



# APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	WIFI Bluetooth 2.4G /5.8G black FPC built-in antenna, 1.13 black L=125MM	
P/ N	YJC-6N125-B27	
APPROVAL REV.	A0	
DELIVERY DATE	2022-11-08	
PREPARED BY	Wu Jiaxiong	
CHECKED BY	Wen Feng Fang	
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Customer Approved		
Approved By	Checked By	Prepared By

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## Resumer:

Version	Change contents and reasons	Date	Issue
A0	NEW	November 08, 2022	



## The antenna's floor plan:

Autodesk 教育版产品制作						1																																				
A	B	C	D	E	F	G																																				
5	6	1	2	4	5	6																																				
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<p>Requirement:</p> <ol style="list-style-type: none"> <li>1. The finished product must be tested 100% through OK</li> <li>2. The finished product shall be subject to 100% full inspection OK.</li> <li>3. Adopt environmental protection process. Finished product</li> <li>4. Meet ROHS requirements</li> <li>5. No tolerance shall be subject to general tolerances</li> <li>6. * mark the dimensions with emphasis</li> </ol>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">FREQUENCY RANGE</td> <td colspan="5">2400-2500/5150-5850 MHz</td> </tr> <tr> <td>Gain</td> <td colspan="5">3dB1</td> </tr> <tr> <td>VSWR</td> <td colspan="5">&lt;1.92:1</td> </tr> <tr> <td>Polarization</td> <td colspan="5">Linear, Vertical</td> </tr> <tr> <td>Max power rating</td> <td colspan="5">50W</td> </tr> <tr> <td>Impedance</td> <td colspan="5">50ohm</td> </tr> </table>	FREQUENCY RANGE	2400-2500/5150-5850 MHz					Gain	3dB1					VSWR	<1.92:1					Polarization	Linear, Vertical					Max power rating	50W					Impedance	50ohm				
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## Antenna technical parameters and environmental testing:

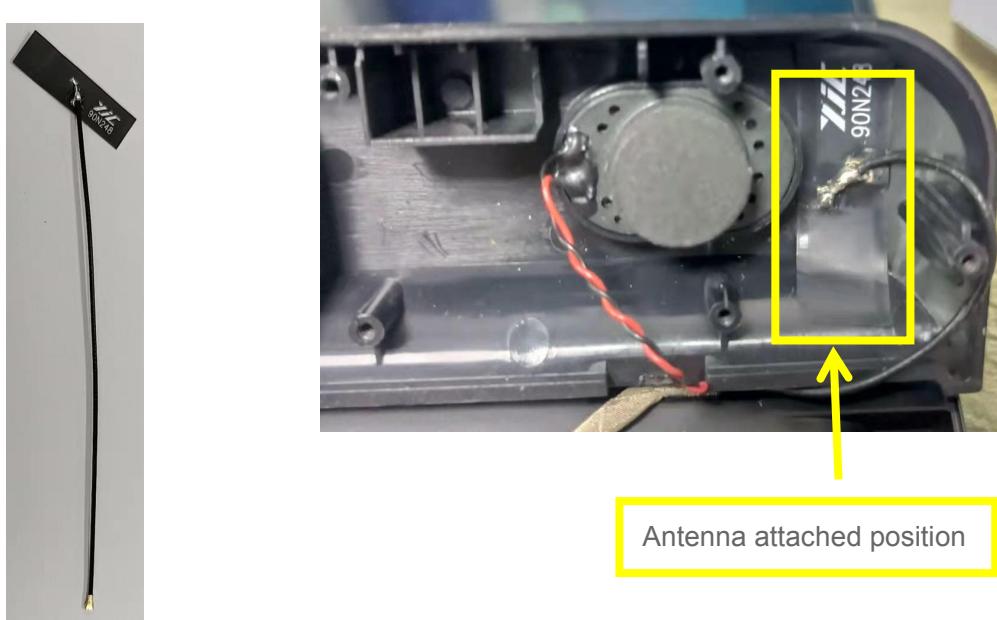
Electrical parameters of electrical apparatus			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500/5150-5850 MHz	Cable Color	black
VSWR	<1.92:1	Input connector	XD-4
Input Impedance	50 Ω	Cable length	125 mm
Direction	All	Working Temperature	-20°C~+70°C
Gain	3.0 dBi	Working Humidity	20%~80%

## Environmental performance test:

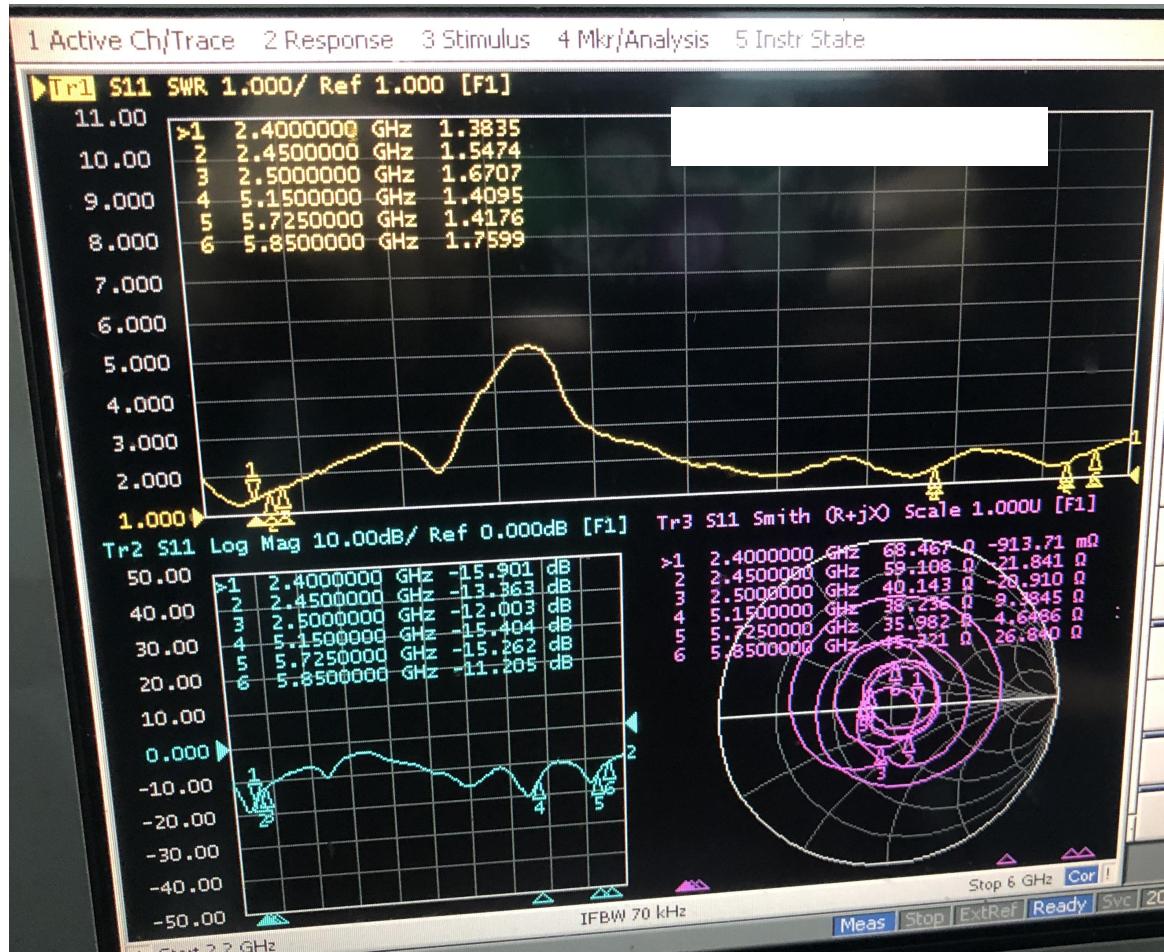
project	test condition	standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows: 1. Temperature is - 20 °C ~ + 70 °C 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical properties is normal
high and low temperature test	Between 70 °C and -20 °C for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 °C. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical properties is normal
fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical properties is normal



Physical picture of antenna and attach location picture:



Antenna performance test chart:





## Antenna active test data:

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	10.59
2	TRP	WIFI_B (11M)	6	2437	9.3
3	TRP	WIFI_B (11M)	11	2462	10.19
4	TIS(EIRP)	WIFI_B (11M)	1	2412	-83.63
5	TIS(EIRP)	WIFI_B (11M)	6	2437	-82.65
6	TIS(EIRP)	WIFI_B (11M)	11	2462	-83.69
7	TRP	WIFI_G (6M)	1	2412	9.9
8	TRP	WIFI_G (6M)	6	2437	11.9
9	TRP	WIFI_G (6M)	11	2462	12.14
10	TIS(EIRP)	WIFI_G (54M)	1	2412	-69.46
11	TIS(EIRP)	WIFI_G (54M)	6	2437	-71.1
12	TIS(EIRP)	WIFI_G (54M)	11	2462	-71.19
13	TRP	WIFI_N_ISM (6.5M)	1	2412	10.02
14	TRP	WIFI_N_ISM (6.5M)	6	2437	11.53
15	TRP	WIFI_N_ISM (6.5M)	11	2462	11.73
16	TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-64.77
17	TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-65.29
18	TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-65.34



<b>产品规格 Product Type</b>		<b>1.13 单银线</b>					
<b>结构图 Structure Drawing</b>							
<b>结构特性 Structure Characteristics</b>							
结构 Structure	项目 Item	<b>标准值 Standard Value</b>					
内导体 Inner Conductor	材质 Material	镀银铜线 Silver plated copper wire					
	构成(根/mm/Composition(No./mm)	7/0.08±0.005					
	标称外径 Nom.Dia(mm)	Φ0.24±0.01					
绝缘层 Insulation	材质 Material	聚全氟乙丙烯/FEP					
	标称外径 Nom.Dia(mm)	Φ0.7±0.03					
外导体 Outer Conductor	材质 Material	镀锡铜线 Tinned copper					
	形式 Form	编织/Weaving					
	遮蔽率/ Shielding rate	≥90%					
	标称外径 Nom.Dia(mm)	Φ0.92±0.03					
护套 Jacket	材质 Material	聚全氟乙丙烯/FEP					
	标称外径 Nom.Dia(mm)	Φ1.13±0.05					
<b>电气性能 Electrical Characteristics</b>							
项目 Item	标准值 Standard Value	项目 Item	频率 Frequency	标准值 Standard Value			
阻抗 Impedanc ( Ω )	50±3	衰减 Attenuation@20 °C (dB/100m)	1GHz	≤2.23			
电容 Capacitance(pF/m)	98		2GHz	≤3.15			
抗拉强度 Tensile strengthkgf/mm <sup>2</sup>	1.76		3GHz	≤3.96			
驻波比 VSWR	≤1.40@0-6GHz		4GHz	≤4.6			
耐压强度 Dielectric Strength( A.C V/1min )	1000		5GHz	≤5.15			
最大工作频率 ( MHz ) Max.oper. frequency	6000		6GHz	≤5.7			
<b>可靠性 Dependability</b>							
最小弯曲半径(单次)Min.Bending Radius/Single	mm	4					
最小弯曲半径 ( 重复 ) Min.Bending Radius/Repeated	mm	8					
工作温度范围 Operating Temperature	°C	-20~+80					
<b>包装 Packing</b>							
包装方式 Packing Mode	1000 ( m/盘 ) 成卷 Reel						
<b>使用提示 Tips for Use</b>							
存储环境 Storage Environment	温度：30°C以下，湿度：20-65%						
铁氟龙收缩 Teflon Shrink	绝缘层收缩≤0.2mm；护套层收缩≤0.3mm						
加工温度 Processing temperature	250°C~260°C的情况下，可短时间承受；300°C以上会出现热分解现象						
最佳保存周期 The best save cycle	2 个月，2 个月以上锡效果变差，但电性能不受影响，夏季高温高湿环境开剥后需尽快流转						



### Material RoHS conformity declaration form

This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engineering are accord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)

About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr <sup>6+</sup>	PBB	PBDE	
Wire rod	RG/RF Series Coaxial Cables	SZXEC2202766604	SGS	22/08/18	ND	ND	ND	ND	ND	ND	PASS
FPC	FPC	SHAEC2202460504	SGS	22/02/21	ND	ND	ND	ND	ND	ND	PASS
Environmental Tin Silk	Environmental Tin Silk	SHAEC2206174502	SGS	22/06/13	ND	181	ND	ND	ND	ND	PASS
XD	copper	CANEC2201952008	SGS	22/02/18	ND	5	ND	ND	ND	ND	PASS
	Gold	A2220404860101001C	CTI	22/09/17	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A2220046361101002ER1	SGS	22/02/22	ND	ND	ND	ND	ND	ND	PASS