



承 认 书

SPECIFICATION FOR APPROVAL

客户

Customer:

客户料号

CUSTOMER P/N

物料名称

Material

name:

Type-c母座

规格型号

Specification

model:

TYPE C\Female\不锈钢\卧式\黄铜\3A\镀金1u\L=7.35mm
\黑色\插拔1W次\编带包装\HTCC430008

日 期 DATE:

2023/03/03

料号 remark:

HTCC430008

供方确认

APPROVED SIGNATURES

客户确认

APPROVED SIGNATURES

承办

PREPARED BY

审核

CHECKED BY

核准

APPROVED BY

检测

TESTED BY

审核

CHECKED BY

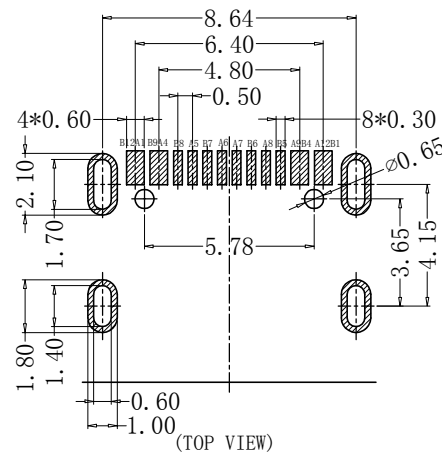
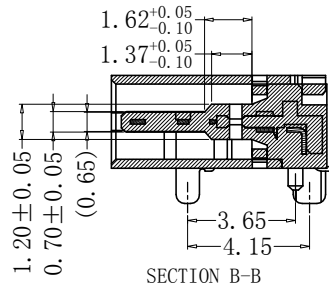
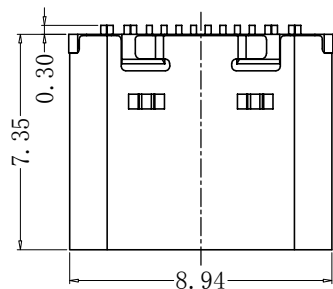
核准

APPROVED BY

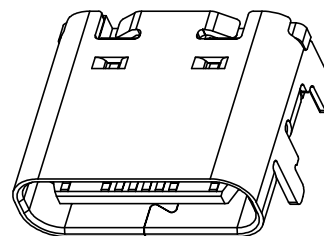
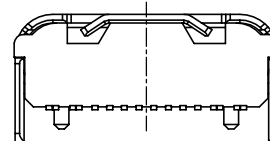
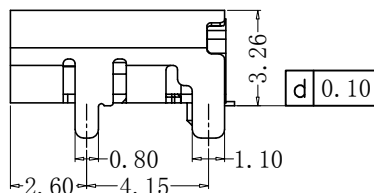
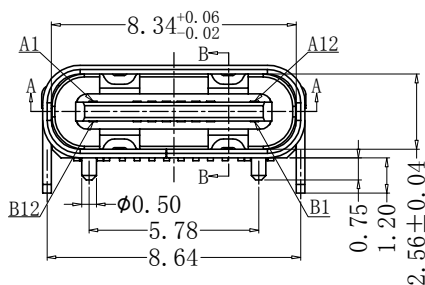
目录

1.封面-----	1
2.目录-----	2
3.图面-----	3
4.规格书-----	4-13
5.测试报告-----	14-26

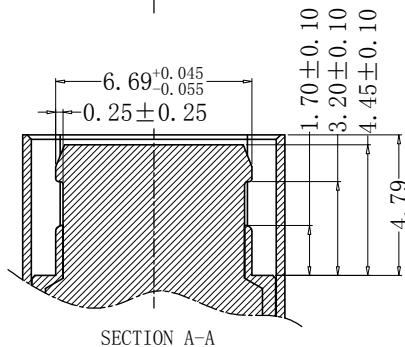
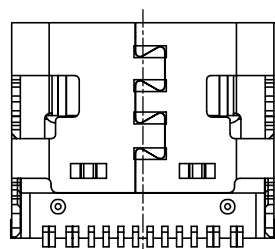
RoHs



(TOP VIEW)
RECOMMENDED P.C.B. LAYOUT (T:1.0~1.2mm)
TOLERANCE UNSPECIFIED ±0.05mm



3D View



NO.	COLOR	镀金1u"
1.	BLACK	HTCC430008

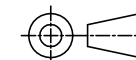
CUSTOMER		GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY:	TITLE:	瑞澤電子股份有限公司 Horustech Electronics Co., Ltd	
SIZE	UNITS	X±0.50	X'±5.0°	Song	TYPE-C 16pin 母座板上型帶塑胶柱		
A4	MM[INCH]	.X±0.35	.X'±3.0°	CHECKED BY:	PART NO.:	SHEET 1/2	
SCALE	REV.	.XX±0.25	.XX'±2.5°	DESIGN BY:	DWG NO.:		
1:1	C	.XXX±0.15	.XXX'±2.0°	TANG	HTCC430008	A	

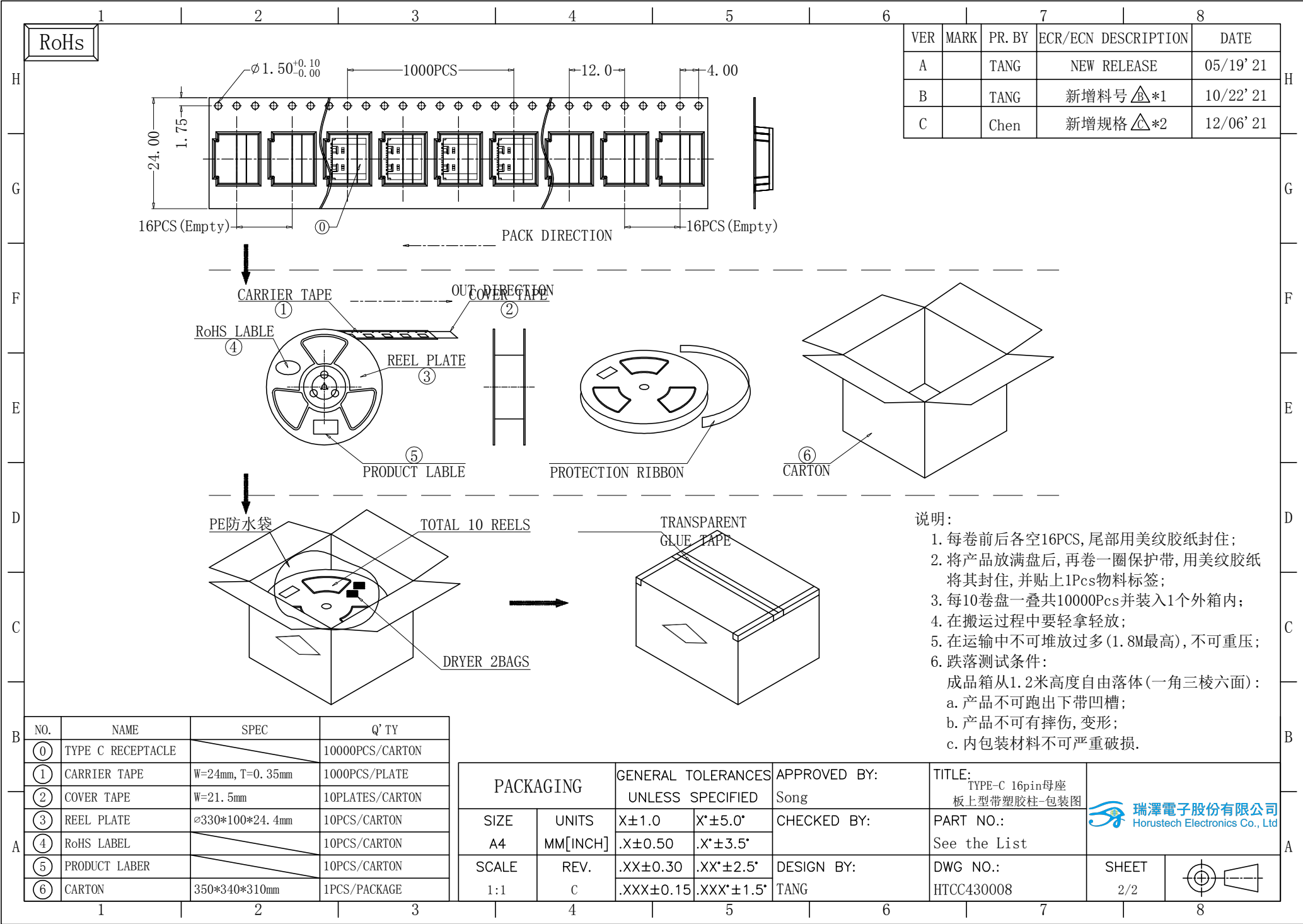
VER	MARK	PR. BY	ECR/ECN	DESCRIPTION	DATE
A		TANG		NEW RELEASE	05/19' 21
B		TANG		新增料号 Δ *1	10/22' 21
C		Chen		新增规格 Δ *2	12/06' 21

PIN DEFINE TABLE			
PIN	SIGNAL	PIN	SIGNAL
A12	GND	B1	GND
A11		B2	
A10		B3	
A9	VBUS	B4	VBUS
A8	SBU1	B5	CC2
A7	D-	B6	D+
A6	D+	B7	D-
A5	CC1	B8	SBU2
A4	VBUS	B9	VBUS
A3		B10	
A2		B11	
A1	GND	B12	GND

SPECIFICATION:

- Material:
HOUSING&MOLDING:LCP,UL94 V-0
CONTACTS:COPPER ALLOY T=0.20mm
MIDDLE CLIP:SUS301-1/2H,T=0.15mm
SHELL:SUS, T=0.30mm
- Mechanical:
2.1.Mating force:5~20Nf Max.;
2.2.Unmating force:6~20Nf Min.;
2.3.Durability:10000 Cycles;
- Electrical:
3.1.Current Rating:3A Max.;
3.2.Voltage Rating:20V Max.;
3.3.Dielectric Withstanding voltage:100VAc;
3.4.Contact resistance:40m Ohms Max.;
3.5.Insulation Resistance:100M Ohms Min.;
- Environmental:
4.1.Operating temperature:-40°C~+85°C;
4.2.Wetting Temperature:265±5°C,5±0.5s





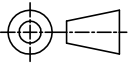
VER	MARK	PR. BY	ECR/ECN DESCRIPTION	DATE
A		TANG	NEW RELEASE	05/19' 21
B		TANG	新增料号 △*1	10/22' 21
C		Chen	新增规格 △*2	12/06' 21

- 说明:
1. 每卷前后各空16PCS, 尾部用美纹胶纸封住;
 2. 将产品放满盘后, 再卷一圈保护带, 用美纹胶纸将其封住, 并贴上1Pcs物料标签;
 3. 每10卷盘一叠共10000Pcs并装入1个外箱内;
 4. 在搬运过程中要轻拿轻放;
 5. 在运输中不可堆放过多(1.8M最高), 不可重压;
 6. 跌落测试条件:
成品箱从1.2米高度自由落体(一角三棱六面):
a. 产品不可跑出下带凹槽;
b. 产品不可有摔伤, 变形;
c. 内包装材料不可严重破损.

NO.	NAME	SPEC	Q' TY
①	TYPE C RECEPTACLE		10000PCS/CARTON
②	CARRIER TAPE	W=24mm, T=0.35mm	1000PCS/PLATE
③	COVER TAPE	W=21.5mm	10PLATES/CARTON
④	REEL PLATE	φ330*100*24.4mm	10PCS/CARTON
⑤	RoHS LABEL		10PCS/CARTON
⑥	PRODUCT LABER		10PCS/CARTON
⑦	CARTON	350*340*310mm	1PCS/PACKAGE

PACKAGING		GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY:	TITLE:	SHEET	
SIZE	UNITS	X±1.0	X'±5.0°	Song	TYPE-C 16pin母座 板上型带塑胶柱-包装图		
A4	MM[INCH]	.X±0.50	.X'±3.5°	CHECKED BY:	PART NO.:	2/2	
SCALE	REV.	.XX±0.30	.XX'±2.5°	DESIGN BY:	DWG NO.:		
1:1	C	.XXX±0.15	.XXX'±1.5°	TANG	HTCC430008		

瑞澤電子股份有限公司
Horustech Electronics Co., Ltd





文件履历表						
No.	Date	Document No.	Prepared	Checked	Approved	Summary
Product specification 产 品 规 格 书						
Product Name			Part Number.			Rev.
USB3.1 C TYPE CONNECTOR,			/			A



1; SCOPE (适用范围)

2; REFERENCE DOCUMENTS (参考文件)

3; FEATURE & DIMENSIONS (特征及尺寸)

3.1. PRODUCT DIMENSION (产品尺寸)

3.2. PCB/PANEL LAYOUT (印刷电路板布局)

3.3. MATERIAL (材料)

3.4. MECHANICAL & ELECTRICAL CHARACTERISTIC (机械及电气特性)

3.5. PACKAGING (包装)

3.6. TRANSPORTATION (运输)

3.7. STORAGE (存贮)

4. ENVIRONMENTAL (环境要求)

4.1. SOLDERABILITY (可焊性)

4.2. RESISTANCE TO SOLDER HEAT (耐焊接热)

4.2.1. Wave Soldering (波峰焊)

4.2.1.1. Preheat (预热)

4.2.1.2. Soldering (焊接)

4.2.1.3. Cool Down (冷却)

4.2.2. INFRARED REFLOW (红外线回流焊)

4.2.2.1. Preheat (预热)

4.2.2.2. Soldering (焊接)

4.2.2.3. Cool Down (冷却)

4.3. CLEANING (清洗)

5. PERFORMANCE AND TEST DESCRIPTION (性能及测试)

5.1. REQUIREMENT (要求)

5.2. TEST CONDITION (测试条件)

5.3. SAMPLE SELECTION (样品选择)

5.4. TEST SEQUENCE (测试顺序)

6. QUALITY ASSURANCE PROVISIONS (品质保证)

TABLE I: PRODUCT QUALIFICATION TEST SEQUENCE

TABLE II: REFLOW SOLDERING PROFILE



1. SCOPE (适用范围)

This product specification specifies the characteristics and test methods of USB 3.1 series "C type" connectors designed and produced by yifeng.

本产品规格书规定了由意丰设计生产的 **USB 3.1 系列“C 型”** 连接器产品的特性及测试方法。

2. REFERENCE DOCUMENTS (参考文件)

MIL-STD-1344A Test method for electrical connector (电子连接器测试方法)
MIL-STD-202F Test method for electrical components (电子零件测试方法)
EIA364 Test method for electrical components (电子零件测试方法)
JIS C 0051 Test method for electrical components (电子零件测试方法)
MIL-G-45204C Specification for gold plating (镀金规格)
IEC-512-3 IEC standard for current carrying capacity tests (IEC电流测试标准)
QQ-N-290A Specification for nickel plating (镀镍规格)
MIL-P-81728A Specification for tin/lead plating (镀锡铅规格)
MIL-T-10727B Specification for tin plating (镀锡规格)
UL498 UL standard for safety of attachment plug and receptacle (UL安规要求标准)
EN/ISO5961 Determination of total lead & cadmium content (总铅和总镉含量测定)
EN1122 Determination of total lead & cadmium content (总铅和总镉含量测定)
EN13346 Determination of heavy metals content (重金属含量测定)
EPA3052 Determination of total lead & cadmium content (总铅和总镉含量测定)

3. FEATURE & DIMENSIONS (特征及尺寸)

3.1. PRODUCT DIMENSION (产品尺寸)

These connectors shall have the dimensions as shown in customer drawing.
本产品的相关尺寸参见客户图面。

3.2. PCB/PANEL LAYOUT (印刷电路板布局)

The recommended PCB layout is shown in customer drawing.
本产品适用的PCB layout参见客户图面。

3.3. MATERIAL (材料)

The harmful material can follow the requirement of RoHS.
本产品使用的材料符合 RoHS 指令要求。

3.4. MECHANICAL & ELECTRICAL CHARACTERISTIC (机械及电气特性)

The connector shall have the mechanical and electrical performance as described in table I:
本产品的机械及电气特性见附表I。

3.5. PACKAGING (包装)

This product adopts tray or REEL package
本产品采用tray 盘或REEL包装，



3.6.TRANSPORTATION (运输)

Any vehicle can be adopted for the transportation, but moisture-proof and no mechanical damage.

可采用任何运输工具运输, 勿淋湿及机械性损伤。

3.7.STORAGE (存贮)

Temperature: -25°C~+85°C, Relative humidity: ≤80%, Not to storage in corrosive environments A re-qualification test shall be conducted immediately while the storage duration exceed 6 months.

温度: -25°C~+85°C; 相对湿度: ≤80%; 勿贮存于腐蚀环境内。贮存期超过6个月后可重新进行品质确认。

4. ENVIRONMENTAL (环境要求)

4.1. SOLDERABILITY (可焊性)

Connector's solderability can meet MIL-STD-202F standard. Finish shall be free of contaminants.

产品可焊性符合 MIL-STD-202F 标准规定的相关要求, 表面不得有污染物。

4.2. RESISTANCE TO SOLDER HEAT (耐焊接热)

4.2.1. Wave Soldering (波峰焊)

Consists of three consecutive phases. 包括三个连续的阶段完成;

4.2.1.1. Preheat (预热)

Increase in temperature not to exceed 4°C per second. Final preheat temperature will be within 125 °C of solder temperature. 温度增加不超过4°C /秒, 最终预热温度不超过125°C。

4.2.1.2. Soldering (焊接)

Device leads will be exposed to solder wave at 260°C for a maximum of 5 seconds. 设备中的引导焊接温度最高260°C不超过5秒。

4.2.1.3. Cool Down (冷却)

Cool down in ambient air at approximately 20°C to 25°C. 冷却到周围环境温度20°C~ 25°C。

4.2.2. INFRARED REFLOW (红外线回流焊)

Three cycles. Each cycle consisting of three consecutive phased. 三个周期, 每个周期包括三个连续的阶段完成;

4.2.2.1. Preheat (预热)

Increase in temperature not to exceed 4°C per second. 温度增加不超过4°C /秒,

4.2.2.2. Soldering (焊接)

Maximum allowable time above reflow temperature of 183 °C is 90 seconds. Maximum temperature in this interval is 250°C, not to exceed 10 seconds. 回流焊温度183°C以上的时最长不超过 90秒。最高温度250°C时间不超过10秒。

4.2.2.3. Cool Down (冷却)

Cool down shall not exceed 6°C per second. 冷却速度不超过6°C/秒。 **Note:** (注) Device temperature measurements are referenced from the top-center of the package outer surface. 设备温度量测时以从顶部中间位置测量为准;

4.3. CLEANING (清洗)

Connectors resist to cleaning process. Aqueous Cleaning: Three cycles; each cycle consisting of a



maximum of one minute exposure to 54°C to 66°C dematerialized tap water at a maximum pressure of 30 psi; followed by air drying for 60°C to 90 seconds at 93°C to 121°C.

产品本身可以承受清洗制程。水洗：包含三个循环，每个循环包括以下：以最大压力30帕，温度 54°C~66°C，去除矿物质的水，用水龙头冲洗最多一分钟，然后用温度 93°C~121°C的空气吹60到90秒；

5. PERFORMANCE AND TEST DESCRIPTION （性能及测试）

5.1. REQUIREMENT （要求）

Product is designed to meet electrical, mechanical, and environmental performance requirements specified in **Table I**.

本产品设计符合附表一所述的机械，电气及环境要求。

5.2. TEST CONDITION （测试条件）

Unless otherwise specified, all tests shall be performed at ambient environmental conditions. 除非特别说明，所有测试在室温条件下完成；

5.3. SAMPLE SELECTION （样品选择）

Test samples shall be selected at random from current production. No test samples shall be reused.

Samples are pre-conditioned with 10cycles of durability. Each group shall be containing 5 test samples.

测试样品从现生产的产品中随机抽取，所有测试过的样品不得重复使用。样品已预先插拔10次，每组测试有5个样品；

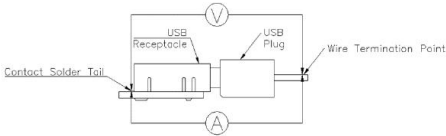
6. QUALITY ASSURANCE PROVISIONS （品质保证）

The company is responsible for the quality of all products sent to customers, and the defective batches are returned or corrected by the supplier

本公司对于出给客户的所有产品品质负责，不良批次的产品退回或由供应商做矫正；



TABLE I: PERFORMANCE REQUIREMENTS

Items		Requirements	Test Methods
1	Confirmation of Product 产品确认	Product shall be conforming to the requirements of applicable product drawing 产品必须满足相关文件的规定	Visually dimensions and functionally inspected per applicable product drawing. 目视尺寸及功能依照客户图面检查
Electrical Requirement			
Items		Requirements	Test Methods
2	Low level Contact resistance 低电平接触阻抗	1. 40 mΩ (Max) initial for VBUS, GND and all other contacts. 2. Maximum change (delta) of +10 mΩ after environmental stresses. 1.电源 PIN、接地 PIN 及其它 PIN 脚接触阻抗均为 40mΩ 最大。 2.产品阻抗变化值不超过 10mΩ。 	The low level contact resistance measurement is made from the solder tail of the receptacle to the soldering point of the plug. when measured at 20mV Max. open circuit at 100mA. Mated test contacts must be in a connector housing. Test reference standard: EIA-364-23B 接触阻抗测量方式从母头的焊脚处至公头的焊脚处。 在开路最大电流为 100mA 电压为 20mV 情况下测试胶芯插入时端子之间接触处的阻抗值。 测试参考标准: EIA 364-23B
3	Insulation Resistance 绝缘阻抗	100 MΩ Min. 100 MΩ 最小	Test between adjacent circuits Insulation Resistance of unmated and mated connectors. Test reference standard: EIA 364-21. 测试对插的连接器两个相邻端子之间的绝缘阻抗值。 测试参考标准: EIA 364-21
4	Dielectric Strength 耐电压	No breakdown shall occur. 产品不能出现衰竭、损坏现象。	when 100 Volts AC (RMS) is applied between adjacent contacts of unmated and mated connectors. Test reference standard: EIA-364-20. 使用 100V 交流电压测试公母头插入与拔出时相邻端子之间的承受电压情况。 测试参考标准: EIA 364-20



5	Contact current rating 温升	1.A current of 3.0 A shall be applied collectively to VBUS pins (pins A4, A9, B4, and B9) 2.1.25 A applied to the VCONN pin (B5 of the plug connector) with the return path through the corresponding GND pins (pins A1, A12, B1, and B12). 3. A minimum current of 0.25 A shall also be applied individually to all the other contacts. 1.VBUS pins 需通过电流3.0A(pin A4, A9, B4, and B9)。 2. VCONN pin(公头B5 pin)及GND pins需通过电流1.25A(pins A1, A12, B1, and B12)。 3.其余pins需通过最小电流0.25A。	When the currents are applied to the contacts, the temperature rise shall not exceed 30 °C at any point on the USB Type-C mated plug and receptacle under test, when measured at an ambient temperature of 25 °C. Test reference standard: EIA -364-70 method B 在相对温度为25℃，当电流通过USB C type公母头连接器时，测试连接器中端子任一点温度不超过+30℃。 测试参考标准: EIA 364-70 方法B
---	------------------------------	--	---

Mechanical Requirement

Items		Requirements	Test Methods
6	Insertion Force 插入力	The initial connector insertion force shall be within the range from 5 N to 20 N。 连接器初始插入力需在 5N~20N 范围内。	Measure the force required to mate connector, At a maximum rate of 12.5mm(0.492") per minute. Test reference standard: EIA-364-13 测试的力必须是相匹配的连接器，插入速度不超过每分钟 12.5mm。 测试参考标准: EIA 364-13
7	Extraction Force 拔出力	The initial connector Extraction force shall be within the range from 6 N to 20 N。 连接器初始拔出力需在 6N~20N 范围内。	Measure the force required to mate connector, At a maximum rate of 12.5mm(0.492") per minute. Test reference standard: EIA-364-13 测试的力必须是相匹配的连接器，拔出速度不超过每分钟 12.5mm。 测试参考标准: EIA 364-13
8	Durability or Insertion/extraction Cycles 耐久或插入拔出次数	The durability rating shall be 10,000 cycles. 耐久测试 10000 次。	The durability test shall be done at a maximum rate of 200 cycles per Hour and no physical damage to any part of the connector and cable assembly shall occur. Test reference standard:EIA-364-09 耐久测试速度不超过每小时 200 个循环，且测试后的产品及线材本身任何部位不能出现损坏。 测试参考标准: EIA 364-09



9	Physical Shock 物理冲击	No breakdown shall occur. 产品不能出现损坏现象。	No discontinuities of 1 μ s or Longer duration. when mated USB C type connectors are subjected to 11ms duration 30Gs half-sine shock pluses. Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. Test reference standard: EIA 364-27 Test Condition H. 匹配USB C TYPE 连接器, 中断不得大于或等于1 μ s, 30Gs的半波脉冲承受11ms, 从三个正交的方向施加冲击, 总冲击次数为18次。
---	------------------------	--	--

Environmental Requirements

Items		Requirements	Test Methods
10	Humidity 恒温恒湿	Shall meet visual requirements, show no physical damage. Contact Resistance (Low Level) 40 m Ω max. Dielectric Strength should be OK, Insulation Resistance should be 100 M Ω min. 产品外观良好, 无损坏。接触阻抗: 40 m Ω 最大; 耐电压测试OK, 绝缘阻抗100M Ω 最小。	Temperature: 25~65 $^{\circ}$ C, Relative humidity: 90-95%, Duration: 96Hours, Circulate test: 10 Cycles. Test reference standard: EIA 364-31 温度: 25~65 $^{\circ}$ C, 相对湿度: 90-95%, 持续时间: 96 小时, 循环测试: 10次 测试参考标准: EIA 364-31。
11	Thermal shock 冷热冲击	Shall meet visual requirements, show no physical damage. Contact Resistance (Low Level) 40 m Ω max. Dielectric Strength should be OK, Insulation Resistance should be 100 M Ω min. 产品外观良好, 无损坏。接触阻抗: 40 m Ω 最大; 耐电压测试OK, 绝缘阻抗100M Ω 最小。	Temperature range from -55 $^{\circ}$ C to +85 $^{\circ}$ C .Start from -55 $^{\circ}$ C. After 30 min. change to +85 $^{\circ}$ C, change time is no more than 30 seconds. Total 5 cycles. Test reference standard: EIA 364-32 温度变化范围: -55 $^{\circ}$ C ~ +85 $^{\circ}$ C, 从-55 $^{\circ}$ C开始, 30分钟后换到+85 $^{\circ}$ C; 转换时间不超过30秒; 共5 个循环。 测试参考标准: EIA 364-32
12	Hot air reflow or IR reflow for SMT curing process SMT 热风回流焊	More than 95% of the dipped surface shall be wet with solder 超过95%的焊接面积浸到锡。	Place subjected connector on the PCB Board and expose them to the reflow oven and apply the following condition: Room 1: preheat temperature 150 $^{\circ}$ C - 170 $^{\circ}$ C for 100 seconds. Room 2: preheat temperature 170 $^{\circ}$ C - 200 $^{\circ}$ C for 100 seconds. Room 3: reflow temperature 200 $^{\circ}$ C - 260 $^{\circ}$ C for 120-60 seconds.



			(For 260°C ONLY 5-10 seconds) 将产品放在PCB板上,然后放入回焊炉中并用于以下条件: 时间段1: 预热温度150°C-170°C 100秒。 时间段2: 预热温度170°C - 200°C 100秒。 时间段3: 回焊炉温度200°C - 260°C 100秒。(260°C 时间仅5~10S)
13	Solderability 可焊性	The inspected area of each lead must have 95% solder coverage Minimum. 检测焊接端的锡覆盖率需大于95%	Solder pot temperature: 250±5°C Soldering time: 3 to 5 Seconds Test reference standard: EIA 364-52 锡炉温度: 250±5°C, 焊接时间: 3~5 秒 测试参考标准: EIA 364-52。
14	Salt Spray 盐雾测试	Shall meet visual requirements, No detrimental corrosion allowed in contact area and base metal exposed. 产品外观良好, 端子及外壳金属无生锈、腐蚀及露底材不良。	Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 48 hours. After test, rinse the sample with water and recondition the room temperature for 1 hour. Test reference standard: EIA-364-26B. 测试的连接器需放于温度35±2°C, 盐水浓度(重量比)5±1%的容器中测试48小时。测试后的产品使用清水冲洗后放入常温下1小时。 测试参考标准: EIA 364-26。

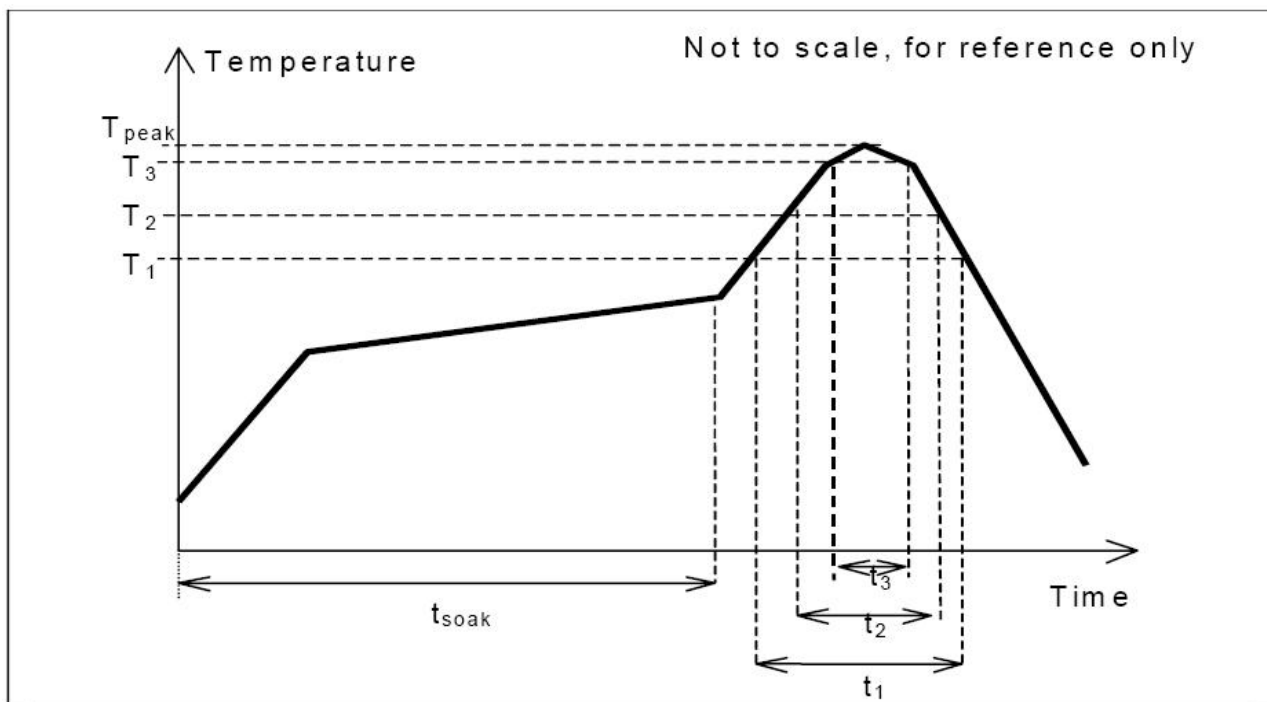


TABLE II:

REFLOW SOLDERING PROFILE

Pb-free reflow profile requirements:

Parameter	Reference	Specification
Average temperature gradient in preheating		2.5°C/s
Soak time	T soak	2-3 minutes
Time above 217°C	t1	60 s
Time above 230°C	t2	50 s
Time above 250°C	t3	5 s
Peak temperature in reflow	T peak	260°C (+/-5°C)
Temperature gradient in cooling		Max -5°C/s



This profile is the minimum requirement for evaluating soldering heat resistance of components. Heat transfer method used for reflow soldering is hot air convection. The actual air temperatures used to achieve the specified profile is higher and largely dependent on the reflow equipment.



瑞澤電子股份有限公司
Horustech Electronics Co., Ltd

产品功能测试报告 Product Function Test Report

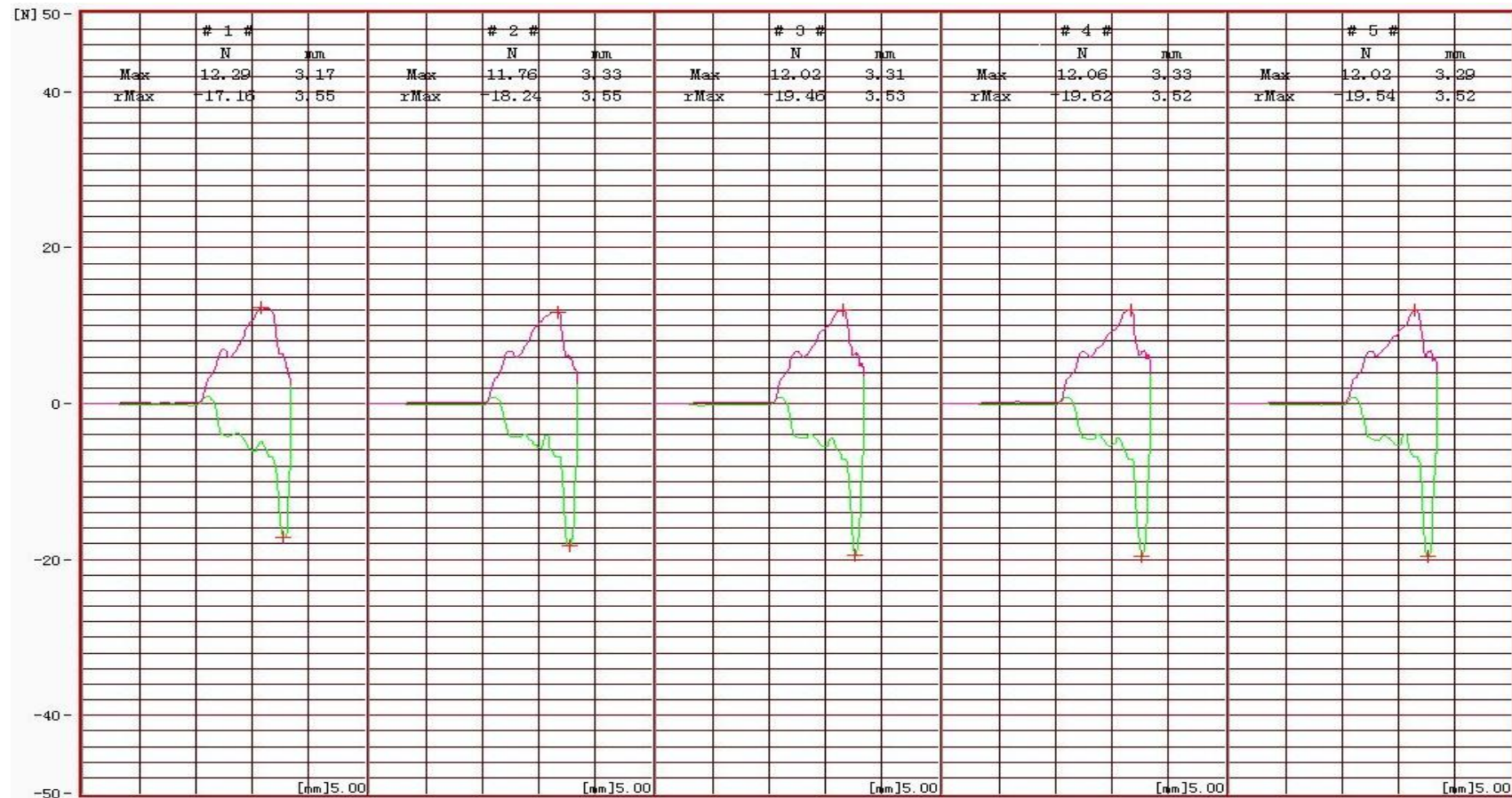
委托单位 Client	品质部	委托日期 Commission	2021.10.15	测试单位 Tester	实验室	测试日期 Test Date:	2021.10.16	报告编号 Serial	YTSYS20211016004			
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'		5PCS	☐ 样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification			
测试项目 Test Item	☐ 接触阻抗 LLCR		☐ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☐ 盐水喷雾 Salt Spray		☒ 耐久性测试 Durability		☒ 插拔力 Mating force&Unmating force	
	☐ 沾锡测试 Solder ability		☐ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☐ 绝缘电阻 InsulationResistance		☐ 其它测试 Other test	
测试过程及测试方法 The test process and test methods:												
测试仪器 Test Instrument		型号/规格 Type/specification		全自动插拔试验机			计量有效期 Measure the term of validity			2022/10/31		
测试环境 TestEnvironment		温 度 Temperature		24℃	湿 度 Humidity	56%	测试依据 Test Standard			工程图面		
测试项目及方法 The test items and methods			插拔力测		以12.5mm/min 速度插拔32次							
			耐久测试		以100次/H 速度测试10000次							
测试结果 Test Result		列出测试/实验过程中所获得的数据资料或观察到的现象，数据资料以平均值表示 List the data materials or phenomenon that observe tested / obtained in the experiment course, the data materials are expressed with average										
测试项目 Test Item	测定值/现象 Test Value/Phenomenon (单位unit: N)											
插拔力测试		1	2	3	4	5		最大值 Maximum	最小值 Minimum	平均值 Avg	规格 Specificati	判定 Iudge
	插入力	12.29	11.76	12.02	12.06	12.02		12.29	11.76	12.03	5-20N	OK
	拔出力	17.16	18.24	19.46	19.62	19.54		19.62	17.16	18.69	5-20N	OK
耐久测试		1000	5000	10000				最大值 Maximum	最小值 Minimum	平均值 Avg	规格 Specificati	判定 Iudge
	插入力	13.15	11.24	11.90				13.15	11.24	12.14	6-20N	OK
	拔出力	14.40	11.61	11.51				14.40	11.51	12.69	6-20N	OK
10000耐久后电性测试OK												
Approved By:康建平					Checked By:/				Test By: 朱子怡			



产品功能测试报告 Product Function Test Report

测试项目 Test Item	☐ 接触阻抗 LLCR	☐ 耐电压 DWV	☐ 冷热冲击 Thermal Shock	☐ 盐水喷雾 Salt Spray	☒ 耐久性测试 Durability	☒ 插拔力 Mating force&Unmating force
	☐ 沾锡测试 Solder ability	☐ 高温测试 Temperature life	☐ 保持力 Retention Force	☐ 恒温恒湿 Humidity	☐ 绝缘电阻 InsulationResistance	☐ 其它测试 Other test

初始插拔曲线图



Approved By:康建平

Checked By:/

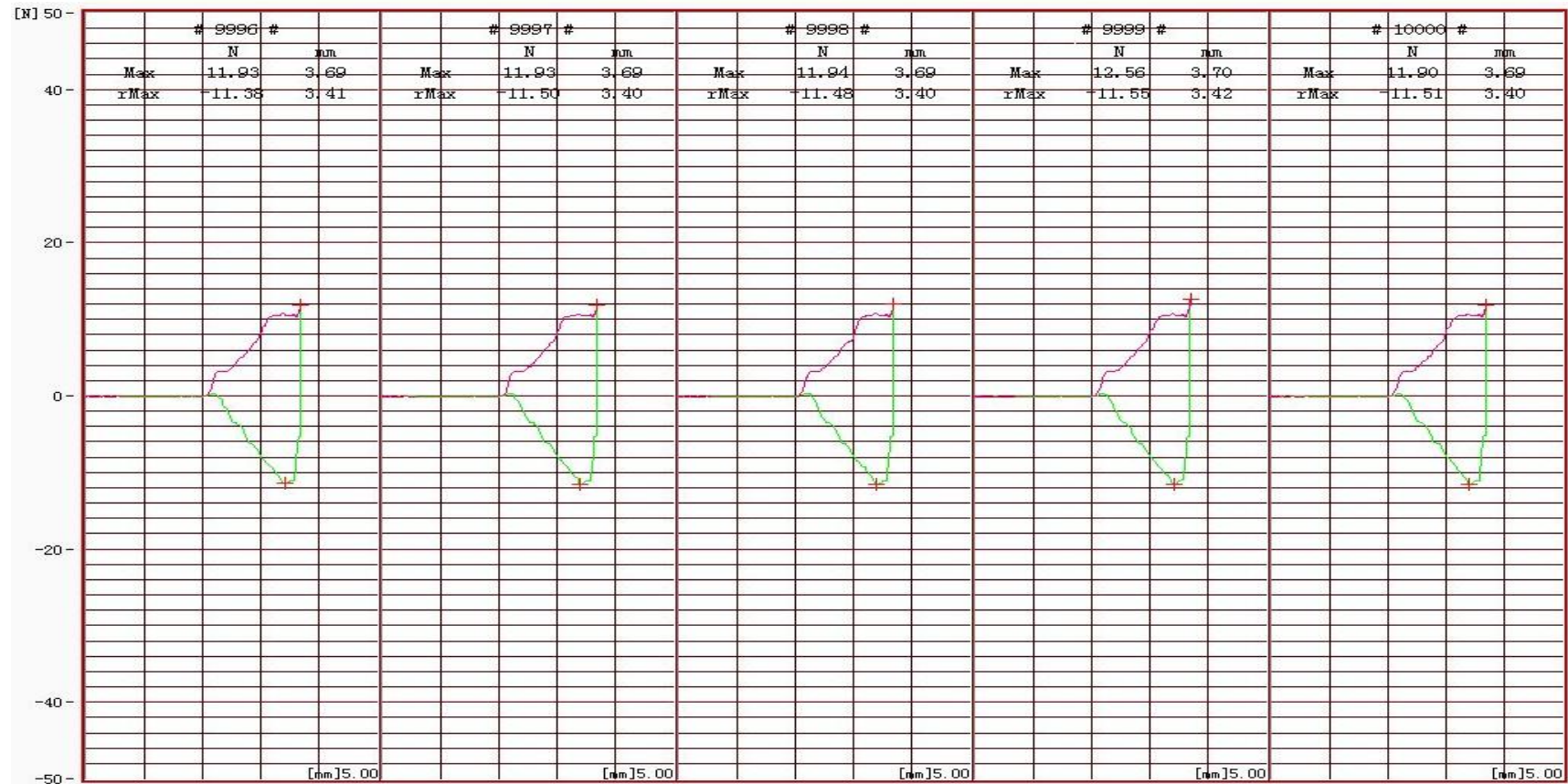
Test By: 朱子怡



产品功能测试报告 Product Function Test Report

测试项目 Test Item	☐ 接触阻抗 LLCR	☐ 耐电压 DWV	☐ 冷热冲击 Thermal Shock	☐ 盐水喷雾 Salt Spray	☒ 耐久性测试 Durability	☒ 插拔力 Mating force&Unmating force
	☐ 沾锡测试 Solder ability	☐ 高温测试 Temperature life	☐ 保持力 Retention Force	☐ 恒温恒湿 Humidity	☐ 绝缘电阻 InsulationResistance	☐ 其它测试 Other test

耐久插拔曲线图



Approved By:康建平

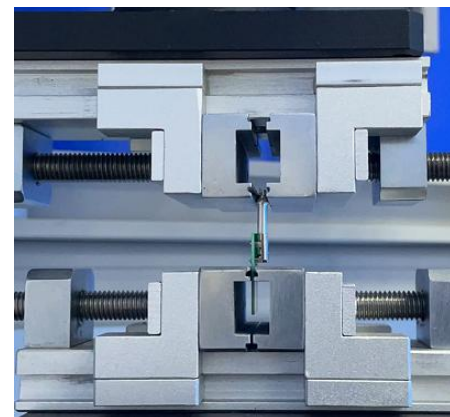
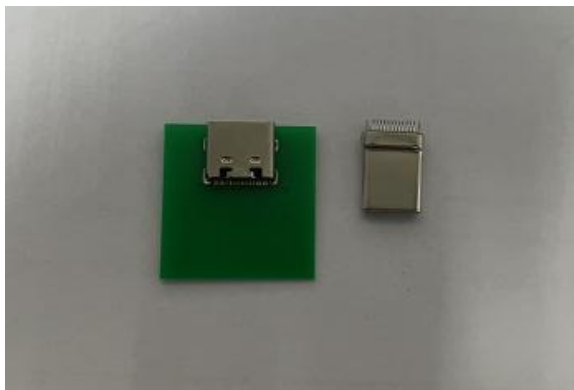
Checked By:/

Test By: 朱子怡

产品功能测试报告 Product Function Test Report

测试项目 Test Item	☐ 接触阻抗 LLCR	☐ 耐电压 DWV	☐ 冷热冲击 Thermal Shock	☐ 盐水喷雾 Salt Spray	☒ 耐久性测试 Durability	☒ 插拔力 Mating force&Unmating force
	☐ 沾锡测试 Solder ability	☐ 高温测试 Temperature life	☐ 保持力 Retention Force	☐ 恒温恒湿 Humidity	☐ 绝缘电阻 InsulationResistance	☐ 其它测试 Other test

测试前准备



插拔力测试参数设置



耐久测试参数设置



Approved By: 康建平

Checked By: /

Test By: 朱子怡



瑞澤電子股份有限公司
Horustech Electronics Co., Ltd

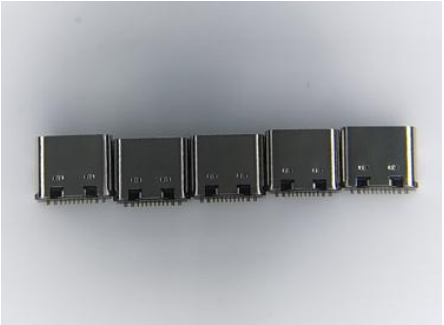
产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023.02.15	测试单位 Tester	实验室	测试日期 Test Date:	02.15-02.17	报告编号 Serial	YTSYS20230217009
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'		5PCS	样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR		☐ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☒ 盐水喷雾 Salt Spray		☐ 耐久性测试 Durability
	☐ 沾锡测试 Solder ability		☐ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☐ 绝缘电阻 Insulation Resistance
测试过程及测试方法 The test process and test methods:									
测试仪器 Test Instrument	型号/规格 Type/specification		精密型盐水喷雾试验机			计量有效期 Measure the term of validity		2023/10/31	
测试环境 TestEnvironment	温 度 Temperature		24℃	湿 度 Humidity	59%	测试依据 Test Standard		工程图面	
试验参数	盐水浓度		盐水PH值		试验箱温度		压力桶温度		喷雾量
规格要求	5%		6.5-7.2		35±2℃		47±2℃		1-2ml/(80cm²*h)
实际值	5%		6.74		35		47		1.2ml/(80cm²*h)
盐水调制方法	NaCl 250g加5000ML纯净水，用置物棒搅拌均匀								
测试依据	GB/T 10125-2012 人造气氛腐蚀试验 盐雾试验48H								
判定依据	GB/T 6461-2002 金属基体上金属和其他无机覆盖层经腐蚀试验后的试样和试件的评级								
Approved By:康建平			Checked By:/				Test By: 朱子怡		

产品功能测试报告 Product Function Test Report

產品品名 Part name	TYPE-C 16pin板上型四脚插板母座	样品数量 Sample Qty'	5PCS	样品描述 sample describing	☐ 新产品验证 New product validation	☒ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR	☐ 耐电压 DWV	☐ 冷热冲击 Thermal Shock	☒ 盐水喷雾 Salt Spray	☐ 耐久性测试 Durability	☐ 插拔力 Mating force&Unmating force
	☐ 沾锡测试 Solder ability	☐ 高温测试 Temperature life	☐ 保持力 Retention Force	☐ 恒温恒湿 Humidity	☐ 绝缘电阻 Insulation Resistance	☐ 其它测试 Other test

测试过程及测试方法 The test process and test methods:

测定值/现象 Test Value/Phenomenon	样品观察时机	样品状态	样品观察时机	样品状态	样品观察时机	样品状态	判定
							☒ PASS
							☐ NG
	盐雾测试前	产品挂放置测试箱内	盐雾测试中	盐雾测试中	盐雾测试48H后	符合9级标准	

Approved By: 康建平

Checked By: /

Test By: 朱子怡

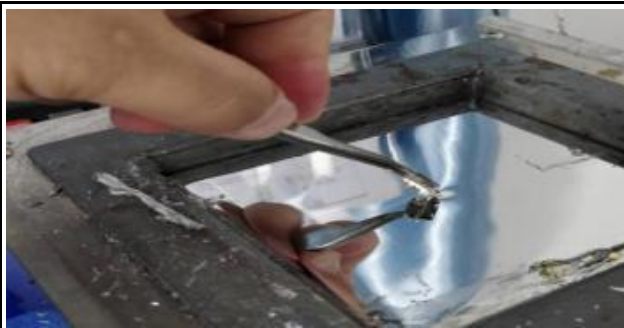
产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023.02.15	测试单位 Tester	实验室	测试日期 Test Date:	2023.02.16	报告编号 Serial	YTSYS20230216001
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'	5PCS		样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR		☐ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☐ 盐水喷雾 Salt Spray		☐ 耐久性测试 Durability
	☒ 沾锡测试 Solder ability		☐ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☐ 插拔力 Mating force&Unmating force ☐ 其它测试 Other test

测试过程及测试方法 The test process and test methods:

测试仪器 Test Instrument	型号/规格 Type/specification	锡炉			计量有效期 Measure the term of validity	2023/10/31
测试环境 TestEnvironment	温 度 Temperature	25℃	湿 度 Humidity	48%	测试依据 Test Standard	工程图面
测试项目及方法 The test items and methods		沾锡角度与锡液表面呈30° -45° 角度, 将产品放入265±5℃锡液中, 3秒取出。				
测试结果 Test Result	列出测试/实验过程中所获得的数据资料或观察到的现象, 数据资料以平均值表示 List the data materials or phenomenon that observe tested /					

沾锡前准备



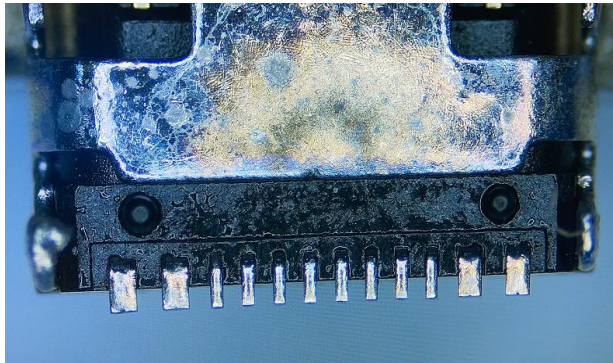
Approved By: 康建平

Checked By: /

Test By: 朱子怡

产品功能测试报告 Product Function Test Report

沾锡后

	图示:	规格 Specificati	判定 Judge
沾锡测试		产品沾锡面积必须在95%以上	OK
沾锡测试		产品沾锡面积必须在95%以上	OK
Approved By:康建平		Checked By: /	Test By: 朱子怡



瑞澤電子股份有限公司
Horustech Electronics Co., Ltd

产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023. 02. 15	测试单位 Tester	实验室	测试日期 Test Date:	2023. 02. 16	报告编号 Serial	YTSYS20230216002
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'		5PCS	样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification
测试项目 Test Item	☒ 接触阻抗 LLCR		☐ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☐ 盐水喷雾 Salt Spray		☐ 耐久性测试 Durability
	☐ 沾锡测试 Solder ability		☐ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☐ 绝缘电阻 Insulation Resistanc
								☐ 插拔力 Mating force&Unmating force	
								☐ 其它测试 Other test	

测试过程及测试方法 The test process and test methods:

测试仪器 Test Instrument	型号/规格 Type/specification	直流电阻测试仪			计量有效期 Measure the term of validity	2023/10/31
测试环境 Test Environment	温度 Temperature	23℃	湿度 Humidity	59%	测试依据 Test Standard	工程图面

测试项目及方法 The test items and methods	接触阻抗	公、母座对插，用夹具分别夹住公、母座相接触的PIN针，读数稳定后，读取测试值
---------------------------------------	------	--

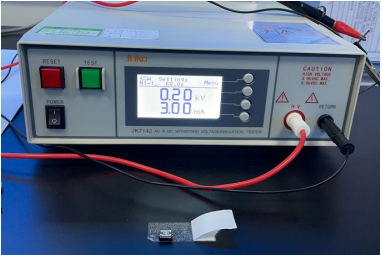
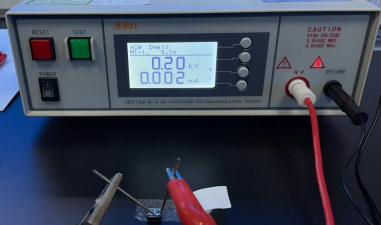
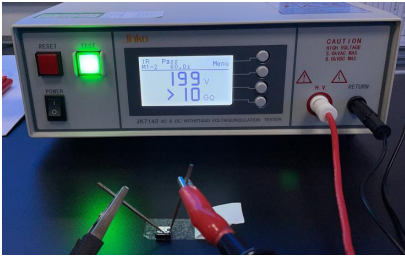
测试项目 Test Item	测定值/现象 Test Value/Phenomenon (单位unit:mΩ)												
接触阻抗	SIGNAL NAME	1	2	3	4	5	6	7	8	9	10	11	12
	PIN												
	1	19.000	19.310	21.470	22.420	21.590	19.160	24.170	18.851	21.330	22.140	22.650	19.560
	2	20.810	23.960	21.340	22.400	21.050	18.720	24.130	17.690	19.990	17.610	18.020	19.250
	3	19.610	23.400	22.400	24.100	22.780	20.910	19.400	17.030	23.074	21.480	19.400	18.240
	4	19.240	17.650	22.600	20.740	21.410	17.970	17.400	19.580	21.410	18.470	19.110	20.510
	5	19.400	20.170	19.720	18.560	20.350	19.870	21.300	19.940	19.700	17.200	18.360	18.120
	标准	40mΩ MAX											
	判定	OK											

Approved By:康建平

Checked By: /

Test By: 朱子怡

产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023.02.15	测试单位 Tester	实验室	测试日期 Test Date:	2023.02.16	报告编号 Serial	YTSYS20230216003
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'	5PCS		样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR		☒ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☐ 盐雾喷雾 Salt Spray		☐ 耐久性测试 Durability
	☐ 沾锡测试 Solder ability		☐ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☒ 绝缘电阻 Insulation Resistance
测试过程及测试方法 The test process and test methods:									
测试仪器 Test Instrument		型号/规格 Type/specification		耐压绝缘测试器			计量有效期 Measure the term of validity		2023/10/31
测试环境 TestEnvironment		温度 Temperature		23℃	湿度 Humidity	59%	测试依据 Test Standard		工程图面
测试项目及方法 The test items and methods			耐电压		在AC 100V条件下测试60S 在DC 100MΩ MIN条件下测试60S				
测定值/现象 Test Value/Phenomenon (单位unit: V)									
测定值/现象 Test Value/Phenomenon	耐电压测试								
									
测定值/现象 Test Value/Phenomenon	绝缘电阻测试	参数设置				测试中			
		测试结果							
判定	标准: ①100MΩ MIN; 实测: >1000MΩ; 判定OK。②无火花、击穿现象, 判定OK。								
Approved By: 康建平 Checked By: / Test By: 朱子怡									

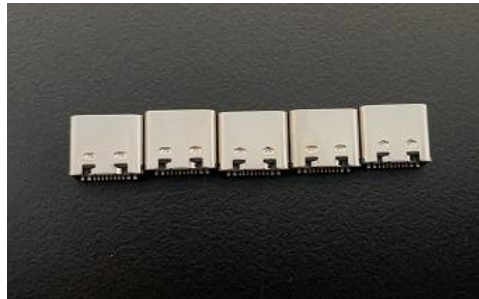
产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023.02.15	测试单位 Tester	实验室	测试日期 Test Date:	2023.02.18	报告编号 Serial	YTSYS20230218002
產品品名 Part name	TYPE-C 16pin板上型四脚插板母座		样品数量 Sample Qty'	5PCS		☐ 样品描述 sample describing	☐ 新产品验证 New product validation		☒ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR		☐ 耐电压 DWV		☐ 冷热冲击 Thermal Shock		☐ 盐水喷雾 Salt Spray		☐ 耐久性测试 Durability
	☐ 沾锡测试 Solder ability		☒ 高温测试 Temperature life		☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity		☐ 绝缘电阻 Insulation Resistance
								☐ 插拔力 Mating force&Unmating force	
								☐ 其它测试 Other test	

测试过程及测试方法 The test process and test methods:

测试仪器 Test Instrument	型号/规格 Type/specification	IR炉			计量有效期 Measure the term of validity	2023/10/31
测试环境 Test Environment	温 度 Temperature	25℃	湿 度 Humidity	50%	测试依据 Test Standard	工程图面
测试项目及方法 The test items and methods		高温测试		最高温度:265±5℃, 最高温度时间:3~5S, 试验时间: 5min		
测试结果 Test Result	列出测试/实验过程中所获得的数据资料或观察到的现象 , 数据资料以平均值表示 List the data materials or phenomenon that observe tested / obtained in the experiment course the data materials are expressed with					
测试项目 Item	测定值/现象 Test Value/Phenomenon					

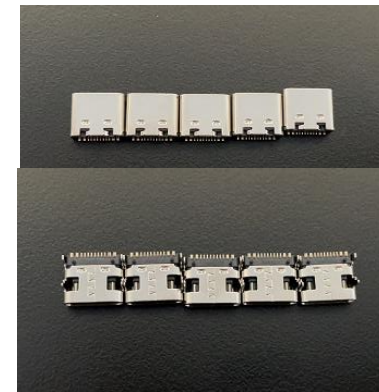
高温测试



高温前



高温中



高温后

高温后无氧化、变形、异色、起泡、脱皮等不良, 判定OK

Approved By: 康建平

Checked By: /

Test By: 朱子怡

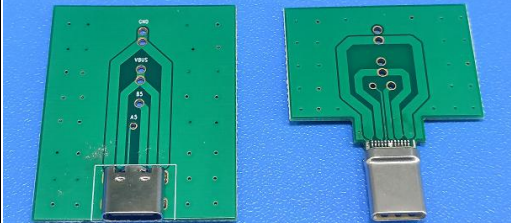
产品功能测试报告 Product Function Test Report

委托单位 Client	品质部	委托日期 Commission	2023.02.16	测试单位 Tester	实验室	测试日期 Test Date:	2023.02.18	报告编号 Serial	YFSYS20230218004
產品品名 Part name	TYPE-C 16pin板上型+TYPEC-24pin公头拉伸		样品数量 Sample Qty'		1PCS	样品描述 sample describing	☒ 新产品验证 New product validation		☐ 日常验证 Daily verification
测试项目 Test Item	☐ 接触阻抗 LLCR	☐ 耐电压 DWV	☐ 冷热冲击 Thermal Shock		☐ 盐雾喷雾 Salt Spray	☐ 耐久性测试 Durability	☐ 插拔力 Mating force&Unmating force		
	☐ 沾锡测试 Solder ability	☐ 高温测试 Temperature life	☐ 保持力 Retention Force		☐ 恒温恒湿 Humidity	☐ 绝缘电阻 Insulation Resistance	☒ 温升测试 Temperature-rise test		

测试过程及测试方法 The test process and test methods:

测试仪器 Test Instrument	型号/规格 Type/specification	温升测试仪			计量有效期 Measure the term of validity		2023/10/31
测试环境 TestEnvironment	温 度 Temperature	22℃	湿 度 Humidity	58%	测试依据 Test Standard	工程图面	
测试项目及判定标准 The test items and methods		温升测试		1. 在Vbus、GND、端子给予3A的电流，20V电压，功率60W； 2. 接102&104感温通道进行测试，测试时间2H，每10sec进行温度记数； 3. 30min内温度的变化量减去常温产品不能超过30℃；			

测试结果 Test Result 列出测试/实验过程中所获得的数据资料或观察到的现象，数据资料以平均值表示 List the data materials or phenomenon that observe tested / obtained in the experiment course, the data materials are expressed with average

测定值/现象 Test Value/Phenomenon						
	测试前		参数设置		测试中	

判定结果	经过2H持续测试，产品最高温度减去平均常温产品实际发热温度为5℃，符合标准，判定OK。（详细测试数据如附件）					
Approved By: 康建平		Checked By: /		Test By: 朱子怡 表单编号: YT-YT-JR-4Q-072 A0		