

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

产品描述 Part Description	生产厂家: 深圳市尚远科技有限公司		规格型号/版本: V2.0	
	Vendor:		Description:	
	产品名称: wifi天线/厂商型号: TND550 FPC天线		所承认项目: TND550	
	Product Name:		Project:	
物料代码: SZ20006IB77RB	环保属性: ☐ RoHS1.0 (6项) ☒ RoHS2.0 (10项)		客户料号: TND550	
	客户型号: TND550			
	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%):			
	物料类别 (请参照各类材料提供参照表)			
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)。			
附件 Attachments	☐ 规格书	☐ 物料BOM清单	☐ 可靠性测试报告	☐ REACH报告 (首页)
	Spec	BOM list	Reliability Report	REACH Report
	☐ 工程图面	☐ 制造流程图	☐ 电气/机械性能测试报告	☐ 材料成分表
	Drawing	Process Flow Chart	Electric&mechanical test report	Substances in Product
	☐ 安规报告	☐ 成型条件	☐ 限用物质成分调查表	☐ 包装方式
	Safety Report	Injection Condition	Questionnaire	Packing Content
	☐ FAI全尺寸报告	☐ QC工程图	☐ RoHS报告 (首页)	☐ 样品变更履历表
	FAI Report	QC Flow Chart	RoHSReport	Sample ECN record
	☐ CPK 报告	☐ 批量生产良率报告	☐ HF 无卤报告 (首页)	☐ 样品
	Cpk Report	Mass production yield report	HF Report	Sample
* 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。				
供应商签核 Vendor	拟制: (Design)	审核: (Check)	批准: (Approval:)	供应商质量: (SQE)
	日期:	日期:	日期:	日期:
客户确认栏 Customer Check	结构: Mechanical	硬件: Hardware	测试: Engineering	工业/包材: ID
	日期:	日期:	日期:	日期:
项目经理: (Project Manager)		客户: (Customer)		
承认条件 Approval condition	☐ 承认 Approved		☐ 拒绝承认 Reject	
	☐ 条件承认 Condition Approved		需满足条件: _____	
	☐ 临时承认 Temporary Approved		限量_____Pcs 采购	
最终确认 Final check	质量策划: Quality Planning		承认书版本号	
	研发总工(技术总监): RD Leader (Technology Director)		质量经理: Quality Manager	
审批 Approval by	研发总工(技术总监): RD Leader (Technology Director)		质量经理: Quality Manager	
	* 仅针对特批承认条件下需总工(技术总监)及质量总监审批			
发布部门 Release department	☒ IQC ☒ 硬件 ☒ 结构 ☒ 技术部 ☒ PM部 ☒ 生产部 ☒ 供应商 ☐ 客户 ☐ 外协厂 ☐ 工程 ☒ 质量部 ☒ 采购部 ☐ 其他			
*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。				



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：

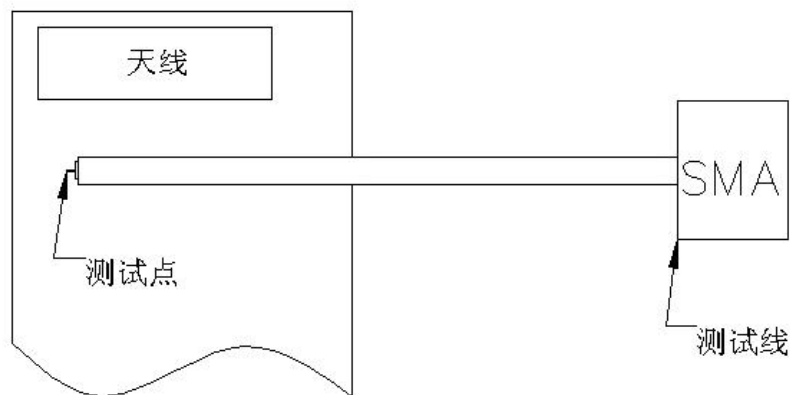


说明：客户最终验证天线性能样机保留在我司至少一年时间，便于分析解决天线量产中异常情况，确保天线出货品质

2. 测试制具

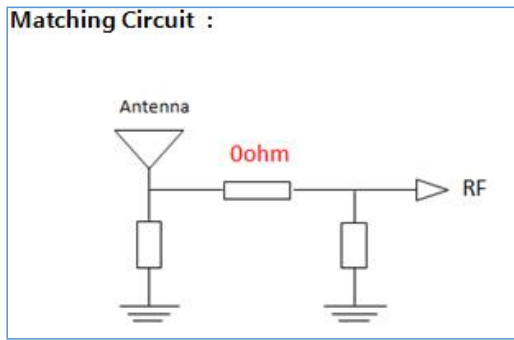
目的：尽可能准确地测试天线的无源参数。

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



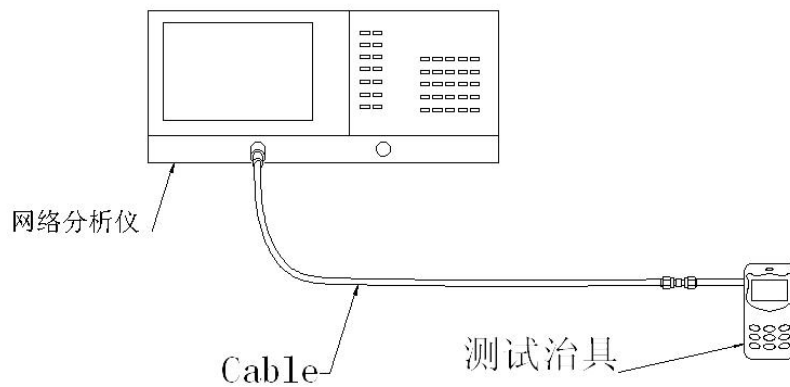
4. S11 测试

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℃±3℃, 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:

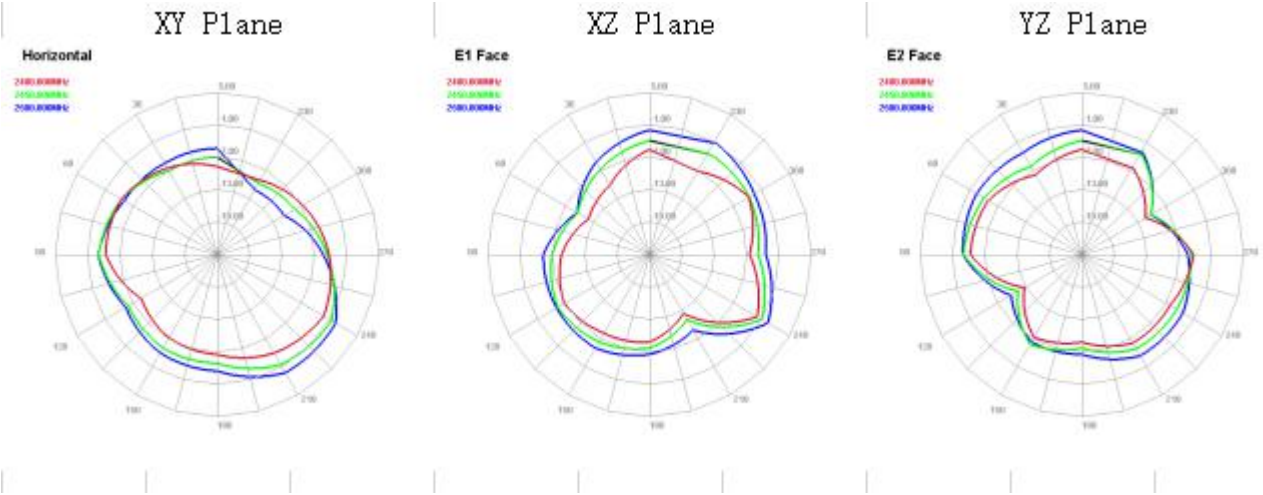
有源测试数据:

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:

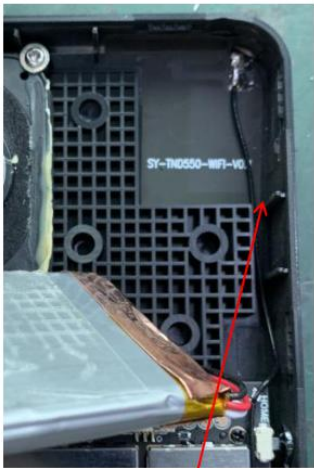
Freq (MHz)	Effi (%)	Gain (dBi)
2400	35.81	-0.01
2410	36.12	0.47
2420	35.7	-0.07
2430	37.02	0.58
2440	38.45	1.46
2450	39.1	1.84
2460	37.91	1.05
2470	39.31	1.21
2480	39.36	1.2
2490	44.36	1.69
2500	46.98	2.12

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	$VSWR(\text{量产性能}) < VSWR(\text{承认性能}) + 0.5$

版本	修改内容	修改人	日期
T.A	新版发行	杨鑫	2020.03.23
T.B	同轴线改电连品牌，料号新增后缀DB	杨鑫	2021.03.26

黑色油墨丝印亮白色字符

离型纸切断线

Top view of the PCB assembly. Dimensions: 30.93 ± 0.15 mm (width of the top section), 27.22 ± 0.15 mm (width of the bottom section). A component labeled "SF-10050-41C-40" is shown. A note indicates "端子口朝下" (Terminal port facing down).

Side view of the PCB assembly, showing the profile of the components and the board.

Bottom view of the PCB assembly. Dimensions: 115.0 ± 1.0 mm (length), 8.81 ± 0.1 mm (width of the bottom section).

正面

背胶面

技术要求

- 出货包装要求：(单PCS包装)
- 铜泊表面涂黑哑光；
- 油墨要均匀；
- 带“*”符号尺寸为重点尺寸；
- 背胶用3M 9471；
- 材质使用PI 一对半基材；
- 金手指做OSP处理，焊接同轴线；
- 未注倒圆角均为0.2，工艺沿边为0.2mm；
- 未注公差按一般公差表；
- 产品符合RoHS要求。

Legend for the PCB layout:

- 金手指区域 (Gold finger area) - Yellow rectangle
- 线路区域 (Conductor area) - Red hatched rectangle
- 无背胶区域 (No adhesive area) - Black hatched rectangle

深圳市尚远科技有限公司			
	PART NAME: WIFI天线 (TND560)	DATE: 2021.03.26	
TOLERANCE X.X ±0.20 .XX ±0.10 .XXX ±0.05 ANGULAR $\angle \pm 0.5^\circ$	PART NO: S2200061B77RB	DRAWN: 杨鑫	
	MATERIAL: FPC+同轴线	CHECKED:	
UNIT: mm	FINISHING:	APPROVED:	
COLOUR: 黑哑光	SCALE: 1:1	REV: 1:B	

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 ²	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 ☒				不合格 ☐		
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中值盐雾试验，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

供应商 (代理商) :

爱培科物料代码

爱培科物料名称/型号

TND550

供应物料料号

SZ2006B77RB

制造商

深圳市尚远科技有限公司

绿色物料标识

所用产品信息

限用物质成份调查表

产品构成信息

序号	部件名称	部件料号	部件供应商	第三方检测报告		限用物质含量ppm														备注	
				日期	编号	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	邻苯二甲酸二(2-乙基己基)酯 (DEHP)	邻苯二甲酸丁基酯 (BBP)	邻苯二甲酸二丁基酯 (DBP)	邻苯二甲酸二异丁酯 (DIBP)	溴 (Br)	氯 (Cl)	邻苯二甲酸酐 (Phthalates)	聚氯乙烯 (PVC)		锑 (Sb)
1	基材		蔡伦格蒂	2021.03.03	SHAEC2103249004	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	
3	背胶		3M	2021.01.13	SHAEC2100467601	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	
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	
6	绝缘介质			2020.12.3	SHAEC2025797027	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	
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	
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	

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.

2. RoHS管控物质限量值: Cd<100ppm; Pb/Hg/Cr6+/PBB/PBDE/DEHP/BBP/DBP/DIBP<1000ppm.

3. 包装材料中Cd、Pb、Hg、Cr6+总量不超过100ppm.

4. 无卤要求: Br<900ppm、Cl<900ppm且Br+Cl<1500ppm.

5. 特殊要求: 数据线耳机线材、垫圈、垫套、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、适配器类等 Sb<1000ppm;
合金铜铜材质接触弹片的各类连接器、接地弹片等 Be<1000ppm

6. 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. (提供盖章的纸件或扫描PDF文件)

7. 若有限用物质超标但符合豁免条款, 请在备注中说明.

8. 第三方检测报告有效期为一年, 新提供报告有效期需大于3个月. 报告过期前一个月, 需主动提交新报告更新.

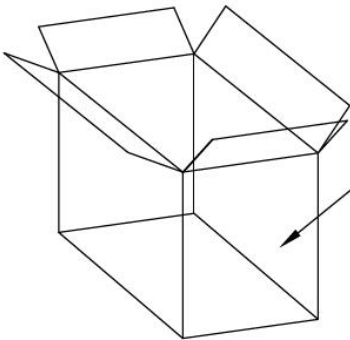
填写人陈敏

填写人公司/部门: 结构

盖章:

深圳市尚远科技有限公司

产品包装作业规范

客 戶：爱培科		包裝品名：TND550		包裝編號：SYC-BZ-001		包裝版本：TEST:A	
包 材 明 細	編 號	品 名	規 格	用 量	包 裝 產 品 圖 示		
	PE	封口袋					
	SYC-BZ-01	紙箱					
作 業 步 驟	1. 準備所需包材放於有利工作之位置。 2. 按照SYC-BZ01包裝規範,用紙箱(SYC-01),封口袋(PE)包裝。 3. 裝滿箱後,用透明膠帶封箱,				注 意 事 項	1. 作業員須戴手套操作。 2. 注意裝箱數量,不可多裝,少裝.尾數箱須注明 3. 紙箱不可堆放過高,以防重壓溢胶.	
圖 示 說 明		 备注：数量以实际包装为准，此为参考数量。					
核 準		審 核		制 作		日 期	
				陈小平		2020.03.18	

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		SZ200061B77RB		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									

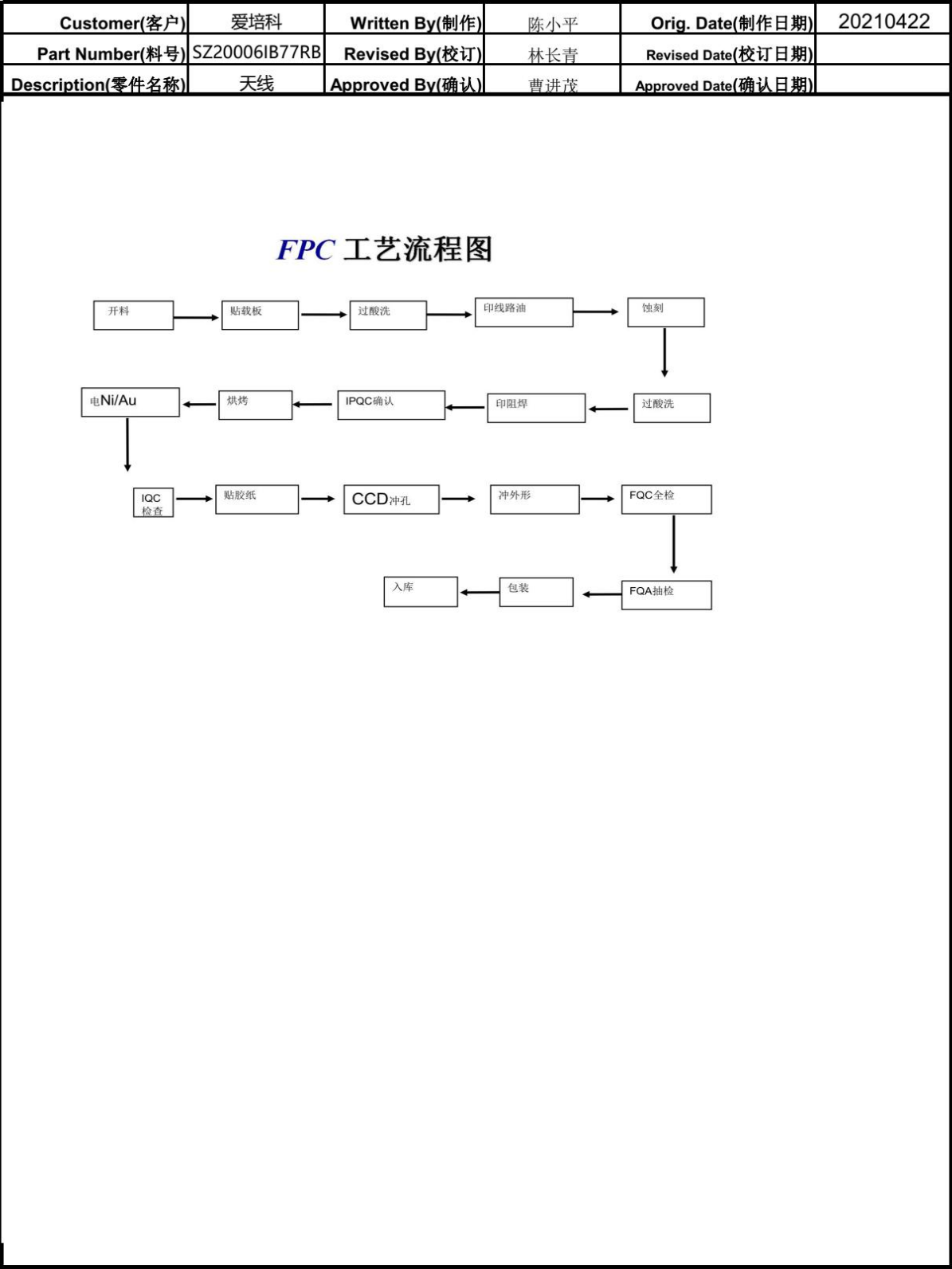
审核： 陈小平

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)



物料BOM清单



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)、邻苯二甲酸丁苯酯(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

罗萍

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/FMBL3/FMBL5
FMBL6/FMBL7/FMBL8/FMBL9/FSBK/FSBK5/FSBM/FSBM9
FSBM-A/FSBM-B/FSBM-C/FSBM-D/FSBM-F/FSMBL2
FSMBL5/FSMBL6/FSMBL7/FSMBL8/FSMBL9/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、鎘、汞、六價鉻、多溴聯苯、多溴聯苯醚、DEHP、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: 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

Kitty Xu
Approved Signatory



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中国·深圳·龙岗区坂田吉华路430号江泰工业园4栋4楼SGS大厦 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 www.sgsgroup.com.cn
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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

Page 1 of 16

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.

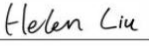
Jerry Jiang

Jerry Jiang
Approved Signatory



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CTI 华测检测 CENTRE TESTING INTERNATIONAL		Test Report		
Report No. A2200399058101001 Page 1 of 7				
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).			
				
				
Approved By  Hill Zheng Technical Manager		Reviewed by  Helen Liu	Date Nov. 13, 2020	No. R450147540
CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China				
Hotline:400-6788-333 www.cti-cert.com E-mail:info@cti-cert.com Complaint call:0755-33681700 Complaint E-mail:complaint@cti-cert.com				



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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中国·广州·经济技术开发区科学城科丰路188号 邮编: 510663

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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

Hill Zheng

Hill Zheng

Technical Manager

Inspector International Group Co., Ltd.

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

Reviewed by

Tori Xia

Date

Mar. 15, 2021

No. R179751145