

# SPECIFICATION

## SHEET FOR APPROVAL

(Revision: R: A0)

CUSTOMER(客户名称)	群创光电	
CS P/N(客户机种)	D40F-J09	T40F
PART NAME(品名)	WIFI-1 antenna	L=190mm
FREQUENCY(频率)	2.4G~2.5G/5.15G~5.85G	
ZTX NO.(物料编号)	2.00005686	
DATE(日期)	2022-07-14	

ZHONG TIAN XUN TECHNOLOGY CO., LTD				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		韦英俊	韦进	



深圳市中天迅通信技术有限公司

SHENZHEN ZHONGTIAN XUN Communication Technology Co., Ltd.

地址: 深圳市宝安区石岩镇石龙大道 34 号(腾达工业园) 邮编: 518000

电话: 0755-27588320 传真: 0755-27588045 <http://www.chinaztx.com>

Address: Tenada Industrial Park. Shilong Avenue. Shivan Town. Baoan District. Shenzhen

# ANTENNA SPECIFICATION

CUS P/N :D40F-J09 WIFI-1 antenna

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## Revision history

Version	Date	Status
A0	2022-07-14	first version



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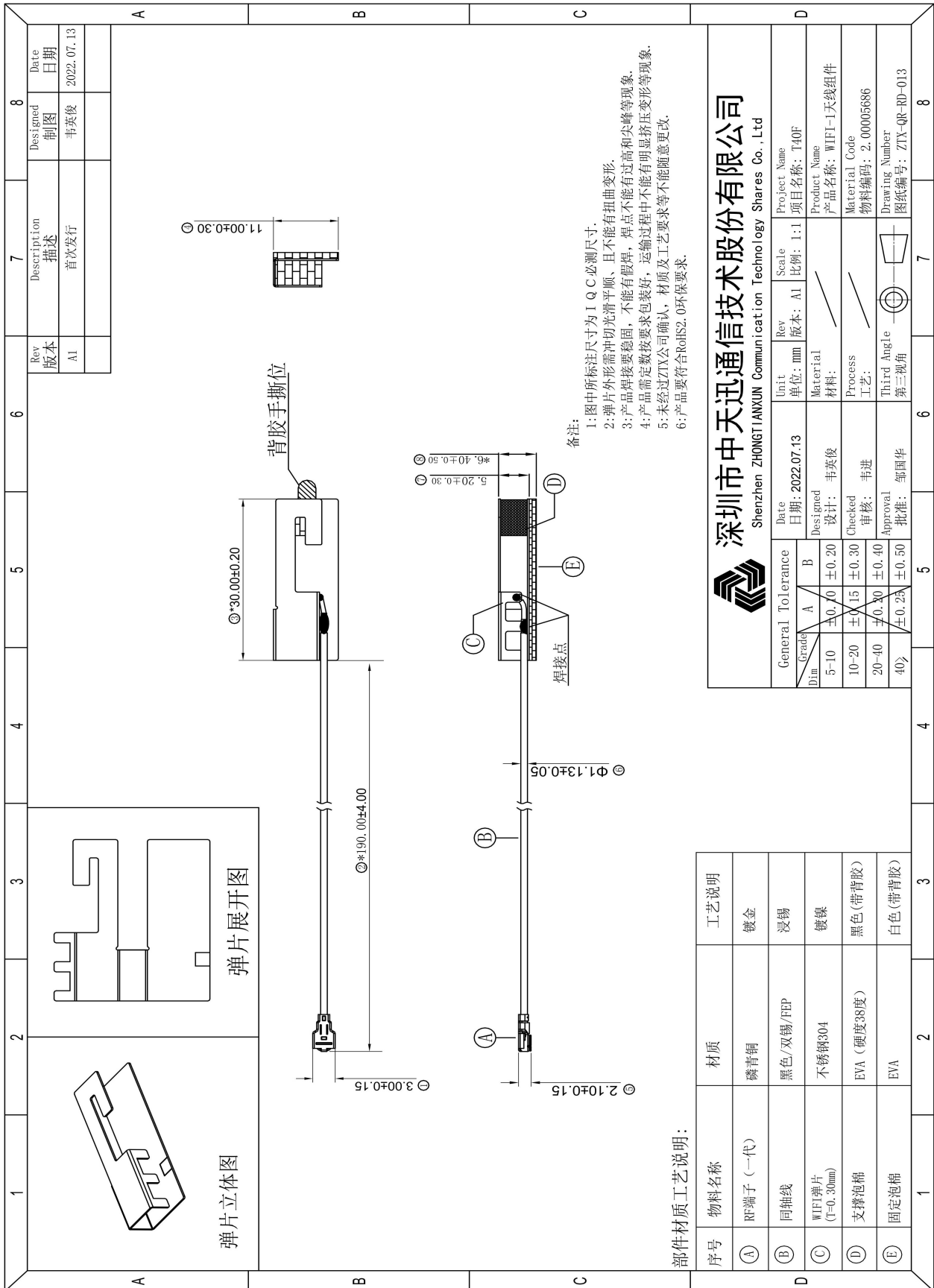
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## 1. Mechanical Specification

### 1-1 Mechanical Configuration (WIFI-1 天线)



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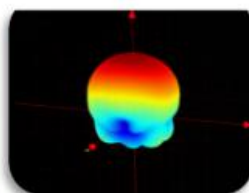
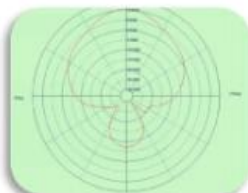
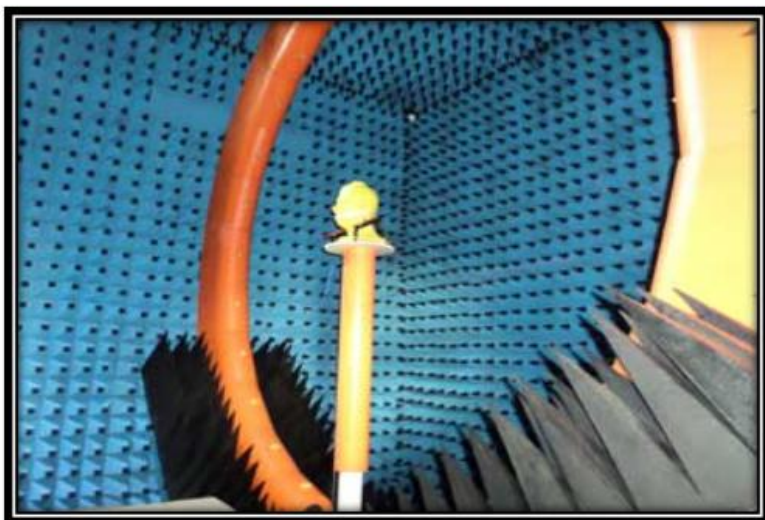
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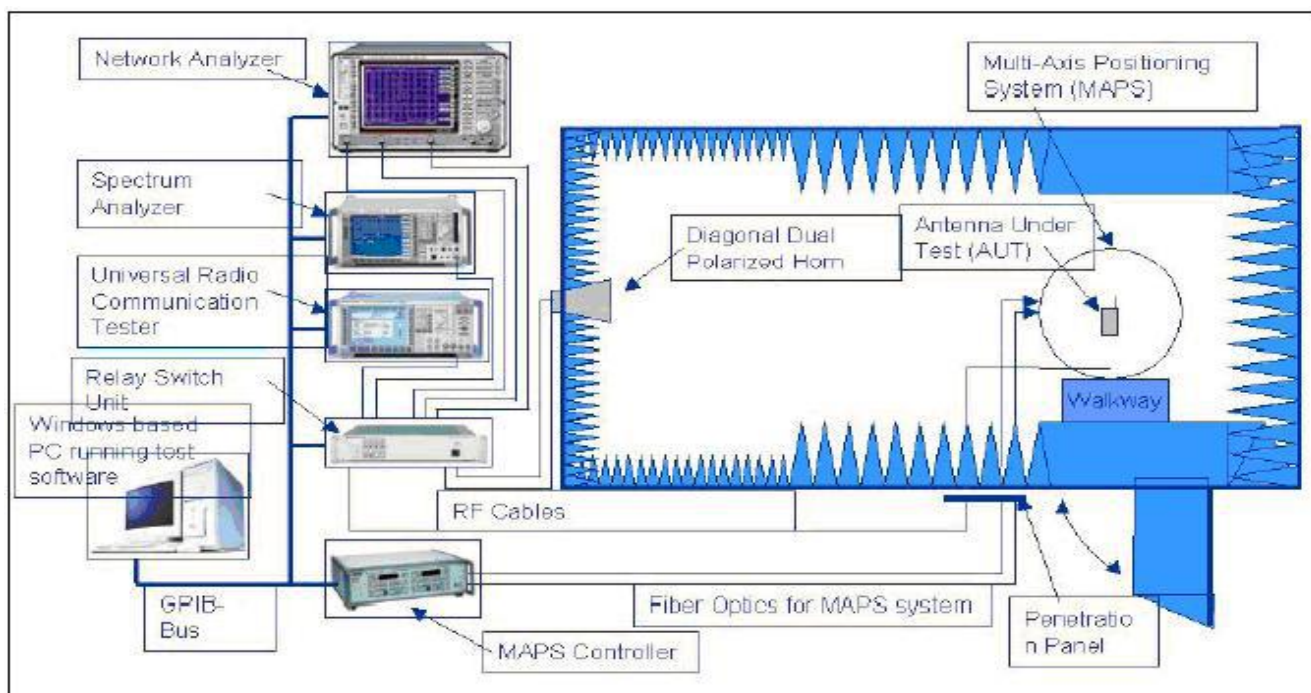
## 2. Test equipment



Owned 6 microwave dark room, equipped 2 sets world leading France Satimo SG24 OTA certification test systems (one in SHENZHEN, another one in Shanghai), ETS OTA Standard test system, Blue test reverberation test system which is High repeatability, high accuracy and high resolution. It can quickly provide accurate test reports, fully meet the CITA standards.

Testing range:

Support active, passive testing of GSM/CDMA/WCDMA/TD-SCDMA/LTE/WIFI/WLAN/WiMax/BT/GPS/MIMO/UWB within 0.4-6G.



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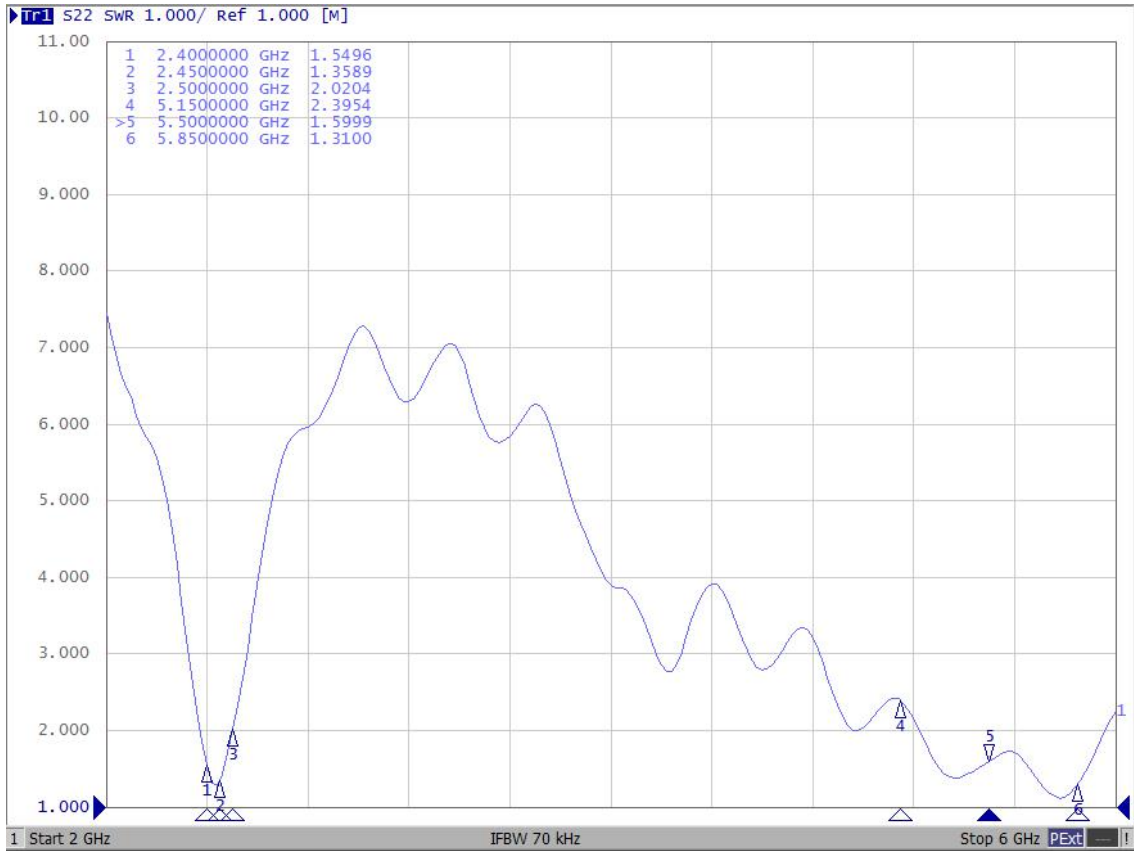
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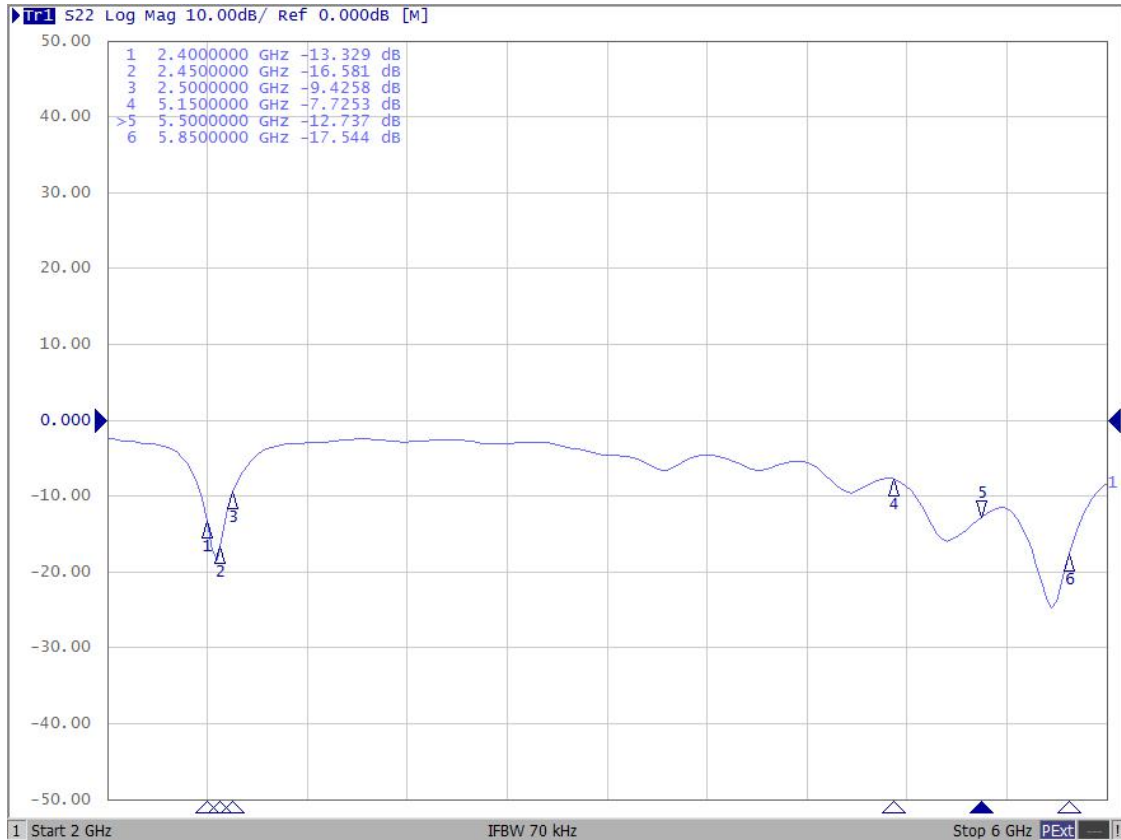
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## 3. Antenna test data

### 3-1 VSWR



### 3-2 Return loss plot



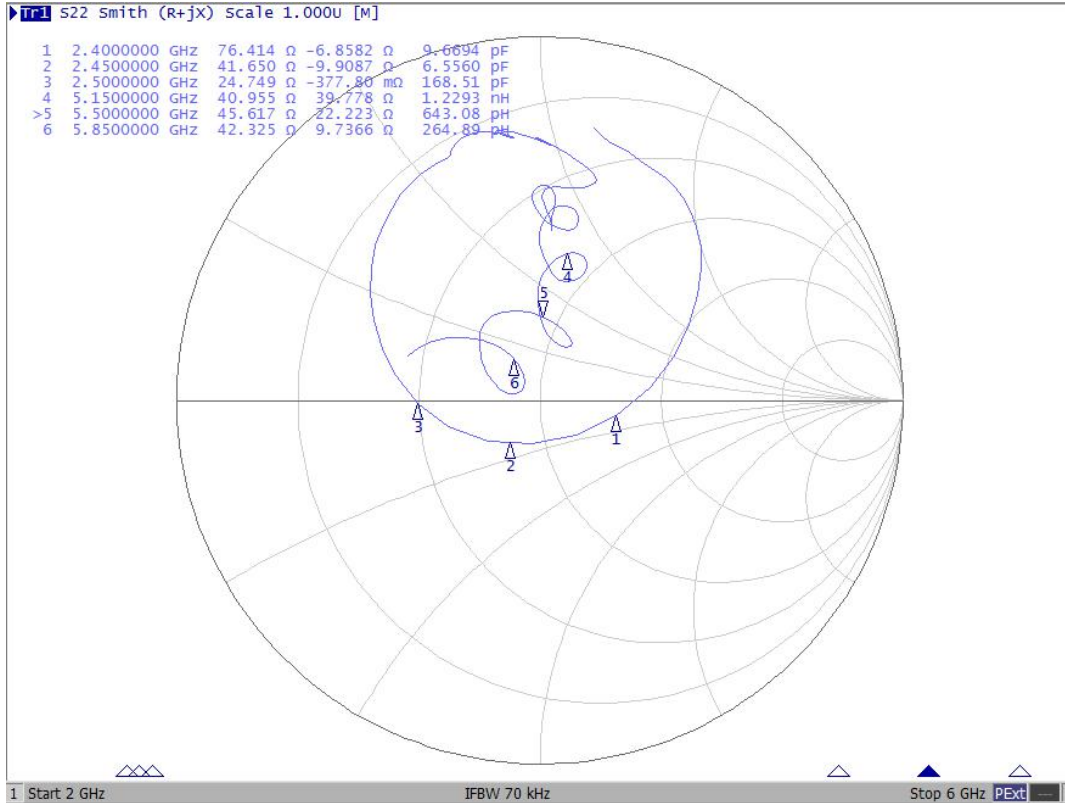
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## 3-3 Smith Chart



## 3-4 No-source test data

Frequency	Efficiency		Peak Gain	Frequency	Efficiency		Peak Gain
Mhz	%	dB	dB	Mhz	%	dB	dB
2400	49.66	-3.04	4.21	5150	40.86	-3.89	3.88
2410	52.42	-2.81	4.56	5200	41.79	-3.79	4.05
2420	54.07	-2.67	4.77	5250	41.85	-3.78	4.16
2430	56.46	-2.48	4.88	5300	43.88	-3.58	4.44
2440	55.86	-2.53	4.92	5350	48.55	-3.14	5.24
2450	56.30	-2.49	4.93	5400	48.51	-3.14	5.36
2460	51.83	-2.85	4.57	5450	52.81	-2.77	5.48
2470	50.97	-2.93	4.35	5500	51.63	-2.87	5.25
2480	48.15	-3.17	4.17	5550	53.81	-2.69	5.35
2490	46.76	-3.30	4.23	5600	52.86	-2.77	5.33
2500	43.12	-3.65	3.94	5650	53.33	-2.73	5.28
				5700	53.68	-2.70	5.41
				5750	57.27	-2.42	5.90
				5800	57.36	-2.41	6.08
				5850	55.59	-2.55	5.99

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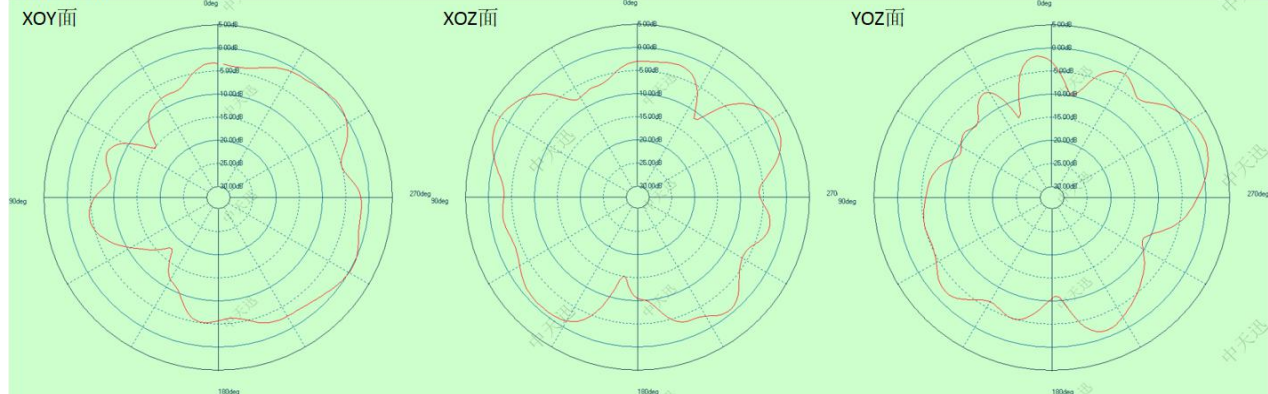
	XY plane		ZY plane		ZX plane	
Frequeny [MHz]	Peak Gain [dBi]	Average Gain [dBi]	Peak Gain [dBi]	Average Gain [dBi]	Peak Gain [dBi]	Average Gain [dBi]
2400	-0.351	-4.406	1.732	-4.672	-0.324	-5.841
2450	-0.643	-3.125	2.218	-3.238	-0.098	-4.286
2500	-0.429	-2.691	2.084	-2.649	0.528	-4.661
5150	0.933	-5.235	0.773	-6.531	1.891	-6.178
5500	1.104	-5.702	0.542	-6.424	1.296	-6.339
5850	1.559	-4.271	0.601	-6.189	1.617	-5.604

## 3-5 Environment treatment

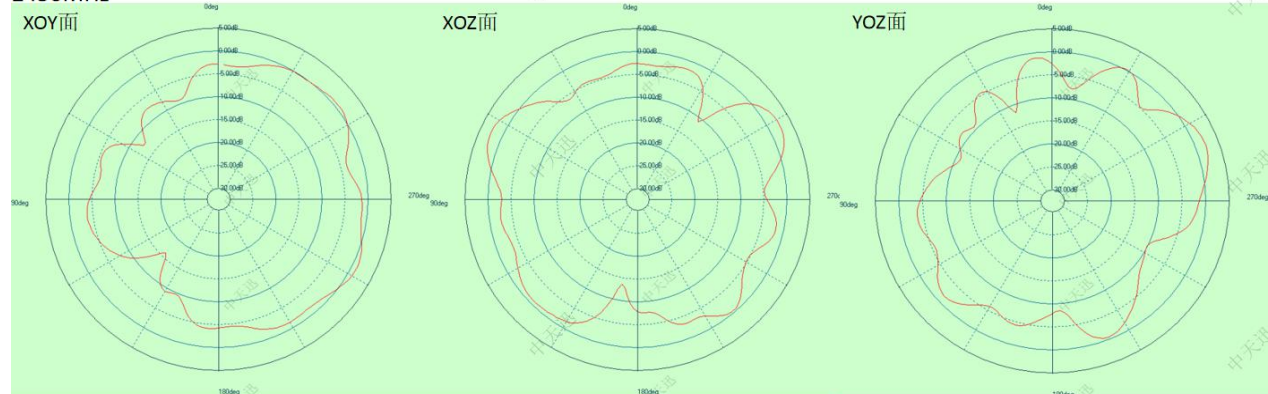
N/A

## 3-6 Directional drawing of horizontal plane of&3D radiation drawing

2400MHz



2450MHz



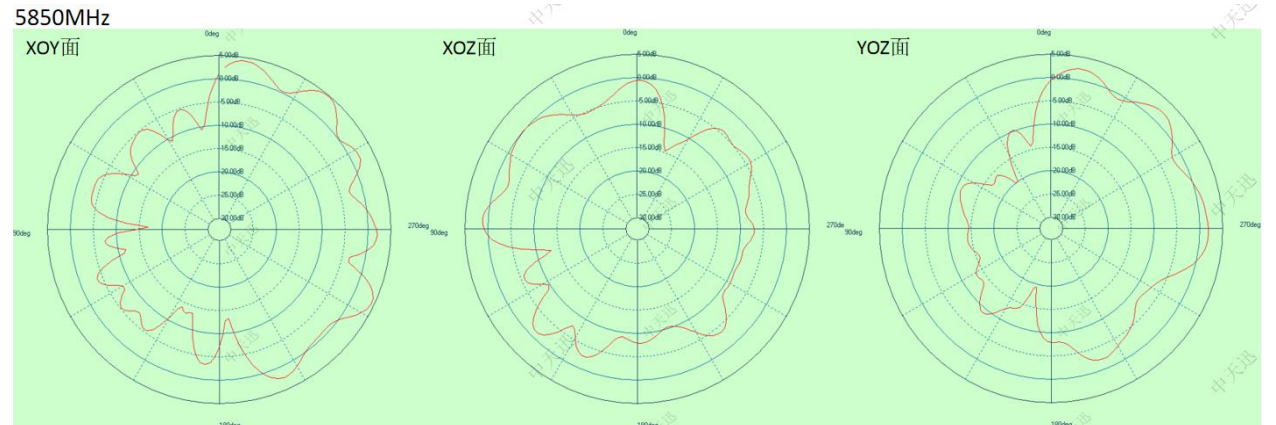
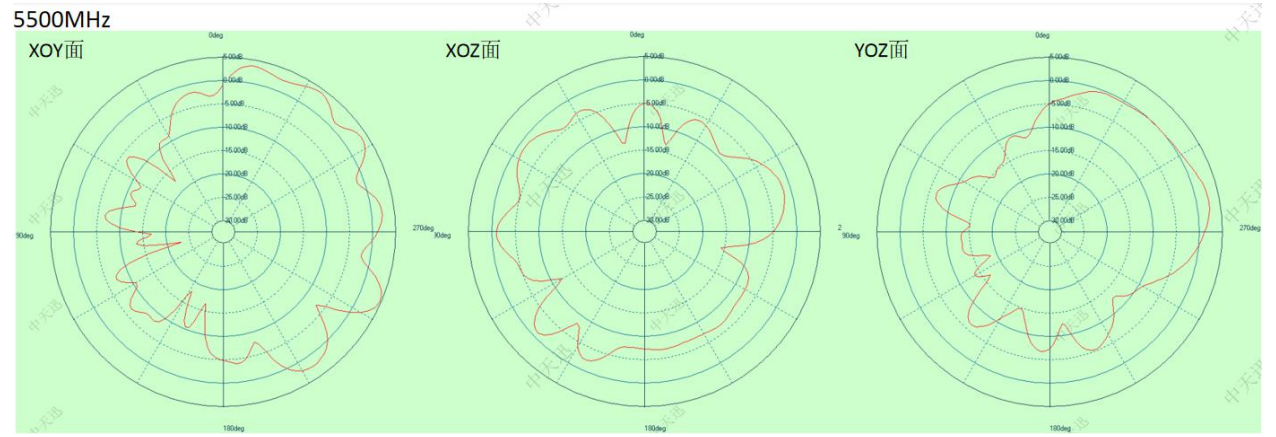
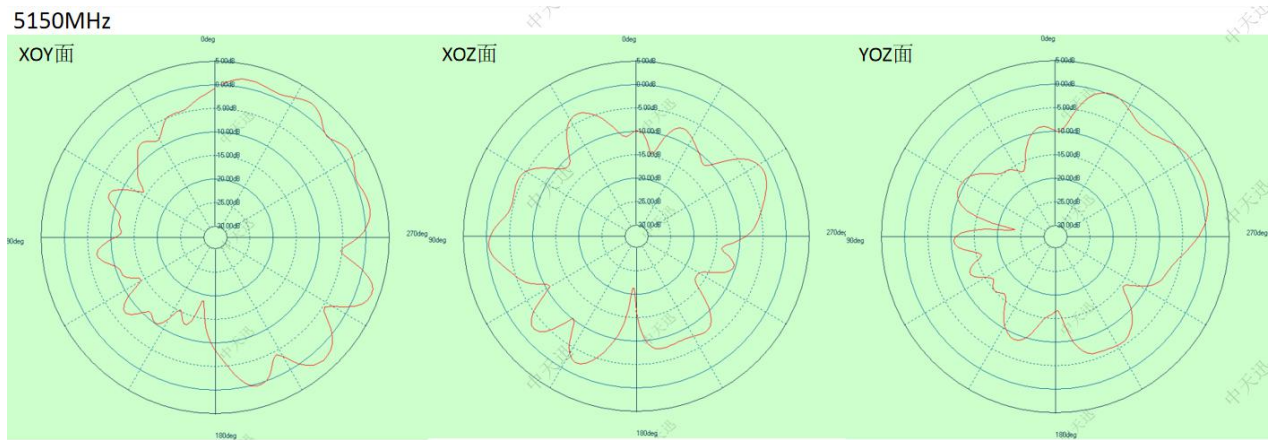


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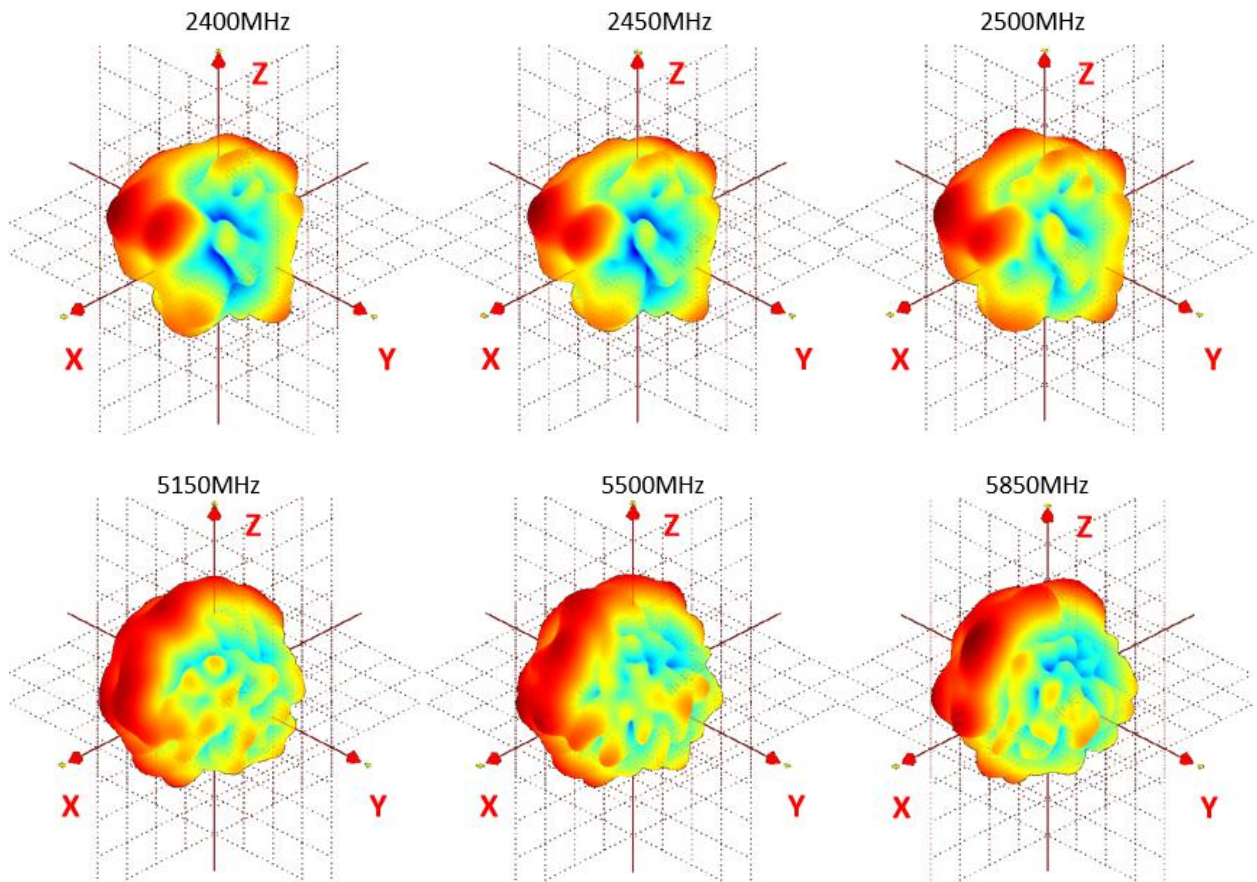


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## 4.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
4-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: $+70 \pm 2^{\circ}\text{C}$ 2.Humidity: $90\sim 95\%RH$ 3.Time: 48hrs	No material deformation is allowed.
4-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: $-30 \pm 2^{\circ}\text{C}$ 2.Humidity: $0\%RH$ 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.








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## 5.The packing way

 <b>深圳市中天迅通信科技股份有限公司</b> SHENZHEN ZHONGTIAN XUN Communication Technology Co.,Ltd.		<h1>包装规范</h1>				
产品名称	产品型号	文件编号	版本	工序号/名称	工序工时	日产量
WIFI天线	D40F-J09 ( T40F )	ZTX-QD-WI	A1	包装/装箱	/	/
 <p>图1: 确认数量/贴内标签</p>				<b>作业方法 (自检该工序作业合格后. 方能流入下一道工序)</b> 1. 每40PCS用橡皮筋包扎装入 (240*160mm) 封口袋; 每5袋 (200PCS) 产品用封口PE袋 (230*330mm) 包装/贴标签含 (物料名称, 物料编码, 数量, 日期) 2. 将包装好的产品装入箱内, 箱底/面部用纸板隔开; 纸箱规格 (45*32.5*21cm) 每箱 (2000pcs) 尾数除外; 3. 贴外箱标签, 贴于外箱的右上角, 标签内容包含 (生产产家, 型号, 产品名称, 客户编码, 数量, 订单号, 日期, QA检验); 4. 纸箱用胶纸以“工”字型封箱。		
 <p>图2: 装箱</p>				<b>注意事项</b> 1. 注意标签有无贴错, 漏贴, 箱子有无破损; 2. 附出货检验报告。		
 <p>图3: 贴外箱标签/附出货检验报告</p>				<b>物料名称</b> <b>物料编码</b> <b>用量</b> <b>使用工具</b>		
 <p>图4: 封箱</p>				PE开口袋           50      240*160mm PE封口袋           10      330*230mm 纸板           2 纸箱           1      45*32.5*21cm. 橡皮筋           50		
修订内容 新制定				修订日期 2020/12/16		修订人 彭程
版本	A1	审核	易爱玲	品质确认	胡春梅	批准
制订	彭程	审核	易爱玲	品质确认	胡春梅	批准
				龙秋霖		

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attached sheet: UL report

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[Click here to go to UL's iQ<sup>SM</sup> for Appliance Wiring Materials Database](#)

UNDERWRITERS LABORATORIES APPLIANCE WIRING MATERIAL  
Subj.758 Section 1 Page 1354 Issued:1964-02-19  
Revised:2009-04-30

Style 1354 Coaxial Cable.

---

Rating 60, 80 deg C, 30 Vac, Horizontal flame.

---

Conductor 44 AWG min., material not specified.

---

Insulation 2 mils minimum at any point, 125 mils maximum. The insulation may be: Extruded solid or cellular PE, FRPE, PP, PFA, FEP, ECTFE, PTFE, ETFE, or combination thereof with or without irradiation; or tape wrapped solid or cellular PTFE, PFA, or FEP. Applied as a spiral wrapped thread (5 mils minimum, 40 mils maximum) and enclosed in a tube of insulation.

---

Assembly Insulated conductor with optional inner covering, optional inner shield, optional middle covering, required outer shield and required outer covering.

---

Shield Optional. Outer Shield required.

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Covering Optional Inner Covering - Extruded PVC, PFA, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLFRPE or FRPE; lacquered braids; heat sealed PTFE, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified. Optional Middle Covering - Extruded PVC, PFA, PP, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLFRPE or FRPE; lacquered braids; heat sealed PTFE, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified. Required Outer Covering - Extruded Irradiated PE, Irradiated PVC, Polyurethane, PVC, PFA, PP, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLFRPE or FRPE; lacquered braids; heat sealed PTFE, PVC, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified.

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<http://data.ul.com/link/stylepage.aspx?style=1354>

2010-7-1



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Standard	Appliance Wiring Material UL 758.
Marking	General.
Use	Internal wiring of Class 2 circuits of electronic equipment or as insulated single in jacketed multiconductor cables.

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<http://data.ul.com/link/stylepage.aspx?style=1354>

2010-7-1



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AVLV2.E318898 - Appliance Wiring Material - Component | UL Product iQ

2020/6/23 上午10:05

UL Product iQ™



## AVLV2.E318898 - Appliance Wiring Material - Component Appliance Wiring Material - Component

See General Information for Appliance Wiring Material - Component

**SHENYU COMMUNICATION TECHNOLOGY INC**  
275 E Waihuan Rd  
Jiangyin, Jiangsu 214400 CHINA

E318898

Table of Recognized Styles

Single-conductor, thermoplastic insulation.							
1226	1354	1708	1766	1882	10008	10248	
1227	1371	1709	1847	1886	10011	10362	
1330	1538	1710	1857	1887	10064	10518	
1331	1577	1723	1858	1901	10072	11085	
1332	1591	1726	1859	1927	10111	11149	
1333	1592	1727	1860	10005	10231	11180	
Multiple-conductor, thermoplastic insulation.							
20276	21100	21533					

Style(s) 11149 can be assigned the IEC 60332-2 flammability rating

Marking: Company name, voltage rating, temperature rating, conductor size, conductor material if other than copper, and use.

Last Updated on 2020-04-21

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