

21B Certificate of Recognition (Official seal)

Supplier Name: Sichuan Boantong Communication Technology Co., Ltd.

Material Description: 2.4/5.8G built-in WIFI 2 antennas (FPC 26×8.8) - Black 1.13 low-loss silver-tin
wire - Terminal, L=265mm

Material Code: 004.032.0052527

Acknowledgment Edition: A1

(Note: This acknowledgment is for the use of Guangzhou Yuandong
Smart Sports Technology Co., Ltd.)

Supplier Acknowledgment Section		
Prepared by	Reviewed by	Approved by
Qiu Cuiping	Liu Lihua	Zhou Quan

Source Motion Acknowledgment Column		
Research and Development	Quality	Environment al protection

Document Revision History					
Version	Revision Date	Page No.	Revision Content	Revised By	Effective Date
A0	2021.06.07	16	Initial establishment	Huang Feihui	2021.06.07

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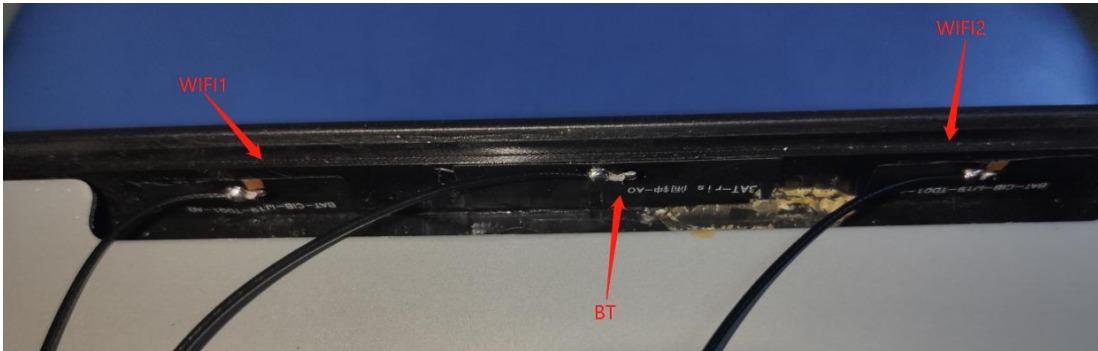
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2.Product actual photo



3.Production process diagram (to be provided)

4.QC Engineering Drawing

 B&T 博安通				产品/规格		内置FPC/PCB通用		编号		202402002		
品质管制流程图（QC工程图）						版本：A0		页次：共3页		编制	伏斌芳	
						发行日期		2024.02.18		审核	曾康	
符号表示：  储存工序  检验工序  作业工序  上下工序连接符  结束工序												
序号	流程图	工序名称	制程说明	生产设备	检验特性	检验项目	管制方法			检验标准（重点）	异常处理	备注
							工具	AQL	责任者			
1		来料检查	/	/	抽检	尺寸外观	卡尺/千分尺/目视	AQL:0.25/0.65按GB2828 S-4/ II级执行	IPC	1.线材：与封样核对颜色、外形；外观要求：编织无损伤、无毛刺、锡尖、分叉、浸锡到位；绝缘无损伤；内导体无损伤，线材无氧化不良，上锡良好。 2.板子：与封样对比外形、颜色、线路、印字清晰，板面无露铜、残缺等不良，手撕耳位良好，尺寸合格； 3.端子：外观、镀层无不良，盐雾试验、插拔力试验、维持力试验合格、弹片无下陷或闭合不良； 4.尺寸按工程图纸要求测量；	退货、挑选或特采	返工产品供应商必须出返工方案，重新挑选再送检，直至合格为止
2		裁线/打端子	将线按照图纸要求裁线，B端打端子	全自动裁线打端子机	抽检	尺寸外观	卡尺/目视/拉力计	2H/次	IPQC	1.A端浸锡良好，无锡尖、锡瘤、连锡等不良，介质无烫伤，编网、介质无损伤。 2.线材型号符合图纸要求，线无破损、色差、折痕、烫伤、压痕等不良。 3.B端打端子，端子与线材按SOP要求组合，大中小爪按要求与线材组合，端子本体无氧化、划痕、变形、破损等不良，镀层无起泡、脱落不良，端子弹片无闭合不良。 4.端子维持力≥1kg。 5.线缆各长度符合图纸要求	返修/报废	
3		首件检验	制造部按正常生产工序组装，组长自检后送5PCS给IPQC检验	冲压机 自动裁线机 网络分析仪	全检	尺寸外观 机械性能 电性能	卡尺/目视/拉力计/网络分析仪	全检	IPQC	1.产品各零部件无用错。 2.板子：与封样对比外形、颜色、线路、印字，板面无露铜、残缺等不良，手撕耳位良好。 3.端子：端子与线材按SOP要求组合，大中小爪按要求与线材组合，端子本体无氧化、划痕、变形、破损等不良，镀层无起泡、脱落不良，端子弹片无闭合不良。 4.线材无破损、色差不良，尺寸无不良。 5.端子维持力≥1kgf。 6.以上由制程检验员检验	重新生产送检	首件确认合格后方可正式生产
4		焊接	按照SOP操作，先焊接芯线再焊接屏蔽	恒温烙铁/锡丝	抽检	外观	目视/拉力计	2H/次	IPQC	1、检验有无虚焊、假焊、冷焊、锡渣、焊点不良。 2.每2H对烙铁头温度进行点检确认。 3.检查焊盘维持力是否符合要求。	返工	锡点不能过大
5		清洁/分板	将板清洁后分板	手动/牙刷	抽检	外观	目视	2H/次	IPQC	1、检查板子表面无较多的堆状松香。 2、检查板子表面无露铜。	返工	
6		电性能测试	按作业指导书要求测试	网络分析仪	全检/抽检	电性能	网络分析仪	FQC全检 IPQC2H/次	FQC IPQC	按照SOP要求作业，测试图形与工程封样一致。	返工	
7		检外观	按要求进行外观检验	/	全检	外观	目视	FQC全检 IPQC2H/次	FQC IPQC	1.产品各零部件无用错。 2.板子：与封样对比外形、颜色、线路、印字，板面无露铜、残缺等不良；手撕耳位良好。 3.端子：端子本体无氧化、划痕、变形、破损等不良，镀层无起泡、脱落不良，端子弹片无闭合不良。 4.线材无破损、色差不良，尺寸无不良。	返工	检出的不良品，返修或报废处理，返修后必须先测电性能再二次送检
8		包装	将外观检验合格的成品按SOP作业指导书及承认书包装要求进行包装	电子称 封口机 打包机	全检	数量/标签	承认书	2H/次	包装员 IPQC	1.包装材料无用错； 2.无短装、混料、标识错误； 3.包装方式是否与承认书包装方式一致； 4.标签格式、内容、条码、二维码扫描信息与标签规范文件要求一致。 5.检查产线称重记录是否如实填写。	重新包装或补数量	返工包装
9		入库检查	按《OQC作业指导书》对成品进行检验	叉车	抽检	外观 尺寸性能 标签数量	目视 卡尺 承认书/图纸 网络分析仪	AQL:0.25/0.65按GB2828 S-4/ II级执行	OQC	1.外观、尺寸、电性能测试及可靠性测试符合承认书、工程封样及品质检验要求则合格入库。 2.包装数量是否符合要求包装，抽检时注意有无短装、混装、标识、标签错误等。	返工	返工产品必须出返工方案，返工后再送检，直至合格为止
10		出货检查	按《成品检验控制程序》对成品进行检验	/	全检	标识包装	目视	OQC抽检	OQC	1.外观、尺寸、电性能测试及可靠性测试符合承认书、工程封样及品质检验要求则合格入库。 2.包装数量是否符合要求包装，抽检时注意有无短装、混装、标识、标签错误等。 3.附出货检验报告等。	返工	返工产品必须出返工方案，返工后再送检，直至合格为止
表单编号：B&T-QA-138 版本：A0 保管期限：5年 表单生效日期：2016年1月25日												

表单编号：B&T-QR-QA-138 版本：A0 保管期限：5年 表单生效日期：2016年1月25日

5. Supplier Test Report

Antenna S11 Parameter Chart



Standing Wave Ratio Data

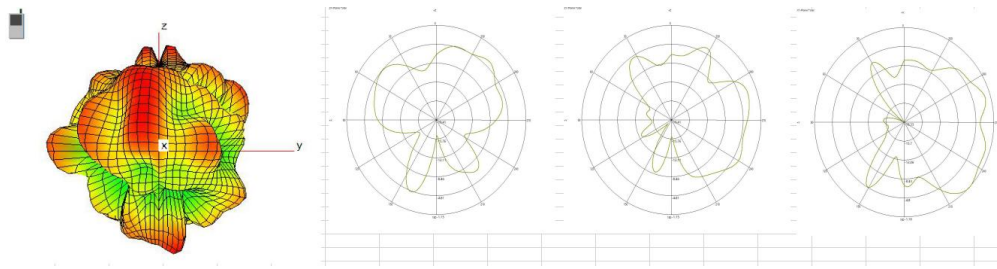
Freq	2400MHz	2450MHz	2500MHz	5150MHz	5500MHz	5850MHz
VSWR	2.11	1.77	2.01	1.30	1.09	1.56

Anechoic Chamber Test Data for Antennas

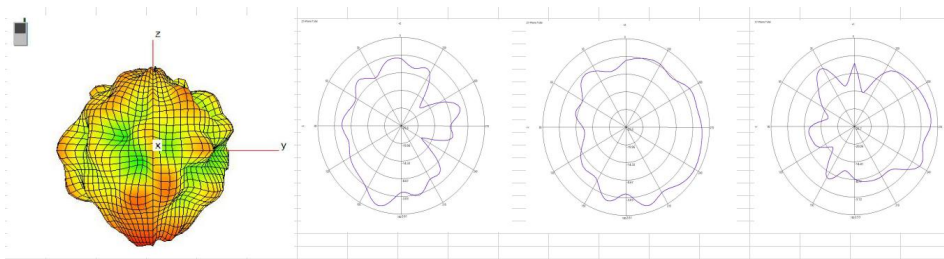
Freq(MHz)	Gain(dB)	Efficiency(%)
2400	1.51	33.1
2410	1.11	31.41
2420	1.55	35.64
2430	1.77	33.79
2440	1.33	31.18
2450	1.18	32.14
2460	1.15	32.62
2470	1.36	32.98
2480	1.27	32.82
2490	1.38	32.03
2500	1.28	31.77
5150	2.77	43.11
5200	2.37	41.55
5250	1.92	39.77
5300	1.82	39.93
5350	2.65	40.89
5400	2.96	41.25
5450	2.68	41.45
5500	2.46	40.22
5550	3.02	39.24
5600	3.57	42.98
5650	3.21	42.75
5700	3.16	43.81
5750	3.20	46.84
5800	3.79	45.64
5850	3.84	42.34

Antenna Radiation Pattern

2450M 3D-E1-E2-H



5500M 3D-E1-E2-H



 博安通通信技术有限公司 B&T TECHNOLOGY Co.,Ltd Full size inspection report																			
Customer Name		德施曼			Product Name		2.4/5.8G built-in WIFI2 antenna (FPC26x8.8) - black 1.13 low loss silver tin wire terminal, L=265mm							date		2025.08.25			
Customer Part Number		/			B&T Part Number		/							material		/			
NO.	size	tolerance		Sample Number												X	measurement tool	judgment	
		upper limit	lower limit	1	2	3	4	5	6	7	8	9	10						
1	26mm	26.2	25.8	26	26	26	26	26	26	26	26	26	26	26	26	vernier caliper	OK		
2	8.8mm	9.0	8.6	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	vernier caliper	OK		
3	265mm	268	262	265	265	265	265	265	265	265	265	265	265	265	265	steel ruler	OK		
4	Below blank																		
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
20																			
Remarks:																			
※ Measuring tools: a. Vernier caliper b. Plug gauge c. Depth gauge d. Tool microscope e. Thickness gauge f. Centimeter caliper g. Torque meter h. Pull testing machine i. Assembly																			
Approved by: Zeng Kang						Reviewed by: Tan Jiexin						Table: Jiang Hongying							
Form Number: B&T-QR-QA-083				Version: A0				Storage period: 3 year				Effective Date: January 2, 2017							

6.Reliability Test Report



Temperature & Humidity Test Report

Customer/Supplier	视源	Order No.	/		
Material Code	AG-041533-2262	Product Name	Internal Antenna		
Test Quantity	5pcs	Test Date	2025. 11. 17-2025. 11. 19		
Standard	GB/T2423. 2-2001	Equipment	Temperature & Humidity Chamber		
Test Type	☐ (material) ☐ (finished product) ☒ (Sample)				
Criteria	1. Appearance requirements before and after the experiment: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc. Non metallic parts should not have discoloration, cracking, deformation, delamination, or other defects; 2. The electrical performance test meets the standard requirements: the standing wave ratio should be consistent with the sealed sample.				
Test Conditions	Temperature: 70 °C, humidity: 80% RH Duration: 48 hours				
Inspection Records					
sample number	1 #	2 #	3 #	4 #	5 #
Appearance before the experiment	qualified	qualified	qualified	qualified	qualified
Appearance after the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing before the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing after the experiment	qualified	qualified	qualified	qualified	qualified
Experimental result judgment	☒ (qualified) ☐ (unqualified)				
test	Jiang Hongying	to examine	Tan Jiexin	approval	Zeng Kang



High and Low Temperature Thermal Shock Test Report

Customer/Supplier	视源		Order No.		
Material Code	AG-041533-2262		Product Name	Internal Antenna	
Test Quantity	5pcs		Test Date	2025. 11. 18-2025. 11. 19	
Standard	GB/T2423. 2-2001		Equipment	Temperature & Humidity Chamber	
Test Type	☐ (material) ☐ (finished product) ☒ (Sample)				
Criteria	1. Appearance requirements before and after the experiment: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc. Non metallic parts should not have discoloration, cracking, deformation, delamination, or other defects; 2. The electrical performance test meets the standard requirements: the standing wave ratio should be consistent with the sealed sample.				
Test Conditions	70 °C for 2 hours, -40 °C for 2 hours, 6 cycles, for a total of 24 hours				
Inspection Records					
sample number	1 #	2 #	3 #	4 #	5 #
Appearance before the experiment	qualified	qualified	qualified	qualified	qualified
Appearance after the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing before the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing after the experiment	qualified	qualified	qualified	qualified	qualified
Experimental result judgment	☒ (qualified) ☐ (unqualified)				
test	Jiang Hongying	to examine	Tan Jiexin	approval	Zeng Kang



Salt spray test report

Customer/Supplier	视源	Order No.			
Material Code	AG-041533-2262	Product Name	Internal Antenna		
Test Quantity	5pcs	Test Date	2025. 11. 18-2025. 11. 19		
Standard	GB/T2423. 2-2001	Equipment	Salt spray testing machine		
Test Type	☐ (material) ☐ (finished product) ☒ (Sample)				
Criteria	The exposed area of the product surface must not have oxidation or rust; Oxidation/rusting area after salt spray test in other areas<1.0%				
Experimental conditions: 1. The collected liquid after atomization with a concentration of $(5 \pm 1)\%$ should not be reused. Place the salt solution before atomization in an environment of $35 \pm 2\text{ }^{\circ}\text{C}$, ensuring that the pH value of the salt solution is neutral (6.5-7.2); The pressure barrel temperature is $47 \pm 1\text{ }^{\circ}\text{C}$, the spray pressure is kept at $1.00 \pm 0.01\text{kgf/cm}^2$, and the spray volume is $1.0\sim 2.0\text{ml}/80\text{cm}^2/\text{h}$; The laboratory temperature is $35 \pm 1\text{ }^{\circ}\text{C}$, and the humidity must be maintained at $>85\%$ RH; 2. Collect the salt spray deposition of continuous atomization for 24 hours at any position in the workspace using a funnel with an area of 80cm^2, and collect an average of $1.0\sim 2.0\text{mL}$ of solution per hour. Testing time: 24 hours					
Inspection Records					
sample number	1 #	2 #	3 #	4 #	5 #
Appearance before the experiment	qualified	qualified	qualified	qualified	qualified
Appearance after the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing before the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing after the experiment	qualified	qualified	qualified	qualified	qualified
Experimental result judgment	☒ (qualified) ☐ (unqualified)				
test	Jiang Hongying	to examine	Tan Jiexin	approval	Zeng Kang

表单编号: B&T-QR-QA-027 版本: B2 保存期限: 3年



Terminal Maintenance Force Test Report

Customer/Supplier	视源	Order No.			
Material Code	AG-041533-2262	Product Name	Internal Antenna		
Test Quantity	5pcs	Test Date	2025.11.19		
Standard	GB/T2423. 2-2001	Equipment	Terminal Maintenance Force Tester		
Test Type	☐ (material) ☐ (finished product) ☒ (Sample)				
Criteria	The terminals are not loose or detached				
Test Conditions	Temperature: 18-30 °C, humidity: ≤ 80% RH Test maintenance force requirement: ≥ 1.0Kgf				
Inspection Records					
sample number	1 #	2 #	3 #	4 #	5 #
Appearance before the experiment	qualified	qualified	qualified	qualified	qualified
Appearance after the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing before the	qualified	qualified	qualified	qualified	qualified
Performance testing after the	qualified	qualified	qualified	qualified	qualified
Experimental result judgment	☒ (qualified) ☐ (unqualified)				
test	Jiang Hongying	to examine	Tan Jiexin	approval	Zeng Kang

表单编号: B&T-QR-QA-027 版本: B2 保存期限: 3年



Terminal Insertion and Insertion Force Test Report

Customer/Supplier	视源	Order No.			
Material Code	AG-041533-2262	Product Name	Internal Antenna		
Test Quantity	5pcs	Test Date	2025.11.19		
Standard	GB/T2423.2-2001	Equipment	Terminal Maintenance Force Tester		
Test Type	☐ (material) ☐ (finished product) ☒ (Sample)				
Criteria	The insertion/extraction force of the terminal meets the requirements, and the terminal has no defects such as detachment or damage				
Test Conditions	Normal temperature and humidity; The terminal and seat are connected normally, with an insertion/extraction force of $\geq 1.0\text{kgf}$;				
Inspection Records					
sample number	1#	2#	3#	4#	5#
Appearance before the experiment	qualified	qualified	qualified	qualified	qualified
Appearance after the experiment	qualified	qualified	qualified	qualified	qualified
Performance testing before the	qualified	qualified	qualified	qualified	qualified
Performance testing after the	qualified	qualified	qualified	qualified	qualified
Experimental result judgment	☒ (qualified) ☐ (unqualified)				
test	Jiang Hongying	to examine	Tan Jiexin	approval	Zeng Kang

表单编号: B&T-QR-QA-027 版本: B2 保存期限: 3年

7. Packaging & Shipping Methods

P/N: AG-041533-2262

Spec: 2.4/5.8G built-in WIFI 2 antennas (FPC 26×8.8) - Black 1.13 low-loss silver-tin wire -
Terminal, L=265mm

contents of label(according to the customer's name, refer to the corresponding finished product label production requirements. If there is no requirement, it will follow the ordinary label requirements.)

内外标签 长 10cm 宽 6cm 左右

The inner and outer labels are about 10cm long and 6cm wide

需方 buyer	*****		
供方 vender	四川博安通信技术有限公司 Sichuan B&T Technology Co., Ltd.		
物料编码 Purchase No	*****		
生产单号 Material No.	*****		
品名规格 Name specification	*****	检验员 QC	**
数量/单位 Q'ty/Unit	*****	日期 Manufacture date	****.*.*
追溯码 Trace code	*****	流水号 Serial number	**

二、装箱要求 Packing requirement

作业说明 Operating description:

1. 内包装 inner packing:

产品 50 PCS/小袋/ small bag

200 PCS/大袋/ big bag

2. 外包装 outer packing:

根据实际包装定数量 Quantity according to actual packing/箱 carton

注意事项 Notice:

- 是否要增设隔板、珍珠棉 Whether to add partitions, pearl cotton;
- 标签的贴附, 如 ROHS 等 Labeling, such as ROHS;

8.禁用物质保证(Certification of Restricted Substance)

GYMGEST

我方保证所提供的物料，完全遵守签核的源控公司质量和环保协议中的各项条款，物料中禁用物含量，符合最新版《有害物质管理规范》中的各项标准。

We hereby certify that all the Material fully conform to the requirements of the YuanKong' s Declaration of Conformity that had been signed, and the maximum concentration value of restricted substance in Materials comply with the latest 《Regulations on the management of hazardous substances.》

Raw Material Test List																	
Customer P/N:				Part Name				Vendor: Sichuan B&T Technology Co., Ltd.				Vendor P/N:					
No	Raw Material Name	Raw Material Model	Raw Material Supplier	Banned Substance Content/ppm										Test Lab	Test Report Number	Test Date	Attachment of third-party test report
				Pb	Cd	Hg	Cr+6	PBBs	PBDEs	(DEHP)	(DBP)	(BBP)	(DIBP)				
1	wire	Tinned wire	YH	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	A2250416468101001	2025/6/20	
2		PEP	YH	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	W3BPC24007471211	2024/12/23	
3	Terminal	Phosphor Bronze	CM	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	CANEC24029407215	2025/1/8	
4		PBT	CM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	A2250134628103008E	2025/3/12	
5	FPC	PI	BYK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	SNABC24028508005	2024/12/20	
6		Tape	BYK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	SNABC24027480901	2024/12/6	
1. If the homogeneous material is nonmetallic, three questions need to be answered: ① Does it contain halogen ? ☐ YES ☒ NO? ② Does it contain red phosphorus ? ☐ YES ☒ No? ③ Does it contain antimony trioxide ? ☐ YES ☒ No? 2. If the above materials or materials belong to paint, ink, adhesive or cleaning agent, please fill in the VOC test report number in the corresponding remarks column, and attach this report to the raw material test list.																	

公司盖章

2024-05-09