

SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A1)

CUSTOMER(客户名称)	广州通则康威智能科技有限公司	
CS P/N(客户机种)	S20-TCL	T22
PART NAME(品名)	WIFI antenna assembly	
FREQUENCY(频率)	2400~2500MHz	
ZTX NO.(物料编号)	2.00005634	01.52301345
DATE(日期)	2022-08-09	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注):

Sign(客户确认签字盖章): _____

ZHONG TIAN XUN TECHNOLOGY CO., LTD				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		刘亭茹 TINGRU LIU	黄琼 QIONG HUANG	



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Revision history

NO	Date	State
A1	2022- 07-23	The first edition



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ANTENNA SPECIFICATION

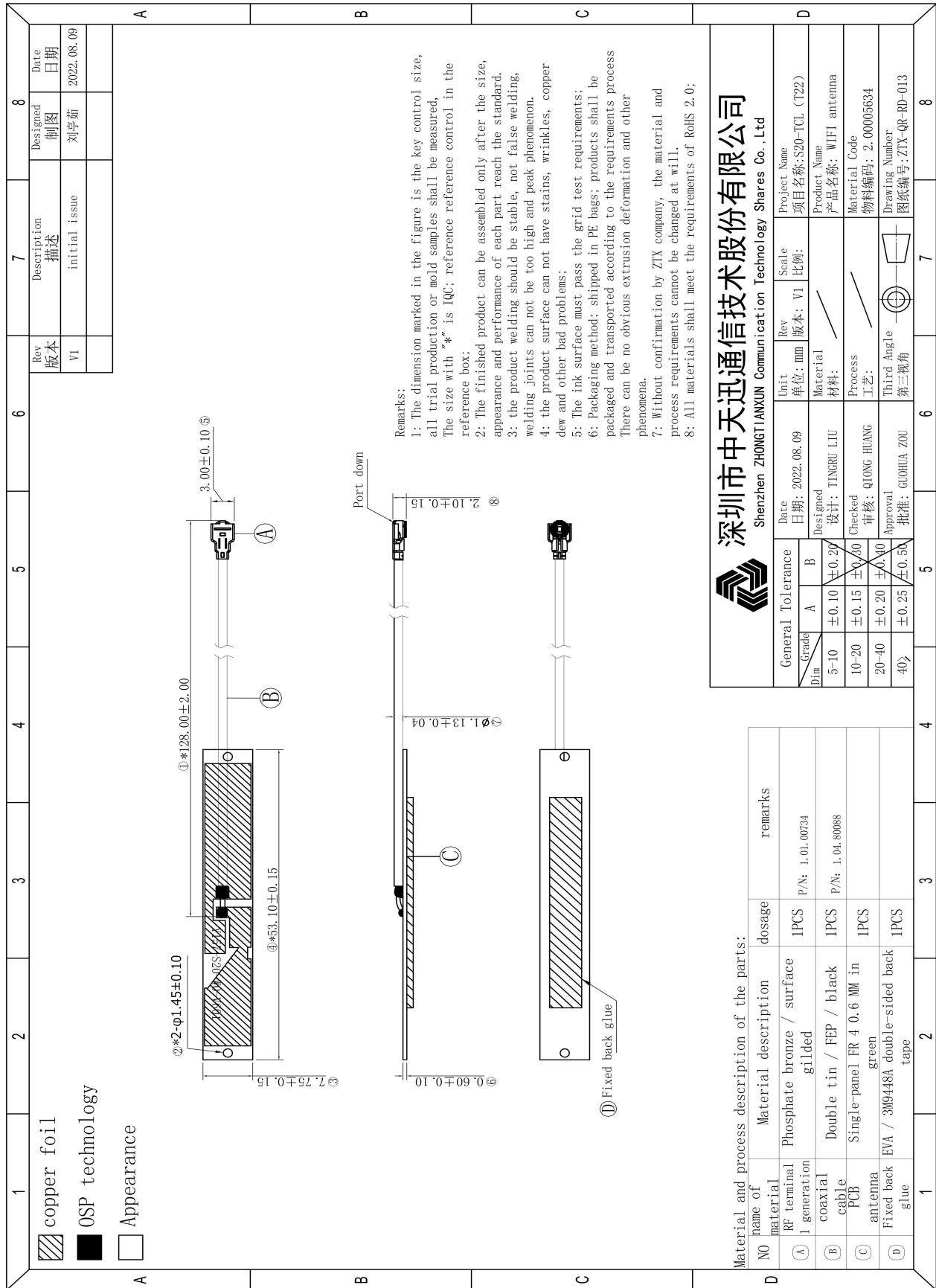
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1. Mechanical Specification

1-1 Mechanical Configuration (S20-TCL WIFI antenna assembly)



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2.Antenna test data

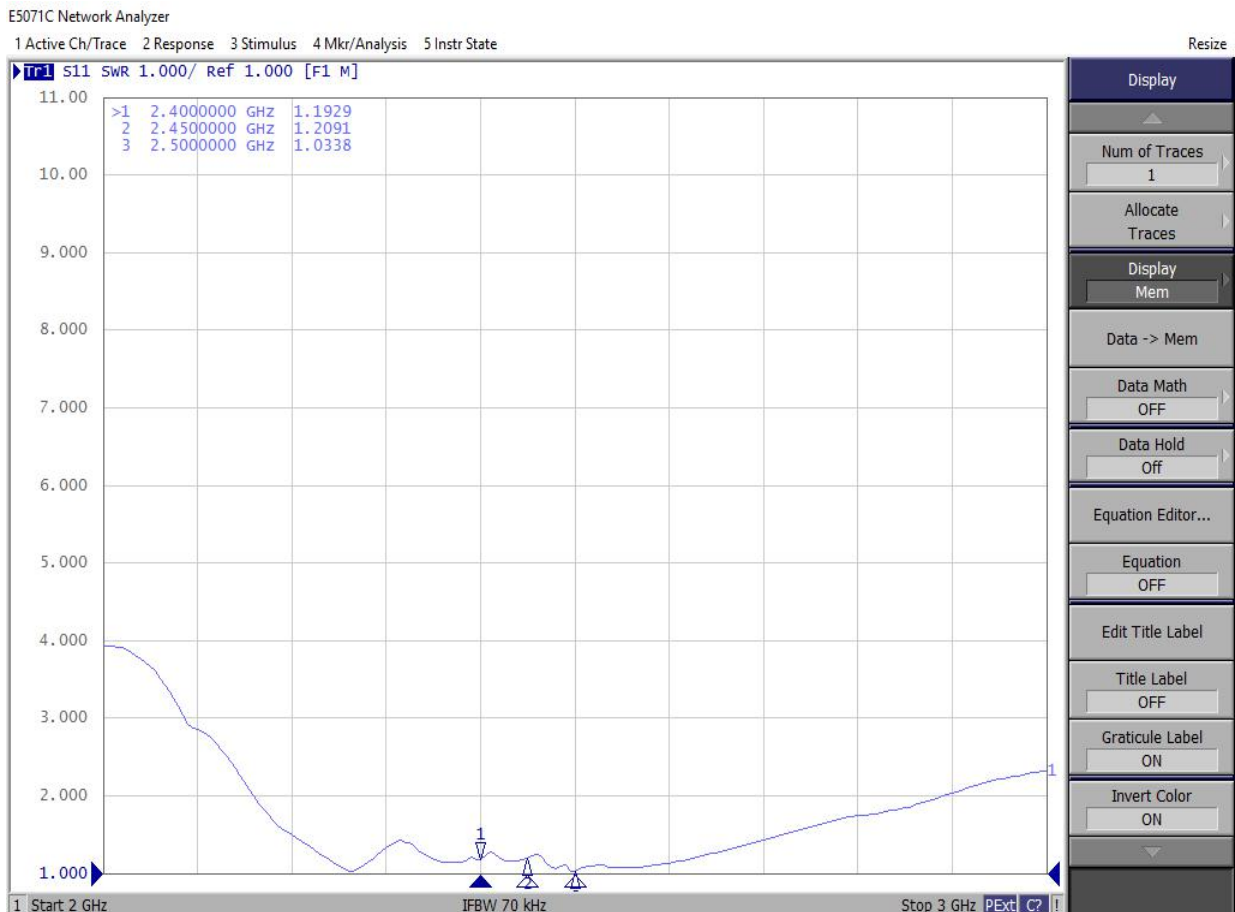
2-1 Test Data

3D test data		2.4G-802.11b-HT20			
2.4G	channel	1	7	13	Date Rate,Mbps
	TRP	18.4	18.4	17.13	11M
	TIS	-80.36	-80.78	-80.63	11M

3D test data		2.4G-802.11g-HT20			
2.4G	channel	1	7	13	Date Rate,Mbps
	TRP	15.43	14.7	15	6M
	TIS	-70.46	-70.36	-71.56	54M

3D test data		2.4G-802.11n-HT20			
2.4G	channel	1	7	13	Date Rate,Mbps
	TRP	15.51	14.93	14.79	6.5M
	TIS	-68.82	-68.17	-67.74	65M

2-2 VSWR



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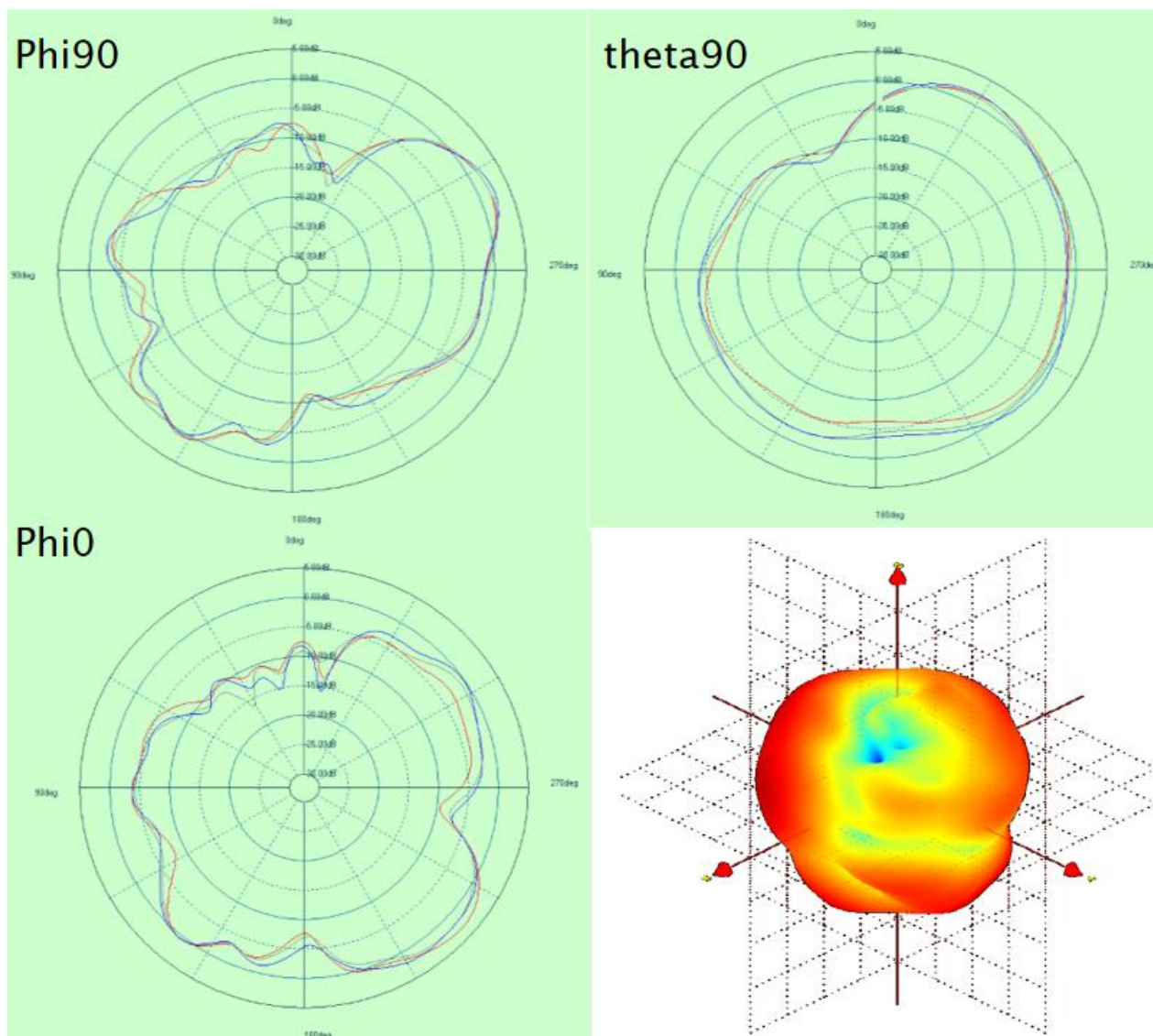
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2-3 No-source test data

Frequency	Efficiency	Efficiency	Gain . dB
2.4E+09	52%	-2.81	3.74
2.41E+09	53%	-2.77	2.95
2.42E+09	53%	-2.79	3.02
2.43E+09	52%	-2.85	3.66
2.44E+09	55%	-2.58	3.67
2.45E+09	54%	-2.70	3.56
2.46E+09	54%	-2.70	2.82
2.47E+09	56%	-2.57	3.16
2.48E+09	56%	-2.55	3.26
2.49E+09	54%	-2.65	2.77
2.5E+09	56%	-2.52	3.51

2-4 2D/3DRadiation Pattern Results



ANTENNA SPECIFICATION




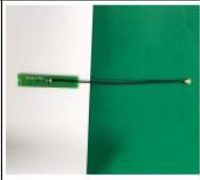


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4. Test Report




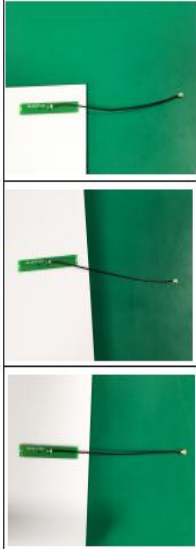

测试报告(Test Report)							
样品名称 (Product name)	WIFI antenna assembly	样品型号 (Part Model)	S20-TCL (T22)	环境温度 (Ambient temperature)	20±5℃	测试日期 (Date of test)	2022/9/12
样品数量 (Specimens quantity)	12PCS	客户料号 (Customer number)	/	相对湿度 (Relative humidity)	50-60%RH	委托单位 (Client/Dept)	品质部
测试原因 (Test reasons)	<input checked="" type="checkbox"/> 新型号/材料验证 <input type="checkbox"/> 新工艺验证 <input type="checkbox"/> ORT测试 <input type="checkbox"/> 过期物料 <input type="checkbox"/> 客户投诉/要求 <input type="checkbox"/> 高不良率 <input type="checkbox"/> 其他: 定期可行性分析 <input checked="" type="checkbox"/> New model/material verification <input type="checkbox"/> New process verification <input type="checkbox"/> ORT test <input type="checkbox"/> Expired Materials <input type="checkbox"/> Customer complaints/requirements <input type="checkbox"/> High defect rate <input type="checkbox"/> Others: _____			测试依据 (Test documentation)	<input type="checkbox"/> 产品图纸 <input type="checkbox"/> 天线可靠性检验基准书 <input checked="" type="checkbox"/> 客户要求 <input type="checkbox"/> 出货检验基准书 <input type="checkbox"/> 其他: <input type="checkbox"/> Product Drawings <input type="checkbox"/> Antenna Reliability Test reference <input checked="" type="checkbox"/> Customer requirements <input type="checkbox"/> Shipping inspection reference book <input type="checkbox"/> Others:		
序号 (NO)	测试项目 (Test project)	样品数 (Samples Qty.)	测试仪器 (Test equipment)	测试条件与要求 (Test condition and note)	测试结果 (Test result)	结论 (Conclude) (Pass/Fail)	样品图片/实测值 (Sample picture/measured value)
1	盐雾测试 Salt Spray Test	3 PCS	盐雾测试机 Salt spray tester	1.将产品以30度±5度放置于试验箱 2.调试好试验箱参数: NaCl (无水); 浓度5%±1%; pH值: 6.5 ~ 7.2; 实验室温度: 35±1℃; 压缩空气压力:1.0±0.01(KG/M2)喷雾量: 1.0 ~ 2.0ML/80CM2/H.相对湿度:85%±2%;试验品放置角度:30度 +/- 10度 3.放置时间为24小时. 4.清洗后在室温条件下放置2H观察 要求: 镀(涂)层无脱落、起泡、腐蚀、氧化等不良现象; 产品表面不可有锈斑等不良现象 1. Place the product in the test chamber at 30 ° ± 5 ° 2. Adjust the parameters of the test chamber: NaCl (no water); Concentration 5%±1%; pH value: 6.5 ~ 7.2; Laboratory temperature: 35±1℃; Compressed air pressure :1.0±0.01(KG/M2) spray volume :1.0 ~ 2.0ML/80CM2/H. Relative humidity :85%±2%; Test product placement Angle :30 degrees +/-10 degrees 3. The storage time is 24 hours. 4. After cleaning, place in room temperature for 2 hours for observation.	均未出现镀层脱落及氧化现象。 No coating shedding and oxidation occurred.	Pass	  
2	高温测试 High temperature test	3 PCS	高低温交变湿热试验箱 High and low temperature alternating humidity and heat test chamber	1.将样品放入高温 75 °C±3°C 的环境中保持2小时后取出 2.在室温条件下放置2H. 1. Put the sample into a high temperature environment of 75 °C±3 °C for 2 hours and then take it out 2. Store at room temperature for 2 hours.	产品表面无起皱, 无起翘, 无脱落。 Product surface no wrinkle, no bubbling, no warping, no shedding.	Pass	  

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3	低温测试 low tempera ture test	3 PCS	低温冰箱 cryogenic refrigerator	<p>1.将样品放入低温 -40 °C±3°C 的环境中保持2小时后取出 2.在室温条件下放置2H.</p> <p>1. Keep the sample at low temperature-40°C± 3°C for 2 hours and remove it 2. Place for 2 H at room temperature.</p>	<p>产品表面无起皱,无起泡,无起翘,无脱落</p> <p>1. Put the sample into a low temperature -40 °C±3°C environment for 2 hours before taking it out 2. Store at room temperature for 2 hours.</p>	Pass	
4	高温高湿 储存测试 High tempera ture and high humidity storage test	3 PCS	高低温交变湿热试 验箱 High and low temperature alternating humidity and heat test chamber	<p>1.取样3pcs 2.将测试样品置于测试箱中(温度40±3°C,湿度90%~95%RH),放置21H后取出检查.</p> <p>1. Sample 3pcs 2. Put the test sample in the test box (temperature 40±3°C, humidity 90% ~ 95% RH), and take it out for examination after 21H.</p>	<p>产品表面无起皱,无起泡,无起翘,无脱落</p> <p>Product surface no wrinkle, no bubbling, no warping, no shedding</p>	Pass	
5	百格试验 Hundred grid test	3 PCS	百格刀 Cross-Cut Tester	<p>用百格刀在测试样本表面≥10m²的地方划10×10个(100个)1mm×1mm小网格,每一条划线应深及油墨层的底层;用毛刷将测试区域对角线方向各刷五次,清理干净碎片;用3M600胶牢牢粘住被测试小网格,并用橡皮用力擦拭胶带,以加大胶带与被测区域的接触面积及力度;用手抓住胶带一端,以90°快速扯下胶纸。涂层脱落面积≤5%为合格,如>5%为不合格.</p> <p>With 100 grid knife in the test sample surface ≥10m square meters of the place to draw 10×10 (100)1mm×1mm small grid, each line should be deep and the bottom of the ink layer; Brush the test area five times in each diagonal direction with a brush to clean up the debris; Stick the small grid under test firmly with 3M600 glue, and wipe the tape with a rubber to increase the contact area and strength between the tape and the area under test; Grab one end of the tape with your hand and pull it off quickly at 90 degrees. If the coating shedding area is less than 5%, it is qualified. If the coating shedding area is more than 5%, it is unqualified</p>	<p>试验后涂层无脱落。</p> <p>The coating did not fall off after the test.</p>	Pass	
备注(Comments):							
核准(Approved by): 邓孝华 Deng Xiaohua		审核(Checked by): 易爱玲 Yi Ailing		测试(Name of operator): 李丽华 Li Li Hua			

表单编号: ZTX-QR-QA-076 版本: A1



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5.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
5-1	High Temperature/Humidity Storage Test(non operating)	1. Temperature: $+70 \pm 2^{\circ}\text{C}$ 2. Humidity: 90~95%RH 3. Time: 48hrs	No material deformation is allowed.
5-2	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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6.The packing way



包装规范&作业指导书 SOP

客户名称customer name	TONGZHE	产品型号 product model	S20-TCL (T22)		产品名称 product	WIFI Antenna
纸箱规格Carton specifications	K=K45*32.5*21CM		物料编号 Material number	1.12.000002	用量 dosage	1PCS
PE封口袋PE seal pocket	360*280*0.10mm		物料编号 Material number	1.12.000026	用量 dosage	10PCS
PE开口袋PE open the pocket	240*160*0.05mm		物料编号 Material number	1.12.000030	用量 dosage	50PCS
纸板规格Paper board	2PCS / box		其他物料unclassified stores	标签/胶带Tags / tape		
每箱数量Number of boxes per box	1000~5000PCS	PE开口袋数量 PE open pocket number	50~100PCS	PE封口袋数量Number of PE sealing pockets	200~500PCS	
注意事项 Matters need attention	1.客户物料编码和数量是否正确，标签必须用机打印的。 2.内标签、外标签、出货报告、送货单内容需一致。 3.如是试产物料或有变更均需贴相应标识，尾数箱需贴尾数标识，内附检验报告等。 1. Whether the customer material code and quantity are correct, the label must be printed by machine. 2. Internal label, external label, shipment report and delivery form should be consistent. 3. If the trial production materials or change, the corresponding identification shall be affixed, the mantissa box shall be affixed, and the inspection report shall be attached.					
包装简图Packaging diagram : 1.取 (50~100pcs) 产品，装袋，贴物料标签； 1. Take (50~100pcs) products, bag and label materials; 2.将包装好的产品装入大袋 (200~500pcs)，贴物料标签； 2. Put the packaged products into large bags (200~500pcs) and label the materials; 3.将包装好的装箱 (1000~5000pcs)，贴物料标签； 3. Box the packaging (1000~5000pcs) and label the materials; 4.封箱。 4. Seal the box.						
NO	变更内容Change content	变更人及日期 Change person and date				
标签简图Tag diagram : 			外箱简图Short diagram of outer box : <p>(总和外箱标签需贴满封面)</p>			

制表(Tabulation) : 韦泓佳 HONGJIA WEI

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核准(Approved by): 党非非FEIFEI DANG