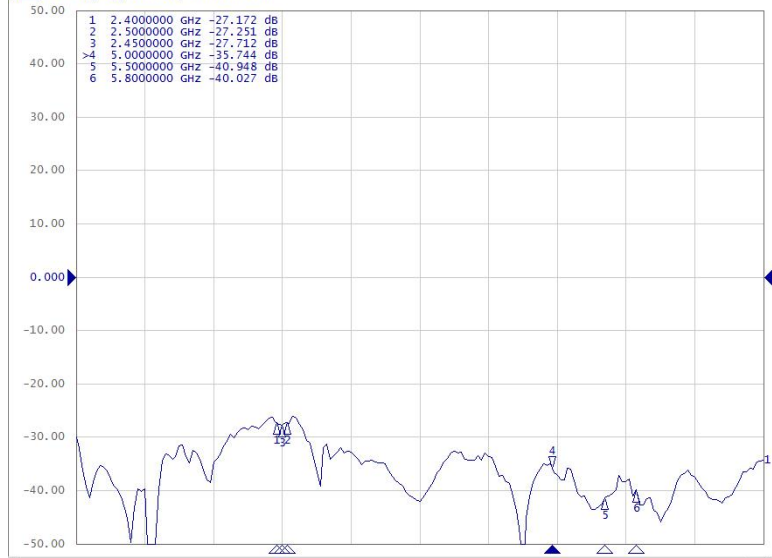


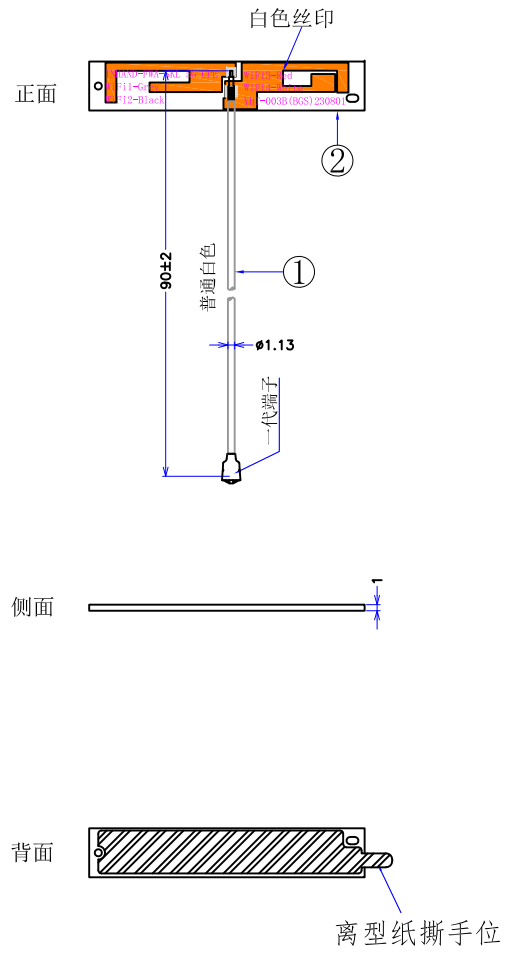
WIFI-3 & WIFI-4





E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

S12 Log Mag 10.00dB/ Ref 0.000dB





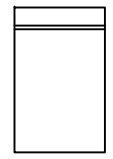
-  丝印部分
-  抗氧化部分
-  净空部分
-  线路部分

注意：
 1、每100个天线组件装一小包,10小包装1大包，再装箱
 2、若丝印内容有增加"+"或"-"是我司用于区分供应商的标志，但产品性能、材质、加工工艺完全相同。

Fibocom 深圳市广和通无线股份有限公司
 FIBOCOM Wireless Inc.

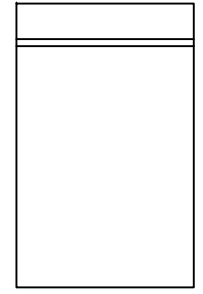
NO.	PART NO.	NAME	DESCRIPTION	QT'Y	变更内容	变更日期	产品编号	客户编号	零件名称	发行日期	材质	版本	项目号
②	YHT-003B-05A	PCB	1.0mmFR4,单面板,正面印黑油,镀点OSP抗氧化	1	变更内容	变更日期	YHT-003E	\	天线辐射单元	2023-08-01	FR4	RA	YHT-003
①	YHT-003E-21B	Cable	OD1.13MM,白色外被,一端剥镀,一端铆一代连接器	1	公差范围	设计	客户编号	\	零件名称	2023-08-01	FR4	RA	YHT-003
					其它不超过±0.2	审核	零件名称	\	零件名称	2023-08-01	FR4	RA	YHT-003
						核准	发行日期	2023-08-01	零件名称	2023-08-01	FR4	RA	YHT-003

PE Sealed bag/PE封口袋

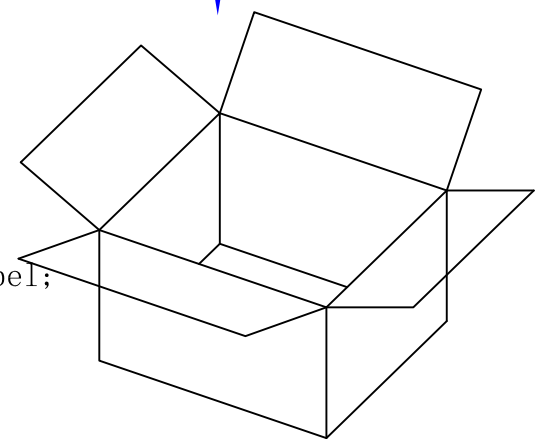


① 100 pcs/ small PE bag (bag size depends on product size)/
100个装一小袋 (包装袋尺寸依产品大小而定)

PE Sealed bag/PE封口袋



② 100 pcs small bag/big PE bag (bag size depends on product size)/
10小袋装一大袋 (包装袋尺寸依产品大小而定)



③ Final packing (carton size depends on product size and quantity)/
最后装箱 (纸箱尺寸依产品大小、数量而定)

Note:

1. 100pcs antenna in one small PE bag ,stick the label;
2. 1000pcs antenna (10 bags*100pcs) in one big PE bag ,stick the label;
3. Put them in the carton and stick the carton marks.

说明:

1. 每100个天线组件装一小包，贴标签；
2. 每1000个（10袋*100个）装一大包，贴标签；
3. 装箱，贴外箱标签。

		深圳市广和通无线股份有限公司 FIBOCOM Wireless Inc	
Change the content/变更内容		Change the date/变更日期	
Design/设计		Package Drawing/包装规范图	
Approve/审核		Issue Date/发行日期	
Reviewed/批准		Mar, 25 2023	Page 1 of 1

6.ROHS Report/ROHS报告

Product Description 产品描述		INHAND-FWA-SKL 5G CPE WIFI-4 线长 90mm	BGS P/N 博格料号	YHT-003E					Declaration Date 宣告日期	2023/8/9
No. 序号	Part name 部件名称	Homogeneous Material Name 均质材料名称	The homogeneous material contains the value of RoHS restricted substance (ppm) 均质物料内含有RoHS限制物质的量值 (ppm)						Certification number 检测报告编号	Test date 检测日期
			Cd	Pb	Hg	Cr+6	PBB	PBDE		
1	PCB	FR4	ND	ND	ND	ND	ND	ND	CANEC2221844502	2022/10/24
2		Solder resist ink/阻焊油墨	ND	ND	ND	ND	ND	ND	C230217057002-1	2023/2/17
3		Text ink/阻焊油墨	ND	ND	ND	ND	ND	ND	C230217057001-1	2023/2/17
4	Wire 线材	RF coaxial cable/RF同轴电缆	ND	ND	ND	ND	ND	ND	SZxec2202766604	2022/8/18
5	Terminals 端子	Gold plating/电镀金	ND	ND	ND	ND	ND	ND	A2220404860101001C	2022/9/17
6		PBT/胶芯	ND	4.47	ND	ND	ND	ND	ETR22800749	2022/8/10
7		Tin Phosphor Bronze/铜板	ND	ND	ND	ND	ND	ND	CANEC2301145809	2023/2/8

Notes:

Material analysis expansion table is similar to our company's machine type BOM, which describes the composition of each material provided by the supplier, and then conducts RoHS control on each component (or the supplier shall conduct RoHS compliance management on his supplier, and provide tripartite inspection certificate).

A complete material analysis expansion table that includes:

1. Material expansion table: component composition decomposition
2. Third-party verification report of each component

说明:

材质分析展开表类似于我们公司的机种BOM, 就供应商提供的每个物料进行组成说明, 然后就每一种组成进行ROHS控制 (或者说供应商要对他的供应商进行ROHS符合性管理, 提供每三方检测证明)。

一份完整的材质分析展开表, 它包括:

- 1 材质展开表:零件组成分解
- 2 各组成的第三方验证报告