

产品承认书/SPECIFICATION FOR APPROVAL

客户名称: Customer Name	成都长城开发科技股份有限公司 Shenzhen Kaifa Technology (Chengdu) Co., Ltd.
客户料号: Customer P/N	
产品描述: Product Description	弹簧天线 Spring antenna
制造商 P/N: Manufacturer P/N	CCF-041B
制造商: Manufacturer	深圳市广和通无线股份有限公司 FIBOCOM Wireless Inc.
承认日期: Approve Date	2023年10月19日

供应商签章 Supplier Sign and Seal	客户签章 Customer Sign and Seal

变更内容 Change the content	版本 Version	日期 Date
初版 First Release	RA	2023.10.19

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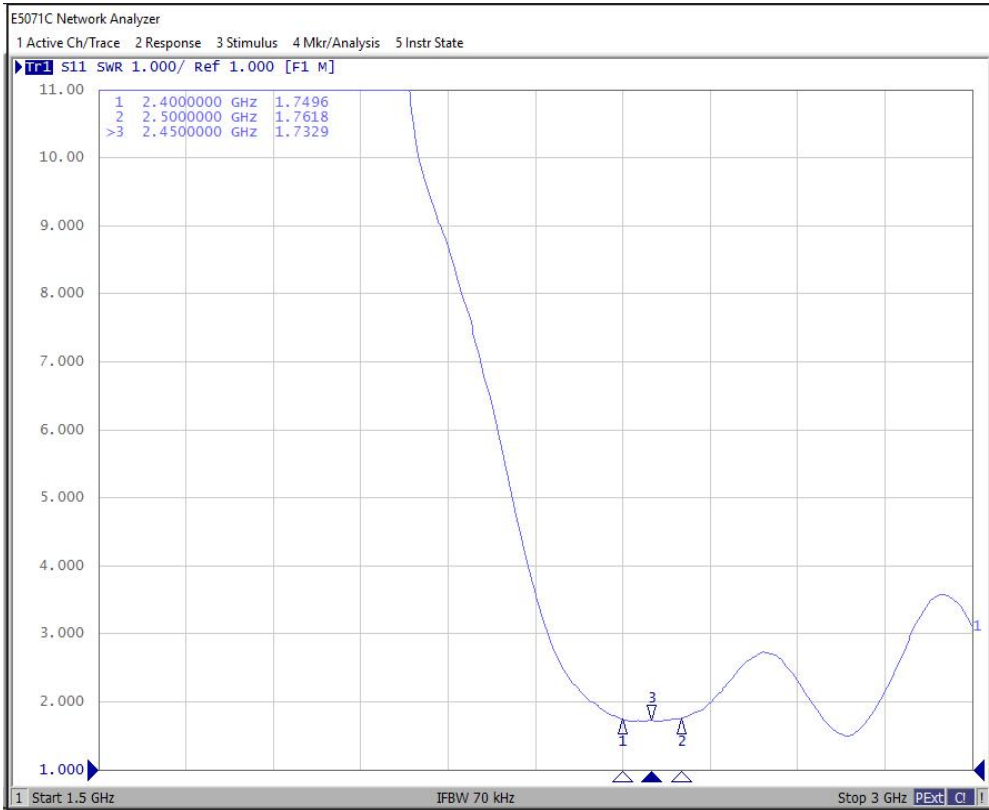
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1.1:电气特性 Electrical Specification	
频段范围 Freq.Range (MHz)	WIFI:2.4G
阻抗 Impedance (Ω)	50(Ω)
驻波比 VSWR	≤3
辐射方向 Directional	全向性 Omni directional
极化方式 Polarization	线性 Linear
峰值增益 Peak Gain (dBi)	2400-2500MHz:0.62dBi
	/
1.2:机械指标 Mechanical Specification	
材质 Material	SUS304
连接器类型 Connector Type	/
1.3: 环境指标 Environmental Specification	
工作温度 Operation temp	-40℃ ~+85℃
盐雾试验标准 Salt Spray Test Standard	48H
双85试验标准 Temperature Humidity Bias Test	500H
储存温度 Storage temp	- 40℃ ~+85℃

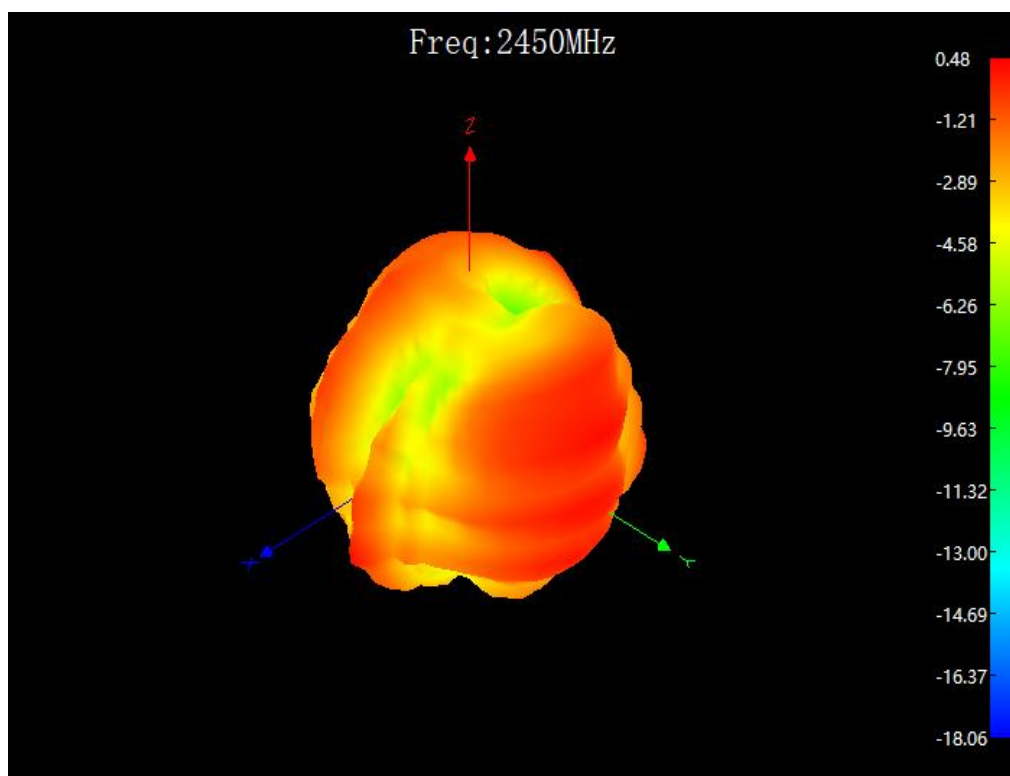
2.1: 天线图片 Antenna Picture



3.1:、驻波图 VSWR



3.2、方向图 directional diagram



3.3、天线效率与增益 Antenna efficiency and gain

效率与增益		
Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	42.07	0.51
2410	46.67	0.09
2420	50.7	0.53
2430	49.09	0.62
2440	48.98	0.51
2450	49.32	0.48
2460	44.98	0.44
2470	46.77	0.51
2480	48.64	0.47
2490	47.42	0.32
2500	46.34	0.28

A

B

C

D

A

B

C

D

1

2

3

4

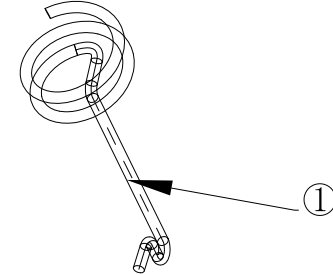
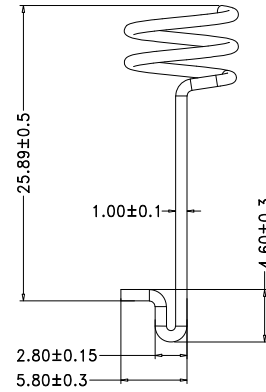
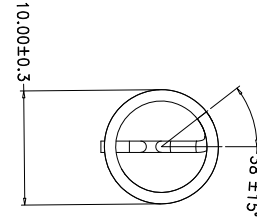
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REVISIONS (试产/量产: A, B, C, D)

REV	ZONE	DESCRIPTIONS	AUTHOR	DATE

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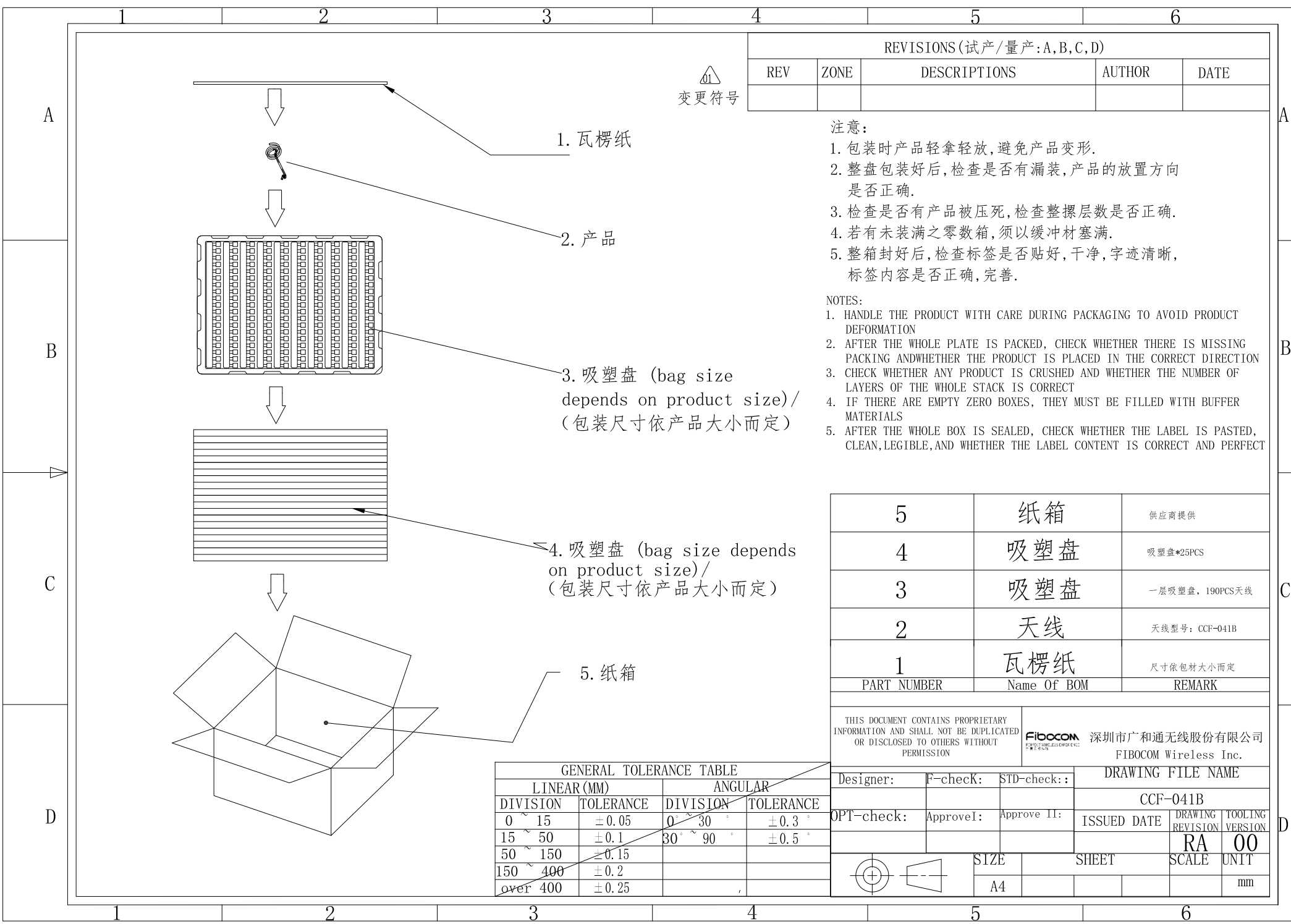


技术要求(Technical requirements):

- 1、未注尺寸以实物为准,详情参照3D图纸;
- 2、螺距2.8MM, 共2.11圈;
- 3、 $\phi 1.0\text{mm}$ SUS304, 预镀镍, 盐雾试验48H需合格。
- 1、The dimensions not indicated are subject to the actual product, please refer to the 3D drawings for details;
- 2、pitch 2.8MM, a total of 2.11 turns;
- 3、 $\phi 1.0\text{mm}$ SUS304, and the salt spray test 48H needs to be qualified.

GENERAL TOLERANCE TABLE			
LINEAR (MM)		ANGULAR	
DIVISION	TOLERANCE	DIVISION	TOLERANCE
0 ~ 15	± 0.05	$0^{\circ} \sim 30^{\circ}$	$\pm 0.3^{\circ}$
15 ~ 50	± 0.1	$30^{\circ} \sim 90^{\circ}$	$\pm 0.5^{\circ}$
50 ~ 150	± 0.15		
150 ~ 400	± 0.2		
over 400	± 0.25		

①		弹簧天线		线径1mm, sus304不锈钢	
PART NUMBER		Name Of BOM		REMARK	
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Designer:		F-check:	STD-check:	DRAWING FILE NAME	
OPT-check:		Approve I:	Approve II:	CCF-041B	
				ISSUED DATE	DRAWING REVISION
					TOOLING VERSION
					RA 00
		SIZE	SHEET		SCALE
		A4			UNIT
					mm



变更符号

REVISIONS (试产/量产:A,B,C,D)

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- 注意:
1. 包装时产品轻拿轻放,避免产品变形.
 2. 整盘包装好后,检查是否有漏装,产品的放置方向是否正确.
 3. 检查是否有产品被压死,检查整摞层数是否正确.
 4. 若有未装满之零数箱,须以缓冲材塞满.
 5. 整箱封好后,检查标签是否贴好,干净,字迹清晰,标签内容是否正确,完善.

- NOTES:
1. HANDLE THE PRODUCT WITH CARE DURING PACKAGING TO AVOID PRODUCT DEFORMATION
 2. AFTER THE WHOLE PLATE IS PACKED, CHECK WHETHER THERE IS MISSING PACKING ANDWHETHER THE PRODUCT IS PLACED IN THE CORRECT DIRECTION
 3. CHECK WHETHER ANY PRODUCT IS CRUSHED AND WHETHER THE NUMBER OF LAYERS OF THE WHOLE STACK IS CORRECT
 4. IF THERE ARE EMPTY ZERO BOXES, THEY MUST BE FILLED WITH BUFFER MATERIALS
 5. AFTER THE WHOLE BOX IS SEALED, CHECK WHETHER THE LABEL IS PASTED, CLEAN,LEGIBLE,AND WHETHER THE LABEL CONTENT IS CORRECT AND PERFECT

5	纸箱	供应商提供
4	吸塑盘	吸塑盘*25PCS
3	吸塑盘	一层吸塑盘, 190PCS天线
2	天线	天线型号: CCF-041B
1	瓦楞纸	尺寸依包材大小而定
PART NUMBER		Name Of BOM
		REMARK

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			RA		00
SIZE		SHEET		SCALE	UNIT
A4					mm

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15 ~ 50	± 0.1	30° ~ 90°	± 0.5°
50 ~ 150	± 0.15		
150 ~ 400	± 0.2		
over 400	± 0.25		