

样品承认规格书

PART SHEET FOR APPROVAL

制造商名称: Manufacturer:	万物相连通讯襄阳有限公司 All things connected Communications Xiangyang Limited
供应商名称 Supplier:	万物相连通讯襄阳有限公司 All things connected Communications Xiangyang Limited
产品名称: Part Description:	Built-in antenna 内置天线
规格型号: Model No:	WWXL6008652
物料编码: Cust P/N:	360100310
日期: Issued Date:	2022. 04. 24

供应商确认 Supplier confirmation

承办 Made By	审核 Engineer	批准 Approver
HUANGRONGJUN	HUANGSHENG	TONGXIAOYAN

华曦达确认 SDMC confirmation

承认原因: Approval Reason:	☐ 新物料 New Part ☐ 替代料 Substitute Part			
承办 Made By	审核 Engineer			批准 Approver
	品质 Quality	研发 R&D	业务 Sales	

备注：签名表明提交样品获得承认，图纸规格已经受控。Note: Signature indicates that the submitted sample is approved and the drawing/specification is now the controlling document.

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Cell phone: 136 6268 4409

URL: www.wwxltx.cn

Specification for Antenna

天线规格书

一、Product pictures产品图片

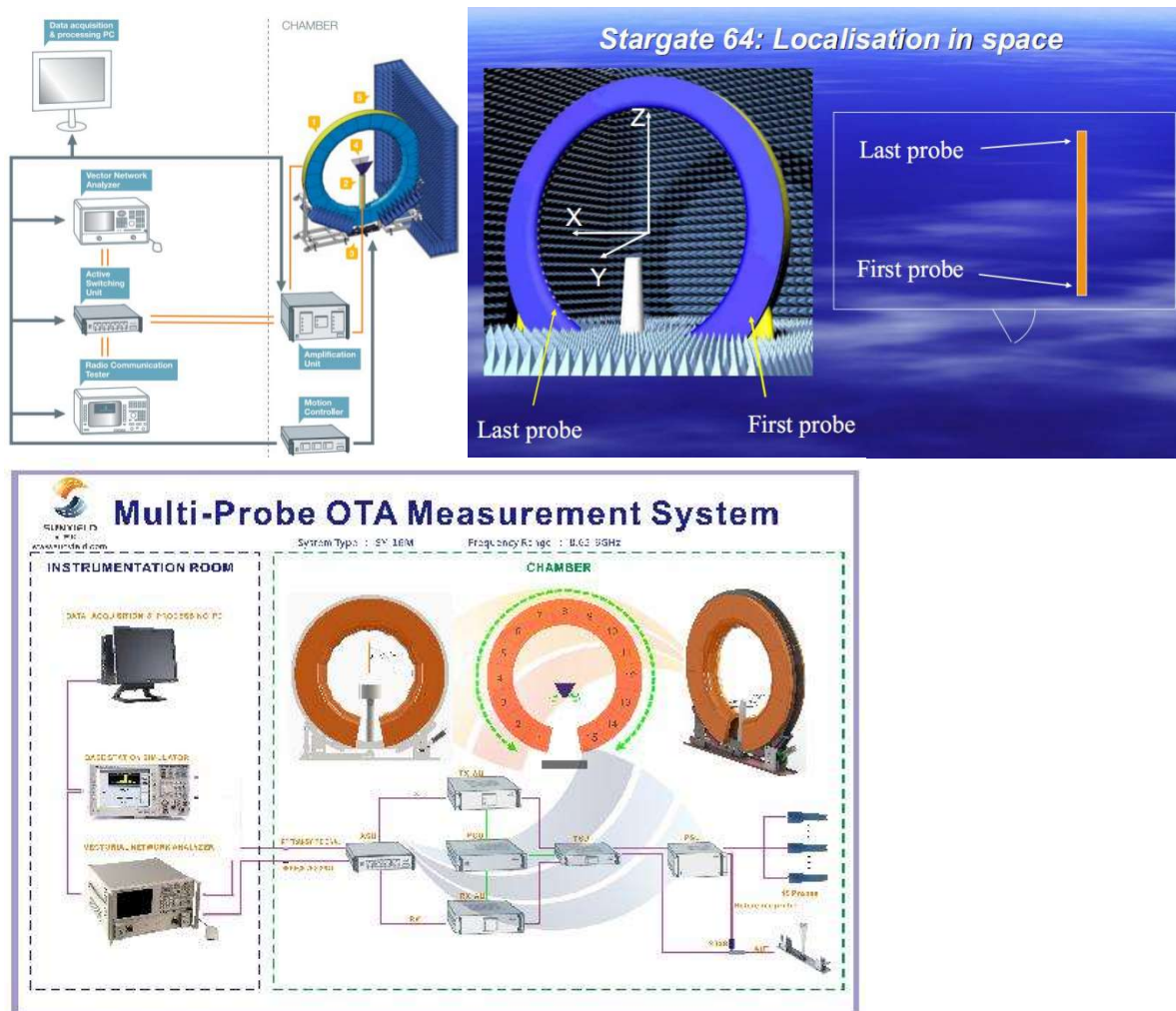


二、Test parameters产品测试参数

产品名称Name内置天线（WWXL6008652）		型号 ModelType WWXL-U 2400/5850-1260	
电气参数ELECTRICAL SPECTFICATIONS		机械参数 MECHANICAL SPECTFICATIONS	
频率范围 FrenquencyRange 2400-2500/5150-5850MHz		尺寸Dimensions	40*12.5*0.8mm
输入阻抗 Impedance	50 Ω	连接器型号Connector	IPEX
驻波比 VSWR	≤ 2.0	线长linelength	80+1.5mm 1.13 Low loss line black 低损耗线黑色
增益 Gain	$\geq 4.75/4.78\text{dBi}$	效率 Efficiency	$\geq 50\%$
极化方式 Polarization	linear Vertical 线极化	工作温度WorkingTemperature	-45℃ - +85℃
辐射方向 Radiation	Omnidirectional 全向	存放温度Limit Temperature	-45℃ - +85℃

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三、Antenna test environment 天线测试环境

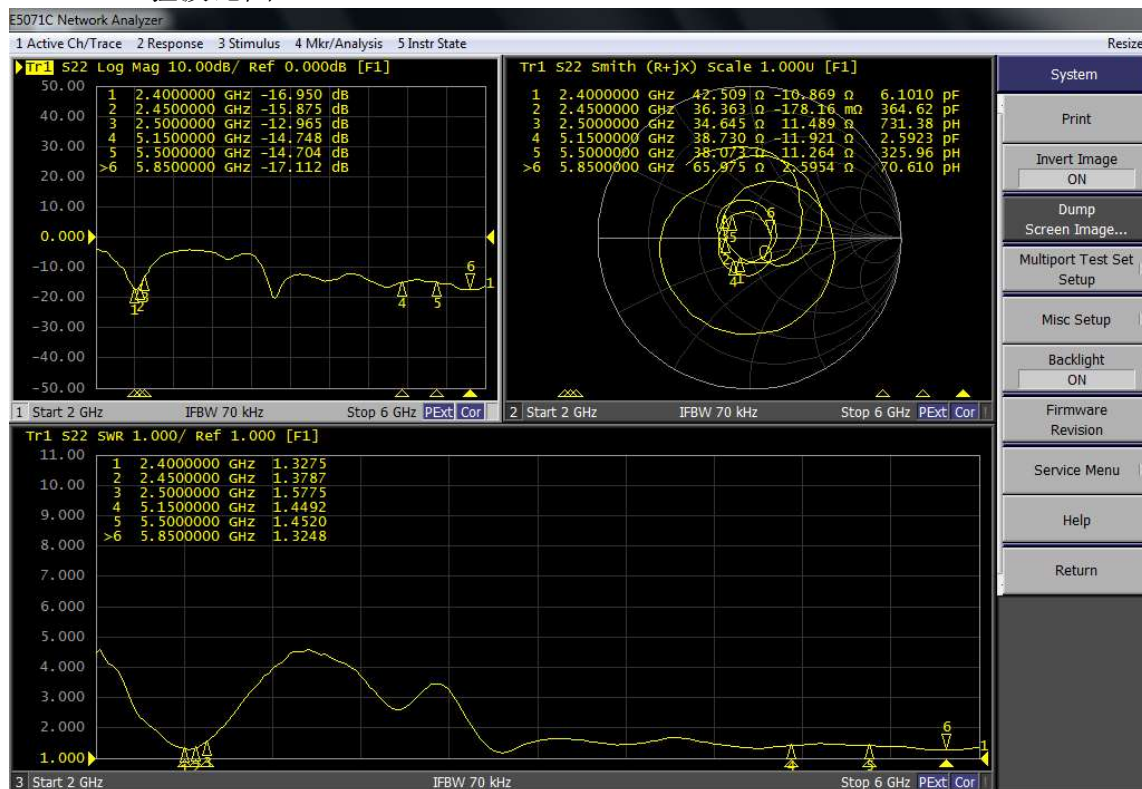


test macro 测试系统:	SY-16M Antenna measurement system 天线测量系统
testing environment 测试环境:	temperature 温度 $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity 湿度 $50\% \pm 15\%$
testing equipment 测 试设备:	Agilent 5071C Agilent 8960 Comprehensive measuring instrument 综测仪 Agilent CMW500 4G Comprehensive measuring instrument 综测仪

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四、Antenna Passive Parameters 天线无源参数:

1、VSWR驻波比图:



2、Gain and Efficiency增益和效率:

Gain&Efficiency&PhaseCenter 增益、效率和相位中心								
frequency 频率 (MHz)	gain 增 增益(dBi)	efficiency 效率(%)	frequency 频率 (MHz)	gain 增 增益(dBi)	efficiency 效率(%)	frequency 频率 (MHz)	gain 增 增益(dBi)	efficiency 效率(%)
2400	4.75	60.6	5150	4.78	66.9	5700	6.1	63.76
2410	4.8	58.79	5200	5.06	66.72	5750	6.06	62.77
2420	4.91	58.87	5250	5.22	65.33	5800	6.06	62.53
2430	5.09	59.67	5300	5.41	65.19	5850	5.72	61.19
2440	5.21	60.78	5350	5.68	66.42			
2450	5.34	61.98	5400	5.79	65.73			
2460	5.48	63.79	5450	5.82	64.46			
2470	5.6	65.12	5500	5.96	64.74			
2480	5.61	65.35	5550	6	64.06			
2490	5.72	66.49	5600	5.97	62.82			
2500	5.71	65.96	5650	5.97	62.42			

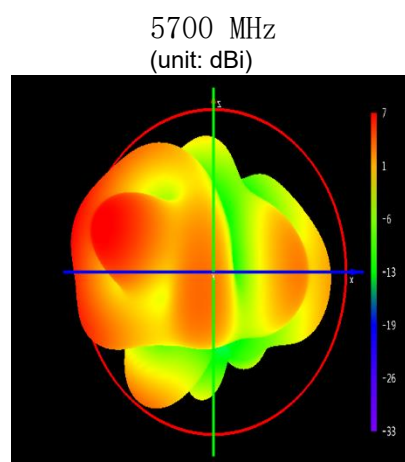
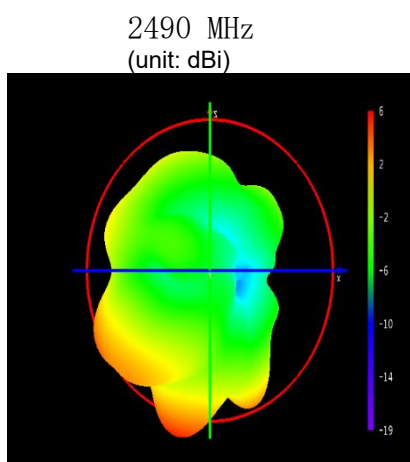
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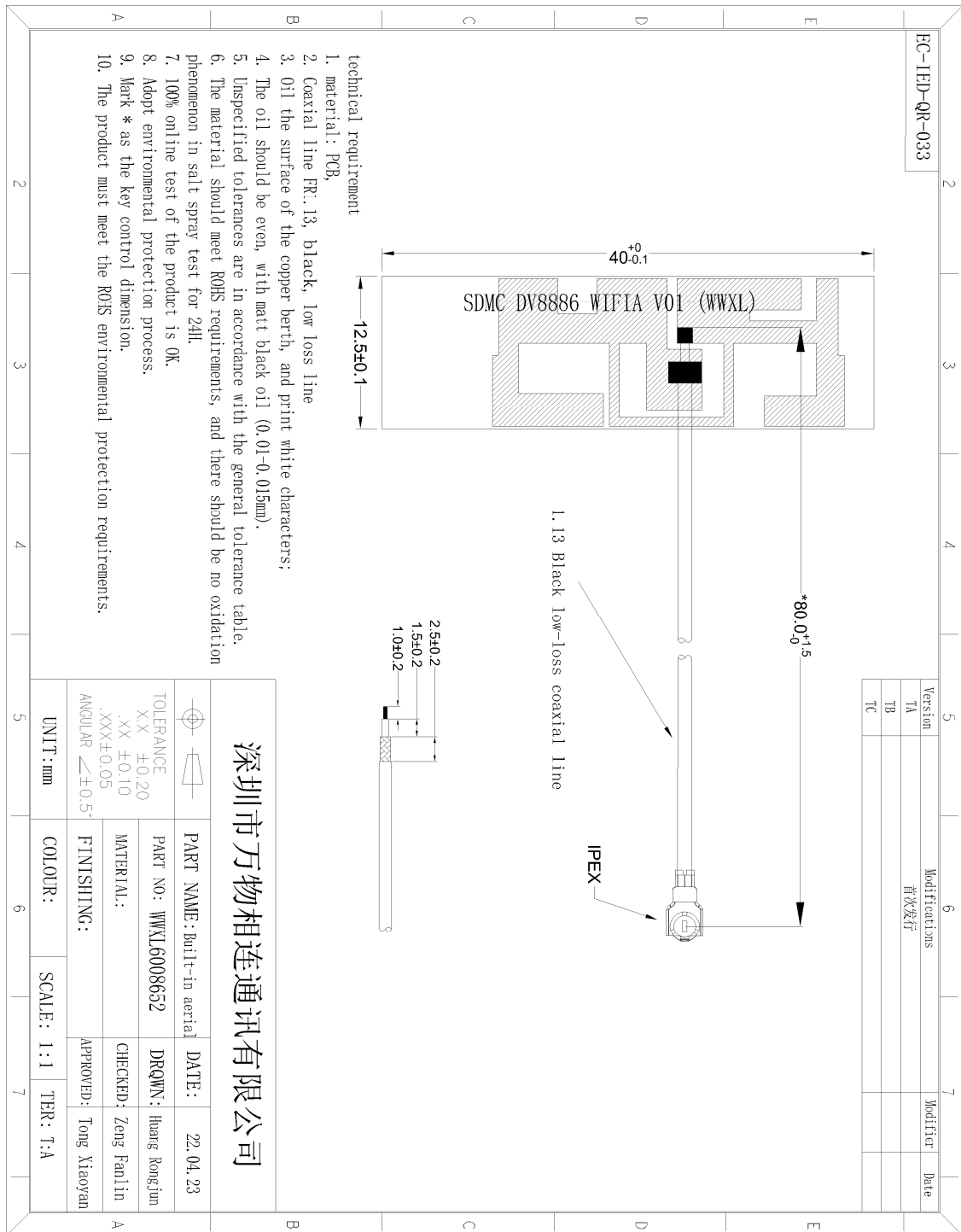
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3、3D directional diagram (Maximum):
WIFIA 2.4GHz/5.8GHz



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六、Drawing产品结构图



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七、Reliability testing环境可靠性试验报告

1 Environmental experiment环境试验

High and low temperature and humidity test report						
test project	High temperature, low temperature and constant humidity test					
name	Built-in antenna (WWXL6008652)		date	2022.04.24		
device	Constant temperature and humidity test box network analyzer		Quantity	5PCS		
Inspectin standards	1. There are no defects such as peeling off, cracks, wrinkles, etc. on the metal surface; non-metal parts must not have defects such as discoloration, cracking, deformation, degumming. 2. The electrical test meets the design requirements; the voltage standing wave ratio test is satisfactory.					
Test name		request	experiment method	Actual test data	result	
					sample	Assessm ent result
High temperature test	Temperature (℃) Test sample temperature stabilization time (H) Test duration (h) Recovery time (h)	+85±3 1 2 1	9 according to GB2423. 1-89 Method	+87 1.2 2.3 1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Low temperature test	Temperature (℃) Test sample temperature stabilization time (h) Test duration (h) Recovery time (h)	-45±3 1 2 1	8th in accordance with GB2423. 1-89 Method	-46 1.2 2.4 1.1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Constant Damp Heat Test	Temper ature (℃) Relative	+40±2 90-95 21	According to GB2423. 3-93 Section 5	+42 92 22	1	qualified
					2	qualified
					3	qualified

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	humidity (%)	1	Method	1.1	4	qualified
	Test duration (h) Recovery time (h)				5	qualified

b. Salt spray test

Salt fog test report				
Test item	Salt spray test			
Name	Built-in antenna (WWXL6008652)	date of observation	2022.04.24	
Device name	Salt spray corrosion test box	Test quantity	5 PCS	
Test method	The test samples were put into the modulated salt solution test chamber and salt spray corrosion chamber for continuous spray test			
Salt solution concentration	52g/L	PH Value of Salt Solution: 6.5-7.2	Test cycle: 24h	
Actual test data	55g/L	PH Value of Salt Solution: 6.8	Test cycle: 26h	
Test standard	Tests were carried out according to GB/T10125 "Artificial Atmosphere Corrosion Test and Salt Spray Test"; Results According to GB/T6461-2002 "Metal and other inorganic coatings on metal substrates after corrosion test are samples and specimens"			
Test result				
NO	Corrosion resistance grade	Actual test data	Assessment result	Remarks
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	

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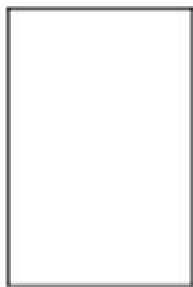
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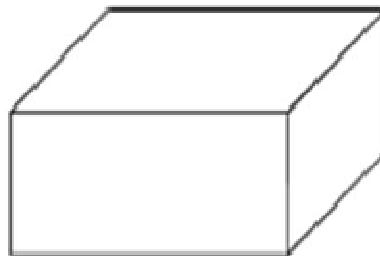
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八、Packing instructions包装说明:

▼



100PCS/Pouch



30Pouch/1Caron