

Antenna SPEC

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

Supplier Material Name: Built-in Antenna - 2.4/5G - White 1.13 Tin-Tin Wire -
1st Generation Terminal - L=130mm - FPC - 40.1×10.5mm

Supplier Specifications and Model: 74220804

CVTE Material Number: 004.032.0053169

Acknowledgment Edition: A0-0316

Drawing version number (not required if there is no drawing): A0

Supplier Acknowledgment Column		
Formulate	Review	Approve
Xuzhangjin	Qinlinshu	Liulihua
2026.03.16	2026.03.16	2026.03.16

Address: No. 6 Liankun Road, Huangpu
District, Guangzhou

MB: 020-86154388

Fax:

Address: Floor 5, Building 8, No. 218, Wenwu
Middle Road, Tangxun Street, Economic Development
Zone, Mianyang City, Sichuan Province

MB: 0755-29976700

Fax:

Document Revision History

[illegible]

Antenna SPEC

Customer name: Shi KunCustomer project: CF7HCustomer P/N: 004.032.0053169B&T P/N: 74220804Spec: Built-in Antenna - 2.4/5G - White 1.13 Tin-Tin Wire - 1st GenerationTerminal - L=130mm - FPC - 40.1×10.5mm

Sealed by corporation:

compilation	verify	approval
Xuzhangjin	Qinlinshu	Liulihua

Sealed by customer:

check	verify	approval

Contact information of B&T

Contact person for sales: Longmingguo	MB:18576042661	E-mail: longmg@tech-now.com
Contact person for technical: Qin Linshu	MB:18776877518	E-mail: qinls@tech-now.com
Contact person for Quality: Tanjiexin	MB:18181766292	E-mail: tanjx@tech-now.com

2nd

Contents

1、 Cover·····	1
2、 Directory·····	3
3、 Product drawing·····	4
4、 Performance parameters Table·····	5
5、 Electrical performance test report·····	6~9
6、 Prohibited Substances Guarantee·····	10
7、 packaging specification·····	11
8、 Antenna installation position Diagram·····	12
9、 Reliability test requirements·····	12~13

3、 Product drawing

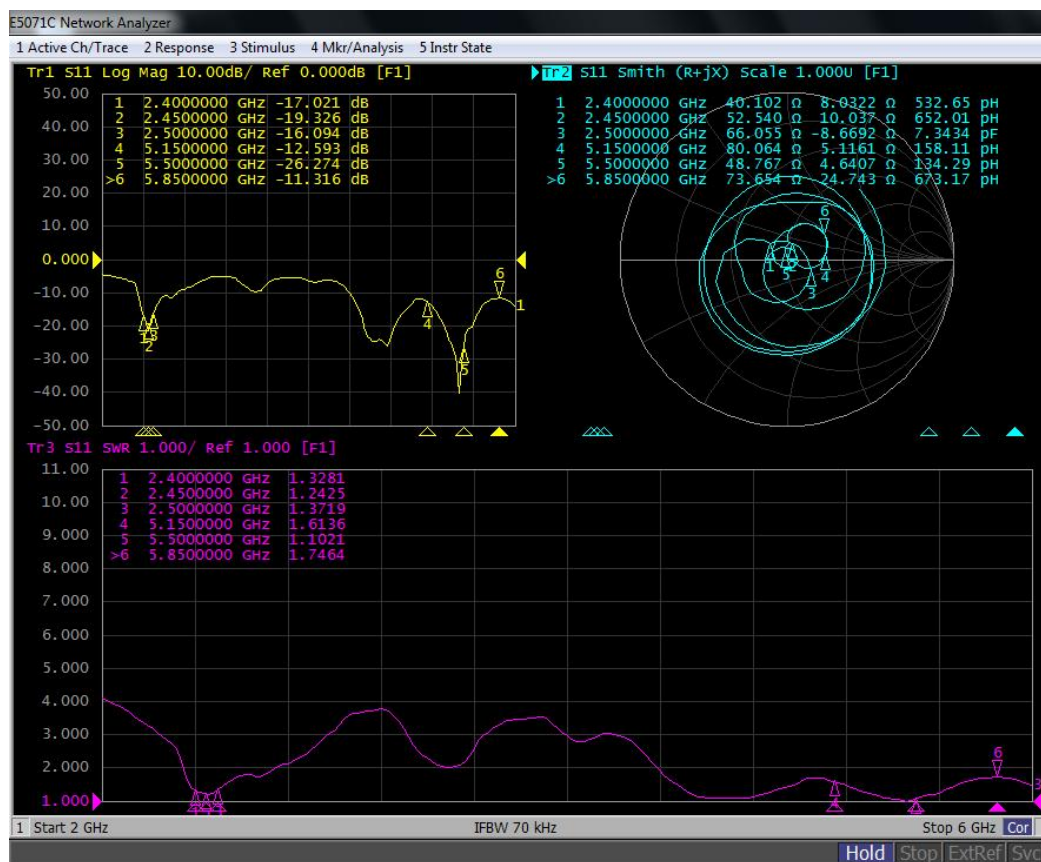
[illegible]

4、Properties &parameter

Electrical parameter	
Freq Range	2400~2500MHz/5150~5850MHz
Characteristic Impedance	50 Ω
VSWR	<2
Gain	5.85dBi
The Max input power	<10w
Polarization mode	Linear polarization
Radiation direction	omnidirectional
Joint type	Terminal
Mechanical parameter	
Length	130 $\pm$ 3mm
Terminal holding force	$\geq$ 0.8kgf
Coaxial cable	White 1.13 Tin Solder Wire
Salt spray test	24H
Environment parameter	
Operating Temp	-30 $^{\circ}$ C~65 $^{\circ}$ C

5、Electrical test report (Whole machine testing)

Antenna S11 parameter diagram



Standing wave ratio data

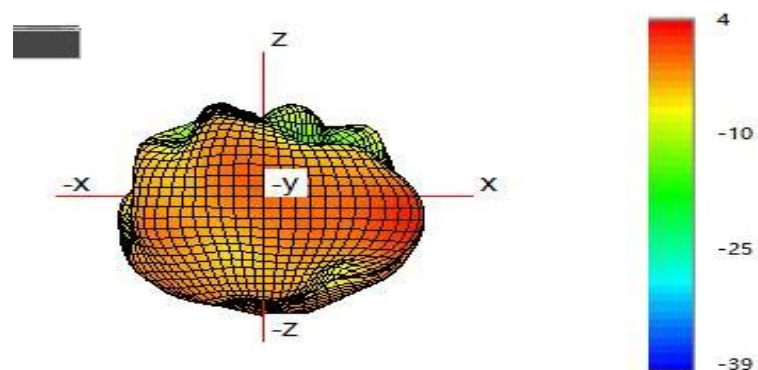
Freq/MHz	2400	2450	2500	5150	5500	5850
VSWR	1.33	1.24	1.37	1.61	1.10	1.75

Antenna darkroom test data

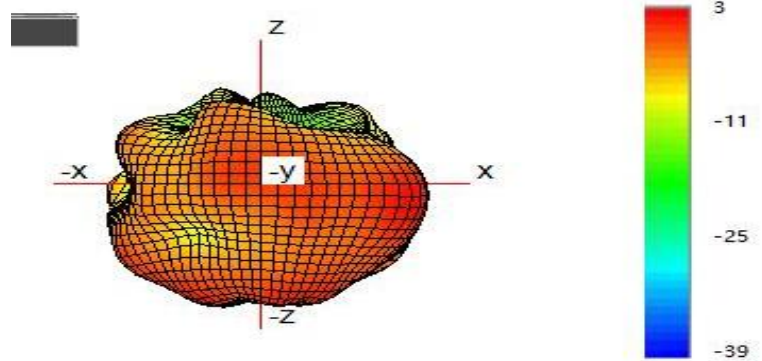
Freq(MHz)	Gain(dBi)	Efficiency(%)
2400	3.87	45.54
2410	3.63	46.06
2420	3.46	46.71
2430	3.14	47.25
2440	2.85	48.50
2450	2.75	51.04
2460	2.82	51.84
2470	3.00	52.49
2480	2.95	52.47
2490	2.83	52.11
2500	2.70	51.49
5150	5.67	61.64
5200	5.85	63.08
5250	5.66	62.54
5300	5.16	62.34
5350	5.20	62.78
5400	4.89	61.48
5450	4.71	61.82
5500	5.12	63.19
5550	5.43	64.31
5600	5.19	63.61
5650	4.73	62.50
5700	4.90	62.49
5750	4.77	61.72
5800	4.85	60.54
5850	4.93	61.81

Antenna direction diagram

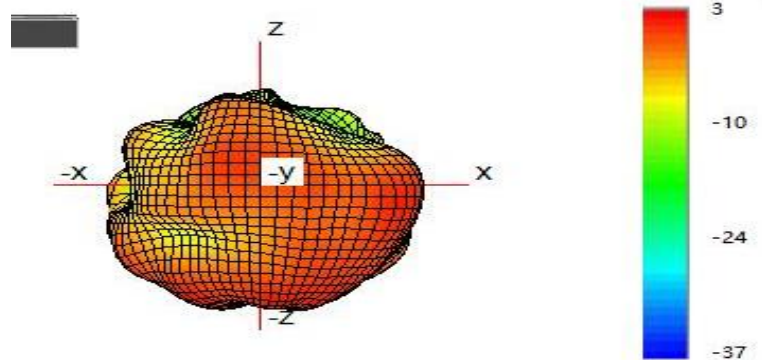
2400MHz



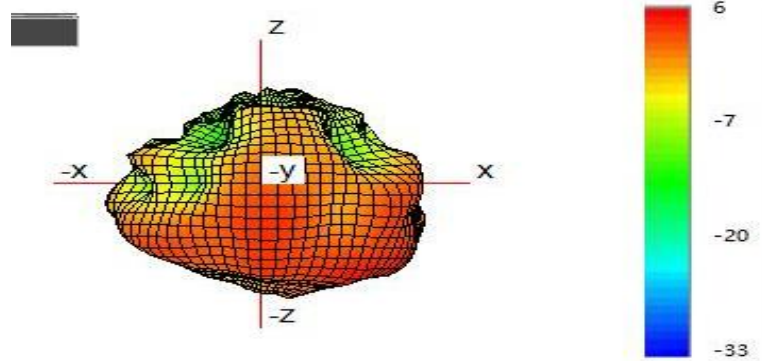
2450MHz



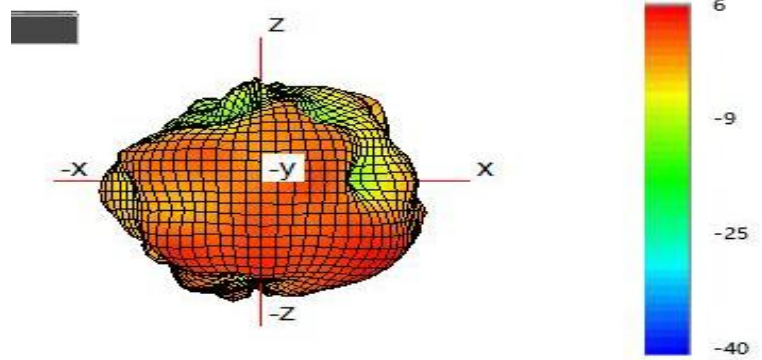
2500MHz



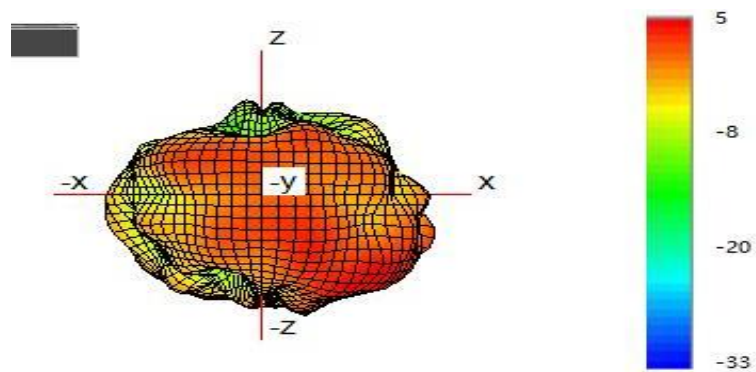
5150MHz



5500MHz



5850MHz



➤ Active OTA test data

样品	设备	测试项	模式	速率 (TRP)	速率 (TIS)	信道	频率 (MHz)	TRP (dbm)	TIS (dbm)	TRP (dbm) 低速率	TIS (dbm) 高速率
CF7H	CMW270	2.4G	B	11	11	1	2412	≥10	≤-72	16.83	-73.42
				11	11	6	2437			16.91	-73.81
				11	11	11	2462			17.95	-74.37
			G	6	54	1	2412	≥8	≤-61	14.76	-64.13
				6	54	6	2437			15.09	-64.26
				6	54	11	2462			15.18	-65.5
			N	6.5	65	1	2412	≥8	≤-58	14.76	-61.74
				6.5	65	6	2437			15.04	-61.85
				6.5	65	11	2462			15.15	-62.09
		5.8G	A	6	54	36	5180	≥8	≤-59	14.75	-71.24
				6	54	149	5745			14.59	-71.35
				6	54	165	5825			13.74	-71.89
			N	6.5	65	36	5180	≥7	≤-57	14.79	-67.44
				6.5	65	149	5745			14.55	-67.81
				6.5	65	165	5825			13.58	-67.21
			ac	6.5	65	36	5180	≥7	≤-57	14.77	-70.65
				6.5	65	149	5745			14.57	-70.97
				6.5	65	165	5825			13.59	-71.19

DUT	设备	Brust type	Brust type	BR Packet type	Pattern type	Channel	Test Item	标准 (B级)	测试值 (dBm)
CF7H	CMW270	Basic rate	Basic rate	DH1	PRBS9	0	TRP	≥0	0.19
						39			0.59
						78			0.18
						0	TIS	≤-80	-80.91
						39			-81.47
						78			-80.62

6、List of Material Composition and Hazardous Substances

GYMGEST

(Certification of Restricted Substance)

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.》



原材料测试清单				Material Test List											Raw		
客户编码 (Customer P/N):				物料名称 (Part Name)				供应商 (Vendor) 四川博安通通信技术有限公司				供应商料号 (Vendor P/N):					
No (序号)	Raw Material Name (原材料名称)	Raw Material Model (原材料型号)	Raw Material Supplier (原材料供应商)	Banned Substance Content/ppm (禁止物质含量/ppm)										Test Lab 检测机构	Test Report Number (检测报告号)	Test Date (测试日期)	第三方测试报告附件
				Pb (铅)	Cd (镉)	Hg (汞)	Cr-6 (六价铬)	PBBs (聚溴化苯)	PBDEs (聚溴化萘)	邻苯二甲酸二(2-乙基己基)酯 (DEHP)	邻苯二甲酸二丁酯 (DBP)	邻苯二甲酸丁基酯 (BBP)	邻苯二甲酸二异丁酯 (DIBP)				
1	1.13线	FEP	微波通	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	WCEPC29000015615	2025/1/19		
		镀锌铜线	微波通	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	A2250416468101001	2025/6/20		
2	端子	磷青铜	彩类	4	ND	ND	ND	ND	ND	ND	ND	ND	SGS	CANBC25027363005	2025/11/13		
		PBT	彩类	2.99	ND	ND	ND	ND	ND	ND	ND	ND	CTI	ETK25703519	2025/7/27		
3	PPC	PI	博永凯	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	SHABC25031840901	2025/12/6		
		背胶	博永凯	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	SZKBC25003068038	2025/8/28		
1.上述均质材料如果属非金属, 还需回答三个问题: ①是否含卤素: ☐ 含有YES ☒ 不含有NO ②是否含红磷: ☐ 含有YES ☒ 不含有NO ③是否含三氧化二锑: ☐ 含有YES ☒ 不含有NO																	
2.上述材料或材质如果属于涂料、油墨、胶粘剂或清洗剂, 请将其VOC测试报告编号填写到对应备注栏里, 同时将此报告附于原材料检测清单下面																	

PACKING CRITERION

P/N: 74220804

Spec: Built-in Antenna - 2.4/5G - White 1.13 Tin-Tin Wire - 1st Generation Terminal - L=130mm - FPC - 40.1×10.5mm

一、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、Packing requirement

Operating description:

1. inner packing:

50PCS per small bag

200PCS per large bag

2. outer packing:

Quantity according to actual packing/carton

Notice:

- Whether to add partitions, pearl cotton;
- Labeling, such as ROHS;

9、 Antenna installation position Diagram



10、 Reliability test requirements

Serial Number	Reliability Test Name	Experimental conditions	Judgment criteria
1	Constant temperature and humidity test	High temperature: 70 °C, humidity: 80% RH for 24 hours; Low temperature -40 °C for 24 hours; continuous for 48 hours in total;	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 discolor, crack, deform, or peel off; The electrical performance test meets the standard requirements;
2	High and low temperature thermal shock test	70 °C for 2 hours, -40 °C for 2 hours, 6 cycles, for a total of 24 hours;	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 discolor, crack, deform, or peel off; The electrical performance test meets the standard requirements;

3	Salt spray test	Prepare a $(5 \pm 1)\%$ NaCl solution to ensure that the pH value of the salt solution is neutral (6.5-7.2); The pressure barrel temperature is 47 ± 1 °C, the spray pressure is kept at 1.00 ± 0.1 kgf/cm², and the spray volume is 1.0~2.0ml/80cm²/h; The experiment lasted for 24 hours;	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%
4	Terminal holding force test	Normal temperature and humidity; Test maintenance force requirement: ≥ 0.8 kgf;	The terminals and cables are not loose or detached; The electrical performance test after testing meets the standard requirements;
5	Terminal insertion and extraction force test	Normal temperature and humidity; The terminal and seat are connected normally, with an insertion force of 0.8~3kgf/extraction force of ≥ 0.8 kgf;	The insertion/extraction force of the terminal meets the requirements, and the terminal has no defects such as detachment or damage;