



APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	2.4G special white integrated antenna L=165mm	
P/ N	YJC-6C165-W01	
APPROVAL REV.	A0	
DELIVERY DATE	February 08, 2023	
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Catalogue

1、	COVER·····	1
2、	Catalogue·····	2
3、	Resumer·····	3
4、	Antenna plan·····	4
5、	Antenna technical parameters and environmental performance testing·····	5
6、	Antenna object diagram·····	6
7、	Antenna performance test·····	6
8、	2D. 3D Test Data (2.4)·····	7-8
9、	Wire specification parameters·····	9
10、	ROHS material control report·····	10



Resumer:

Version	Change contents and reasons	Date	Issue
A0	NEW	February 08, 2023	



Antenna plan:

Autodesk 教育版产品制作



Antenna technical parameters and environmental performance testing

Technical parameters of electrical appliances			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500MHz	Antenna color	White
VSWR	<1.92	Input connector	XD
Input Impedance	50 Ω	Wire length	165mm
Direction	All	Working Temperature	-20℃~+70℃
Gain	4.87dBi	Working Humidity	20%~80%

Environmental performance testing:

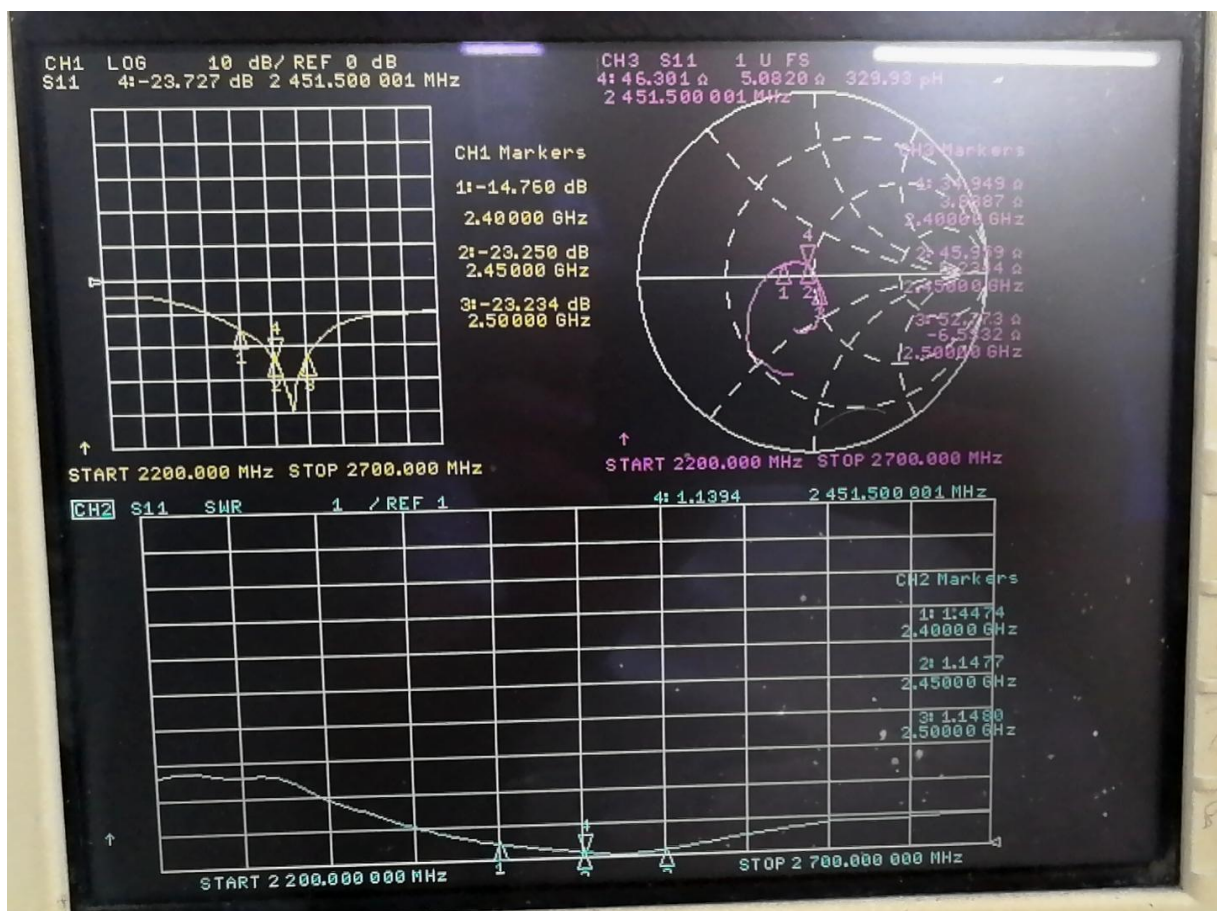
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows: 1. Temperature is -30℃ ~ +80℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performance is normal
High and low temperature test	Between 70℃ and -20℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of machinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40℃. 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 meet the performance of machinery and electric.
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 performance is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performance is normal



Actual picture of antenna:



Antenna performance test diagram:



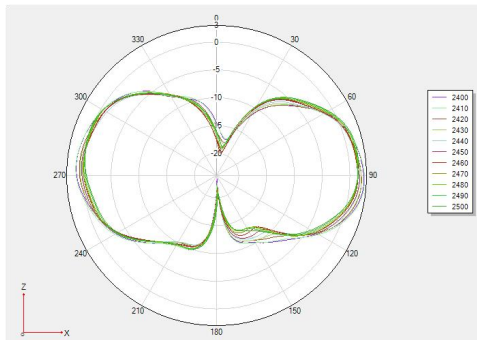


2D.3D Test Data:

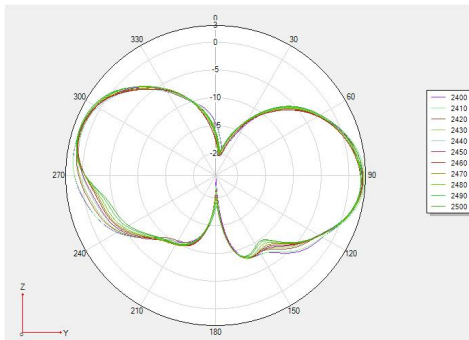
(2.4G) Test Data:

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	66.03	4.63
2410MHz	69.25	4.80
2420MHz	64.64	4.67
2430MHz	65.51	4.87
2440MHz	62.44	4.72
2450MHz	63.28	4.82
2460MHz	61.15	4.77
2470MHz	59.50	4.62
2480MHz	59.87	4.63
2490MHz	59.71	4.72
2500MHz	61.23	4.80

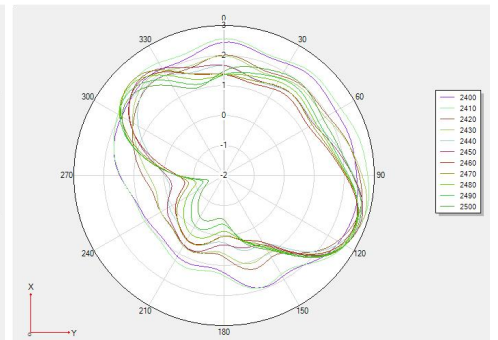
Phi 0 2D 图:



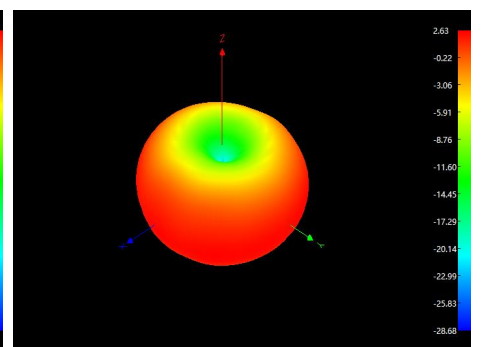
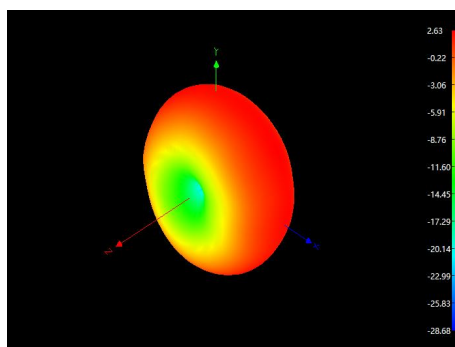
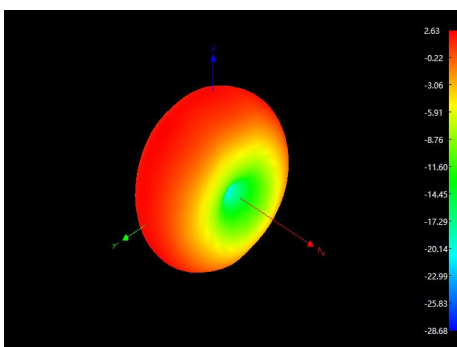
Phi 90 2D 图



Theta 90 2D 图

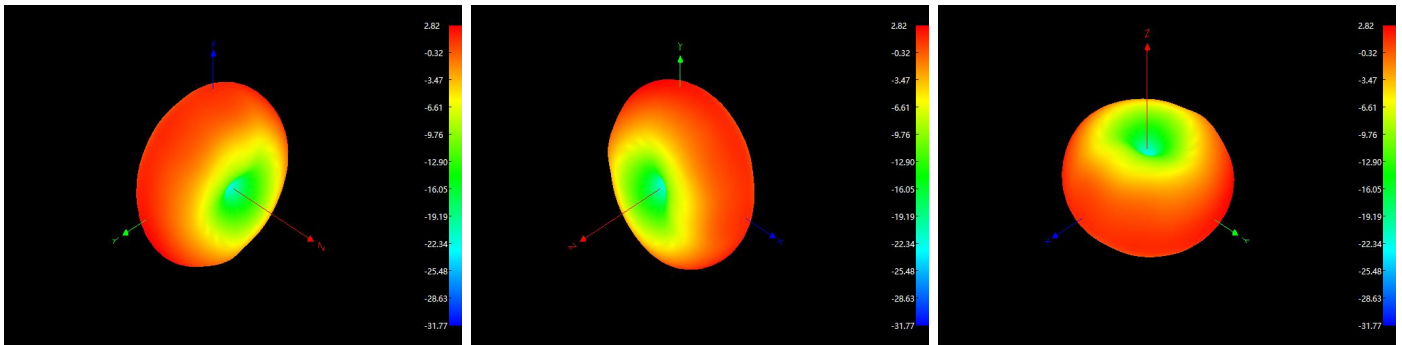


3D 2400:

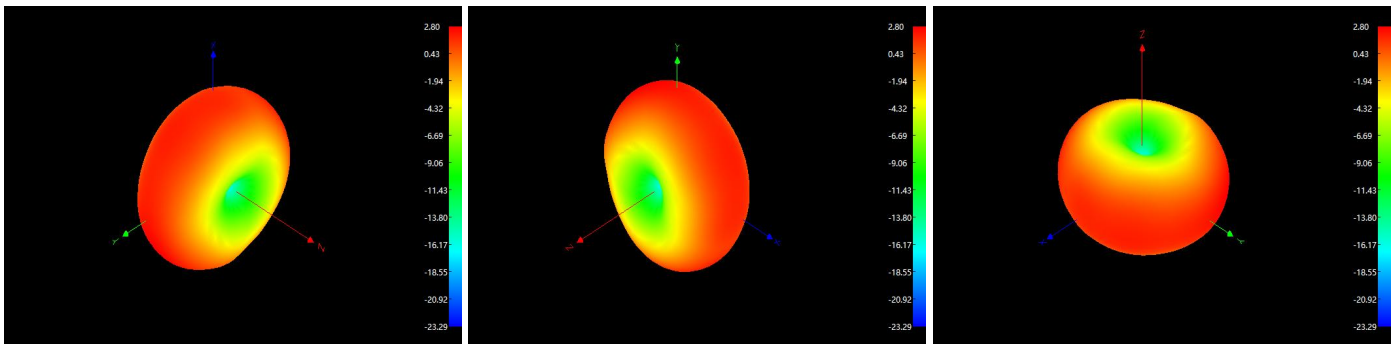




3D2450:



3D2500:





产品规格 Product Type		1.13 线		
结构图 Structure Drawing				
结构特性 Structure Characteristics				
结构 Structure	项目 Item	标准值 Standard Value		
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 From	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		
电气性能 Electrical Characteristics				
项目 Item	标准值 Standard Value	项目 Item	频率 Frequency	标准值 Standard Value
阻抗 Impedance (Ω)	50±3	衰减 Attenuation@20 ℃ (dB/100m)	1GHz	≤2.23
电容 Capacitance(pF/m)	98		2GHz	≤3.15
抗拉强度 Tensile strengthkgf/mm²	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
可靠性 Dependability				
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		℃	-20~+80	
包装 Packing				
包装方式 Packing Mode	1000 (m/盘) 成卷 Reel			
使用提示 Trips for Use				
存储环境 Storage Environment	温度：30℃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℃~260℃的情况下，可短时间承受；300℃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

We hereby certify that the raw materials used and the additives in the production engineering of the products to your company are conformed to the RoHS environmental requirements. (RoHS directive 2011/65 / EU)

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

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr ⁶⁺	PBB	PBDE	PASS
bullet	Brass tape	NGBEC22001696604	SGS	22/06/06	ND	33	ND	ND	ND	ND	PASS
Wire rod	RG/RF series coaxial cable	SZXEC2202766604	SGS	22/08/18	ND	ND	ND	ND	ND	ND	PASS
Ground column	Zinc alloy	SZXML2200496902	SGS	22/03/09	ND	19	ND	ND	ND	ND	PASS
Plastic parts	ABS	238539448h001	SGS	22/03/07	ND	ND	ND	ND	ND	ND	PASS
Heatshrinkable sleeve	Heatshrinkabl e sleeve	CANEC2211474412	SGS	22/06/08	ND	ND	ND	ND	ND	ND	PASS
spring	brass	CANEC2219550104	SGS	22/09/16	ND	20	ND	ND	ND	ND	PASS
terminal	copper	CANEC2201952008	SGS	22/02/18	ND	5	ND	ND	ND	ND	PASS
	Gold plating layer	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