

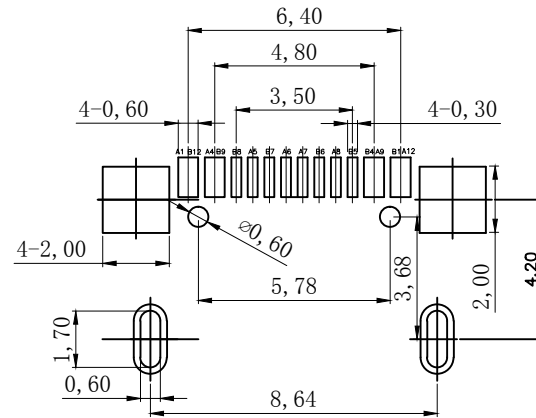
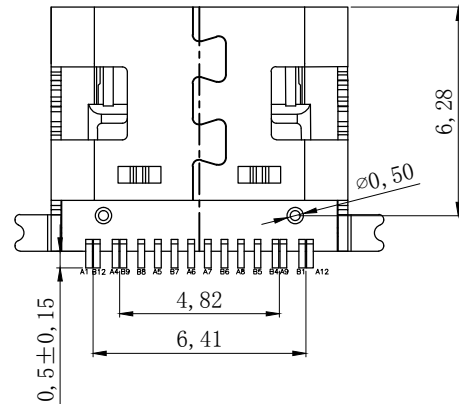
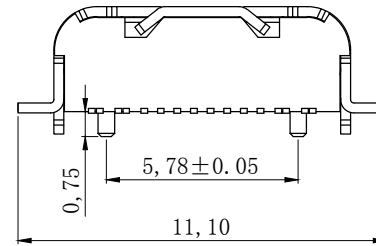
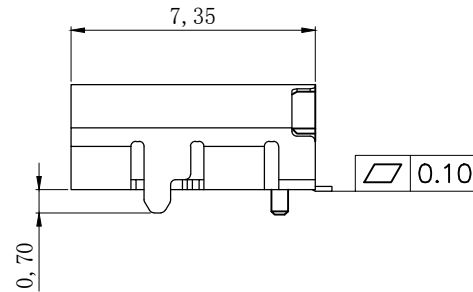
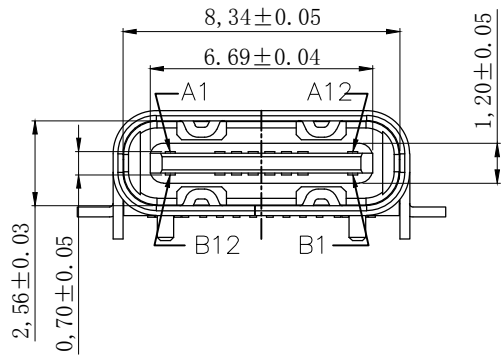
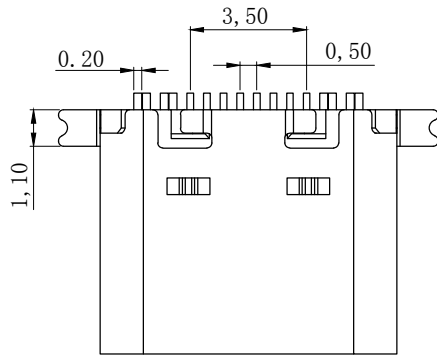
1. 材料  
 A. 主体: LCP, 黑色, 白色, UL 94-V0;  
 B. 端子: 铜合金, 电镀刷金;  
 C. 外壳: 不锈钢, 镀全镍;

2. 主要特性  
 A. 电压等级: 20V AC;  
 B. 电流: 3A;  
 C. 工作温度: -40°C~85°C;

3. 电气要求:  
 A. 接触电阻: 40mΩ Max. (初始), 50mΩ Max. (最后);  
 B. 电压: 100V AC 1分钟;  
 C. 绝缘电阻: 100MΩ min. DC 500v;

4. 机械性能:  
 A. 插入力: 5~20N. (从1~10,000次);  
 B. 拔出力: 8~20N. (从1~1,000次);  
 6~20N. (从1,001~10,000次);  
 C. 耐久性寿命: 10,000次;

A1	GND	B12	GND
A4	VBUS	B9	VBUS
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS	B4	VBUS
A12	GND	B1	GND
PIN	SIGNAL NAME	PIN	SIGNAL NAME



RECOMMENDED PCB LAYOUT  
 TOL: (±0.05)

6	SHELL	STAINLESS STEEL SUS201	Ni Plated	1PCS
5	SHIELDING PLATE	STAINLESS STEEL SUS304	---	1PCS
4	MD	HIGH TEMPERATURE PLASTIC	BLACK	1PCS
3	CONTACT	COPPER ALLOY C2680	Au G/F /Ni Plated	1SET
2	CONTACT	COPPER ALLOY C2680	Au G/F /Ni Plated	1SET
1	HOUSING	HIGH TEMPERATURE PLASTIC	BLACK	1PCS
NO.	DESCRIPTION	MATERIAL	REMARKS	QTY

HADFU ELECTRONCS TECHNOLOGY CO.,LTD

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PART NAME		USB 3.1板上16pin母座板上前插后贴		DRAWING		Y,C,ZHANG		DWG.No.		SBICL	
PART NO.		A15SC7151B01-737		CHECK		G.C.Chen		REV.		A1	
UNIT :		TOLERANCE		APPROVAL		DATE		PAGE		14-03-2013	
mm		OTHERWISE		SCALE		2:1		1 OF 1			
		UP TO 5 ±0.2		ANGLE							
		ABOVE 5~30 ±0.3		0°±3'							
		ABOVE 30 ±0.5									
		ANGLE ±3'									

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)

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##### 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 haofu .

本规格书规定了由皓富设计生产的 **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:  $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$ , Relative humidity:  $\leq 80\%$ , Not to storage in corrosive environments A re-qualification test shall be conducted immediately while the storage duration exceed 6 months.

温度:  $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$ ; 相对湿度:  $\leq 80\%$ ; 勿贮存于腐蚀环境内。贮存期超过6个月需重新进行品质确认。

## 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  $4^{\circ}\text{C}$  per second. Final preheat temperature will be within  $125^{\circ}\text{C}$  of solder temperature. 温度增加不超过  $4^{\circ}\text{C}$  /秒, 最终预热温度不超过  $125^{\circ}\text{C}$ 。

##### 4.2.1.2. Soldering (焊接)

Device leads will be exposed to solder wave at  $250^{\circ}\text{C}$  for a maximum of 5 seconds. 设备中的引导焊接温度最高  $250^{\circ}\text{C}$  不超过5秒。

##### 4.2.1.3. Cool Down (冷却)

Cool down in ambient air at approximately  $20^{\circ}\text{C}$  to  $25^{\circ}\text{C}$ . 冷却到周围环境温度  $20^{\circ}\text{C}\sim 25^{\circ}\text{C}$ 。

#### 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  $4^{\circ}\text{C}$  per second. 温度增加不超过  $4^{\circ}\text{C}$  /秒,

##### 4.2.2.2. Soldering (焊接)

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

##### 4.2.2.3. Cool Down (冷却)

Cool down shall not exceed  $6^{\circ}\text{C}$  per second. 冷却速度不超过  $6^{\circ}\text{C}$  /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. 除非特别注明，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
<b>Electrical Requirement</b>			
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	<p>1.A current of 3.0 A shall be applied collectively to VBUS pins (pins A4, A9, B4, and B9)</p> <p>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).</p> <p>3. A minimum current of 0.25 A shall also be applied individually to all the other contacts.</p> <p>1.VBUS pins 需通过电流3.0A(pin A4, A9, B4, and B9 )。</p> <p>2. VCONN pin(公头B5 pin)及GND pins需通过电流1.25A(pins A1, A12, B1, and B12)。</p> <p>3.其余pins需通过最小电流0.25A。</p>	<p>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.</p> <p>Test reference standard: EIA -364-70 method B</p> <p>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℃。</p> <p>测试参考标准: EIA 364-70 方法B</p>
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### Mechanical Requirement

	Items	Requirements	Test Methods
6	Insertion Force 插入力	<p>The initial connector insertion force shall be within the range from 5 N to 20 N.</p> <p>连接器初始插入力需在 5N~20N 范围内。</p>	<p>Measure the force required to mate connector, At a maximum rate of 12.5mm(0.492") per minute.</p> <p>Test reference standard: EIA-364-13</p> <p>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。</p> <p>测试参考标准: EIA 364-13</p>
7	Extraction Force 拔出力	<p>The initial connector Extraction force shall be within the range from 6 N to 20 N.</p> <p>连接器初始拔出力需在 6N~20N 范围内。</p>	<p>Measure the force required to mate connector, At a maximum rate of 12.5mm(0.492") per minute.</p> <p>Test reference standard: EIA-364-13</p> <p>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。</p> <p>测试参考标准: EIA 364-13</p>
8	Durability or Insertion/extraction Cycles 耐久或插入拔出次数	<p>The durability rating shall be 5,000 cycles.</p> <p>耐久测试 5000 次。</p>	<p>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.</p> <p>Test reference standard:EIA-364-09</p> <p>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。</p> <p>测试参考标准: EIA 364-09</p>



# 东莞市皓富电子科技有限公司

## 产品规格书

制訂日期: 17/06/10

文件編號:

9	Physical Shock 物理冲击	No breakdown shall occur. 产品不能出现损坏现象。	No discontinuities of 1μs 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1μs, 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。
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### 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 mΩ max. Dielectric Strength should be OK, Insulation Resistance should be 100 MΩ min. 产品外观良好, 无损坏。接触阻抗: 40 mΩ 最大; 耐电压测试OK, 绝缘阻抗100MΩ 最小。	Temperature: 25~65°C, Relative humidity: 90-95%, Duration: 96Hours, Circulate test: 10 Cycles. Test reference standard: EIA 364-31 温度: 25~65°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 mΩ max. Dielectric Strength should be OK, Insulation Resistance should be 100 MΩ min. 产品外观良好, 无损坏。接触阻抗: 40 mΩ 最大; 耐电压测试OK, 绝缘阻抗100MΩ 最小。	Temperature range from -55°C to +85°C .Start from -55°C. After 30 min. change to +85°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°C ~ +85°C, 从-55°C开始, 30分钟后换到+85°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°C - 170°C for 100 seconds. Room 2: preheat temperature 170°C - 200°C for 100 seconds. Room 3: reflow temperature 200°C - 260°C for 120-60 seconds.

# 东莞市皓富电子科技有限公司

## 产品规格书

制訂日期: 17/06/10

文件編號:

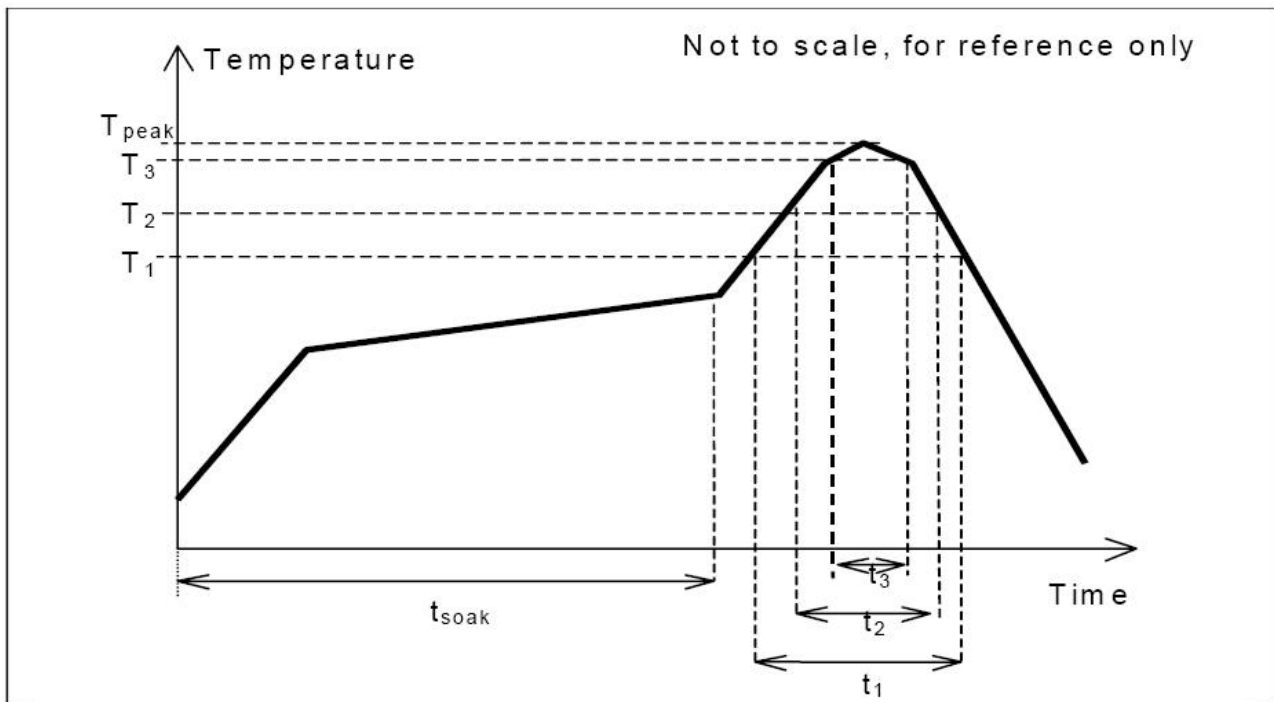
			<p>(For 260°C ONLY 5-10 seconds)                  将产品放在PCB板上,然后放入回焊炉中并用于以下条件:                  时间段1: 预热温度150°C-170°C 100秒。                  时间段2: 预热温度170°C - 200°C 100秒。                  时间段3: 回焊炉温度200°C - 260°C 100秒。(260°C 时间仅5~10S)</p>
13	<p><b>Solderability</b>                  可焊性</p>	<p>The inspected area of each lead must have 95% solder coverage Minimum.                  检测焊接端的锡覆盖率需大于95%</p>	<p>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。</p>
14	<p><b>Salt Spray</b>                  盐雾测试</p>	<p>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。</p>	<p>Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 24 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24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。</p>

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.

# 东莞市皓富电子科技有限公司

## 产品尺寸检验报告

品名规格: TYPE C 板上前插后贴      料号:      检验日期: 2020.04.02

序号	规格	检验结果						判定结果		异常处理
	标准尺寸	1	2	3	4	5	OK	NG		
1	8.34+/-0.05	8.350	8.350	8.350	8.360	8.360		OK		
2	6.69+/-0.04	6.701	6.705	6.697	6.701	6.692		OK		
3	2.56+/-0.03	2.580	2.570	2.570	2.580	2.580		OK		
4	0.70+/-0.05	0.710	0.720	0.720	0.730	0.720		OK		
5	1.20+/-0.05	1.210	1.200	1.200	1.210	1.200		OK		
6	0.50+/-0.15	0.550	0.540	0.540	0.550	0.540		OK		
7	7.35+/-0.10	7.420	7.410	7.420	7.420	7.420		OK		
8	◇0.10	0.040	0.030	0.040	0.060	0.020		OK		
9	5.78+/-0.05	5.760	5.770	5.760	5.750	5.770		OK		
10										
11										
12										
13										
14										
15										
16										
20										
21										
22										
23										
24										
25										

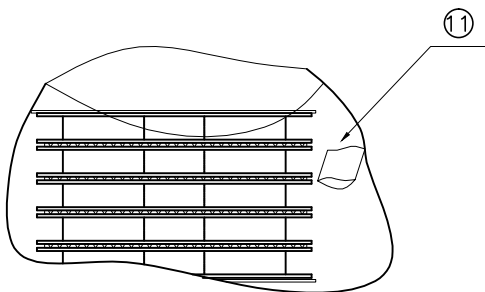
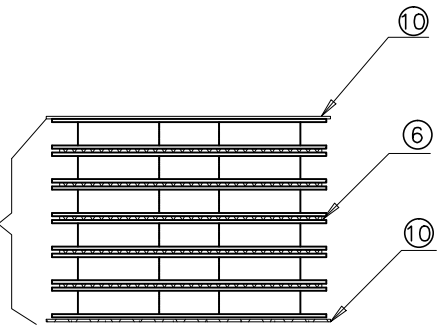
量测仪器:  光标卡尺    B=分厘卡    C=2.5~~次~~/元    D=投影机

判定:  允收     拒收     特采: 单号

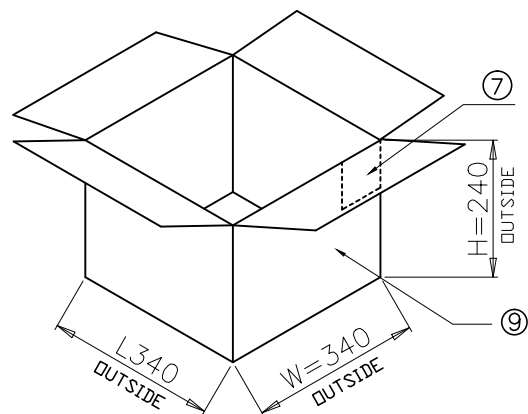
备注:


核准:      审核:      制表:

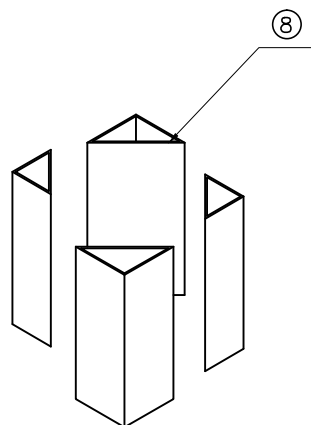
TOTAL  
10 TRAY



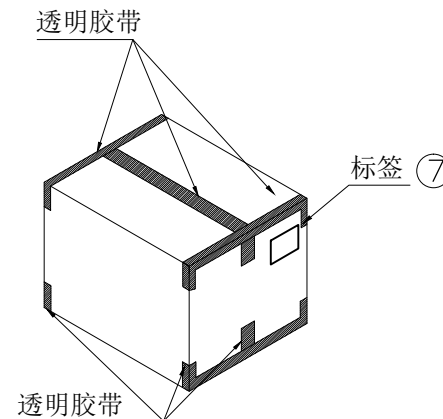
先在防水袋底部放一块圆形硬纸板，然后放10盘RELL，每盘之间放1PCS气泡垫，再在最上面放1PCS圆形硬纸板，然后用胶带将防水袋封住；



在纸箱底部放1PCS四方形纸板，再将包好产品的防水袋放入纸箱内；



然后把三角板放入纸箱四个角上；



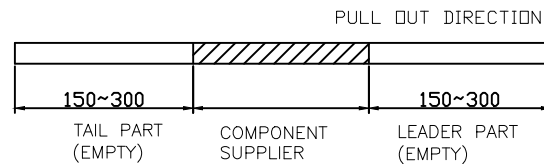
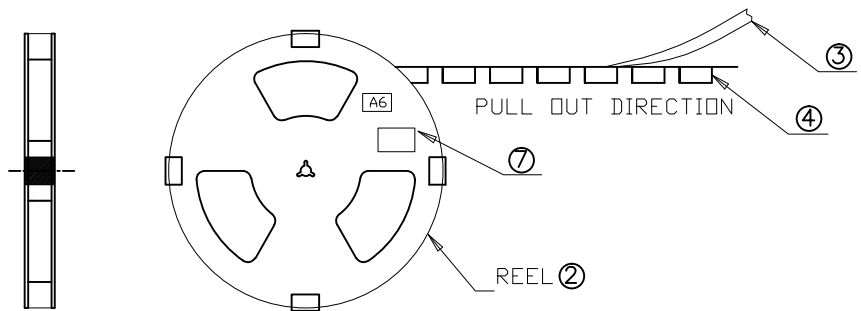
依图示用透明胶带将纸箱封好，

NOTES:

- 1.PRIMARY PACKING: 1000pcs PCS/REEL
- 2.SECONDARY PACKING: 10REELS/CARTON(10000 PCS/CARTON)
- 3.NET WEIGHT:1.55g/PCS,640g/REEL.
- 4.GROSS WEIGHT:1.57Kg/REEL,8.77Kg/CARTON.
- 5.ALL MATERIALS SHOULD BE COMPLIANT TO RoHS.

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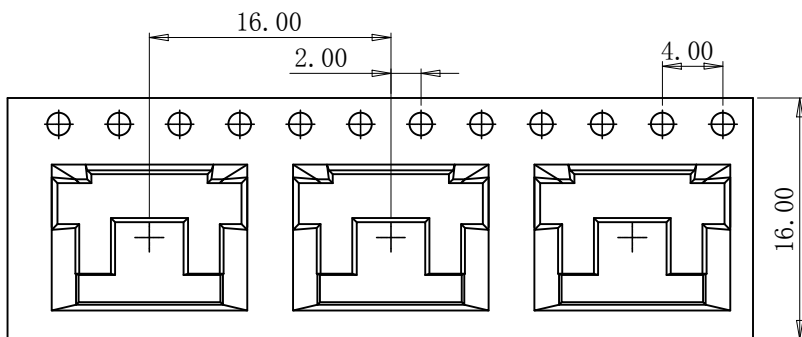
Xi±0.25	Xi±1°	APP.		DWG NO.	
.XXi±0.15	.Xi±0.5°	CHK.		TITLE	USB 3.1板上16pin母座
.XXXi±0.05	.XXi±0.02°	DGN.	liyuning	SERIES	板上前插后贴
UNIT	mm	DRW.	liyuning		
SCALE	1:1				
REV.	A0	SHEET:	1/1		



PULL OUT DIRECTION  
→

NOTE:

1. CARRY TAPE 两头各留出150~300mm的长度不装产品.
2. 每穴放置1PCS产品, 放置方式如图所示.
3. 包装机包好后再缠上一圈电周波, 在REEL的四个等分点贴上胶带, 每REEL贴1pcs标签.
4. 将装好产品的REEL盘装入防水袋中, 共放10盘, 在防水袋内放1PCS干燥剂, 将防水袋用胶带封好, 最后将防水袋放入纸箱内, 四个角各放入1PCS三角板, 最后用胶带封住纸箱.
5. COVER TAPE 与CARRY TAPE之间的剥离力: 20gf~120gf, 剥离角度165°~175°, 剥离速度25mm~125mm/minute.
6. 包装方式: 热封式;



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Xi±0.25	Xi±1°	APP.	DWG NO.
.XXi±0.15	.Xi±0.5°		
.XXXi±0.05	.XXi±0.02°		
UNIT	mm	DGN.	TITLE
SCALE	1:1		
REV.	A0	DRW.	SERIES
	SHEET: 1/1	liyouning	板上前插后贴

# 產品可靠性測試報告

报告编号: M-190105-01

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申请部门/人: 技术支持课

产品名称: TYPE C板上16PIN

产品料号: 1UB31600241

测试项目: **插拔力测试**:外观→插拔力→耐久测试→插拔力→外观

样品数量: 5 PCS

测试时间: 2019-01-04 ~ 2019-01-05

测试环境: 温度: 25±3℃, 湿度: 60±5%R.H.

测试条件: 依据产品规格书

1. 插拔力: 将与之相配的卡从母座中以每分钟25±3mm的速度循环插入拔出;
2. 插拔速度: 540 cycles/H;
3. 插拔次数: 10000 次;

测试设备: 全自动插拔力试验机 . 微电脑插拔力试验机

测试结果: 合格 不合格

结果描述: 试验前后产品外观良好, 初始插入力平均值为12.73N, 拔出力平均值为12.60N, 耐久后插入力平均值为14.25N, 拔出力平均值为11.79N, 均在规格内判定OK.

## 1. 1.1插拔力 (单位:N) (初始)

项目 \ 样品	1#	2#	3#	4#	5#	判定标准	最大值	最小值	平均值	判定结果
插入力	12.04	13.47	11.82	13.82	12.48	5-20N	13.82	11.82	12.73	OK
拔出力	12.65	13.09	11.56	12.62	13.08	8-20N	13.09	11.56	12.60	OK

## 1.2插拔力 (单位:N) (耐久后)

项目 \ 样品	1#	2#	3#	4#	5#	判定标准	最大值	最小值	平均值	判定结果
插入力	11.20	15.05	13.47	15.69	15.84	5-20N	15.84	11.20	14.25	OK
拔出力	9.42	12.63	11.54	12.81	12.56	8-20N	12.81	9.42	11.79	OK

## 2. 外观检验

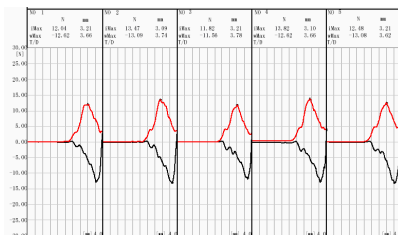
项目 \ 判定标准	样品	初始值					耐久试验后				
		1#	2#	3#	4#	5#	1#	2#	3#	4#	5#
外观检验	外观良好	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

## 3. 测试图片

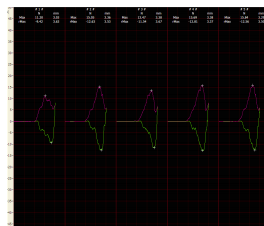
插拔力试验机



初始插拔力



耐久后插拔力



核准:

审核:

测试员:

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