深圳市华曦达科技股份有限公司

SHEN ZHEN SDMC Technology Co.，LTD

样品承认规格书

PART SHEET FOR APPROVAL

制造商名称： Manufacturer：	深圳市英佳创电子科技有限公司 Shenzhen Yingjiachang Electronic Technology Co., LTD.
供应商名称 Supplier:：	深圳市英佳创电子科技有限公司 Shenzhen Yingjiachang Electronic Technology Co., LTD.
产品名称： Part Description:	2.4G/5G 内置天线 2.4G /5G built-in antenna
规格型号: Model No:	YJC-6N000-B406
物料编码： Cust P/N:	360500010
日期： Issued Date：	2023.04.27

深圳市英佳创电子科技有限公司 工程专用章

供应商确认 Supplier confirmation

承办 Made By	审核 Engineer	批准 Approver
殷飞杰	方文锋	肖汉

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.

地址：深圳市南山区高新科技园科技南十二路 18 号长虹科技大厦 19 层

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APPROVAL SHEET
承认书

CUSTOMER NAME 客户名称	深圳市华曦达科技股份有限公司
CUSTOMER P/N 客户料号	360500010
PART NAME 品　　名	2.4G/5G 内置天线 2.4G /5G built-in antenna
P/ N 料　　号	YJC-6N000-B406
APPROVAL REV. 版　　次	A2
DELIVERY DATE 送样日期	2023 年 04 月 27 日
PREPARED BY 承　办	殷飞杰
CHECKED BY 审　核	方文锋
APPROVED BY 核　准	肖 汉

深圳市英佳创电子科技有限公司 工程专用章

Customer Approved 客　户　承　认		
Prepared By 承　办	Checked By 审　核	Approved By 核　准

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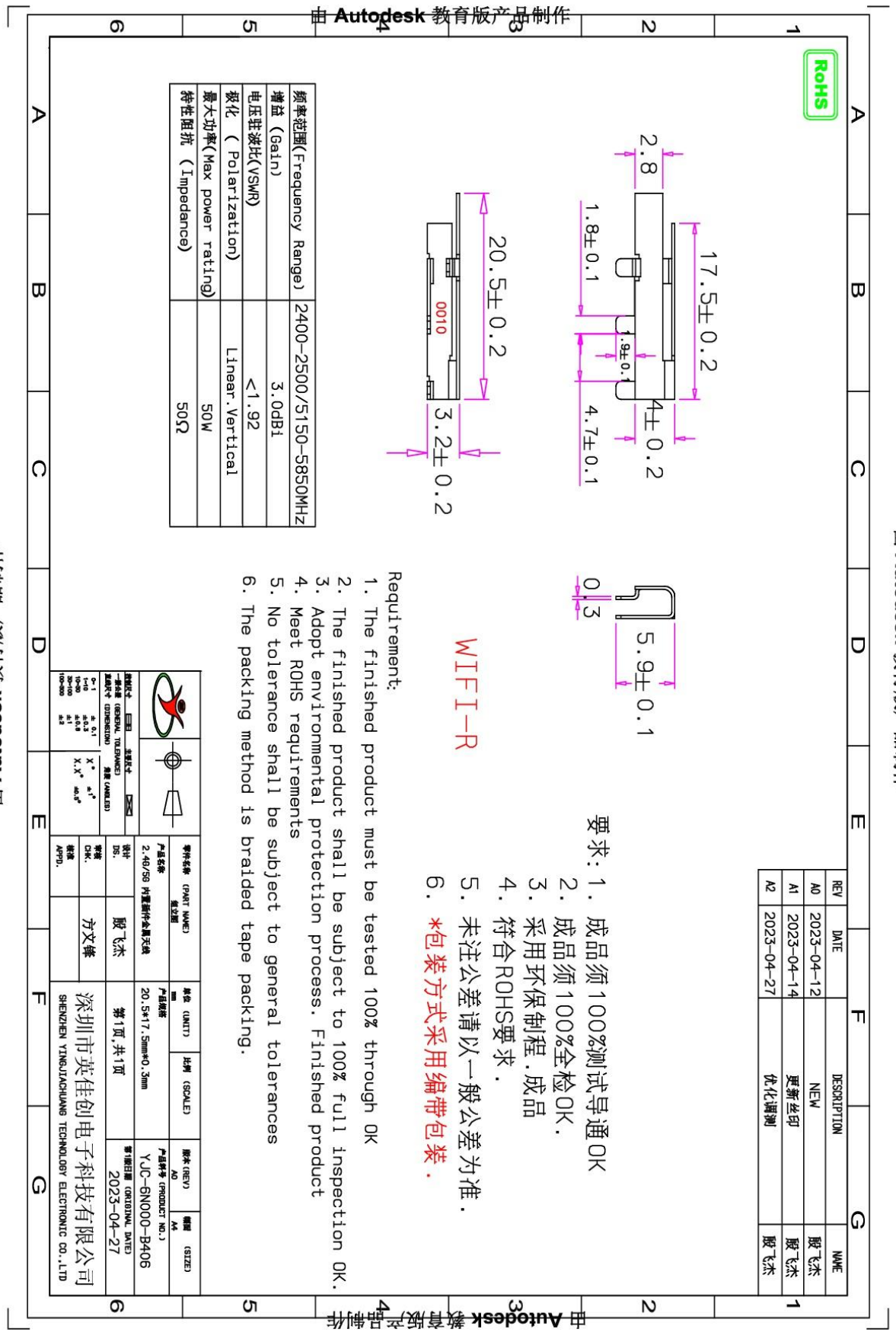
电话：0755-27810060　　传真：0755-27810057　　网址：http://www.szsyjc.com

目录（Catalogue）

履历表(Resumer)：

版本 Version	变更内容及更改原因 Changes and reasons	发行 publish	发行 publish
A/0	初版发行（Issued）	2023 年 04 月 12 日 （September 12, 2023）	
A/1	更新丝印（Update screen printing）	2023 年 04 月 14 日 （September 14, 2023）	
A/2	优化调测（Optimized commissioning）	2023 年 04 月 27 日 （September 27, 2023）	

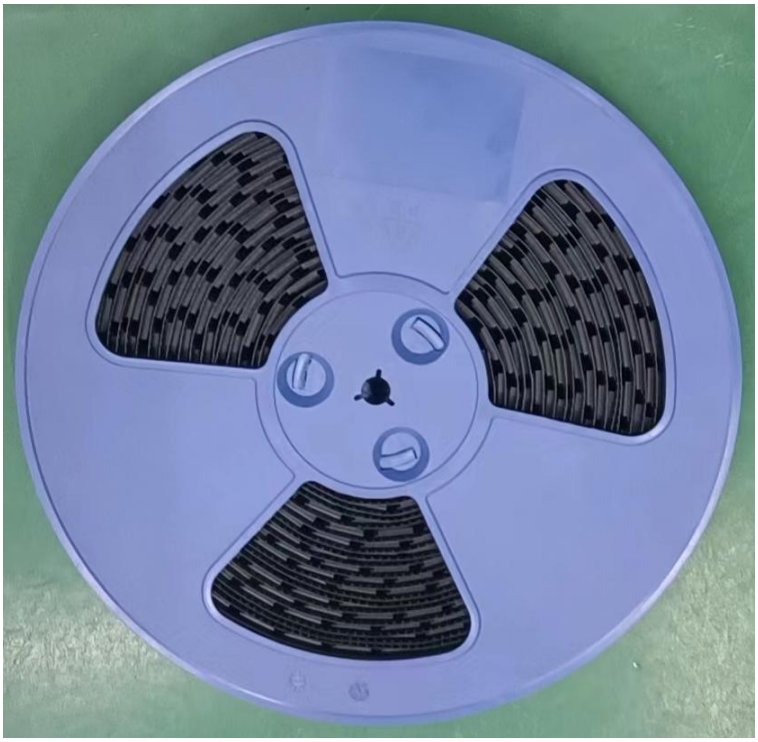
产品平面图(Product plan)：



天线技术参数(Antenna technical parameters)：

电气技术参数(Electrical technical parameters)	
电 性 能 指 标（Electrical Specifications）	
频率范围 （Frequency Range）	2400 -2500/5150-5850MHZ
电压驻波比（VSWR）	＜1.92
输入阻抗（Input Impedance）	50 Ω
方向（Direction）	全向
增益（Gain）	WIFI-L: 2.4G≧2. 01dBi，5G≧2. 0dBi
机 械 指 标（Mechanical Specifications）	
材质	304 不锈钢（Stainless steel）
工作温度	-20℃~+70℃
工作湿度	20~80%

包装方式（The packing way）：



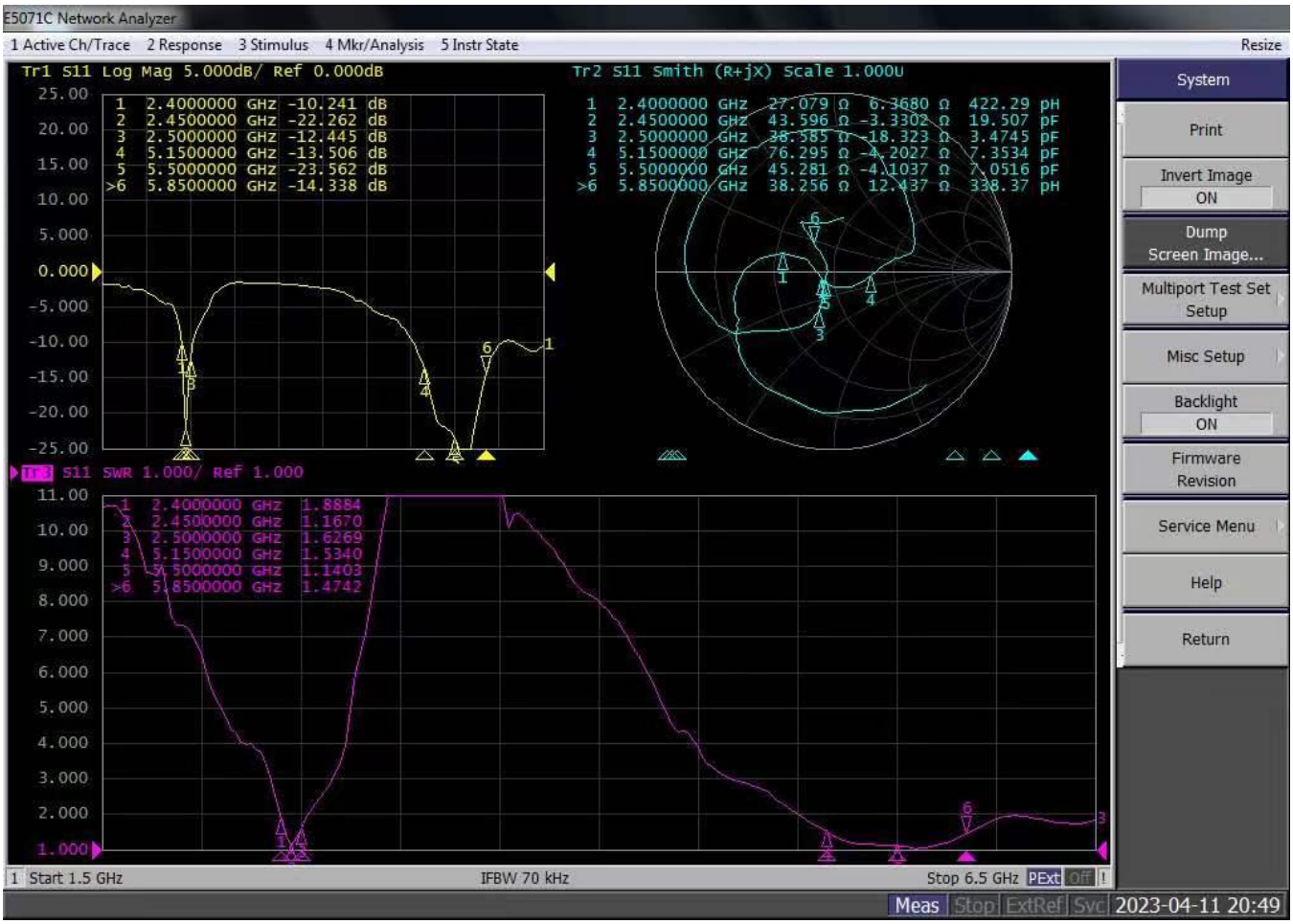
环境性能测试(Environmental performance testing):

项目(Project)	测试条件(Test condition)	规格(Specification)
储存环境 Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows: 在没有指定的情况下测试温度、湿度、气压如下: 1.Temperature is - 30 ℃ ~ + 80 ℃ 1.温度为-30℃～+80℃ 2.Relative humidity of 45% to 85% 2.相对湿度为45%-85% 3. Air pressure is 86 kpa to 106 kpa 3.气压为86kpa-106kpa	Electrical and mechanical properties is normal 电气机械性能正常
高低温试验 high and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality. 在70℃与-20℃之间进行5次循环,然后在正常条件下1-2H,检查外观质量。	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties 尺寸应满足规定并应满足于机械、电气性能
耐恒定湿热试验 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 相对湿度95±3%,试验温度:40℃.持续2H作用后,试品取出后5min之内测定电气性能,试品在正常条件下1-2H,检查外观质量	Size should meet the requirements and should satisfy the content with the electrical and mechanical properties 尺寸应满足规定并应满足于机械、电气性能
振动试验 vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times 振频范围10-55HZ,位移幅值:0.35MM, 加速度幅值:50.0M/S,扫频循环次数:30次	Electrical and mechanical properties is normal 电气机械性能正常
跌落试验 fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times 1M高空按照互相垂直的轴方向自由跌落3次	Electrical and mechanical properties is normal 电气机械性能正常

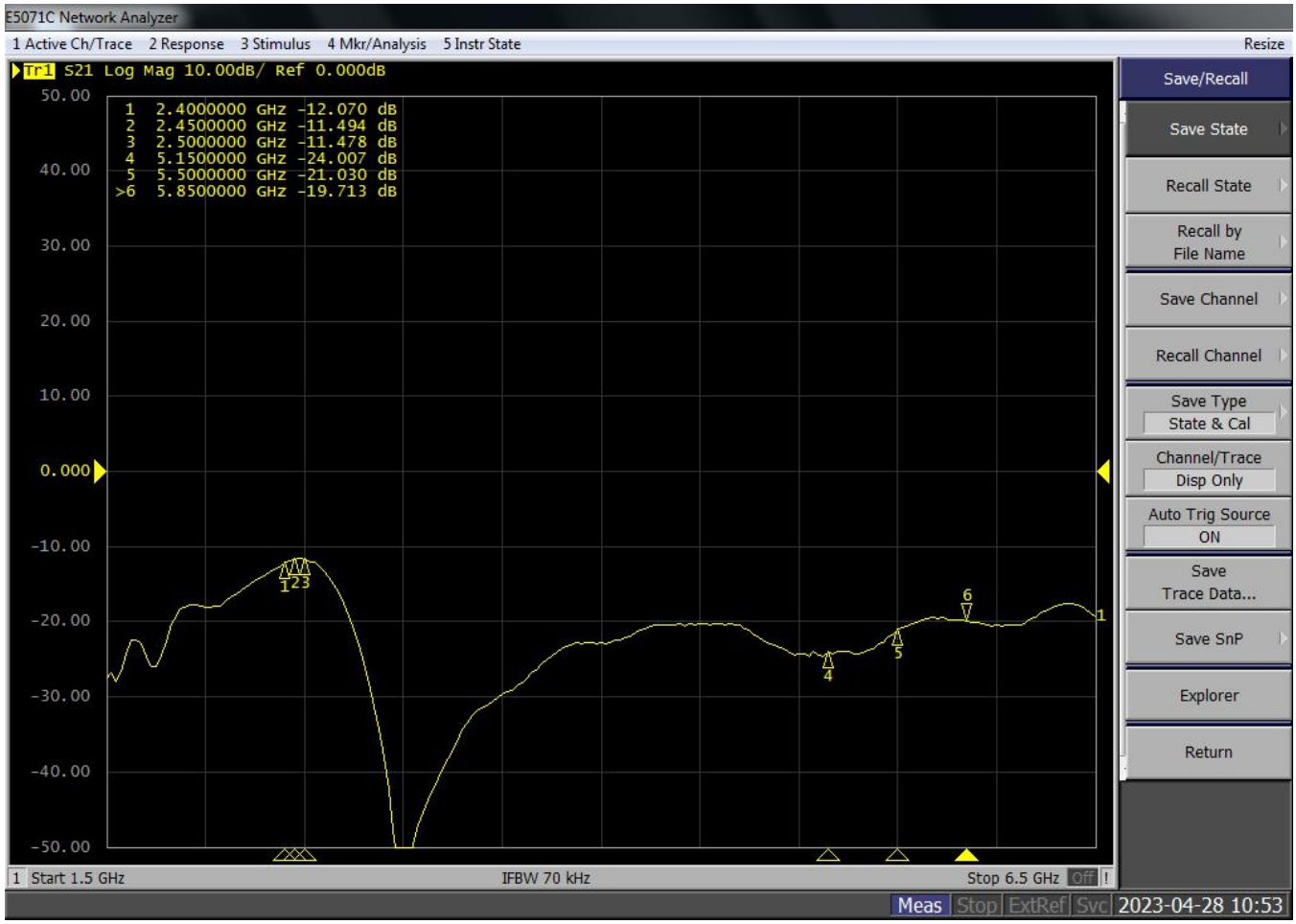
天线贴附位置图(Antenna attachment position diagram)：

天线贴附位置图
Antenna attachment position diagram

天线性能测试图(Antenna performance test diagram)(WIFI-R)：



WIFI -L&WIFI-R 隔离度



2D、3D 测试数据 Test data(WIFI-R: 2.4G/5G) ：

Frequency(MHz)	Efficiency (%)	Gain.(dBi)
2400	60.12	2.01
2410	64.57	2.51
2420	64.71	2.79
2430	68.87	3.04
2440	68.55	3.07
2450	69.18	3.21
2460	68.39	3.16
2470	66.99	3.14
2480	65.61	3.04
2490	65.31	3.03
2500	60.67	3.29
5150	63.83	2.64
5200	67.76	2.88
5250	70.15	2.21
5300	67.76	2
5350	67.61	2.34
5400	65.01	2.33
5450	67.45	2.45
5500	69.82	2.48
5550	70.63	2.66
5600	68.55	2.75
5650	66.68	2.96
5700	66.99	3.09
5750	66.99	3.13
5800	65.46	3.01
5850	65.31	3.07

2D、3D 测试数据 Test data(WIFI-R: 2.4G/5G) ：

WIFI -R 天线方向图-2.4G/5G(Antenna direction diagram - 2.4G/5G)

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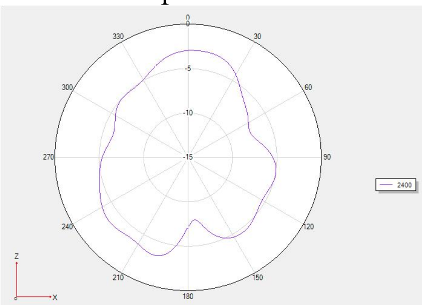
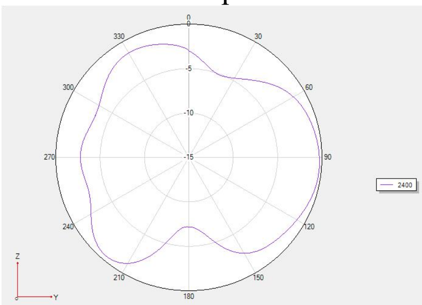
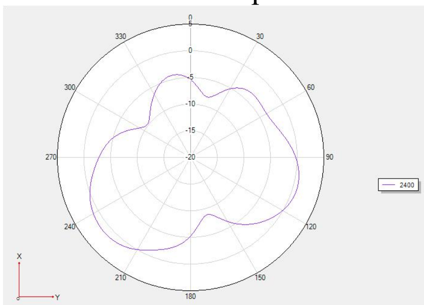
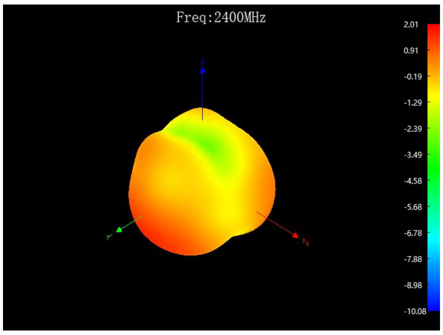


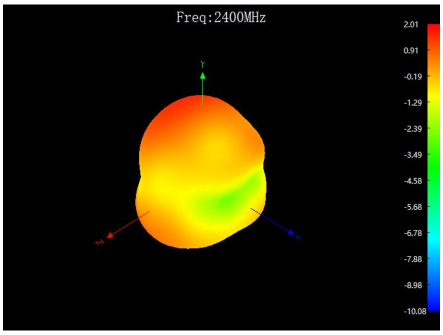
Phi =90 freq=2400MHz

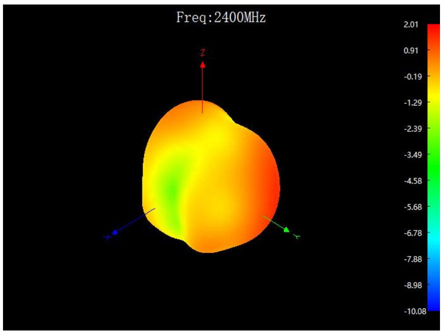


Theta =90 freq=2400MHz









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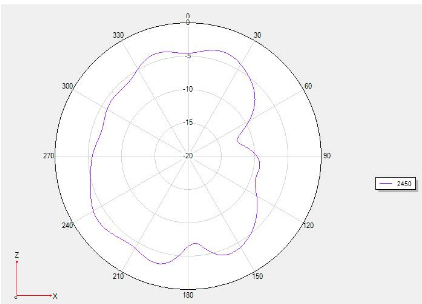

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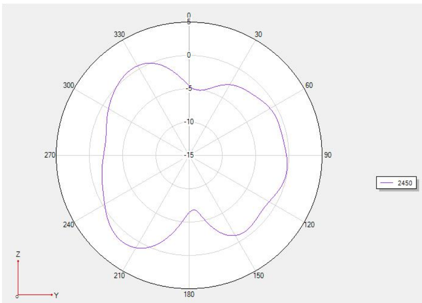

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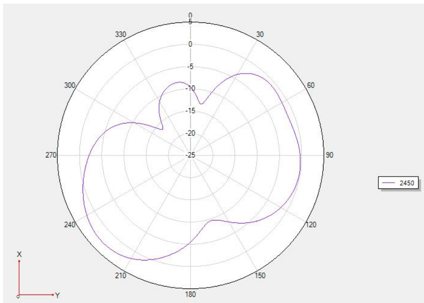

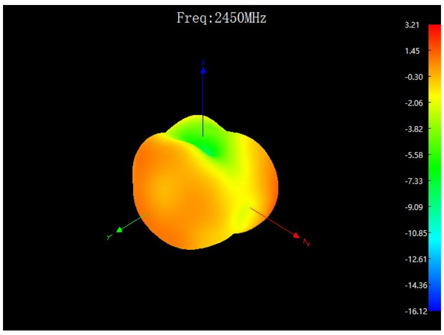

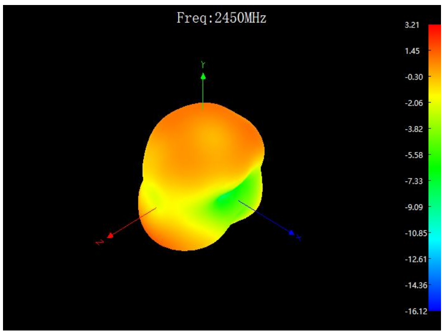

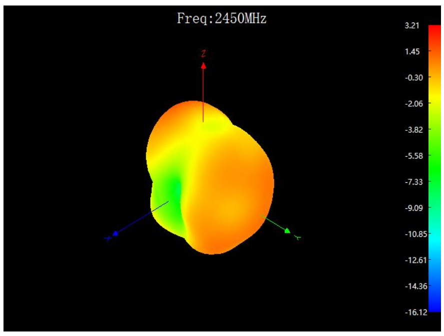

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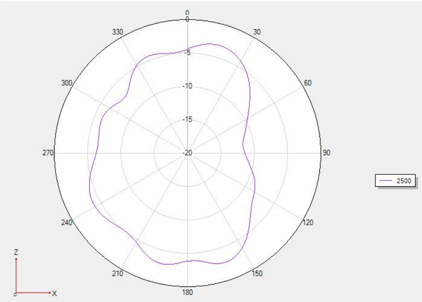
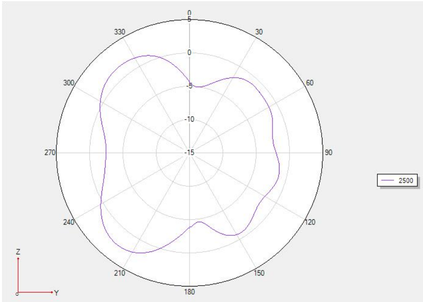
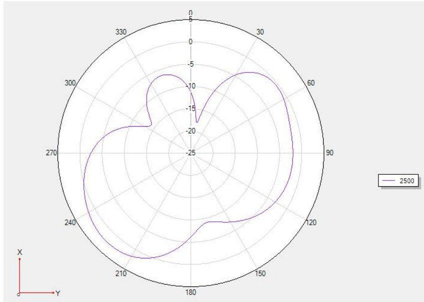

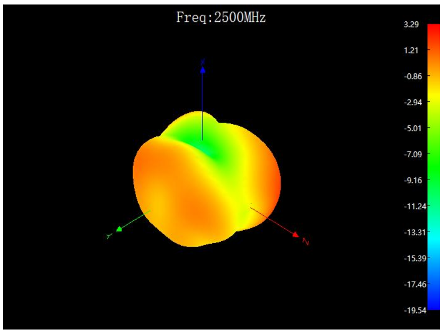

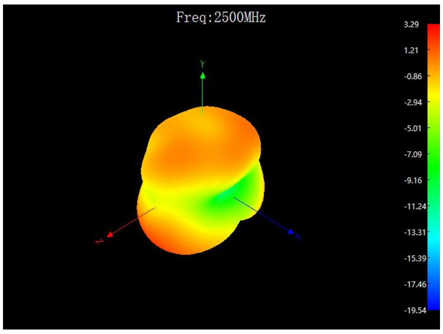

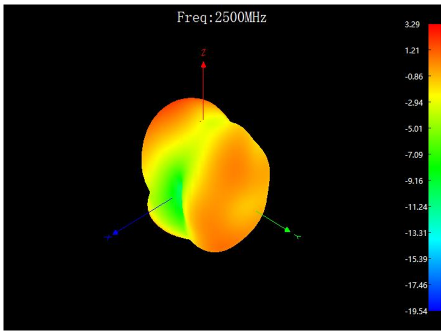

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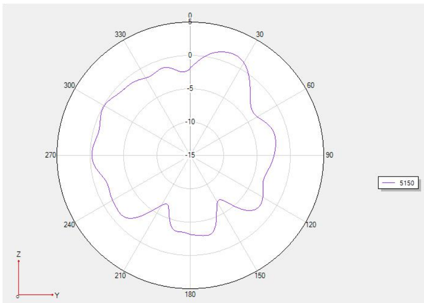
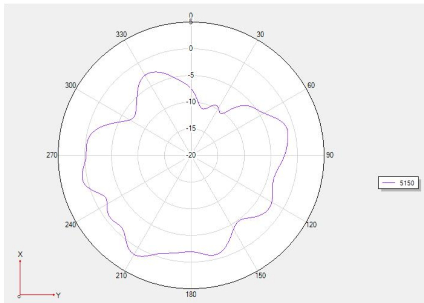

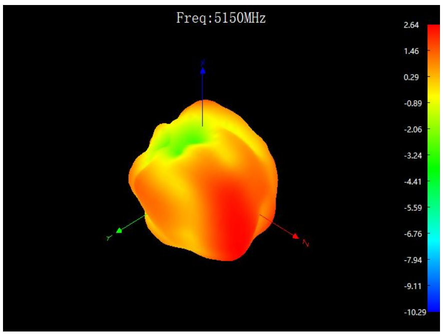

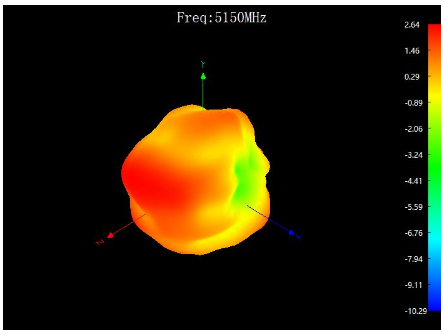

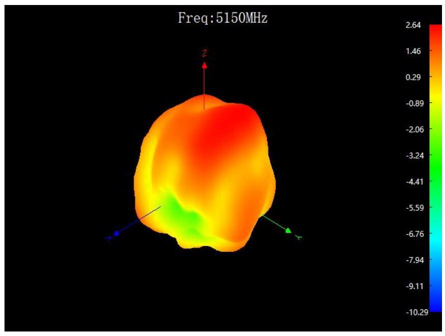

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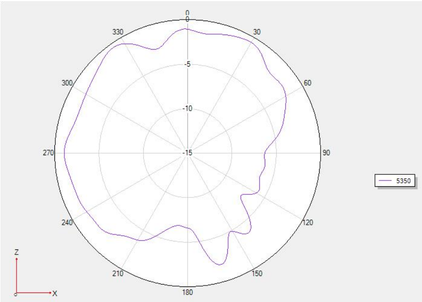

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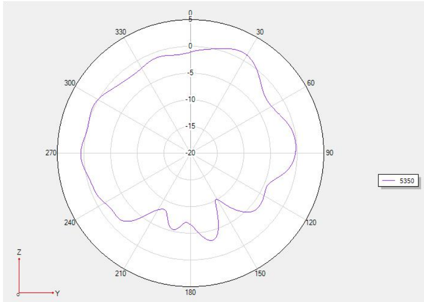

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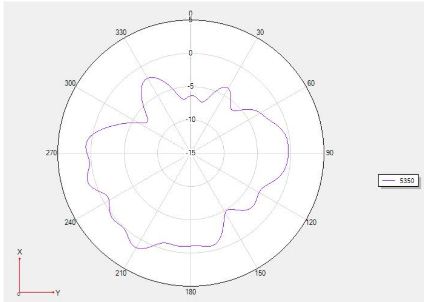

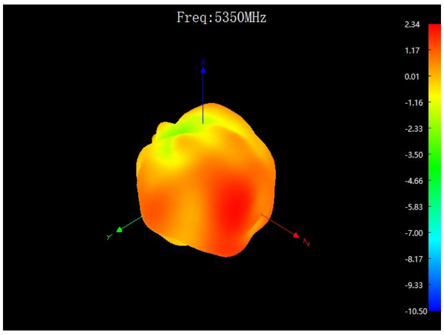

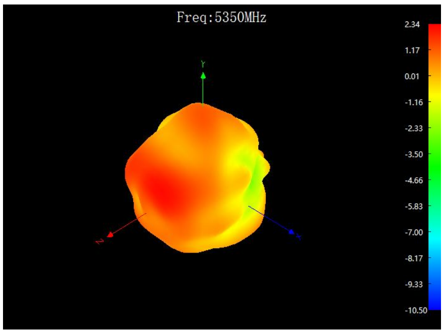

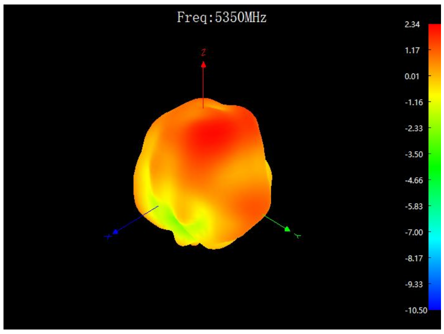

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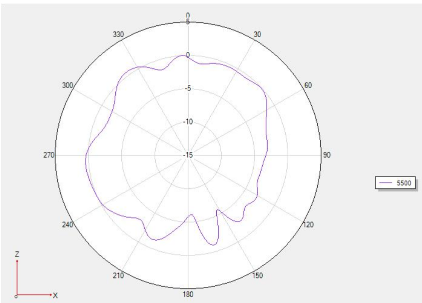

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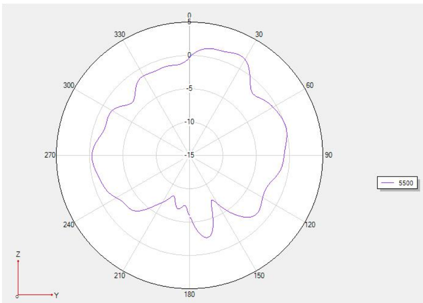

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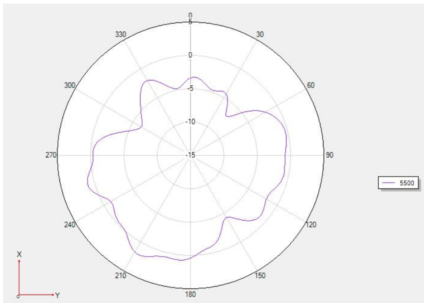

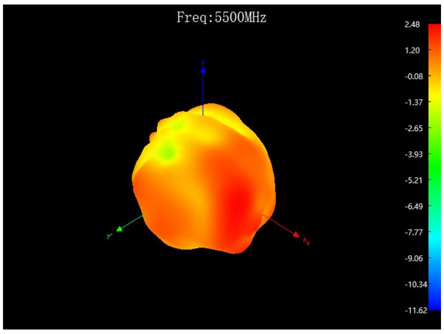

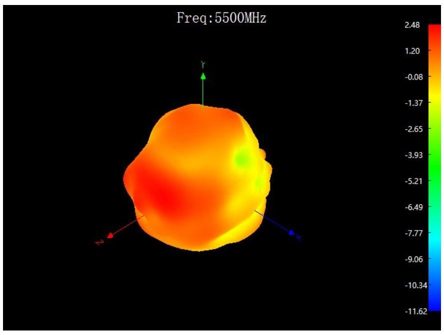

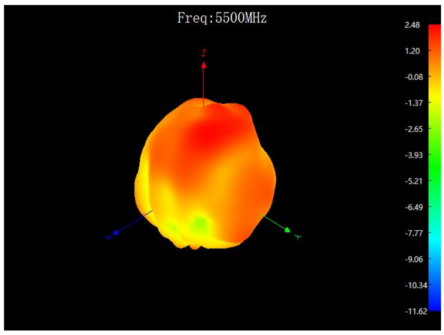

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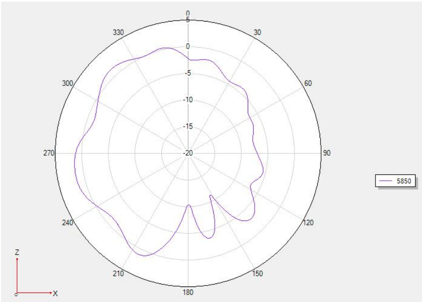

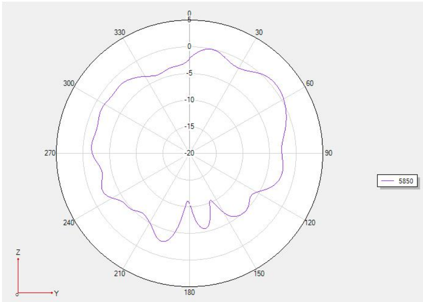

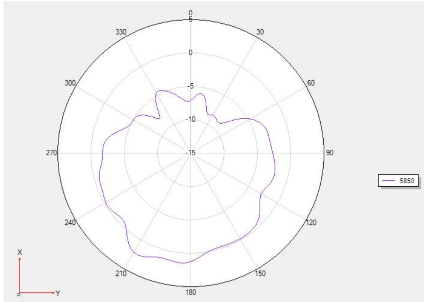

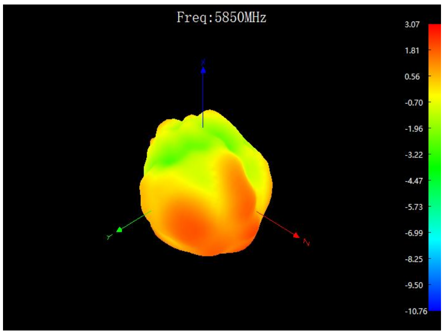

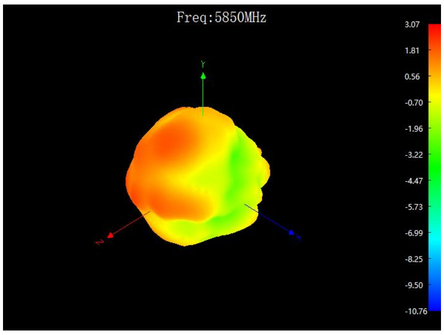

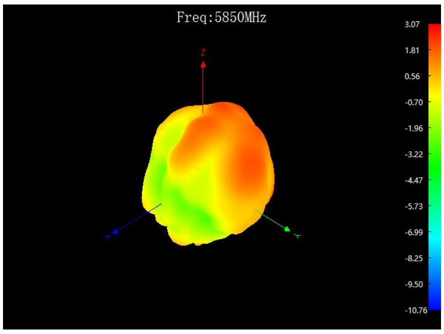

OTA 有源测试数据统计(OTA active test data statistics)：

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	15.26
2	TRP	WIFI_B (11M)	6	2437	15.06
3	TRP	WIFI_B (11M)	11	2462	14.75
4	TIS FAST	WIFI_B (11M)	1	2412	-83.84
5	TIS FAST	WIFI_B (11M)	6	2437	-86.67
6	TIS FAST	WIFI_B (11M)	11	2462	-84.1
7	TRP	WIFI_N(65M)	1	2412	9.74
8	TRP	WIFI_N(65M)	6	2437	9.73
9	TRP	WIFI_N(65M)	11	2462	10.11
10	TIS FAST	WIFI_N(65M)	1	2412	-68.52
11	TIS FAST	WIFI_N(65M)	6	2437	-69.48
12	TIS FAST	WIFI_N(65M)	11	2462	-67.48
13	TRP	WIFI_N(65M)	36	5180	9.06
14	TRP	WIFI_N(65M)	64	5320	10.54
15	TRP	WIFI_N(65M)	100	5500	10.91
16	TRP	WIFI_N(65M)	161	5805	11.23
17	TIS FAST	WIFI_N(65M)	36	5180	-73.36
18	TIS FAST	WIFI_N(65M)	64	5320	-72.67
19	TIS FAST	WIFI_N(65M)	100	5500	-70.98
20	TIS FAST	WIFI_N(65M)	161	5805	-69.92
21	TRP	WIFI_A (54M)	36	5180	8.75
22	TRP	WIFI_A (54M)	64	5320	11.04
23	TRP	WIFI_A (54M)	100	5500	11.63
24	TRP	WIFI_A (54M)	161	5805	11.71
25	TIS FAST	WIFI_A (54M)	36	5180	-77.68
26	TIS FAST	WIFI_A (54M)	64	5320	-78.21
27	TIS FAST	WIFI_A (54M)	100	5500	-77.12
28	TIS FAST	WIFI_A (54M)	161	5805	-76.6

OTA 有源测试数据统计(OTA active test data statistics)：

1	TRP	0	2402	-1.58
2	TRP	9	2411	-1.69
3	TRP	19	2421	-1.94
4	TRP	29	2431	-1.98
5	TRP	39	2441	-2.27
6	TRP	49	2451	-2.44
7	TRP	59	2461	-2.87
8	TRP	69	2471	-3.29
9	TRP	78	2480	-3.66
10	TIS(EIRP)	0	2402	-90.1
11	TIS(EIRP)	9	2411	-89.12
12	TIS(EIRP)	19	2421	-89.54
13	TIS(EIRP)	29	2431	-90.77
14	TIS(EIRP)	39	2441	-91.78
15	TIS(EIRP)	49	2451	-89.24
16	TIS(EIRP)	59	2461	-90.56
17	TIS(EIRP)	69	2471	-90.75
18	TIS(EIRP)	78	2480	-91.88
19	TRP	0	2402	-1.45
20	TRP	9	2411	-1.6
21	TRP	19	2421	-1.77
22	TRP	29	2431	-1.78
23	TRP	39	2441	-2.1
24	TRP	49	2451	-2.29
25	TRP	59	2461	-2.69
26	TRP	69	2471	-3.11
27	TRP	78	2480	-3.51
28	TIS(EIRP)	0	2402	-88.79
29	TIS(EIRP)	9	2411	-87.35
30	TIS(EIRP)	19	2421	-88.4
31	TIS(EIRP)	29	2431	-89.26
32	TIS(EIRP)	39	2441	-90.11

33	TIS(EIRP)	49	2451	-88.89
34	TIS(EIRP)	59	2461	-88.59
35	TIS(EIRP)	69	2471	-90.48
36	TIS(EIRP)	78	2480	-90.79
37	TRP	0	2402	-1.33
38	TRP	9	2411	-1.55
39	TRP	19	2421	-1.8
40	TRP	29	2431	-1.8
41	TRP	39	2441	-2.07
42	TRP	49	2451	-2.26
43	TRP	59	2461	-2.69
44	TRP	69	2471	-3.11
45	TRP	78	2480	-3.48
46	TIS(EIRP)	0	2402	-81.17
47	TIS(EIRP)	9	2411	-81.49
48	TIS(EIRP)	19	2421	-82.07
49	TIS(EIRP)	29	2431	-83.57
50	TIS(EIRP)	39	2441	-84.07
51	TIS(EIRP)	49	2451	-84.13
52	TIS(EIRP)	59	2461	-83.62
53	TIS(EIRP)	69	2471	-85.08
54	TIS(EIRP)	78	2480	-85.21

盐雾试验记录报告

RD/YW-20230426-1

试验日期	2023/4/26	报告编号	20230426
产品名称	304 不锈钢镀镍金属件	产品料号	YJC-6N000-B405 YJC-6N000-B406
供方名称		试验数量（PCS）	5PCS+5PCS
试验时间： 26 日 8 时 30 分 至 28 日 8 时 30 分，共计 48 小时			
试验仪器：盐雾测试机			
试验中若有中断其原因为：			

试验项目	测试标准	实际数据
盐水浓度	5%（50±0.5g/L）	5%
喷雾量	1.0-2.0ml/80CM^2/H	1.8ml
PH 值	6.5-7.2	7
空气压力	1.00±0.01(kgf/CM$^{2)}$	1
实验室湿度	相对湿度：80%±5%	83%
实验室温度	35℃±1℃	34%
压力桶温度	47℃±1℃	46%
盐水温度	35℃±1℃	35℃

试样处理及判定公式：

1、取出试样用流动冷水轻轻洗涤，以除去试样表面盐类物质，用吹风机冷风档吹干后检查，观察镀层表面蓝色或绿色斑点数量；

2、斑点直径 1-3mm 按 N=3,斑点直径 3-5mm 按 N=10 计算，缺陷等级计算公式 X=N÷S(镀层面积 $c㎡$)

3、缺陷等级 X＞0.25 为不合格;

试验后状态描述：（在放大镜下观察之现象）




不良现象


判定标准：

GB/T6461-2002《金属基本体上金属和其它无机覆盖层经试验后的试样和试件的评级》所制定的按照腐蚀面积进行评级的方法。

判定结果：　√　合格　　□　不合格

审核：冯应梅　　检验员：朱攀

ROHS 物料控制报告(ROHS Material control report)

兹证明向贵司交货的零組件、辅助材料所使用的原材料、以及生产工程中的添加剂等均符合 RoHS 限制使用有害物质指令的环保要求（RoHS 指令 2011/65/EU)
This is to certify that the components delivered to your company, the raw materials used for auxiliary materials, and the additives used in the production project all meet the environmental requirements of the RoHS directive on limiting the use of hazardous substances . （RoHS 指令 2011/65/EU)

关于零组件、辅助材料所使用的原材料、包装材料以及和产过程中使用的添加剂等的构成成份报告如下：
The report on the composition of raw materials, packaging materials, and additives used in the manufacturing process for component auxiliary materials is as follows

组成物料名称 Component /Part Name	组成材料 Material Composition	ICP 报告编号 ICP report #	测试机构 Test Org.	测试时间 Test Date	有害物质含量(ppm)						是否合格? PASS?
					Cd	Pb	Hg	Cr^{6+}	PBB	PBDE	PASS
金属件	304 不锈钢 Stainless steel	A2220137636101002	SGS	22/04/18	ND	ND	ND	ND	ND	ND	PASS