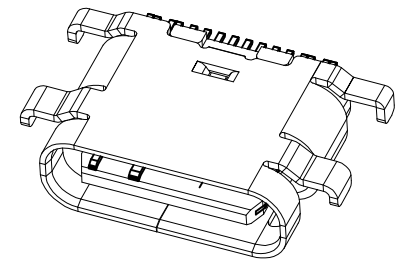


NOTE:

1. MATERIAL SPECIFICATION:
  1. HOUSING: HIGH TEMPERATURE RESISTANT PLASTIC, LCP UL94 V-0.
  2. CONTACTS: COPPER ALLOY C2680
  3. SHELL MID PLATE: STAINLESS STEEL SUS304
2. PLATING SPECIFICATION:
  - 2-1. CONTACTS:
    - Ni 50μ" MIN. UNDER PLATED OVER ALL.
    - Au PLATED ON THE FUNCTIONAL AREA OF CONTACT.
    - (GOLD PLATING THICKNESS FOLLOW THE P/N)
    - GOLD FLASH PLATING ON SOLDER AREA
  - 2-2. FRONT SHELL:
    - Ni 30μ" MIN. UNDER PLATED OVER ALL.
3. MECHANICAL PERFORMANCE,
  - 3-1. INSERTION FORCE: 0.5~2.0kgf.
  - 3-2. REMOVAL FORCE: 0.8kgf~2.0kgf.
  - 3-3. DURABILITY: 10000 CYCLES.
4. ELECTRICAL PERFORMANCE,
  - 4-1. CURRENT RATING: 5A  
VOLTAGE RATING: 20V
  - 4-2. INSULATION RESISTANCE: 100MΩ MIN
  - 4-3. CONTACT RESISTANCE: 30mΩ MAX
  - 4-4. DIELECTRIC WITHSTAND VOLTAGE, AC 100V FOR 1 MINUTE.
5. ENVIRONMENTAL PERFORMANCE:
  - OPERATING TEMPERATURE: -30° C~+85° C.
6. IR REFLOW:
  - THE PEAK TEMPERATURE ON THE BOARD SHALL BE MAINTAINED FOR 10 SECONDS AT 260° C.
7. ROHS REACHER.



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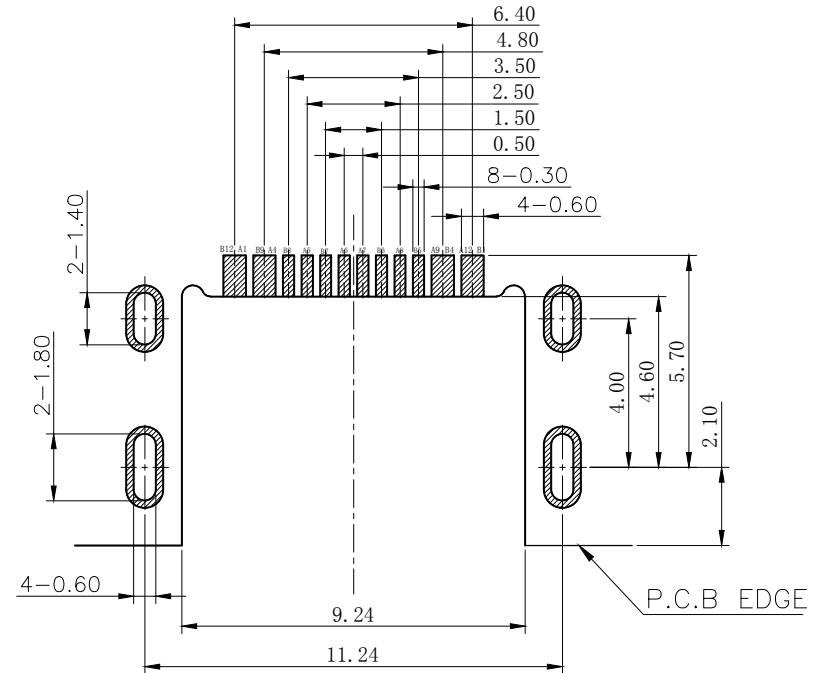
COPYRIGHT RESERVED, PLEASE DO NOT COPY.

PART NAME		TYPE-C 16P 母座L=6.5沉板2.4		DRAWING	Y,C,ZHANG	DWG.No.	SBICL
PART NO.		A15SC7151B01-331		CHECK	G.C.Chen	REV.	A1
	UNIT :	TOLERANCE	UP TO 5	APPROVAL	DATE	PAGE	14-03-2013
	mm	OTHERWISE	ANGLE				
			±0.2	SCALE	2:1	1 OF 1	
			±0.3				
			±0.5				
			±3'				

REV.	DESCRIPTION	NAME	DATE

USB TYPE-C PIN ASSIGNMENTS

PIN NUMBER	SIGNAL NAME	PIN NUMBER	SIGNAL NAME
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



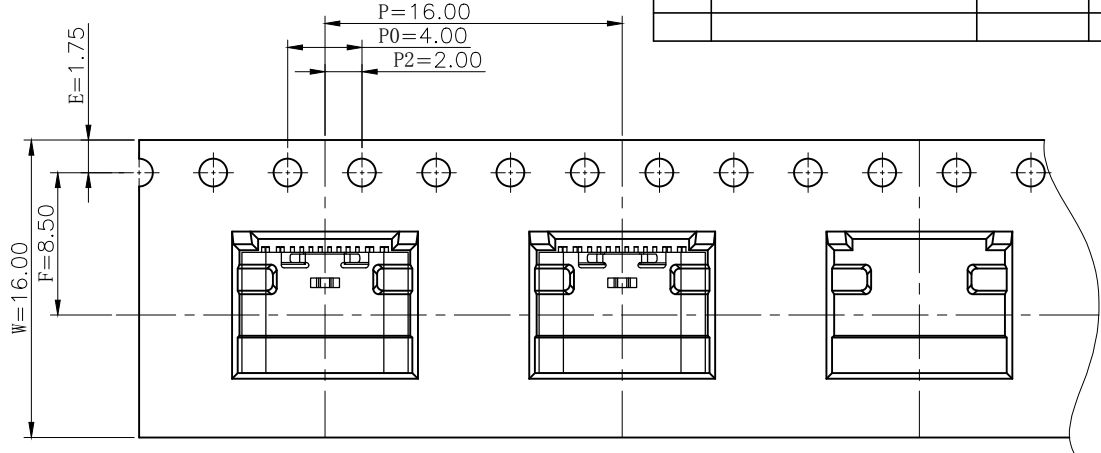
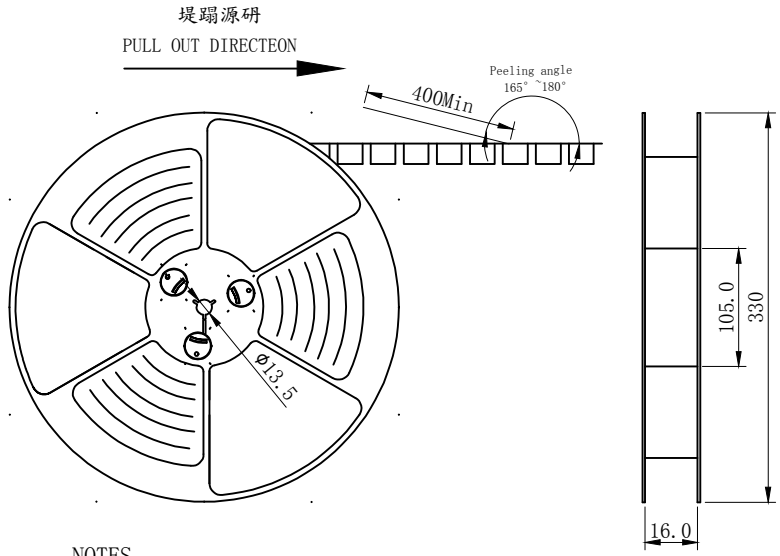
RECOMMEND P. C. B LAYOUT (COMPONENT SIDE)  
TOLERANCE FOR PCB LAYOUT IS  $\pm 0.05$

TOLERANCE UNSPECIFIED	
.0	$\pm 0.35$
.00	$\pm 0.25$
.000	$\pm 0.15$
X. °	$\pm 2.00^\circ$
CUSTOMER DRAWING	

东莞市皓富电子科技有限公司  
TITLE: TYPE-C 16P 母座L=6.5沉板2.4 (CH=0.82mm)

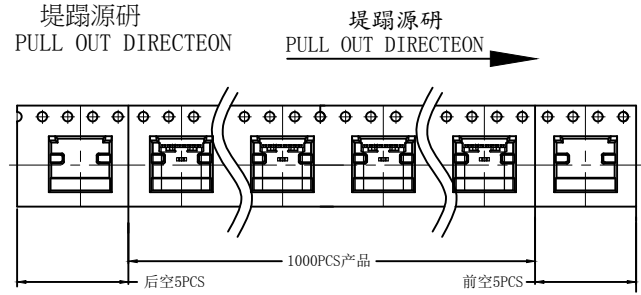
DRAWN DATE	LXF	SIZE:A4	UNIT:mm.	PART. NO:
CHECKED DATE	LYX	SCALE: 1:1	PROJECTION	REV. : 1
APPROVED DATE	LJP	DWG PATH		PATH 2/3

REV.	DESCRIPTION	NAME	DATE

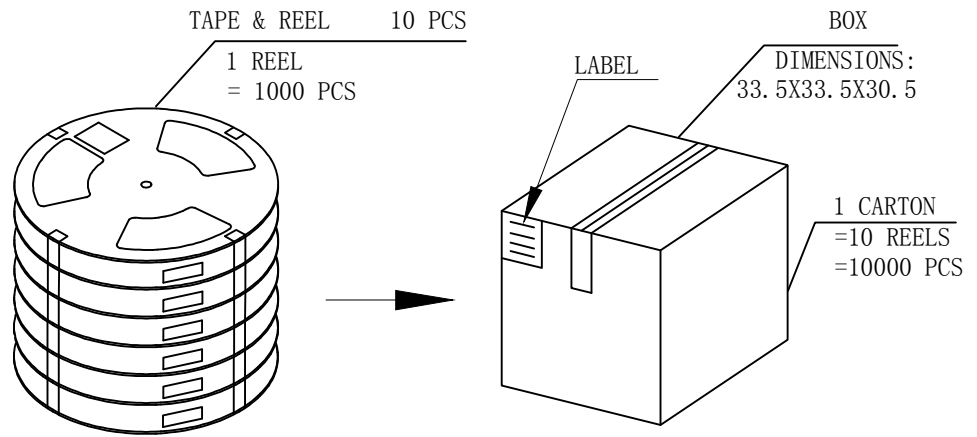


NOTES

1. 缺沟 擇僅  
LEAD TAPE LENGTH  
堤蹋源研  
PULL OUT DIRECTEON



2. 上帶 剥力力為: 0.1~1.3N(10.2gf~130gf)  
PEELING OFF FORCE OF TOP TAPE: 0.1~1.3N(10.2gf~130gf)  
出貨'運輸過程中一定注意:  
THIS REQUIREMENT SHOULD BE APPLIED AT SHIPMENT:  
卷帶在運輸過程中不能散開  
PEELING OFF SHOULD NOT BE ALLOWED DURING TRANSPORTATION



TOLERANCE UNSPECIFIED	
.0	±0.35
.00	±0.25
.000	±0.15
X. °	±2.00°

CUSTOMER DRAWING

东莞市皓富电子科技有限公司

TITLE: TYPE-C 16P 母座L=6.5沉板2.4 (CH=0.82mm)

包裝明細表 (The detail of the packing) Carton						
產品料號 (Product No.)	包裝容量 (Packing Capacity)			重量 Weight (Kg)		
	pcs/box	boxes/Carton	Pcs/Box	N. W. /Pcs	N. W. /Box	G. W. /Box
	1000	10	10000	----	----	----

DRAWN/ DATE	LXF	SIZE:A4	UNIT:MM.	PART. NO:		
CHECKED/ DATE	LYX	SCALE: 1:1		PROJECTION		REV.: 1
APPROVED/ DATE	LJP	DWG.	PATH	SHEET: 3/3		

# 产品规格书

LANGUAGE  
语言

ENGLISH/CHINESE  
英/中

## 1.SCOPE[适用范围]

This specification covers the MICRO USB CONNECTOR TYPE  
[本规范适用于 MICRO USB CONNECTOR TYPE ]

## 2.PRODUCT NUMBER AND PART NAME[产品料号及产品名称]

Product Name[产品品名]	Product Number[产品料号]
MICRO USB CONNECTOR TYPE	TYPE-C 16PIN母座 L=6.5沉板2.4mm

## 3.CONSTRUCTION & COMPONENTS[构造&组成零件]

Based on construction drawing[依照工程图]

## 4.RATINGS[标准额定值]

Item[项目]	Standard[规格]
Rated voltage[额定电压]	30V AC rms Max.
Rated current[额定电流]	1A Max
Operating temperature[使用温湿度环境]	-30℃ ~ +80℃, 85% RH Max
Storage temperature[储存温湿度环境]	-40℃ ~ +60℃, 85% RH Max

## 5.TEST CONDITION[试验条件]

The test and measurement, unless otherwise specified, shall be carry out at a temperature of 15 to 35℃,

Relative humidity of 25 to 85%,and atmospheric of 86 to 106kPa.

However,when any doubt arises on the judgment value it,the test and measurement

shall be carry out at a temperature of 20±2℃,relative humidity of 60 to

70%,and atmospheric pressure of 86 to 106Pa.

[除非特别说明之外,一般试验及测理将于温度 15~35℃,相对湿度 25~85%,大气压力 86~

106kPa 之条件下完成,但若于上述条件下有任何影响判定值的疑虑,可考量在温度 20±2℃,相

对湿度 60~70%,大气压力 86~106kPa 之条件下完成试验

Appearance:By looking,there shall not be any abnormality such as deformity,exfoliation of plating,ETC,which can reduce performance,No defect such as cracks scratches or blemishes.

[外观:经目视观察,外观不可有变形,电镀脱落等会降低其功能的异常现象,也不可有严重破裂,刮伤或污损之缺点.]

P/N: 料号:	TITLE: MICRO USB CONNECTOR TYPE 品名:		
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# 产品规格书

LANGUAGE

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## 6.ELECTRICAL EFFICIENCY[电气特性]

NO. 编	Item/项目	Test Method/试验方法	Requirement /性能要求
6.1	Contact Current Rating [额定电流]	Measured at an ambient temperature of 25 °C, applied 250V AC test. [于室温 25 °C 下施加 250V AC 电压测试]	1A Max.
6.2	Applied Voltage Rating [额定电压]	30V AC(RMS.) continuous maximum, on any signal pin with respect to the shield. [在任一端子与端子, 端子与外壳间施加最大电压 30V AC 测试]	No Breakdown 无击穿
6.3	Contact Resistance [接触阻抗]	Mate connectors, Measure by dry circuit, 20mV Max, 100mA [公母对插后测试]	30mΩ Max
6.4	Insulation Resistance [绝缘阻抗]	Unmated connectors, apply 500V DC between adjacent terminal or ground. [公母不对插, 对相邻端子施加 500V DC 电压测试]	100MΩ Min
6.5	Withstanding Voltage [耐电压]	Unmated connectors, apply 100V AC for 1 minute between adjacent terminal or ground. [公母对插前对各端子施加 100V AC 电压持续 1 分钟测试.]	No Breakdown and Current loss: 1mA Max. 无击穿且漏电流 ≤ 1mA

## 7.MECHANICAL EFFICIENCY[机械特性]

7.1	Insertion force [插入力]	Measure mating force necessary to mate connector. Operation speed: 12.5mm/minute [测试一组公母对插之连接器所需之插入力, 测试速度 12.5mm/分钟]	35N Max
7.2	Withdrawal force [拔出力]	Measure unmating force necessary to mate connector. Operation speed: 12.5mm/minute [测试一组公母对插之连接器所需之拔出力, 测试速度 12.5mm/分钟]	10N Min
7.3	Contact retention [端子保持力]	Apply axial pull out force on the terminal assembled in the housing Operation speed: 12.5mm/minute [测试将端子由本体中拉出之保持力, 测试速度 12.5mm/分钟]	1kgf Min
7.4	Durability [耐久性]	Mated and unmated connectors up to 1500 cycles at a maximum rate of 200 cycles per hour [测试连接器在最大 200 次/小时的插拔速度下必须承受 1500 次的插拔循环]	Contact Resistance 接触阻抗 Change from initial: 30mΩ

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# 产品规格书

LANGUAGE  
语言

ENGLISH/CHINESE  
英/中

## 8.ENVIRONMENTAL EFFICIENCY AND OTHERS[环境及其它特性]

NO.编	Item/项目	Test Method/试验方法	Requirement /性能要求	
8.1	Humidity Test [耐湿性测试]	Temperature:40±2℃, Relative Humidity:90 ~ 95% Duration:7 cycles (168 hours) Upon completion of the test,specimens shall be conditioned at ambient room conditions for 1 ~ 2 hours [温度在 40±2℃, 相对湿度 90 ~ 95%, 持续 168 小时, 经试验后, 连接器于室温中放置 1~2 小时再测试其它值]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial:30mΩ
			Withstanding Voltage 耐电压	No breakdown 无击穿
8.2	Salt mist spray [盐水喷雾测试]	Salt concentration:5%; Temperature:35±1℃; Testing time:24 hours ,After salt is removed by running water and a drop is removed,it is measured. [盐水比重: 5%, 温度: 35±1℃, 试验时间 24 小时, 试验后用清 水将残留盐份清洗, 并将水滴清除后, 方可再测试其它值]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial:30mΩ
8.3	Vibration [振动测试]	Amplitude:1.52mm. Sweep time:50 ~ 2000 ~ 50Hz Duration:15 minutes in each(total of 45 minutes) X,Y,Z axes. Electrical load:DC 100mA [振幅: 1.52mm, 振动频率: 50 ~ 2000 ~ 50Hz, 振动时间: X、Y、Z 轴各 15 分钟共计 45 分钟, 载入电流: DC 100mA]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial:30mΩ
			Discontinuity 瞬断	1 μ Sec.Max
8.4	Thermal shock [冷热冲击测试]	Mate connentors together and perform the test as follows. 10 cycle of: A)-40℃ for 30 minutes; B)+85℃ for 30 minutes [将连接器做 10 个循环, 每个循环条件为: -40℃, 30 分钟; +85℃, 30 分钟]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial:30mΩ
8.5	Heat test [耐热性测试]	The connector is exposed to 85±2℃ atmosphere for 48 hours. After testing it shall be left alone for 1 to 2 hours in room ambient. [将连接器置于 85±2℃ 的温度环境下, 时间 48 小时; 结束后将其放置于室温下 1~2 小时再测试其他值]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial:30mΩ

P/N:

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# 产品规格书

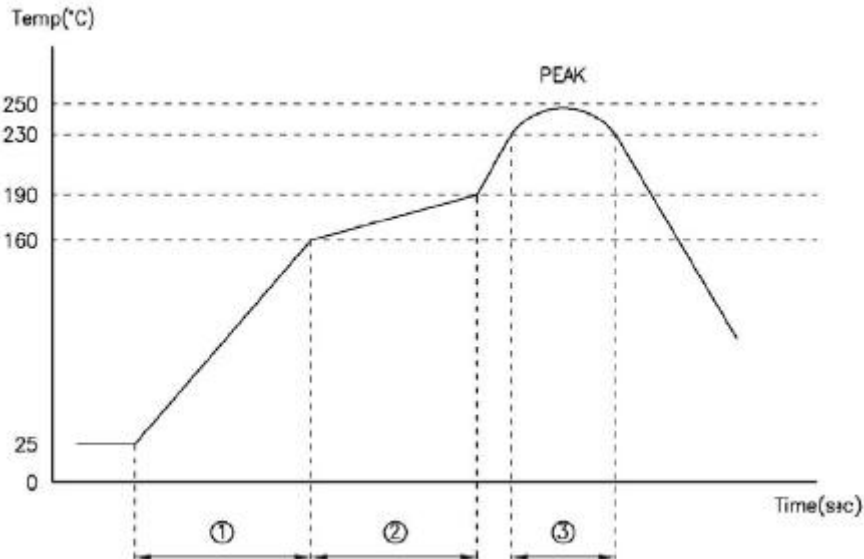
LANGUAGE  
语言

ENGLISH/CHINESE  
英/中

## 8. ENVIRONMENTAL EFFICIENCY AND OTHERS [环境及其它特性]

NO. 编	Item/项目	Test Method/试验方法	Requirement /性能要求	
8.6	Cold test [耐寒性测试]	The connector is exposed to $-40\pm 2^{\circ}\text{C}$ atmosphere for 48 hours. After testing it shall be left alone for 1 to 2 hours in room ambient. [将连接器置于 $-40\pm 2^{\circ}\text{C}$ 的温度环境下, 时间 48 小时; 结束后将其放置于室温下 1~2 小时再测试其他值]	Appearance 外观	NO damage 不可破坏
			Contact Resistance 接触阻抗	Change from initial: $30\text{m}\Omega$
8.7	Solderability [焊锡性测试]	Soldering time: 4 ~ 5 second (Use flux) Solder Temperature: $260\pm 5^{\circ}\text{C}$ [焊锡时间: $3\pm 0.5$ 秒(使用助焊剂), 焊锡温度: $260\pm 5^{\circ}\text{C}$ ]	95% min. of solder area [焊锡面积最小 95%]	
8.8	Resistance to Soldering Heat [焊锡耐热性]	Soldering Iron method Using the soldering iron, and the cored solder wire. It is applied to termination for 3+1/-0s at $350\pm 5^{\circ}\text{C}$ . [手工焊接] [使用烙铁和芯线, 焊锡温度为 $350\pm 5^{\circ}\text{C}$ , 时间为 3+1/-0s]	Appearance 外观	NO damage 不可破坏
		IR-reflow Soldering method Test connector on PCB. Pre-heat: $160 \sim 190^{\circ}\text{C}$ ; 120seconds Heat: $230^{\circ}\text{C}$ Min; 40seconds Heat Peak: $250^{\circ}\text{C}$ Max [回流焊接] [组装在 PCB 上做测试, 预热: $160 \sim 190^{\circ}\text{C}$ ; 120 秒; 加热: $230^{\circ}\text{C}$ 以上; 40 秒 最高温度: $250^{\circ}\text{C}$ 以下]	Appearance 外观	NO damage 不可破坏

Temperature Profile IR-Reflow Soldering:



Pre-Heating Zone ①; Temperature rise  $1 \sim 4^{\circ}\text{C}/\text{sec}$

Pre-Heating Zone ②;  $160 \sim 190^{\circ}\text{C}$  120sec

Soldering Zone ③; Forty seconds over  $230^{\circ}\text{C}$

PEAK temperature; Below  $250^{\circ}\text{C}$

P/N: 料号:	TITLE: MICRO USB CONNECTOR TYPE 品名:		
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