

# 深圳市爱培科技股份有限公司

# 承 认 书

## APPROVAL SHEET

表单编号:				版本号: V2.0
<b>产品描述</b> Part Description	<b>生产厂家:</b> 深圳市尚远科技有限公司 Vendor:	<b>规格型号/版本:</b> V2.0 Description:		
	<b>产品名称:</b> wifi天线/厂商型号: TND550 FPC天线 Product Name:	<b>所承认项目:</b> TND550 Project:		
	<b>物料代码:</b> SZ20006IB77RB Part No.	<b>环保属性:</b> <input type="checkbox"/> RoHS1.0 (6项) <input checked="" type="checkbox"/> RoHS2.0 (10项) <b>客户料号:</b> <span style="float: right;">客户型号: TND550</span>		
	<b>FPC尺寸(长*宽 单位: mm, 公差±0.15): 30.93*27.22mm 单体净重(单位: g, 公差±3%):</b> <b>供应等级</b> 1供 <span style="float: right;"><b>物料类别</b> (请参照各类材料提供参照表)</span>			
样品提供数量	物料承认书4套及样品6个。可靠性测试物料限4套: 耳机座, 数据线, 充电器, 受话器, 扬声器, 显示组件(屏)。			
<b>附件</b> Attachments	<input type="checkbox"/> 规格书 Spec	<input type="checkbox"/> 物料BOM清单 BOM list	<input type="checkbox"/> 可靠性测试报告 Reliability Report	<input type="checkbox"/> REACH报告(首页) REACH Report
	<input type="checkbox"/> 工程图面 Drawing <input type="checkbox"/> 安规报告 Safety Report <input type="checkbox"/> FAI全尺寸报告 FAI Report <input type="checkbox"/> CPK 报告 Cpk Report	<input type="checkbox"/> 制造流程图 Process Flow Chart <input type="checkbox"/> 成型条件 Injection Condition <input type="checkbox"/> QC工程图 QC Flow Chart <input type="checkbox"/> 批量生产良率报告 Mass production yield report	<input type="checkbox"/> 电气/机械性能测试报告 Electric&mechanical test report <input type="checkbox"/> 限用物质成分调查表 Questionnaire <input type="checkbox"/> RoHS报告(首页) RoHSReport <input type="checkbox"/> HF 无卤报告(首页) HF Report	<input type="checkbox"/> 材料成分表 Substances in Product <input type="checkbox"/> 包装方式 Packing Content <input type="checkbox"/> 样品变更履历表 Sample ECN record <input type="checkbox"/> 样品 Sample
<b>* 限用物质成分调查表为所有物料必须提供; 所有第三方检测报告必须基于封样成品提供, 包括RoHS、HF、REACH等; 供应商交付的物料环保符合性证据不能低于项目的环保要求。</b>				
<b>供应商签核</b> Vendor	<b>拟制: (Design)</b> <span style="float: right;"><b>日期:</b></span>	<b>审核: (Check)</b> <span style="float: right;"><b>日期:</b></span>	<b>批准: (Approval:)</b> <span style="float: right;"><b>日期:</b></span>	<b>供应商质量: (SQE)</b>
<b>客户确认栏</b> Customer Check	<b>结构:</b> Mechanical <b>日期:</b>	<b>硬件:</b> Hardware <b>日期:</b>	<b>测试:</b> Engineering <b>日期:</b>	<b>工业/包材:</b> ID <b>日期:</b>
项目经理: (Project Manager)    客户: (Customer)				
<b>承认条件</b> Approval condition	<input type="checkbox"/> 承认 Approved			
	<input type="checkbox"/> 拒绝承认 Reject			
	<input type="checkbox"/> 条件承认 Condition Approved    需满足条件: _____			
	<input type="checkbox"/> 临时承认 Temporary Approved    限量_____ Pcs 采购			
<b>最终确认</b> Final check	<b>质量策划:</b> Quality Planning		<b>承认书版本号</b>	
<b>审批</b> Approval by	<b>研发总工(技术总监):</b> RD Leader (Technology Director)		<b>质量经理:</b> Quality Manager	
<b>发布部门</b> Release department	<b>* 仅针对特批承认条件下需总工(技术总监)及质量总监审批</b>			
	<input checked="" type="checkbox"/> IQC <input checked="" type="checkbox"/> 硬件 <input checked="" type="checkbox"/> 结构 <input checked="" type="checkbox"/> 技术部 <input checked="" type="checkbox"/> PM部 <input checked="" type="checkbox"/> 生产部			
	<input checked="" type="checkbox"/> 供应商 <input type="checkbox"/> 客户 <input type="checkbox"/> 外协厂 <input type="checkbox"/> 工程 <input checked="" type="checkbox"/> 质量部 <input checked="" type="checkbox"/> 采购部 <input type="checkbox"/> 其他			
<b>*承认书纸质版提交给爱培科的同时, 需一并提交电子版归档; 若纸质版有更新, 电子版必须同步更新。</b>				



# 深圳市尚远科技有限公司

## 天线承认书

客户名称：爱培科		项目名称：TND550
工作频段：2.4G		
主板版本：19308-A64-01C 023004005		
尚远物料规格		
规格型号	守远料号	客户料号
WiFi 天线	SZ20006IB77RB	

变更履历			
编制/变更日期	变更内容	变更人	版本
2020.03.23	新版发行	杨鑫	A
2021.03.26	同轴线改电连品牌，料号新增后缀 RB	杨鑫	B

尚远会签栏				
研 发	结构：	审核：	品质工程师：	批准：
	射频：	审核：		
客户会签栏				
电子工程师	项目经理	结构工程师	品质工程师	

Tel: +86-021-64842326 (上海); +86-0755-82504258 (深圳)

Fax: +86-021-64842328

上海研发中心地址：上海徐汇区虹漕路 421 号（虹漕园）65 号楼 302 室

深圳研发中心地址：深圳市南山区琼宇路 8 号金科大厦 4 楼 405 室

福州研发中心：福州市软件大道 89 号软件园 A 区 19 栋 205 室

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## 1. 项目及天线图片

图片如下：

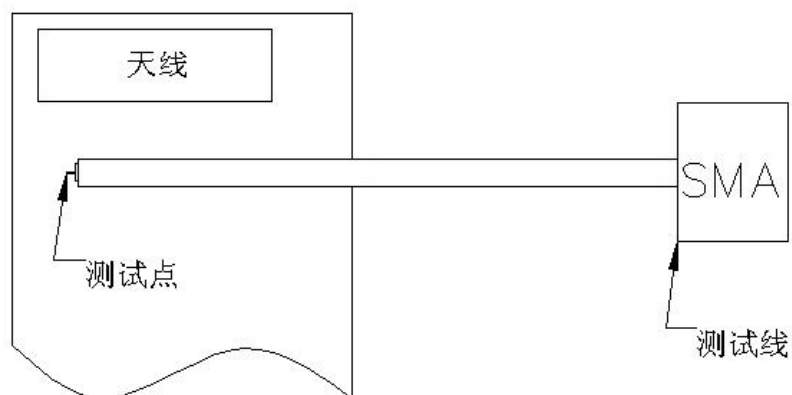


说明：客户最终验证天线性能样机保留在我司至少一年时间，便于分析解决天线量产中异常情况，确保天线出货品质

## 2. 测试制具

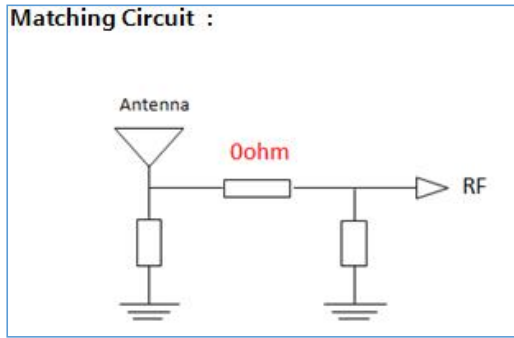
目的：尽可能准确地测试天线的无源参数。

制作方法：样机制具是用一根 50 欧姆的同轴电缆，一端连在样机主板的匹配电路后端（射频测试孔前端）的测试点上，另一端连接 SMA 接头。示意图如下：



### 3. 匹配电路

备注：匹配未做改动



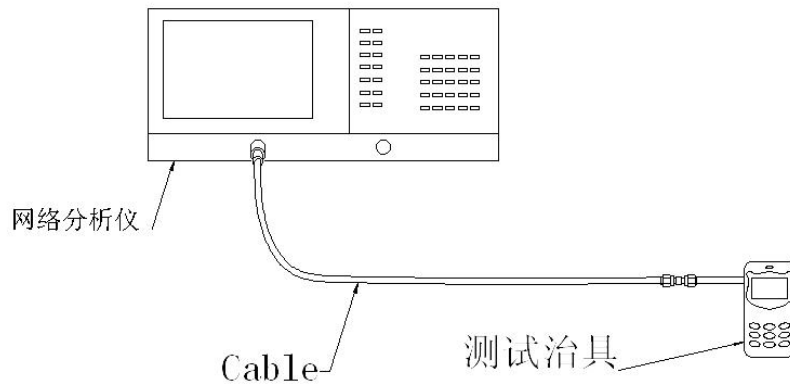
### 4. S11 测试

#### 4.1 S11 测试方法说明

测试设备：网络分析仪 (Agilent E5062C)

测试方法：用一根 50 欧姆 CABLE 电缆从仪器测试端口导出，使用校准件校准后连接样机制具的 SMA 接头，记录相关频点对应的回波损耗和驻波比。

测试示意图如下：



测试示意图

## 4.2 S11 参数

### WIFI 天线

频率 (MHZ)	2400	2450	2500
驻波比 (VSWR)	1.6	1.5	1.5



## 5. 暗室测试数据

### 测试设备

测试系统: 屏蔽暗室

测试环境: 温度 22°C ± 3°C, 湿度 50% ± 15%

测试设备: 测试无源数据时, 使用网络分析仪 Agilent E5062C

测试有源数据时, 使用综测仪 Agilent8960

天线测试数据如下:

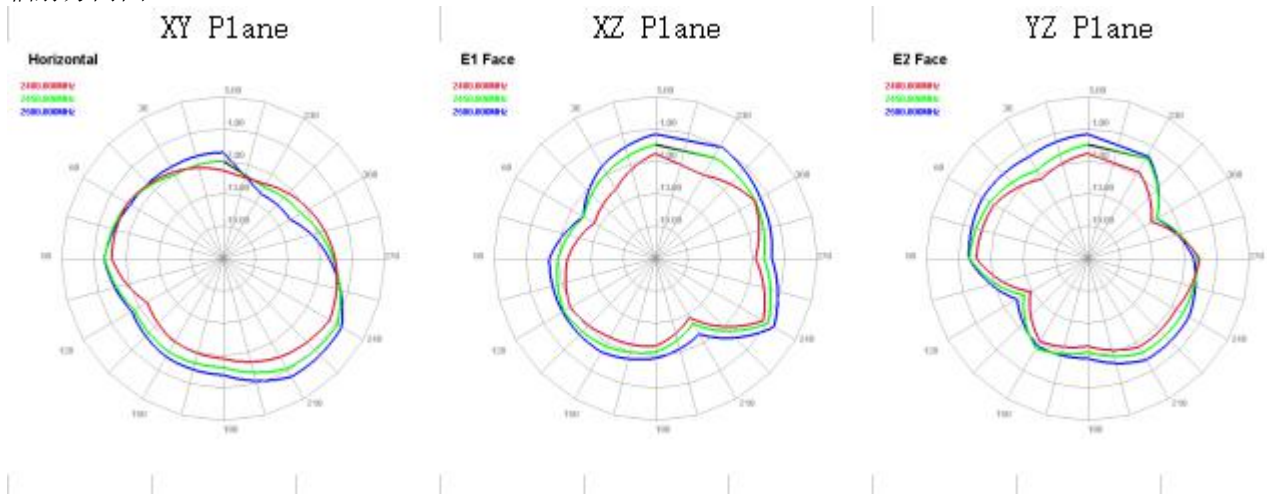
有源测试数据:

Test	Wifi 2.4G		
Result	1	7	13
Frequency(MHz)	2412	2437	2467
TRP (dBm)	12.5	12.4	12.4
TIS (dBm)	-80.6	-80.4	-80.6

天线效率与增益:

Freq (MHz)	Effi (%)	Gain (dBi)
2400	35.81	-0.01
2410	36.12	0.47
2420	35.7	-0.07
2430	37.02	0.58
2440	38.45	1.46
2450	39.1	1.84
2460	37.91	1.05
2470	39.31	1.21
2480	39.36	1.2
2490	44.36	1.69
2500	46.98	2.12

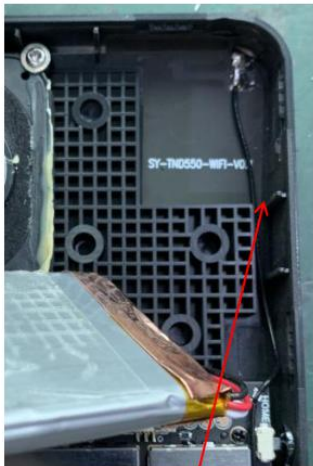
辐射方向图:





## 6. 天线环境处理

### 环境改善



同轴线放在这个槽  
里面



电池太靠近天线不  
行，边角处和天线  
贴住了



拉远电池和天线之  
间的距离（4-5mm）

## 7. 量产天线指标

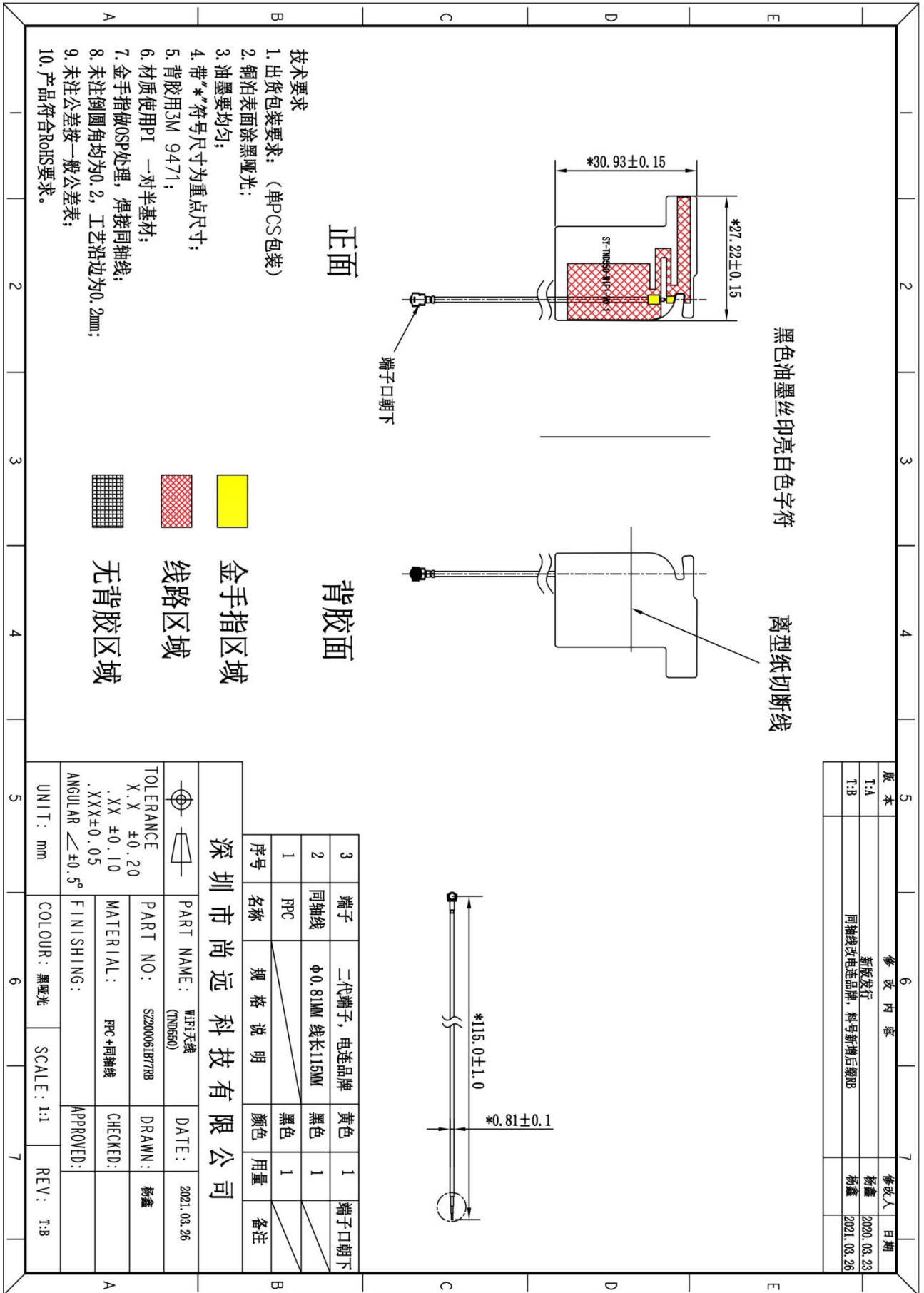
天线量产时，以驻波比作为量产测试标准。

根据项目本身的差异,给出如下标准:

频率	量产标准
2400-2500Mhz	$VSWR(\text{量产性能}) < VSWR(\text{承认性能}) + 0.5$



8. 结构图纸



9. 可靠性测试报告

尚远科技（中国）有限公司

盐雾检测报告

编号：20200319001

产品名称	TND550天线		测试数量	5set			
产品料号	SZ20006IB77		测试标准	GB2423.17			
检验日期	2020/3/12		货品素材	FPC			
测试时间：2020.03.11- 2020.03.12							
测试项目	要求标准	实际数值	判定	测试项目	要求标准	实际数值	判定
测试仪器规格	KD-60	KD-60	OK	测试时间	24H	24H	OK
盐雾测试类型	NSS中性	NSS中性	OK	盐雾箱温度	35° C	35° C	OK
盐水PH值	6.5-7.2	6.5-7.2	OK	盐雾沉降量 (H. 80C)	1-2ml	1.8ml	OK
喷雾方式	连续喷雾	连续喷雾	OK	货品材质	FPC	FPC	OK
盐水成份	5%/NaCL	5%/NaCL	OK	压缩空气节压力	1±0.1KG/CM <sup>2</sup>	1	OK
饱和温度	47° C	47° C	OK	试样放置角度	45°	45°	OK
测试观察时间	观察现象						
4H	无异常						
8H	无异常						
12H	无异常						
16H	无异常						
20H	无异常						
24H	无异常						
判定标准：依国标5944-86评级方法判定，9级以上为合格							
最终判定结果	合格 <input checked="" type="checkbox"/>			不合格 <input type="checkbox"/>			
测试人员	陈国良	审核	陈小平	审批	曹进茂		
备注：常用的盐雾试验方法有：NSS中愆盐雾试验，AASS乙酸盐雾试验，CASS铜乙酸加速试验。							

# 10. RoHS 限用物质成分调查表

## 限用物质成分调查表

供应商 (代理商) :		所提供产品信息		产品构成信息		限用物质含量ppm												备注						
爱培科物料代码	爱培科物料名称/型号	供应商物料号	制造商	深圳市尚远科技有限公司												绿色物料标识								
TND550		SZ2006B77R8																						
序号	部件名称	部件料号	部件供应商	第三方检测报告		铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr <sup>6+</sup> )	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	邻苯二甲酸二(2-乙基己基)酯 (DEHP)	邻苯二甲酸单(2-乙基己基)酯 (BBP)	邻苯二甲酸二(4-丁基)酯 (DBP)	邻苯二甲酸二(1-丁基)酯 (DIBP)	溴 (Br)	氯 (Cl)	邻苯二甲酸酯 (Phthalates)	聚氯乙烯 (PVC)	锑 (Sb)	铍 (Be)			
				日期	编号																			
1	基材		赛尔格蒂	2021.03.03	SHAE2103249004	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
2	油墨		优力实业	2020.09.08	CE/2020/93185	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
3	背胶		3M	2021.01.13	SHAE2100467601	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
4	电镀金			2020.08.07	SZNEC2001788401	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
5	外护套			2020.06.18	CE/2020/61117A	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
6	绝缘介质			2020.12.3	SHAE2025797027	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
7	绝缘子			2020.11.1	A22003990581010	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
8	镀金层			2021.03.1	CANEC210307570	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
9	镀锡铜线			2021.03.1	A22100775341010	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	

Note: 1. 限用物质包括RoHS十项、无卤两项、终端特殊要求四项, 请根据第三方测试结果填写有害限用物质的含量, 若不涉及以NA表示。

- RoHS管控物质限量值: Cd<100ppm; Pb/Hg/Cr6+/PBB/PBDE/DEHP/BBP/DBP/DIBP<1000ppm.
- 包装材料中Cd, Pb, Hg, Cr6+总量不超过100ppm.
- 无卤要求: Br<900ppm, Cl<900ppm且Br+Cl<1500ppm.
- 特殊要求: 数据线耳机线材、垫圈、脚垫、套管、胶带 Phthalates<1000ppm且PVC<900ppm;  
油漆、油墨类 Phthalates<1000ppm;  
PCB、塑胶壳体 (包括适配器壳体)、密封电子元器件、电池、耳机、适配器等 Sb<1000ppm;  
合金铜铜材质接触触点的各类连接器、接地弹片等 Be<1000ppm
- 此表请供应商完整填写后盖章; 此外供应商指龙旗直接交易方。(提供盖章的原件或扫描PDF文件)
- 若有限用物质超标符合豁免条款, 请在备注中说明。
- 第三方检测报告有效期为一年, 新提报告有效期需大于3个月, 报告过期前一个月, 需主动提交新报告更新。

填写人陈敏

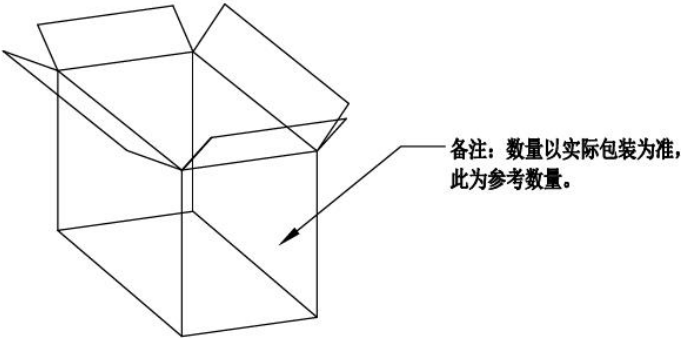
填写人公司/部门: 结构

盖章:

VER:A/2

第3页/共12页

# 11.包装方式

<h2 style="margin: 0;">深圳市尚远科技有限公司</h2> <h3 style="margin: 0;">产品包装作业规范</h3>					
客 戶：爱培科		包装品名：TND550		包装編號：SYC-BZ-001	包装版本：TEST:A
包材明細	編號	品名	規 格	用量	包 裝 产 品 图 示
	PE	封口袋			
	SYC-BZ-01	紙箱			
作 业 步 骤	<ol style="list-style-type: none"> <li>1. 準備所需包材放於有利工作之位置.</li> <li>2. 按照SYC-BZ01包裝規範,用紙箱(SYC-01),封口袋(PE)包裝.</li> <li>3. 裝滿箱後,用透明膠帶封箱,</li> </ol>				注 意 事 项
图 示 说 明					
核 準		審 核		制 作	
				陈小平	
				日 期	
				2020.03.18	

编号：ED-QR-09-20 版本/版次：A/0 第1页，共1页

本表单的电子地址在：Sunny-way新版体系/……。本记录至少保留1年

12 尺寸检验报告

尚远科技(中国)有限公司

Sunny-way Technology (China) Co., Ltd.

样品 尺寸检测报告

版本: A

品名	WIFI天线	机种	TND550	料号	SZ20006IB77RB	材质	FPC+同轴线	厂商	尚远	页数		
								日期	2021/5/12	1/1		
检验工具代码:二次元-D; 游标卡尺-S; 塞规(尺)-C; 针规-Z; 环规-H; 半径规-B。												
序号	尺寸区域	标记	标准尺寸	公差		S1	S2	S3	S4	检具	判定	备注
				+	-							
1		工程图纸	30.93	0.15	0.15	30.96	31	30.99	30.92	S	PASS	
2		工程图纸	27.22	0.15	0.15	27.26	27.2	27.21	27.28	S	PASS	
外观不良描述										判定		
										OK		

审核: 陈小平

检验员: 陈国良

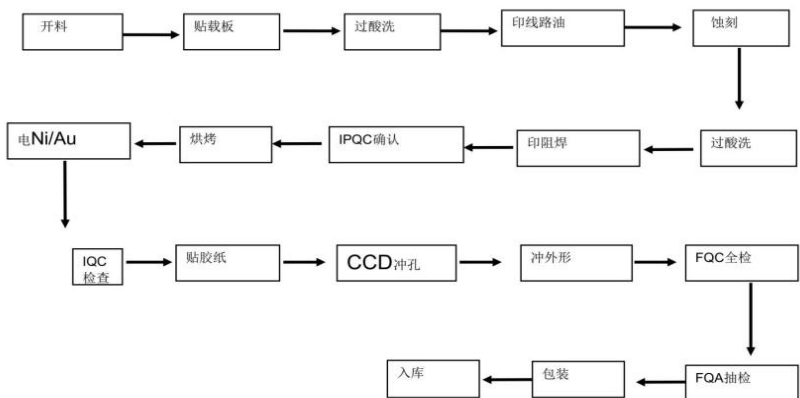
日期: 2021/5/12

13 制造流程图

Process Flow Chart(制造流程图)

Customer(客户)	爱培科	Written By(制作)	陈小平	Orig. Date(制作日期)	20210422
Part Number(料号)	SZ200061B77RB	Revised By(校订)	林长青	Revised Date(校订日期)	
Description(零件名称)	天线	Approved By(确认)	曹进茂	Approved Date(确认日期)	

FPC 工艺流程图









测试报告

No. SHAEC2103249004

日期: 2021年03月03日 第1页,共9页

苏州蔡伦格蒂电子材料有限公司  
江苏省太仓市太平北路168号

以下测试之样品是由申请者所提供及确认: 电解柔性覆铜箔基材

SGS工作编号: SP21-004880 - SH  
 样品接收日期: 2021年03月01日  
 测试周期: 2021年03月01日 - 2021年03月03日  
 测试要求: 根据客户要求测试  
 测试方法: 请参见下一页  
 测试结果: 请参见下一页  
 结论:

基于所送样品进行的测试, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务(上海)有限公司  
授权签名

Carol Luo罗萍  
批准签署人



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測試報告

Test Report

號碼(No.): CE/2020/93185 日期(Date): 2020/09/28

頁數(Page): 1 of 10

優立實業股份有限公司  
UNIRES CHEMICAL IND. CO., LTD.  
桃園市觀音工業區經建四路22號  
22, CHING CHIAN 4TH RD., KUANYIN INDUSTRIAL DISTRICT, TAOYUAN CITY, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

- 送樣廠商(Sample Submitted By) : 優立實業股份有限公司 (UNIRES CHEMICAL IND. CO., LTD.)
- 樣品名稱(Sample Description) : 防焊油墨(黑色系列)
- 樣品型號(Style/Item No.) : PSM-800/SMH-800/BK5/BK6/BK7/BK8/BK8A/DM3/DM6  
DM7/ER-506/FBK/FBK5/FBK7/FDM/FML3/FML5  
FML6/FML7/FML8/FML9/FSBK/FSK5/FSDM/FSDM9  
FSDM-A/FSDM-B/FSDM-C/FSDM-D/FSDM-F/FSMML2  
FSMML5/FSMML6/FSMML7/FSMML8/FSMML9/FSUK
- 顏色(Color) : 黑色 (BLACK INK)
- 收件日期(Sample Receiving Date) : 2020/09/18
- 測試期間(Testing Period) : 2020/09/18 to 2020/09/25

測試需求(Test Requested):

- (1) 依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鉛、鋁、汞、六價鉻、多溴聯苯、多溴聯苯醚、DBP、BBP、DEHP、DIBP。(As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
- (2) 其他測試項目請見下一頁。(Please refer to next pages for the other item(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

*Troy Chang*  
Troy Chang / Manager  
Signed for and behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei




PIN CODE: AFB64C25

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Test Report

No. SHAEC2100467601

Date: 13 Jan 2021

Page 1 of 8

3M CHINA LIMITED  
222 TIANLIN ROAD, SHANGHAI

The following sample(s) was/were submitted and identified on behalf of the clients as : 3M 9471LE

SGS Job No. : SP21-000643 - SH  
 Model No. : 3M 9471LE  
 Client Ref. Information : 3M 8132LE, 3M 8153LE, 3M 9453FL, 3M 9453LE, 3M 9471FL, 3M 9471LE, 3M 9472FL, 3M 9472LE, 3M 9472LEU, 3M 9653LE, 3M 9671LE, 3M 9672LE, 3M 9698LE  
 Date of Sample Received : 08 Jan 2021  
 Testing Period : 08 Jan 2021 - 13 Jan 2021  
 Test Requested : Selected test(s) as requested by client.  
 Test Method : Please refer to next page(s).  
 Test Results : Please refer to next page(s).  
 Conclusion : Based on the performed tests on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of  
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

*Carol Luo*

Carol Luo  
Approved Signatory



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Test Report

No. SZXEC2001788401

Date: 07 Aug 2020

Page 1 of 7

SHENZHEN KINGSUN TED TECHNOLOGY CO.,LTD  
DEMOCRACY JIUJIU INDUSTRIAL CITY 610, SOUTH RING ROAD, SHAJING STREET, BAOAN DISTRICT,  
SHENZHEN

The following sample(s) was/were submitted and identified on behalf of the clients as : FPC PCB

SGS Job No. : RP20-016555 - SZ  
Date of Sample Received : 31 Jul 2020  
Testing Period : 31 Jul 2020 - 06 Aug 2020  
Test Requested : Selected test(s) as requested by client.  
Test Method : Please refer to next page(s).  
Test Results : Please refer to next page(s).

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Kitty Xu  
Approved Signatory



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測試報告

Test Report

號碼(No.): CE/2020/61117A 日期(Date): 2020/06/18 頁數(Page): 1 of 11

DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD.

7-6, BAKUROCHO 1-CHOME, NIHONBASHI, CHUO-KU TOKYO 103, JAPAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By) : DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD.
樣品名稱(Sample Description) : COLORANT FOR FLUOROPOLYMER
樣品型號(Style/Item No.) : FCM H 1372 BLACK
收件日期(Sample Receiving Date) : 2020/06/05
測試期間(Testing Period) : 2020/06/05 to 2020/06/12

測試需求(Test Requested):

- (1) 依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鉛、鎘、汞、六價鉻、多溴聯苯、多溴聯苯醚、DBP、BBP、DEHP、DIBP。(As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
(2) 其他測試項目請見下一頁。(Please refer to next pages for the other item(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

Troy Chang / Manager
Signed for and behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei



PIN CODE: B2CB95D4

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Test Report

No. SHAEC2025797027

Date: 30 Dec 2020

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DAIKIN FLUORO CHEMICALS(CHINA) CO., LTD.
NO.8 JINYU ROAD(WEST) ADVANCED MATERIALS INDUSTRIAL PARK,CHANGSHU,JIANGSU
215522 . CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : NEOFロン FEP

SGS Job No. : SP20-041125 - SH
Model No. : NP-3180
Date of Sample Received : 23 Dec 2020
Testing Period : 23 Dec 2020 - 30 Dec 2020
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).
Conclusion : Based on the performed tests on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Jerry Jiang

Jerry Jiang
Approved Signatory



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# Test Report



Page 1 of 7

Report No. A2200399058101001

Company Name shown on Report NAN YA PLASTICS (HUI ZHOU) CO., LTD.

Address YONGSHI BOULEVARD SHIWAN TOWN, BOLUO COUNTY, HUIZHOU CITY, GUANGDONG 516127 P.R.CHINA

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name	PP
Part No.	3100,3117,,3210G,3210T,3219M,3210M,3307,3310,3317,3410G,3410T
Color	黑色
Material	PP
Sample Received Date	Nov. 10, 2020
Testing Period	Nov. 10, 2020 to Nov. 13, 2020

Test Requested As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).



*Grace Sun*

Reviewed by

*Helen Liu*

*Hill Zheng*

Date

Nov. 13, 2020

Hill Zheng

No. R450147540

Technical Manager

Inspection: 4100/Jingting International Group Co., Ltd. CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China





Test Report

No. CANEC2103075705

Date: 15 Mar 2021

Page 1 of 10

DONGGUAN QIAOFU METAL ACCESSORY CO.,LTD
SHATIAN PROFESSIONAL BASE OF ELECTROPLATING&DYEING,YISHA VILLAGE, SHATIAN TOWN,
DONGGUAN CITY,GUANGDONG PROVINCE

The following sample(s) was/were submitted and identified on behalf of the clients as : Au

SGS Job No. : CP21-008691 - SZ
Date of Sample Received : 05 Mar 2021
Testing Period : 05 Mar 2021 - 11 Mar 2021
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).

Conclusion : Based on the performed tests on selected part of submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Allie Chen

Allie Chen
Approved Signatory



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## Test Report



Page 1 of 7

Report No. A2210077534101001

Company Name SHIN DIN CABLE(SHENZHEN), LIMITED

shown on Report

Address

SHIN DIN INDUSTRIAL PARK,BAI MONG INDUSTRIAL ZONE,NO.1049,SONG  
BAI ROAD,NANSHAN DISTRICT,SHENZHEN CITY,GUANGDONG PROV,  
CHINA..

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name Tinned copper wire  
Material 銅、錫  
Sample Received Date Mar. 10, 2021  
Testing Period Mar. 10, 2021 to Mar. 15, 2021

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Beryllium(Be) in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).



*Grace Sun*

Reviewed by

*Tori Xia*

*Hill Zheng*

Date

Mar. 15, 2021

Hill Zheng

Technical Manager

No. R179751145

International Group Co., Ltd.

CTI Building, Xing Dong Community, Xifan Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China