



APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N	TX0052	
PART NAME	4G white integrated antenna 1.13 White L=240mm	
P/ N	YJC-6C250-W10	
APPROVAL REV.	A0	
DELIVERY DATE	2022-12-08	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY		
Customer Approved		
Prepared By	Checked By	Approved By

Headquarters Address: Building C, Hongyu Guangming Valley, No. 11, Youma Gang Road, Ma Tian Street, Guangming District, Shenzhen

Dongguan Branch: Yingjia Innovation Industrial Park, No. 2 Yinhe 3rd Road, Shishuikou, Qiaotou Town, Dongguan

City Hangzhou Office: 212, Building B, Dahua Jianghong International Innovation Park, No. 369, Internet of Things Street, Binjiang District, Hangzhou

Mianyang Office: No. 4F-34 Wanxiang High-tech International, No. 35 Mianxing East Road, Gaoxin District, Mianyang City, Sichuan Province

Tel: 0755-27810060 Fax: 0755-27810057 Website: www.szsyjc.com



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 (4G)·····	6-8
9、	OTA active test data statistics·····	9
10、	Wire specification parameters·····	10
11、	ROHS material control report·····	11

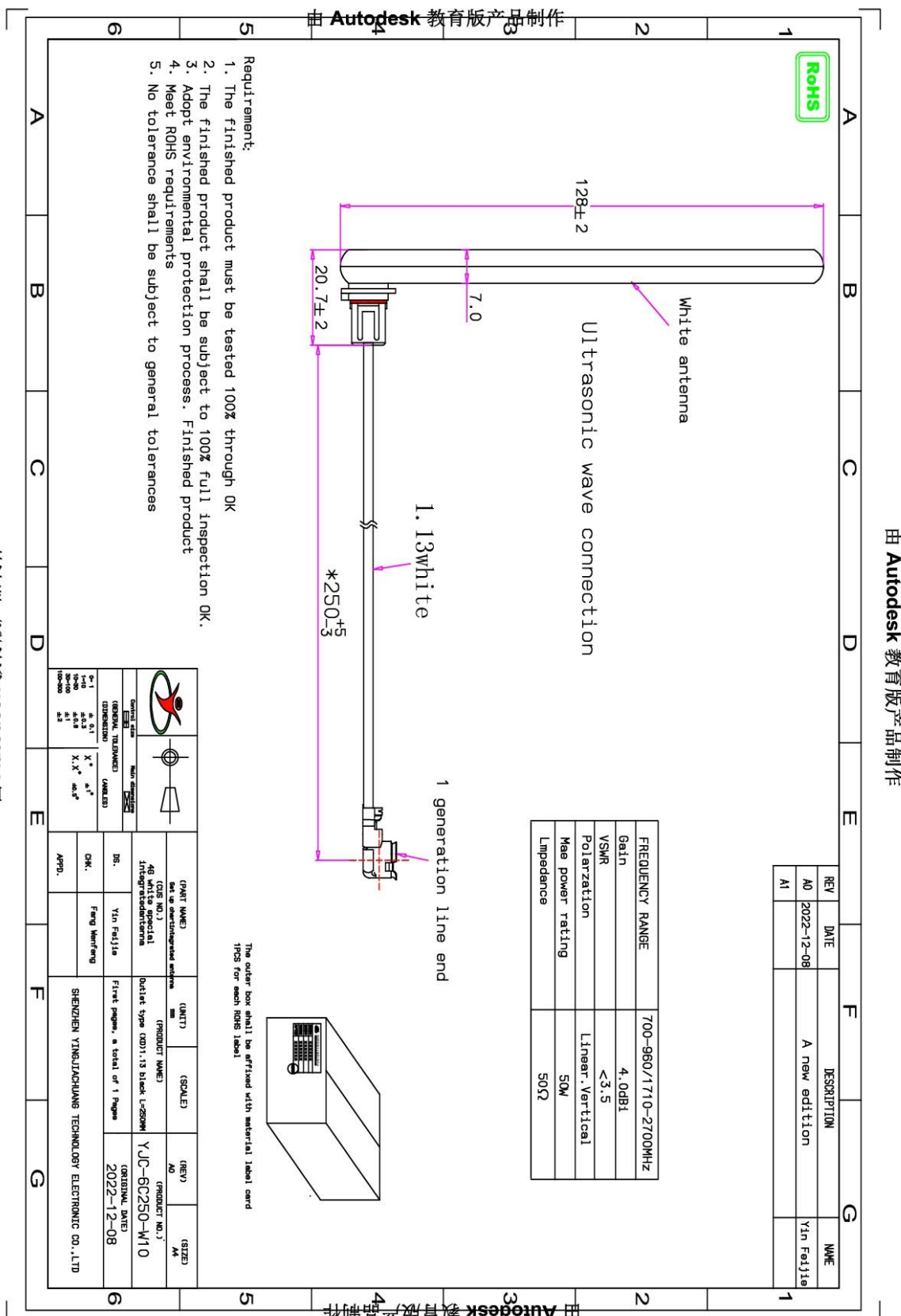


Resumer:

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



Antenna plan:





Antenna technical parameters and environmental performance testing

Electrical Specifications		Mechanical Specifications	
Frequency Range	700-960/1710-2700MHz	Antenna Color	White
VSWR	<3.5	Input connector	XD
Input Impedance	50 Ω	Cable length	250mm
Direction	All	Working Temperature	-20℃~+70℃
Gain	4.0dBi	Working Humidity	20~80%

Environmental performance testing:

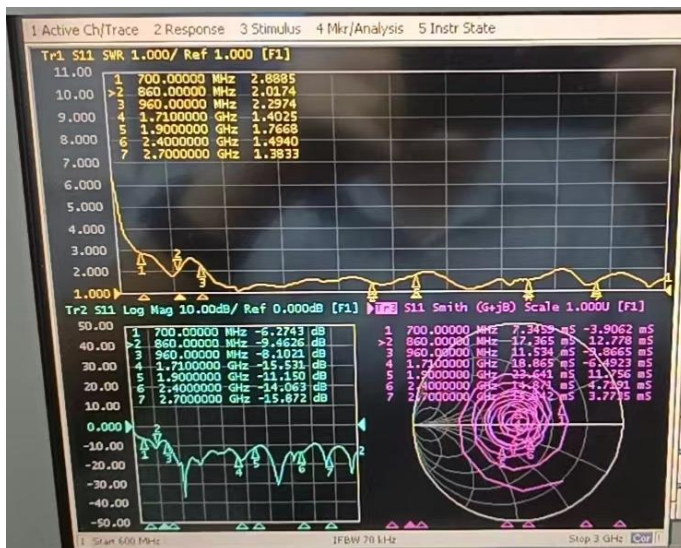
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performance is normal
High and low 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:

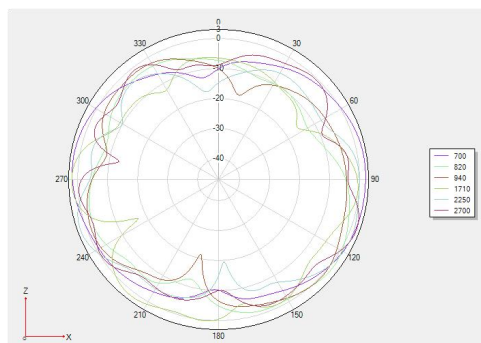


4G Test data:

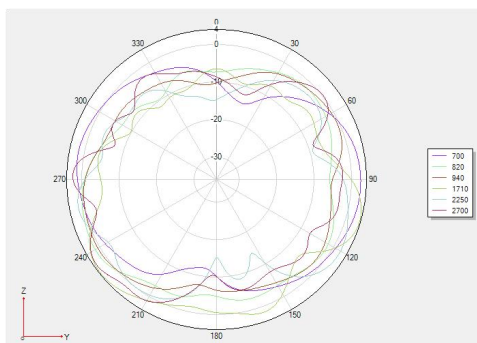
Frequency	Efficiency (%)	Gain. (dBi)
700MHz	52.97	2.62
740MHz	38.99	-0.49
780MHz	35.56	0.44
820MHz	42.17	2.51
860MHz	51.4	2.66
900MHz	44.87	0.5
940MHz	51.64	1.69
1710MHz	59.7	3.96
1800MHz	66.07	3.91
1890MHz	65.92	4.12
1980MHz	62.37	3.84
2070MHz	60.95	3.39
2160MHz	69.34	3.34
2250MHz	63.1	2.5
2340MHz	52	2.42
2430MHz	56.89	2.05
2520MHz	57.41	2.54
2610MHz	53.33	2.46
2700MHz	56.49	3.34



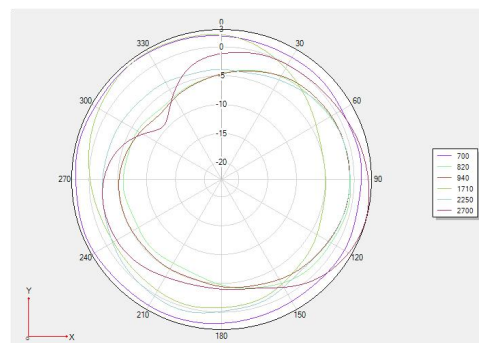
Phi 0 2D 图



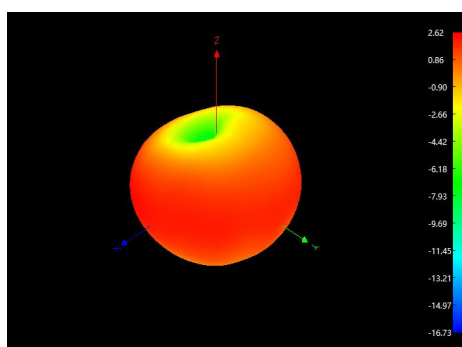
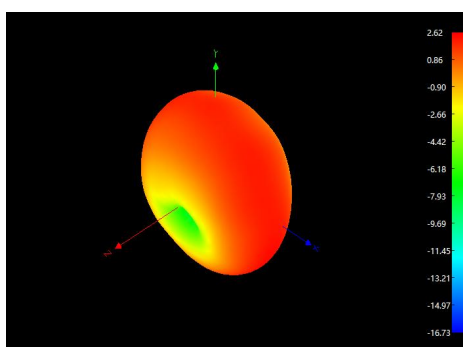
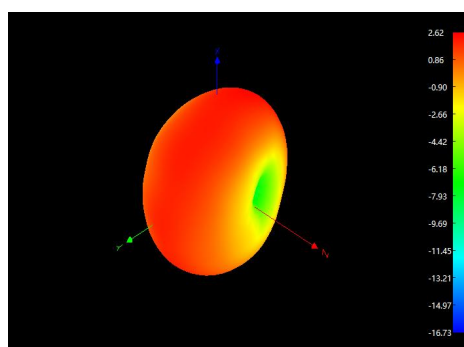
Phi 90 2D 图



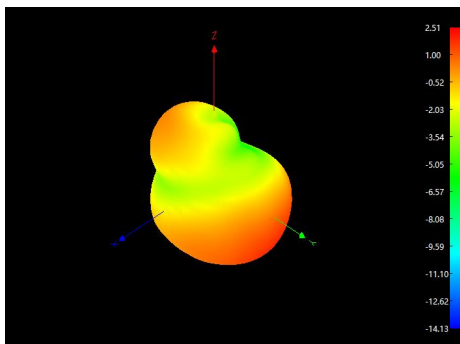
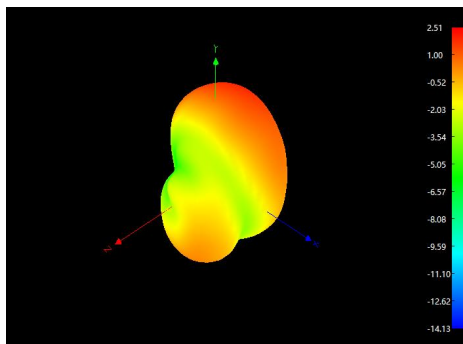
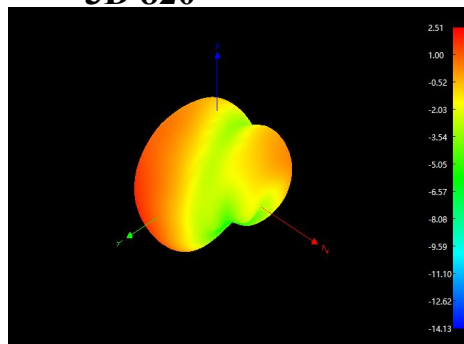
Theta 90 2D 图



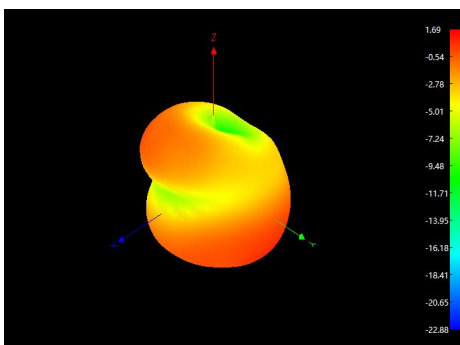
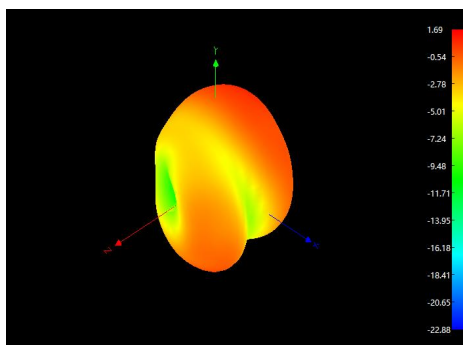
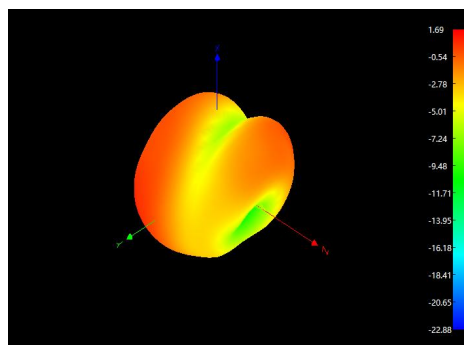
3D 700



3D 820

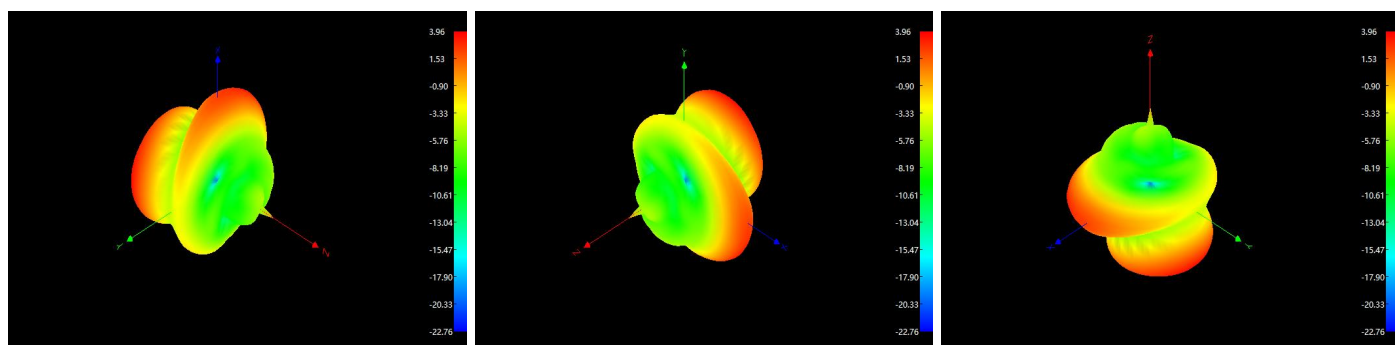


3D 940

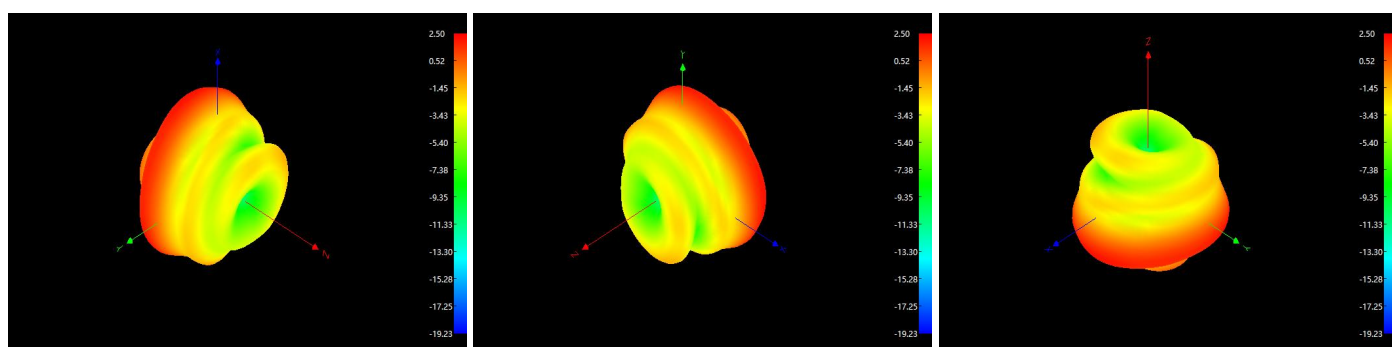




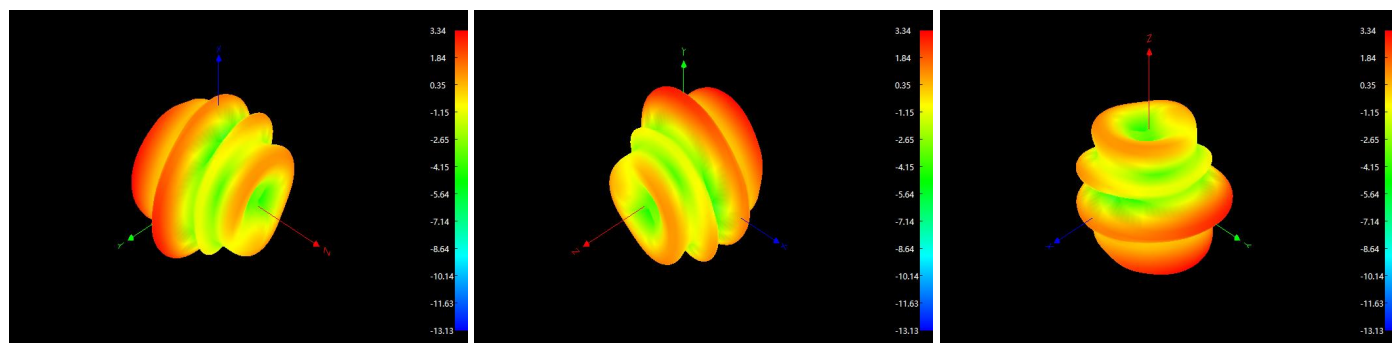
3D 1710



3D 2250



3D 2700





OTA Active Test Data Statistics (US version):

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	FDD_B1(10MHz)	18050	1925	21
2	TRP	FDD_B1(10MHz)	18300	1950	20.31
3	TRP	FDD_B1(10MHz)	18550	1975	19.26
4	TIS(RSSI)	FDD_B1(10MHz)	550	2165	-97.82
5	TRP	FDD_B3(10MHz)	19250	1715	19.44
6	TRP	FDD_B3(10MHz)	19575	1747.5	20.27
7	TRP	FDD_B3(10MHz)	19900	1780	19.04
8	TIS(RSSI)	FDD_B3(10MHz)	1900	1875	-94.86
9	TRP	FDD_B8(10MHz)	21500	885	18.33
10	TRP	FDD_B8(10MHz)	21625	897.5	18.24
11	TRP	FDD_B8(10MHz)	21750	910	18.61
12	TIS(RSSI)	FDD_B8(10MHz)	3750	955	-95.09
13	TRP	FDD_B7(10MHz)	20800	2505	19.85
14	TRP	FDD_B7(10MHz)	21100	2535	17.66
15	TRP	FDD_B7(10MHz)	21400	2565	17.98
16	TIS(RSSI)	FDD_B7(10MHz)	3400	2685	-92.65
17	TRP	FDD_B20(10MHz)	24200	837	20.33
18	TRP	FDD_B20(10MHz)	24300	847	19.17
19	TRP	FDD_B20(10MHz)	24400	857	20.15
20	TIS(RSSI)	FDD_B20(10MHz)	6400	816	-83.2
21	TRP	FDD_B5(10MHz)	20450	829	18.7
22	TRP	FDD_B5(10MHz)	20525	836.5	19.81
23	TRP	FDD_B5(10MHz)	20600	844	19.43
24	TIS(RSSI)	FDD_B5(10MHz)	2600	889	-90.45



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 Impedanc (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		



SHENZHEN YINGJIACHUANG ELECTRONIC TECHNOLOGY CO., LTD

<http://www.szsyjc.com>

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 requiremetns. (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 bellow:

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
Plastic parts	ABS	238539448h001	SGS	22/03/07	ND	ND	ND	ND	ND	ND	PASS
PCB	PCB	CANEC2202816806	SGS	22/03/08	ND	8	ND	ND	ND	ND	PASS
Article tin.	Environmentally friendly tin wire	SHAEC2206174502	SGS	22/06/13	ND	181	ND	ND	ND	ND	PASS
wire	Teflon coaxial cable	SZXEC2202766604	SGS	22/08/18	ND	ND	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