

SPECIFICATION FOR APPROVAL/产品承认书

Customer Name

客户名称: 厦门四信通信科技有限公司

Customer P/N.

客户料号: _____

Product Description

产品描述: FNB600-01-EAU /ANT3 (WiFi-Blue)

FIBOCOM P/N

广和通料号: SXG-001E (RA版)

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年4月7日

Customer Sign and Seal/客户签章

Change the content/变更内容	Version/版本	Date/日期
初版	RA	2023/4/7

Fibocom Wireless Inc.

Floor 10~14th, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

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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)	2400-2500MHz; 5150-5850MHz
Impedance/ 阻抗 (Ω)	50
VSWR/ 驻波比	≤ 3.0
Directional/ 辐射方向	Omni directional
Polarization/ 极化方式	Linear
Peak Gain/ 峰值增益 (dBi)	2400-2500: 4.04
	5150-5850: 4.04

1.2: Mechanical Specification/ 机械指标

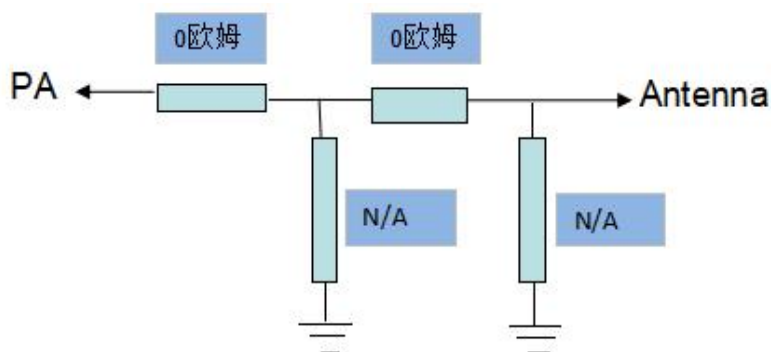
Material/ 材质	PCB
RF Cable Type/ 射频线型号	一代端子
Connector Type/ 连接器类型	N/A

1.3: Environmental Specification/ 环境指标

Operation temp/ 工作温度	-40℃ ~ +85℃
Storage temp/ 储存温度	+19℃ ~ +23℃

3.Test Report/测试报告

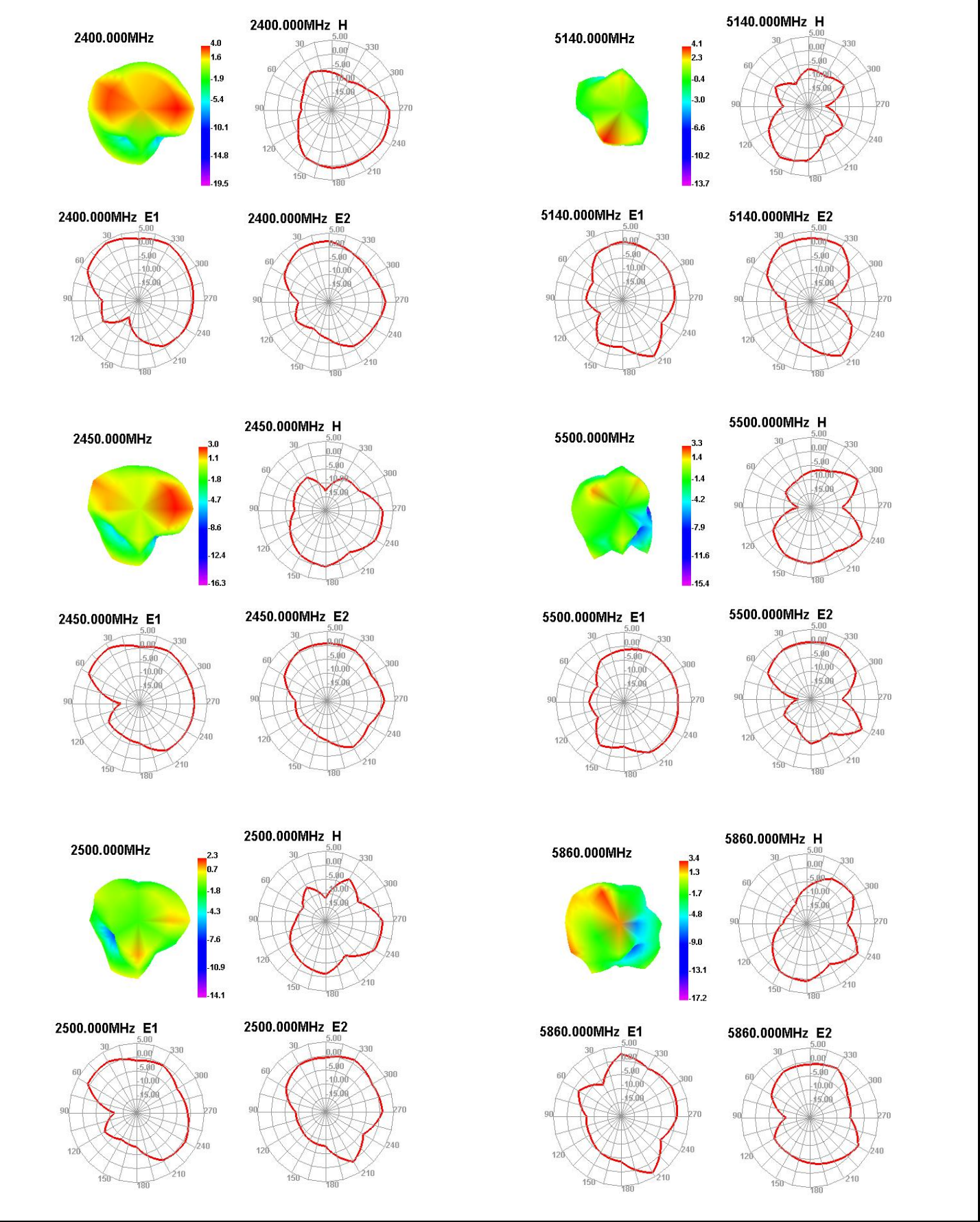
3.1: The matching circuits/匹配电路

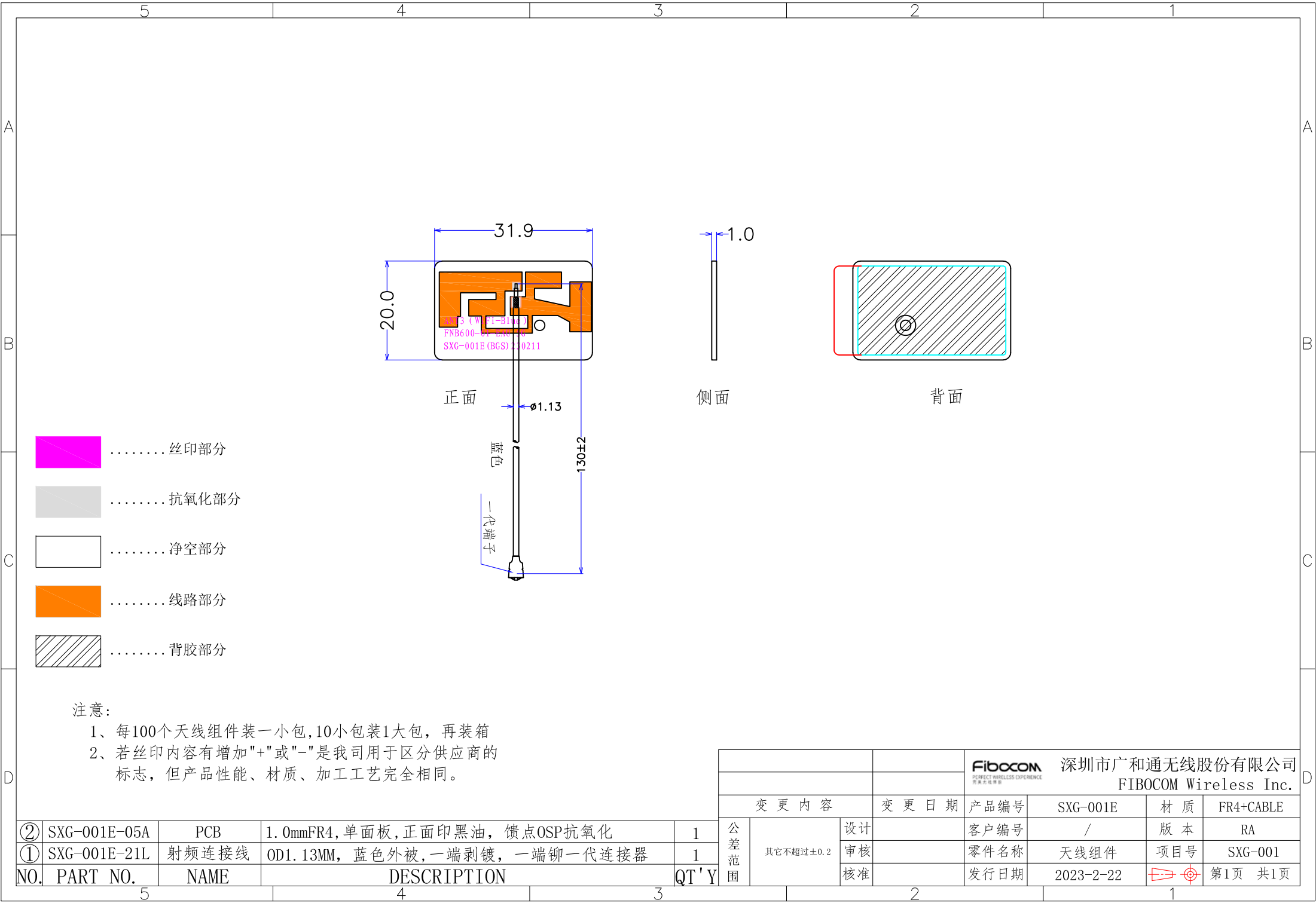


3.2: Antenna efficiency and gain/天线效率与增益

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	70.6	3.99	5400	56.97	3.7
2410	70.11	4.04	5420	59.43	3.87
2420	67.67	3.58	5440	59.61	3.57
2430	68.4	3.68	5460	57.3	3.15
2440	68.55	2.96	5480	56.85	3.18
2450	68.17	2.99	5500	58.57	3.3
2460	65.87	2.45	5520	56.09	3.25
2470	68.74	2.64	5540	60.16	3.19
2480	64	2.37	5560	60.45	3.04
2490	68.16	2.74	5580	61.83	3.47
2500	61.53	2.3	5600	63.66	3.7
5140	59.81	4.08	5620	65.3	3.61
5160	59.66	4.22	5640	64.43	3.71
5180	58.37	4.15	5660	66.5	3.98
5200	58.69	4.03	5680	65.95	3.86
5220	56.9	3.62	5700	62.75	3.53
5240	57.25	3.25	5720	58.69	3.55
5260	52.72	2.74	5740	56.97	3.61
5280	56.54	3.16	5760	53.28	3.3
5300	55.04	3.17	5780	50.58	2.85
5320	52.71	3.25	5800	54.13	3.13
5340	53.84	3.45	5820	53.27	3.63
5360	55.54	3.27	5840	57.6	3.72
5380	57.32	3.3	5860	63.92	3.4

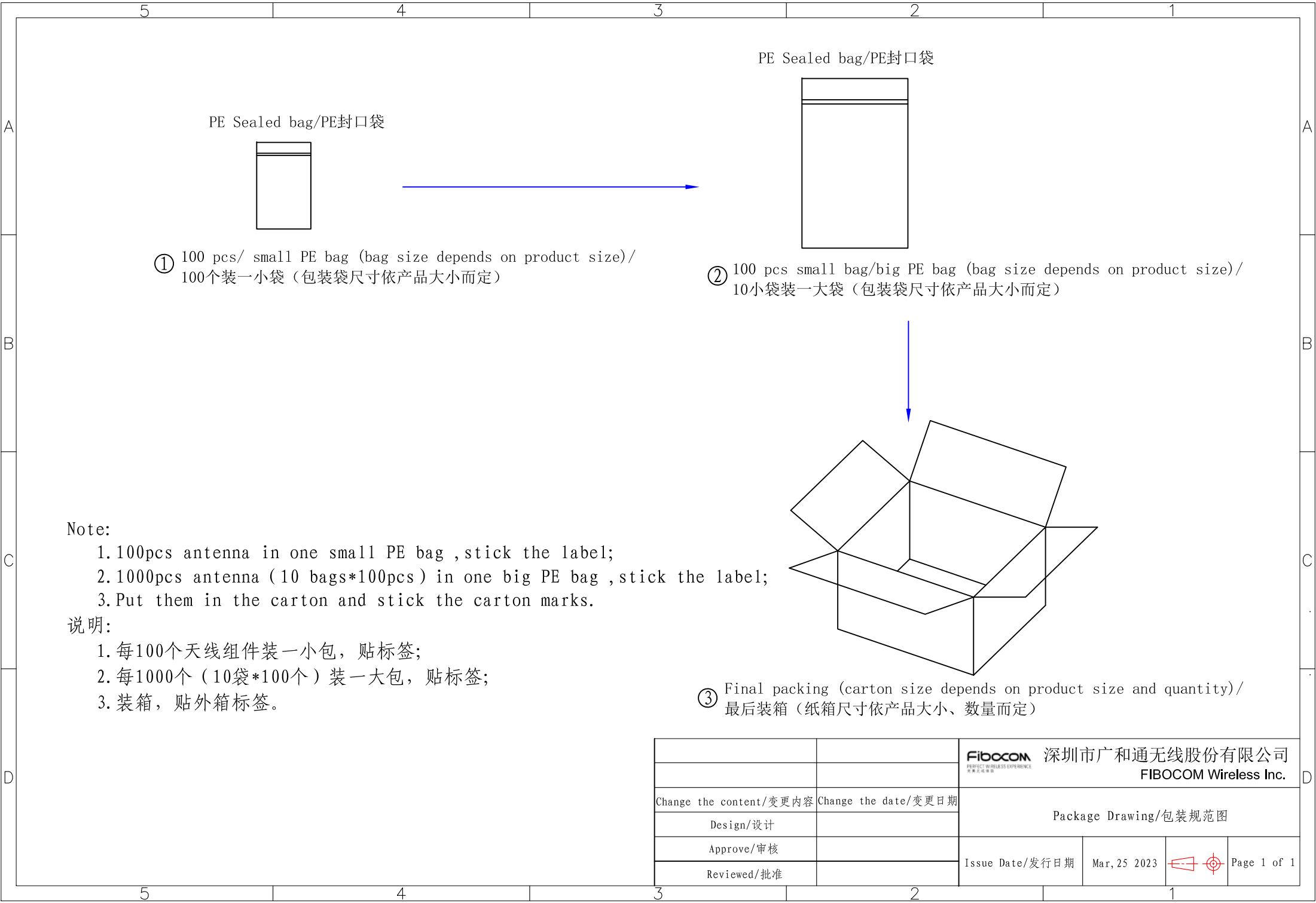
3.3: Directional diagram/方向图





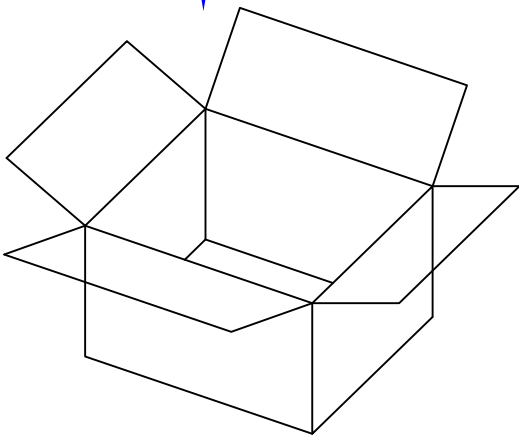
②	SXG-001E-05A	PCB	1.0mmFR4,单面板,正面印黑油,馈点OSP抗氧化	1
①	SXG-001E-21L	射频连接线	OD1.13MM,蓝色外被,一端剥镀,一端铆一代连接器	1
NO.	PART NO.	NAME	DESCRIPTION	QT'Y

		Fibocom 深圳市广和通无线股份有限公司		FIBOCOM Wireless Inc.	
变更内容		变更日期	产品编号	SXG-001E	材质
其它不超过 ± 0.2		设计	客户编号	/	版本
		审核	零件名称	天线组件	项目号
		核准	发行日期	2023-2-22	第1页 共1页



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）

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。

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

6.ROHS Report/ROHS报告

Product Description 产品描述		FNB600-01-EAU /ANT3 （WiFi-Blue）	BGS P/N 博格斯料号		SXG-001E			Declaration Date 宣告日期		2023/4/7
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	FPC	FR4	ND	12	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/文字油墨	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	SZSEC2202766604	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

SPECIFICATION FOR APPROVAL/产品承认书

Customer Name

客户名称: 厦门四信通信科技有限公司

Customer P/N.

客户料号: _____

Product Description

产品描述: FNB600-01-EAU /ANT0 (V2-ANT0-Red)

FIBOCOM P/N

广和通料号: SXG-001A (RA版)

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年4月7日

Customer Sign and Seal/客户签章

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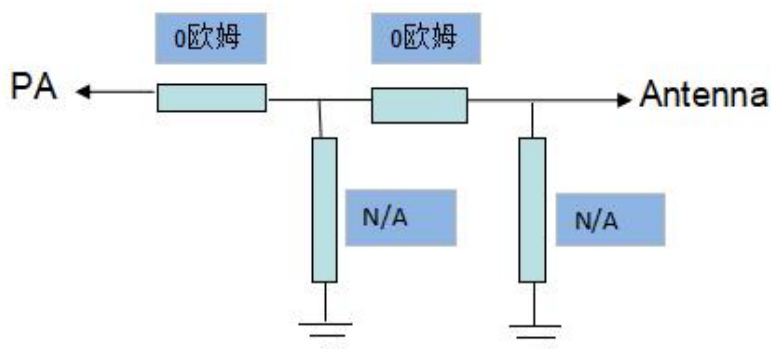
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1. Antenna Specification/ 天线技术参数

1.1: Electrical Specification/ 电气特性	
Freq.Range/ 频段范围 (MHz)	600-960; 1700-2700; 3300-4200
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)	> 3
1.2: Mechanical Specification/ 机械指标	
Material/ 材质	PCB
RF Cable Type/ 射频线型号	四代端子
Connector Type/ 连接器类型	N/A
1.3: Environmental Specification/ 环境指标	
Operation temp/ 工作温度	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage temp/ 储存温度	$+19^{\circ}\text{C} \sim +23^{\circ}\text{C}$

3.Test Report/测试报告

3.1: The matching circuits/匹配电路



3.2: Active test data/有源测试数据

EAU模块天线测试数据															
天线OTA_4G:				天线OTA_5G:											
Band	Channel	TRP	TIS	Band	Channel	TRP	TIS	Band	Channel	TRP	TIS				
LTE1 (10M)	Low	20.43		SA_n1 (10MHz)	Low	20.61		SA_n38 (20MHz)	Mid	20.27					
	Mid	20.46			Mid	20.53			High	20.41					
	High	20.34	-97.62		High	20.87	-95.69		Low	20.61	-92.6				
LTE3 (10M)	Low	20.43		SA_n3 (10MHz)	Low	19.76		SA_n40 (20MHz)	Mid	20.76					
	Mid	19.63			Mid	19.43			High	20.93					
	High	19.51	-96.73		High	19.37	-94.82		Low	20.87	-88.76				
LTE5 (10M)	Low	18.52		SA_n5 (10MHz)	Mid	19.58		SA_n41 (100MHz)	Mid	20.34					
	Mid	18.64			High	19.78			High	20.61					
	High	18.75	-92.58		Low	19.22	-91.28		Low	20.73	-86.43				
LTE7 (10M)	Low	20.17		SA_n7 (10MHz)	Mid	21.34		SA_n77 (100MHz)	Mid	20.43					
	Mid	20.35			High	21.47			High	20.96					
	High	20.31	-95.24		Low	21.37	-94.55		Low	21.31	-87.18				
LTE8 (10M)	Low	18.24		SA_n8 (10MHz)	Mid	18.95		SA_n78 (100MHz)	Mid	20.36					
	Mid	18.64			High	19.19			High	20.57					
	High	18.37	-92.86		Low	19.34	-87.67		Low	21.16	-88.23				
LTE20 (10M)	Low	18.94		SA_n20 (10MHz)	Mid	19.34									
	Mid	18.67			High	19.24									
	High	18.78	-93.48		Low	18.95	-90.08								
LTE28 (10M)	Low	17.67		SA_n28 (10MHz)	Mid	17.28									
	Mid	17.93			High	18.36									
	High	18.16	-93.51		Low	18.35	-90.81								
LTE38 (20M)	Low	19.13													
	Mid	19.34													
	High	19.74	-92.58												
LTE40 (20M)	Low	20.46													
	Mid	19.45													
	High	19.87	-92.74												
LTE41 (20M)	Low	19.74													
	Mid	20.34													
	High	20.66	-92.75												

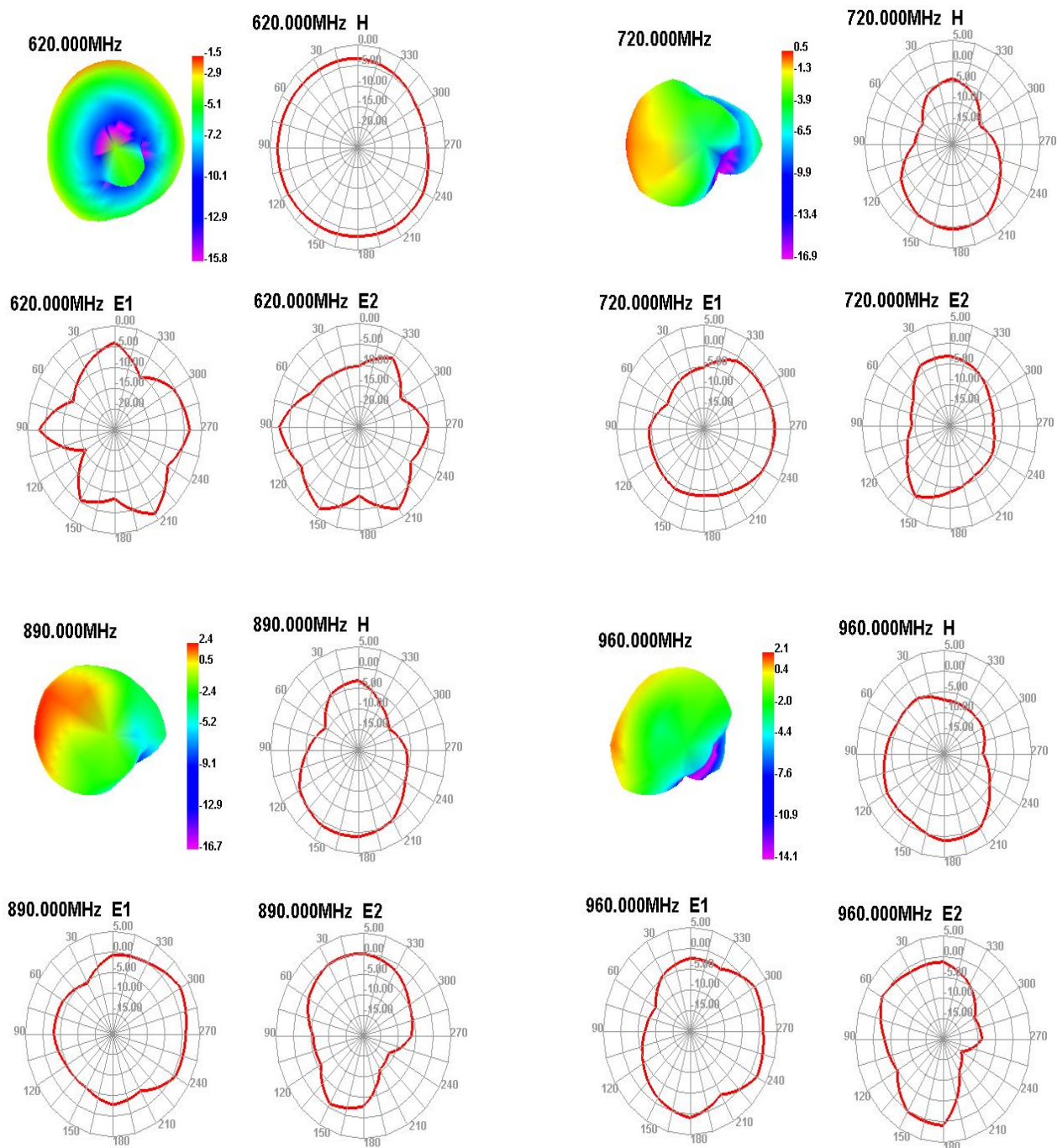
NA模块天线测试数据

天线OTA_4G:				天线OTA_5G:			
Band	Channel	TRP	TIS	Band	Channel	TRP	TIS
LTE2 (10M)	Low	20.64		SA_n2 (10MHz)	Low	21.4	
	Mid	20.57			Mid	21.52	
	High	20.18	-95.48		High	20.67	-91.96
LTE4 (10M)	Low	20.76		SA_n5 (10MHz)	Low	19.22	
	Mid	21.34			Mid	20.66	
	High	21.66	-97.46		High	20.78	-91.16
LTE5 (10M)	Low	21.21		SA_n25 (10MHz)	Low	20.41	
	Mid	20.84			Mid	20.34	
	High	19.53	-94.37		High	20.46	-92.7
LTE12 (5M)	Low	17.7		SA_n41 (100MHz)	Mid	20.96	
	Mid	18.35			High	20.45	
	High	18.5	-94.46		Low	20.38	-86.65
LTE13 (10M)	Mid	19.02	-88.39	SA_n48 (10MHz)	Mid	18.62	
					High	18.57	
					Low	18.62	-94.53
LTE30 (10M)	Mid	19.73	-95.36	SA_n66 (10MHz)	Mid	20.67	
					High	20.73	
					Low	20.58	-94.65
LTE66 (10M)	Low	20.96		SA_n71 (10MHz)	Mid	17.96	
	Mid	21.34			High	18.43	
	High	20.72	-96.72		Low	18.24	-87.72
LTE71 (10M)	Low	17.47		SA_n77 (100MHz)	Mid	20.68	
	Mid	17.52			High	20.73	
	High	17.26	-90.48		Low	20.86	-87.77
LTE41 (20M)	Low	20.62		SA_n78 (100MHz)	Mid	20.62	
	Mid	20.17			High	20.46	
	High	20.34	-92.32		Low	21.9	-88.33
LTE48 (20M)	Low	18.53					
	Mid	18.49					
	High	18.76	-93.33				

3.3: Antenna efficiency and gain/天线效率与增益

ANTO天线无源数据					
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
600	22.15	-2	1700	59.87	4.2
610	25.56	-1.75	1750	46.92	2.09
620	27.71	-1.51	1800	42.84	1.2
630	29.54	-1.35	1850	56.1	2.34
640	37.14	0.09	1900	58.35	2.21
650	35.13	-0.25	1950	45.6	0.67
660	42.36	0.59	2000	41.58	0.99
670	34.97	-0.75	2050	40.3	1.65
680	42.71	0.56	2100	37.78	1.62
690	42.63	0.69	2150	45.51	2.5
700	45.14	1.03	2200	53.95	2.78
710	46.62	1.15	2250	47.7	1.32
720	42.32	0.49	2300	46.08	1.78
730	42.38	0.85	2350	55.21	2.93
740	34.71	0.57	2400	70.39	4.63
750	37.88	0.98	2450	67.74	4.4
760	41.44	0.65	2500	52.52	3.15
770	48.87	0.73	2550	49.62	2.83
780	50.74	1.54	2600	45.57	3.54
790	43.29	1	2650	52.43	4.43
800	39.75	-0.74	2700	59.55	4.86
810	41.68	0	3300	57.26	3.62
820	41.41	0.25	3350	53.62	3.47
830	37.72	0.13	3400	47.65	3.03
840	41.68	0.83	3450	50.62	2.93
850	46.08	1.39	3500	55.68	2.74
860	50.4	1.69	3550	54.9	3.02
870	52.36	2.07	3600	50.86	2.97
880	55.67	2.53	3650	46.61	3
890	55.01	2.42	3700	50.19	3.51
900	50.77	1.89	3750	56.93	3.56
910	48.37	1.53	3800	62.72	3.36
920	54.83	1.96	3850	54.97	2.1
930	56.86	1.96	3900	46.97	1.99
940	58.78	1.98	3950	47.92	2.95
950	58.19	1.79	4000	51.82	3.01
960	55.39	2.05	4050	55.78	3.19
			4100	52.93	2.76
			4150	45.88	2.11
			4200	44.33	2.17

3.4: Directional diagram/方向图



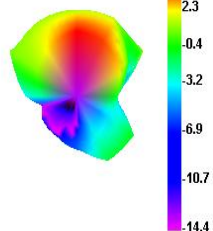
Fibocom

PERFECT WIRELESS EXPERIENCE
完美无线体验

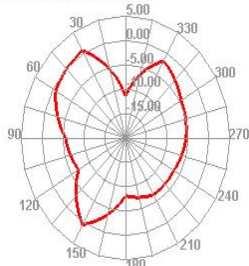
深圳市广和通无线股份有限公司

FIBOCOM Wireless Inc.

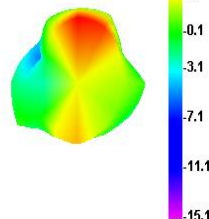
1700.000MHz



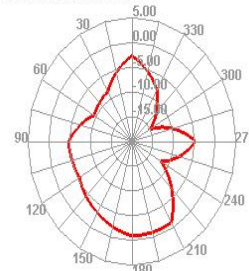
1700.000MHz H



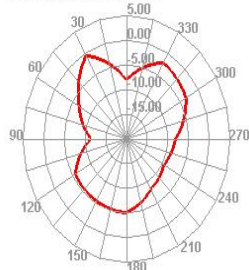
2700.000MHz



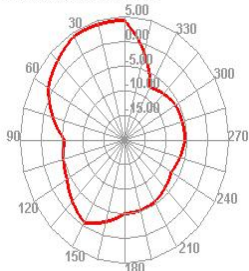
2700.000MHz H



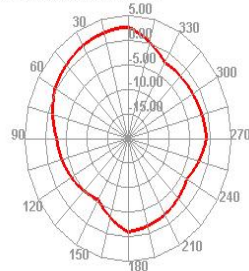
1700.000MHz E1



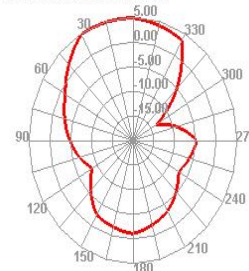
1700.000MHz E2



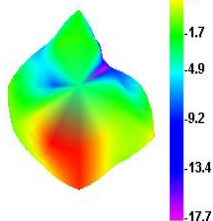
2700.000MHz E1



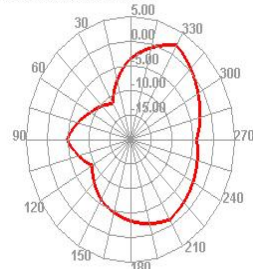
2700.000MHz E2



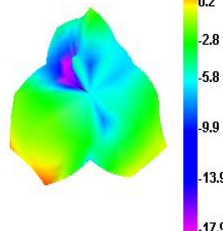
3300.000MHz



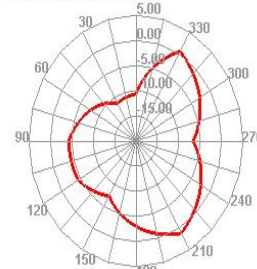
3300.000MHz H



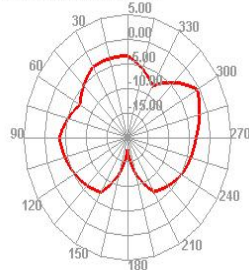
4200.000MHz



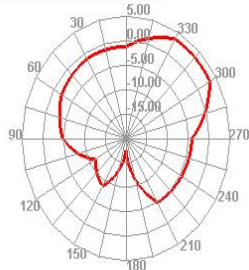
4200.000MHz H



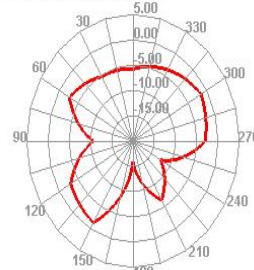
3300.000MHz E1



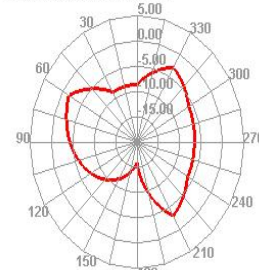
3300.000MHz E2

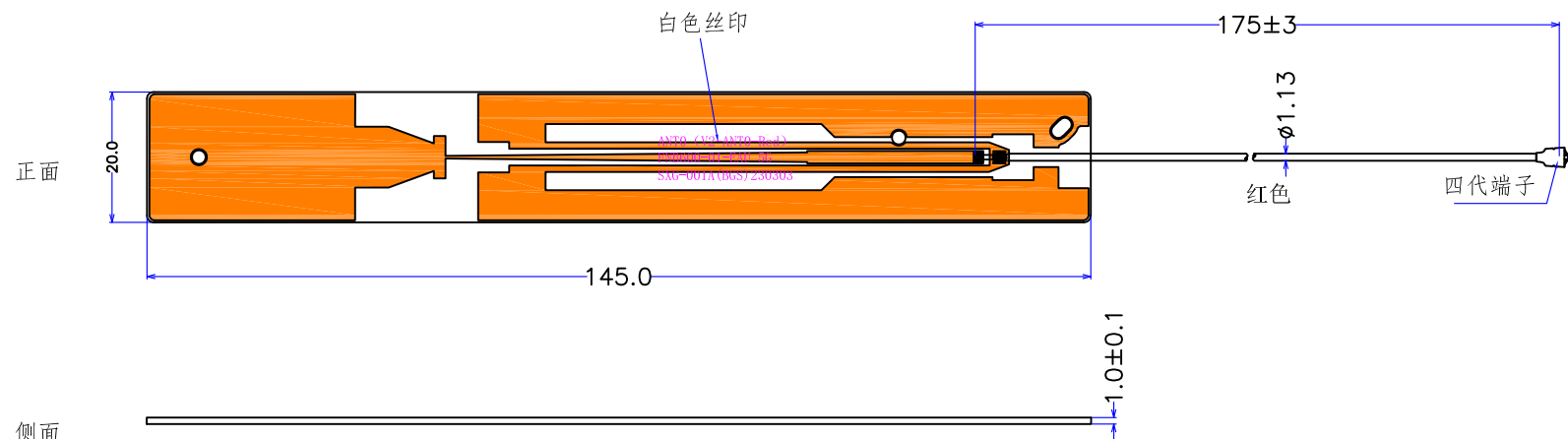


4200.000MHz E1



4200.000MHz E2





側面

背面

.....丝印部分

.....抗氧化部分

.....净空部分

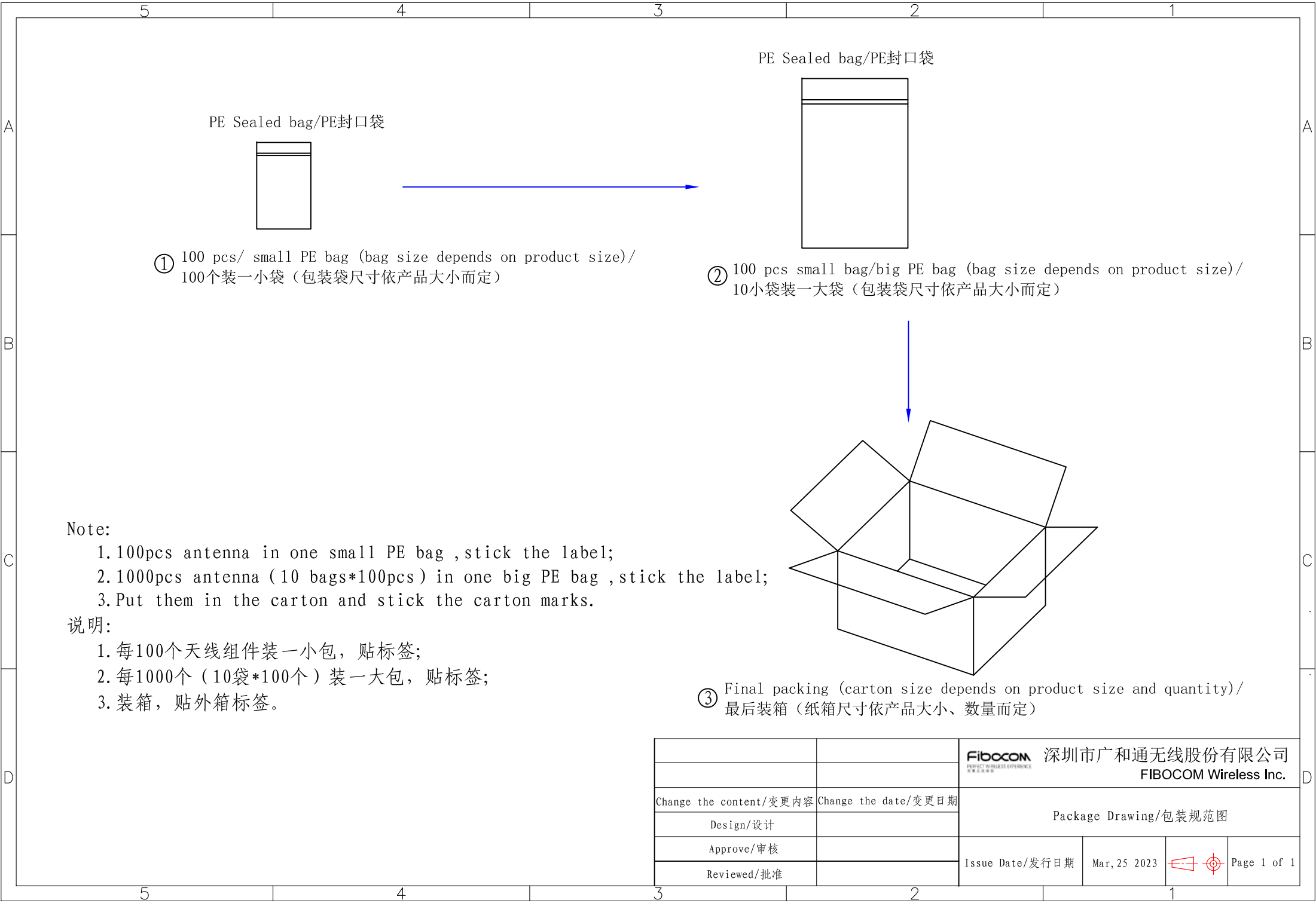
.....线路部分

.....背胶部分

注意:

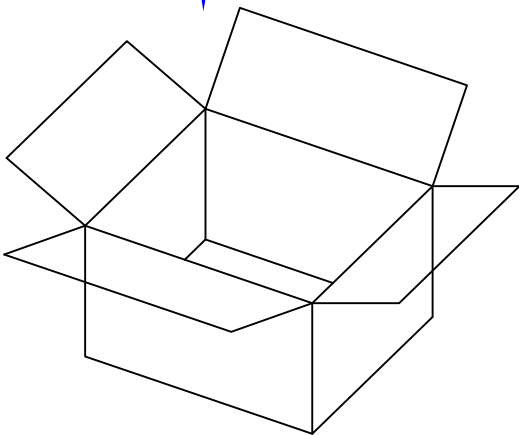
- 1、每100个天线组件装一小包,10小包装1大包,再装箱
- 2、若丝印内容有增加"+"或 "-" 是我司用于区分供应商的标志,但产品性能、材质、加工工艺完全相同。

1、每100个天线组件装1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 PERFECT WIRELESS EXPERIENCE FIBOCOM Wireless Inc.			
					变 更 内 容		变 更 日 期		产品编号	SXG-001A	材 质	FR4+CABLE
② SXG-001A-05A PCB 1.0mmFR4,单面板,正面印黑油,镀点OSP抗氧化 1					公差范围	其它不超过±0.2	设计		客户编号	/	版 本	RA
① SXG-001A-21L 射频连接线 OD1.13MM,红色外被,一端剥镀,一端铆四代连接器 1							审核		零件名称	天线组件	项目号	SXG-001
NO. PART NO. NAME DESCRIPTION QT'Y							核准		发行日期	2023-2-22		第1页 共1页
							2		1			



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）

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。

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

6.ROHS Report/ROHS报告

Product Description 产品描述		FNB600-01-EAU /ANT0（V2-ANT0-Red）	BGS P/N 博格斯科号		SXG-001A			Declaration Date 宣告日期		2023/4/7
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	FPC	FR4	ND	12	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/文字油墨	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	SZSEC2202766604	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

SPECIFICATION FOR APPROVAL/产品承认书

Customer Name

客户名称: 厦门四信通信科技有限公司

Customer P/N.

客户料号: _____

Product Description

产品描述: FNB600-01-EAU /ANT0 (V2-ANT0-Red)

FIBOCOM P/N

广和通料号: SXG-001A (RA版)

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年4月7日

Customer Sign and Seal/客户签章

Change the content/变更内容	Version/版本	Date/日期
初版	RA	2023/4/7

Directory/目录

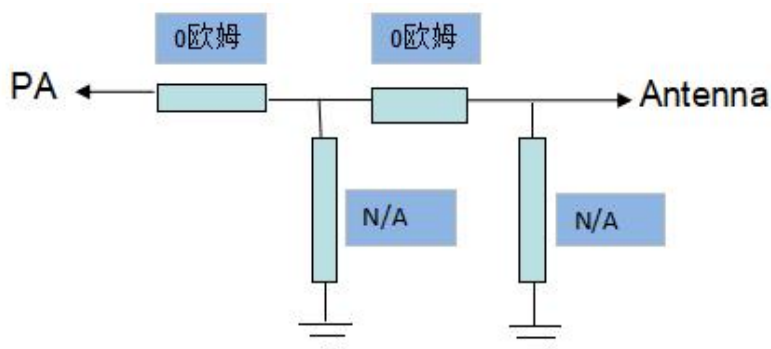
Cover/封面	1
Directory/目录	2
Antenna Specification/天线技术参数	3
Test Report/测试报告	4-8
Finished Product Drawing/成品图	9
Package Drawing/包装图	10
ROHS Report/ROHS报告	11

1. Antenna Specification/ 天线技术参数

1.1: Electrical Specification/ 电气特性	
Freq.Range/ 频段范围 (MHz)	600-960; 1700-2700; 3300-4200
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)	> 3
1.2: Mechanical Specification/ 机械指标	
Material/ 材质	PCB
RF Cable Type/ 射频线型号	四代端子
Connector Type/ 连接器类型	N/A
1.3: Environmental Specification/ 环境指标	
Operation temp/ 工作温度	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage temp/ 储存温度	$+19^{\circ}\text{C} \sim +23^{\circ}\text{C}$

3.Test Report/测试报告

3.1: The matching circuits/匹配电路



3.2: Active test data/有源测试数据

EAU模块天线测试数据											
天线OTA_4G:				天线OTA_5G:							
Band	Channel	TRP	TIS	Band	Channel	TRP	TIS	Band	Channel	TRP	TIS
LTE1 (10M)	Low	20.43		SA_n1 (10MHz)	Low	20.61		SA_n38 (20MHz)	Mid	20.27	
	Mid	20.46			Mid	20.53			High	20.41	
	High	20.34	-97.62		High	20.87	-95.69		Low	20.61	-92.6
LTE3 (10M)	Low	20.43		SA_n3 (10MHz)	Low	19.76		SA_n40 (20MHz)	Mid	20.76	
	Mid	19.63			Mid	19.43			High	20.93	
	High	19.51	-96.73		High	19.37	-94.82		Low	20.87	-88.76
LTE5 (10M)	Low	18.52		SA_n5 (10MHz)	Mid	19.58		SA_n41 (100MHz)	Mid	20.34	
	Mid	18.64			High	19.78			High	20.61	
	High	18.75	-92.58		Low	19.22	-91.28		Low	20.73	-86.43
LTE7 (10M)	Low	20.17		SA_n7 (10MHz)	Mid	21.34		SA_n77 (100MHz)	Mid	20.43	
	Mid	20.35			High	21.47			High	20.96	
	High	20.31	-95.24		Low	21.37	-94.55		Low	21.31	-87.18
LTE8 (10M)	Low	18.24		SA_n8 (10MHz)	Mid	18.95		SA_n78 (100MHz)	Mid	20.36	
	Mid	18.64			High	19.19			High	20.57	
	High	18.37	-92.86		Low	19.34	-87.67		Low	21.16	-88.23
LTE20 (10M)	Low	18.94		SA_n20 (10MHz)	Mid	19.34					
	Mid	18.67			High	19.24					
	High	18.78	-93.48		Low	18.95	-90.08				
LTE28 (10M)	Low	17.67		SA_n28 (10MHz)	Mid	17.28					
	Mid	17.93			High	18.36					
	High	18.16	-93.51		Low	18.35	-90.81				
LTE38 (20M)	Low	19.13									
	Mid	19.34									
	High	19.74	-92.58								
LTE40 (20M)	Low	20.46									
	Mid	19.46									
	High	19.87	-92.74								
LTE41 (20M)	Low	19.74									
	Mid	20.34									
	High	20.66	-92.75								

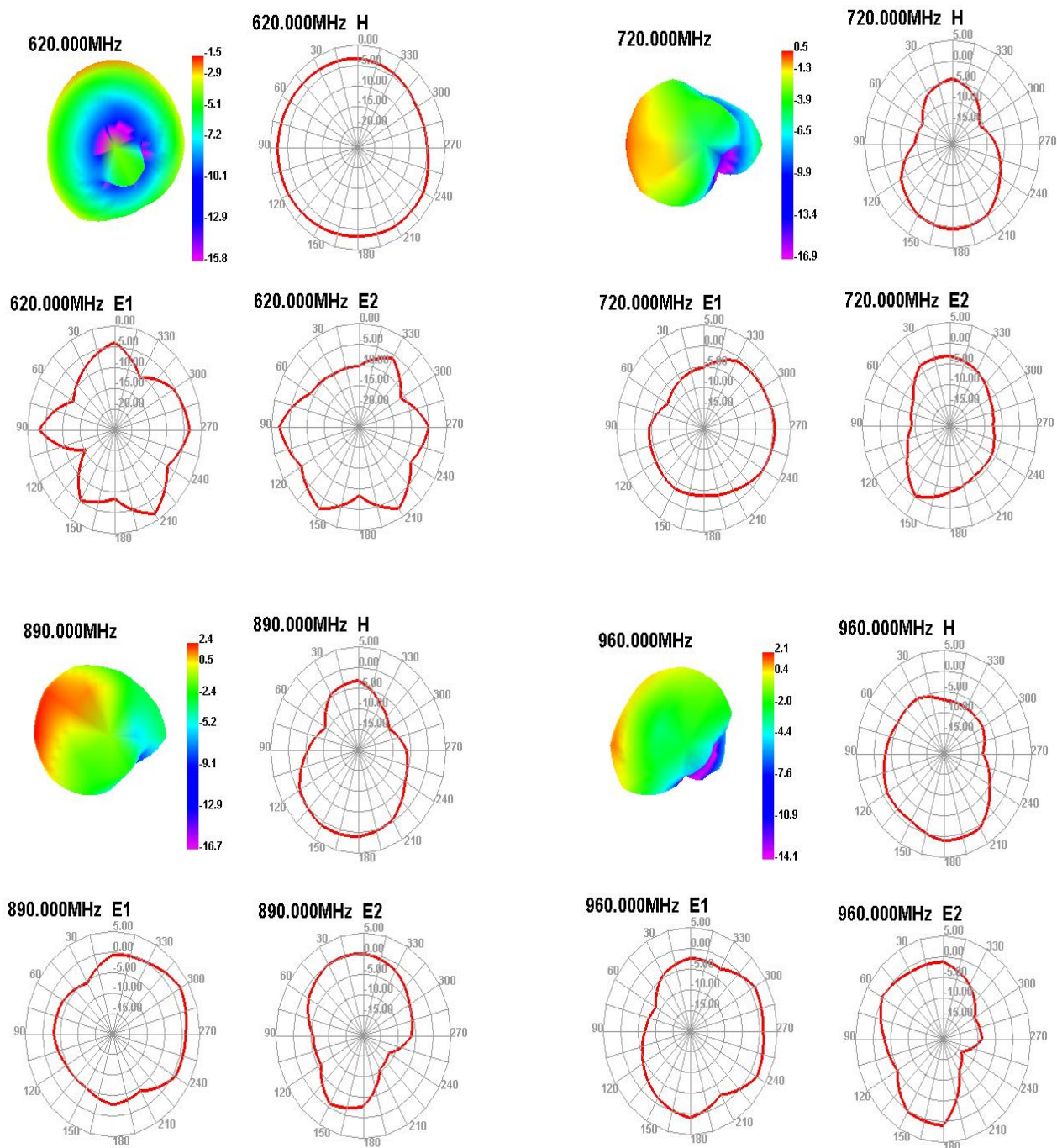
NA模块天线测试数据

天线OTA_4G:				天线OTA_5G:			
Band	Channel	TRP	TIS	Band	Channel	TRP	TIS
LTE2 (10M)	Low	20.64		SA_n2 (10MHz)	Low	21.4	
	Mid	20.57			Mid	21.52	
	High	20.18	-95.48		High	20.67	-91.96
LTE4 (10M)	Low	20.76		SA_n5 (10MHz)	Low	19.22	
	Mid	21.34			Mid	20.66	
	High	21.66	-97.46		High	20.78	-91.16
LTE5 (10M)	Low	21.21		SA_n25 (10MHz)	Low	20.41	
	Mid	20.84			Mid	20.34	
	High	19.53	-94.37		High	20.46	-92.7
LTE12 (5M)	Low	17.7		SA_n41 (100MHz)	Mid	20.96	
	Mid	18.35			High	20.45	
	High	18.5	-94.46		Low	20.38	-86.65
LTE13 (10M)	Mid	19.02	-88.39	SA_n48 (10MHz)	Mid	18.62	
					High	18.57	
					Low	18.62	-94.53
LTE30 (10M)	Mid	19.73	-95.36	SA_n66 (10MHz)	Mid	20.67	
					High	20.73	
					Low	20.58	-94.65
LTE66 (10M)	Low	20.96		SA_n71 (10MHz)	Mid	17.96	
	Mid	21.34			High	18.43	
	High	20.72	-96.72		Low	18.24	-87.72
LTE71 (10M)	Low	17.47		SA_n77 (100MHz)	Mid	20.68	
	Mid	17.52			High	20.73	
	High	17.26	-90.48		Low	20.86	-87.77
LTE41 (20M)	Low	20.62		SA_n78 (100MHz)	Mid	20.62	
	Mid	20.17			High	20.46	
	High	20.34	-92.32		Low	21.9	-88.33
LTE48 (20M)	Low	18.53					
	Mid	18.49					
	High	18.76	-93.33				

3.3: Antenna efficiency and gain/天线效率与增益

ANTO天线无源数据					
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
600	22.15	-2	1700	59.87	4.2
610	25.56	-1.75	1750	46.92	2.09
620	27.71	-1.51	1800	42.84	1.2
630	29.54	-1.35	1850	56.1	2.34
640	37.14	0.09	1900	58.35	2.21
650	35.13	-0.25	1950	45.6	0.67
660	42.36	0.59	2000	41.58	0.99
670	34.97	-0.75	2050	40.3	1.65
680	42.71	0.56	2100	37.78	1.62
690	42.63	0.69	2150	45.51	2.5
700	45.14	1.03	2200	53.95	2.78
710	46.62	1.15	2250	47.7	1.32
720	42.32	0.49	2300	46.08	1.78
730	42.38	0.85	2350	55.21	2.93
740	34.71	0.57	2400	70.39	4.63
750	37.88	0.98	2450	67.74	4.4
760	41.44	0.65	2500	52.52	3.15
770	48.87	0.73	2550	49.62	2.83
780	50.74	1.54	2600	45.57	3.54
790	43.29	1	2650	52.43	4.43
800	39.75	-0.74	2700	59.55	4.86
810	41.68	0	3300	57.26	3.62
820	41.41	0.25	3350	53.62	3.47
830	37.72	0.13	3400	47.65	3.03
840	41.68	0.83	3450	50.62	2.93
850	46.08	1.39	3500	55.68	2.74
860	50.4	1.69	3550	54.9	3.02
870	52.36	2.07	3600	50.86	2.97
880	55.67	2.53	3650	46.61	3
890	55.01	2.42	3700	50.19	3.51
900	50.77	1.89	3750	56.93	3.56
910	48.37	1.53	3800	62.72	3.36
920	54.83	1.96	3850	54.97	2.1
930	56.86	1.96	3900	46.97	1.99
940	58.78	1.98	3950	47.92	2.95
950	58.19	1.79	4000	51.82	3.01
960	55.39	2.05	4050	55.78	3.19
			4100	52.93	2.76
			4150	45.88	2.11
			4200	44.33	2.17

3.4: Directional diagram/方向图



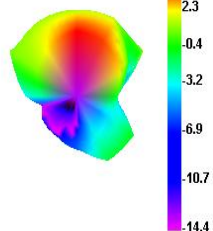
Fibocom

PERFECT WIRELESS EXPERIENCE
完美无线体验

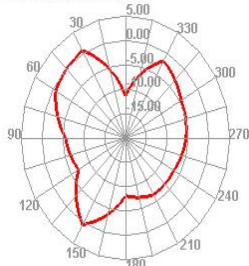
深圳市广和通无线股份有限公司

FIBOCOM Wireless Inc.

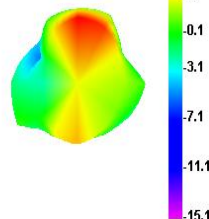
1700.000MHz



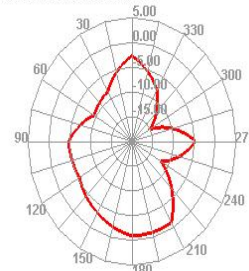
1700.000MHz H



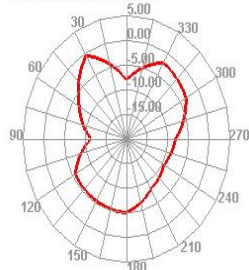
2700.000MHz



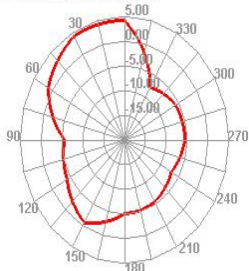
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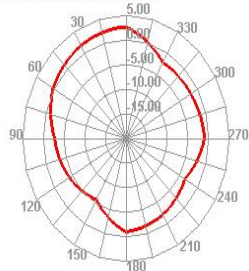
1700.000MHz E1



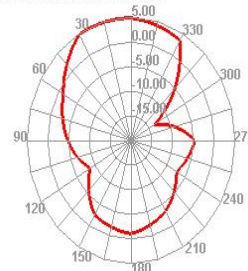
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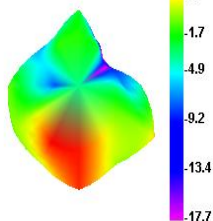
2700.000MHz E1



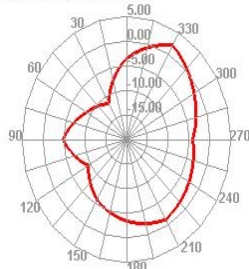
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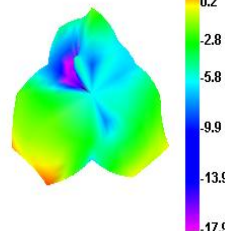
3300.000MHz



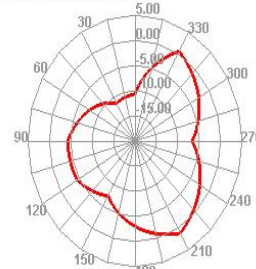
3300.000MHz H



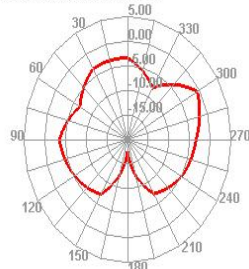
4200.000MHz



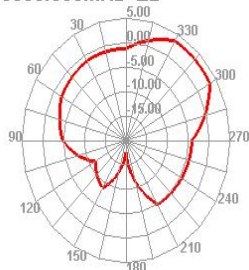
4200.000MHz H



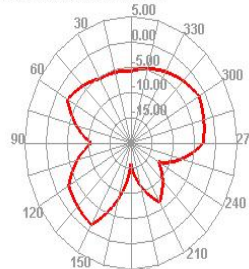
3300.000MHz E1



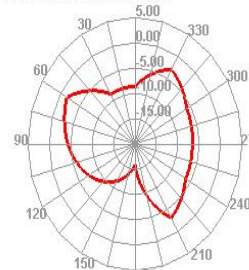
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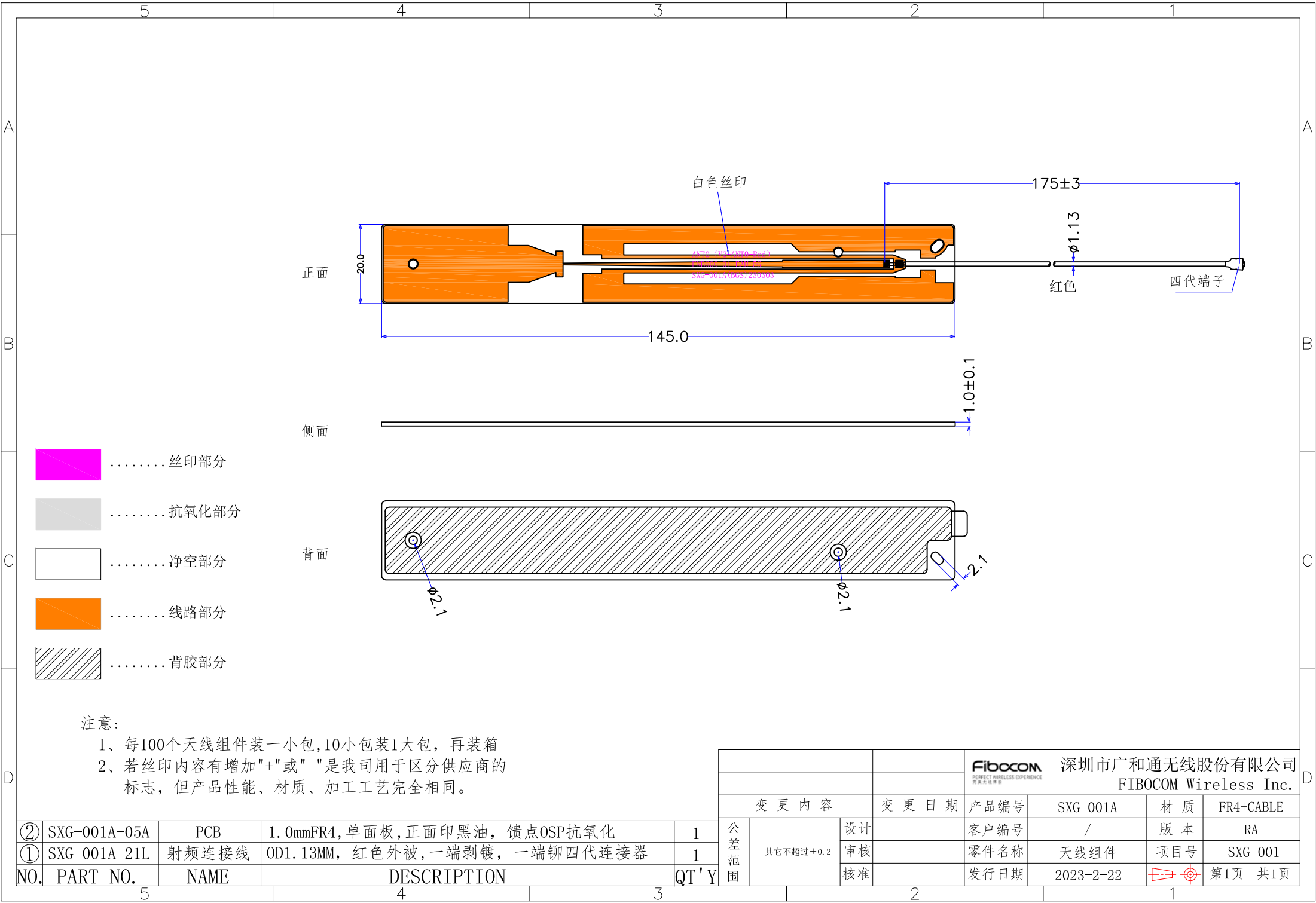


4200.000MHz E1



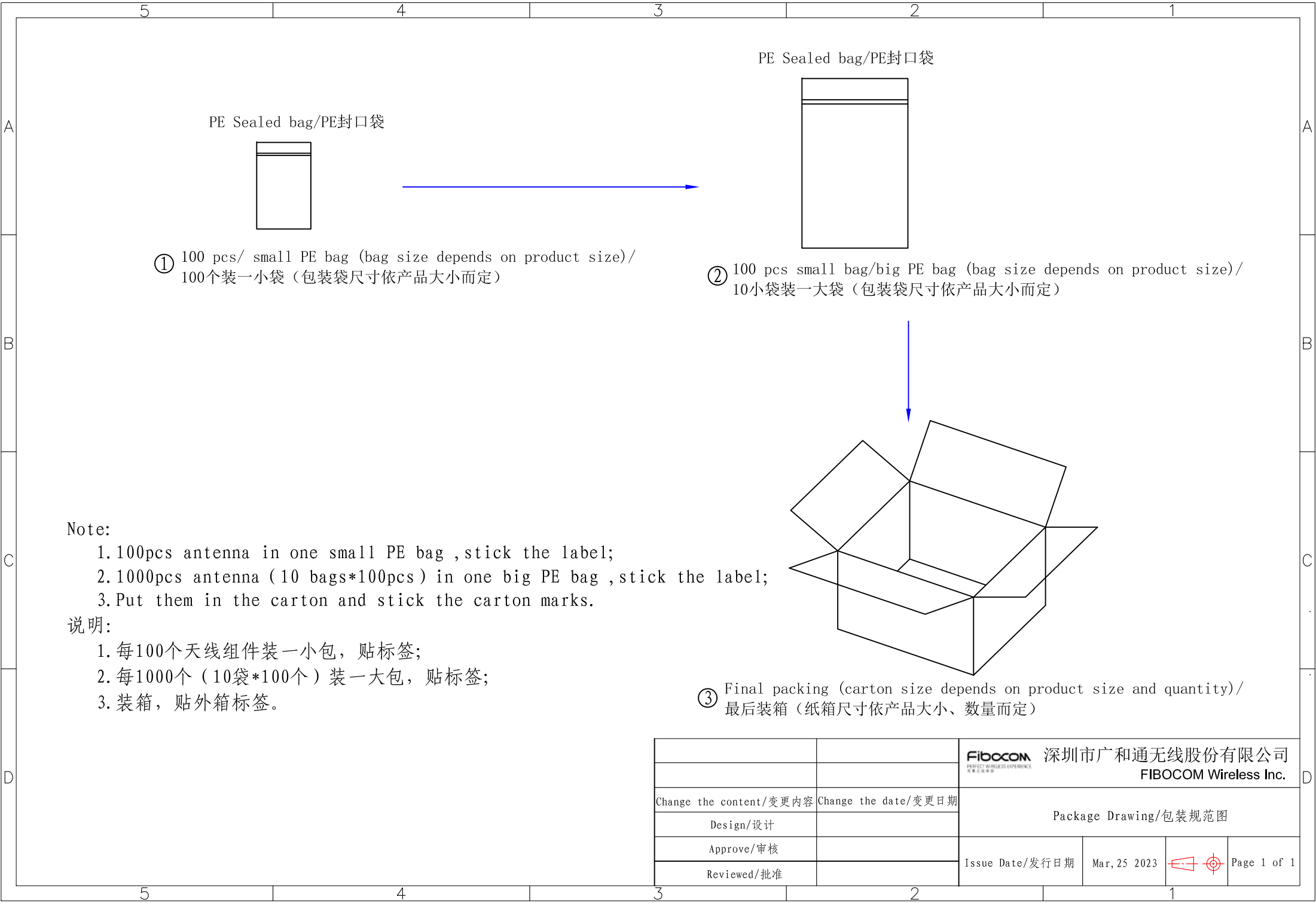
4200.000MHz E2





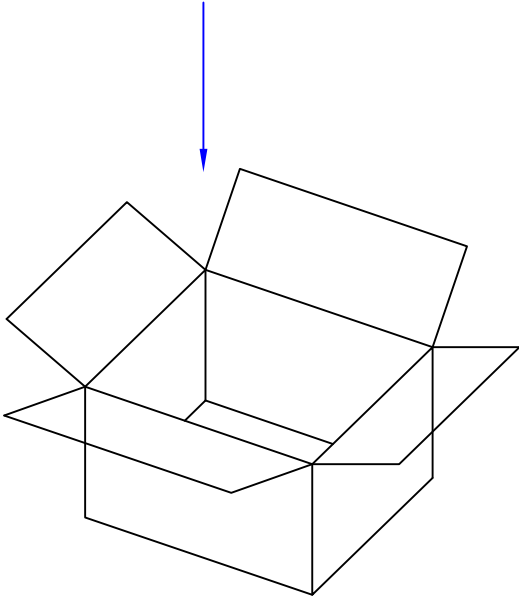
②	SXG-001A-05A	PCB	1.0mmFR4,单面板,正面印黑油,馈点OSP抗氧化	1
①	SXG-001A-21L	射频连接线	OD1.13MM,红色外被,一端剥镀,一端铆四代连接器	1
NO.	PART NO.	NAME	DESCRIPTION	QT'Y

			FIBOCOM PERFECT WIRELESS EXPERIENCE 完美无线体验 深圳市广和通无线股份有限公司 FIBOCOM Wireless Inc.				
变 更 内 容			变 更 日 期	产品编号	SXG-001A	材 质	FR4+CABLE
公差范围	其它不超过±0.2	设计	客户编号	/	版 本	RA	
		审核	零件名称	天线组件	项目号	SXG-001	
		核准	发行日期	2023-2-22		第1页 共1页	



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）

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。

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

6.ROHS Report/ROHS报告

Product Description 产品描述		FNB600-01-EAU /ANT0（V2-ANT0-Red）	BGS P/N 博格斯科号		SXG-001A			Declaration Date 宣告日期		2023/4/7
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	FPC	FR4	ND	12	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/文字油墨	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	SZSEC2202766604	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