

## 承 认 书

Approval Sheet

客户 (Customer): /

客户料号 (Cus .P/N): /

华联威料号 (HLW P/N): U572-904B-G31038

品名规格 (PronameSpec): TYPE C 16P SMT 带螺母有柱

送样日期 (Delivery Date): 2022/08/02

承认日期 (Acknowledge Date): 2022/08/02

Approved No:		客 户 Customer	
采 购 部 Purchasing Dept	品 质 部 QC Dept	工 程 部 Engineering Dept	确 认 Approved By
深 圳 市 华 联 威 电 子 科 技 有 限 公 司 SHEN ZHEN SHI HUA LIAN WEI ELECTRONICS TECHNOLOGY CO; LTD.			
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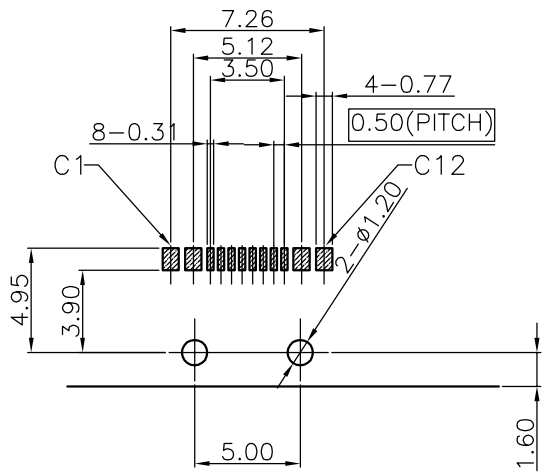
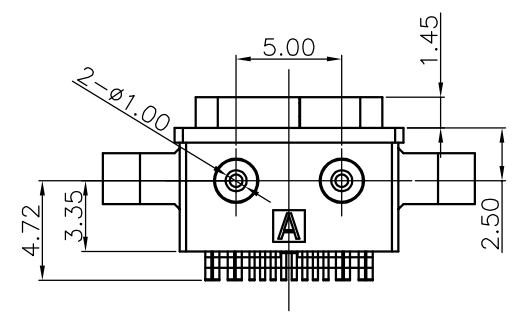
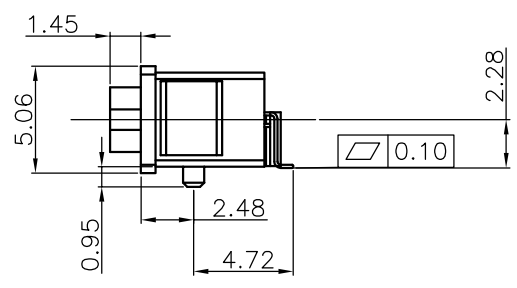
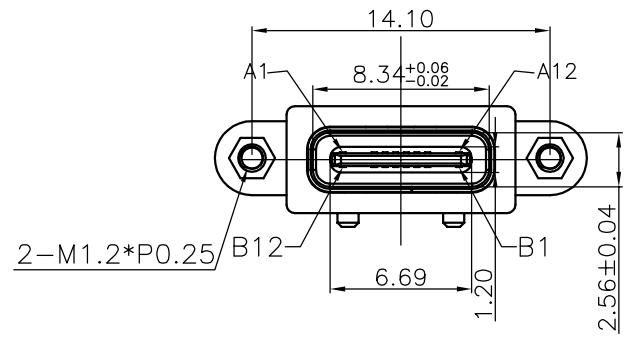
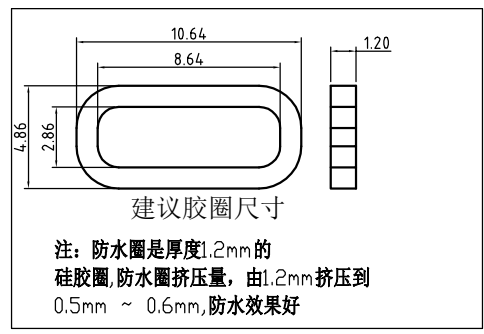
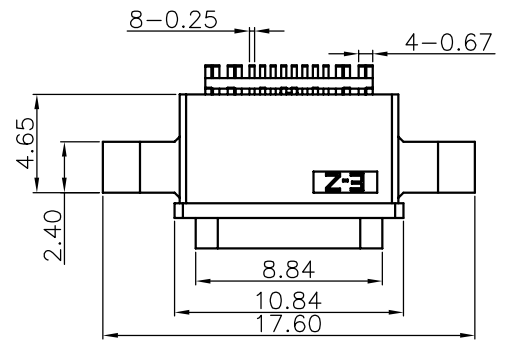
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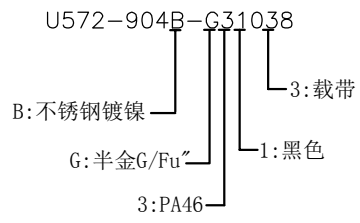
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REV.	ECN.NO.	APPD.
A	EXXXXXXXXXX	chenyiting



RECOMMENDED PCB LAYOUT(TOP VIEW)  
 THICKNESS T=1.0mm  
 DEFAULT TOLERANCE+/-0.05

- NOTES:  
 1.MATERIAL:  
 1.1 Housing:thermoplastic plastics  
 1.2 terminals:Copper Alloy  
 Gold plated in contact area:  
 Tin plated in termination  
 Nickel Plated overall  
 1.3 Shell:Steel&Copper Alloy  
 Nickel/Au Plated overall  
 2.characteristics:  
 2.1 Rating Voltage : 30V AC.  
 2.2 Rating Current:  
 5A for Vbus PIN;1.25A for Vconn PIN  
 2.3 Contact Resistance:40 mΩ MAX.  
 2.4 Insulation Resistance:100 MΩ MIN.  
 2.5 Withstanding Voltage:AC 100V  
 2.6 Mating force: 5~20N MAX  
 2.7 Extraction force:8~20N Min  
 2.8 Life test:10000Cycles MIN.  
 2.9 Temperature Range: -30°C~+80°C.  
 The product must be compliance ROHS



INTERFACE(FRONT VIEW)

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
GND			VBUS	CC1	DN1	DP1	SBU1	VBUS			GND
GND			VBUS	SBU2	DN2	DP2	CC2	VBUS			GND
B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1

PIN ASSIGNMENT

PIN NO.	A1&B12	A4&B9	B8	A5	B7	A6	A7	B6	A8	B5	A9&B4	A12&B1
SIGNAL NAME	GND	VBUS	SBU2	CC1	DN2	DP1	DN1	DP2	SBU1	CC2	VBUS	GND
PCB PAD NO.	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12

TOLERANCE UNLESS OTHERWISE SPECIFIED		<b>FLW 深圳市华联威电子科技有限公司</b>			
.XXX ±0.10 .XX ±0.20 .X ±0.30		HUA LIAN WEI TECHNOLOGY ELECTRONICS CO;LTD.			
APPROVED		PART NAME:	TYPE C 16P SMT带螺母有柱		
CHECKED		PART No:	U572-904B-G31038	C	
DRAWN	chenyiting	PROJECTION:	UNIT:	SCALE	SHEET
DATE	2023.06.30		mm	1:1	1 OF 1
					REV. A

由 Autodesk 教育版产品制作

由 Autodesk 教育版产品制作

## USB 3.1 TYPE-C系列产品SPEC

版本版次: C

制定日期 20200707

适用范围 通用

## 1. Scope (范围)

## 1.1 Contents(内容)

This specification covers the performance, tests and quality requirements for the Electronics USB 3.1 TYPE-C Connector.(此份产品规格适用于USB 3.1 TYPE-C连接器的产品功能, 测试方法及质量要求)

## 2. Requirements (要求):

## 2.1 Rating(额定条件)

A. Voltage rating(额定电压):30V AC

B. Current rating(额定电流):1.5A

C. Operation Temperature Range(工作温度范围):-30°C to +80°C

## 3. Test Condition(测试条件):

3.1 Temperature range(温度范围):-15°C to +35°C

3.2 Humidity range (湿度范围):25% to 85%

## 4. Test Methods and Requirements:(测试方法及要求)

## 4.1 Examination of product (产品外观)

4.1.1	Examination of Product 产品外观	Visual 目视	No peeling off the plating deformation of the base or damage. 不得有电镀层剥落, 塑料变形或破损
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## 4.2. Electrical Performance(电气性能)

4.2.1	Contact Resistance 接触阻抗	(EIA-364-06B) 适合USB 3.1 TYPE-C嵌合; 开放电压20mv以下; 短路电流100ma的状态下测定。 Mate applicable USB 3.1 TYPE-C and measure by dry circuit, 20mv MAX, 100mA. 40mΩMAX	40mΩ MAX
4.2.2	Dielectric Withstanding Voltage (耐电压)	(EIA-364-20C) Unmated connectors, apply 100V AC (RMS.) for 1 minute between adjacent terminals of ground. 没有配对的连接器在相邻的端子或接地之间通上100V的交流电压1分钟	1. No Breakdown or flashover 2. Leakage current:0.5mA Max 1. 不能有损坏或跳火花 2. 漏电流<0.5mA
4.2.3	Insulation Resistance 绝缘阻抗	(EIA-364-21C) Unmated connectors, apply 500V DC for 1 minute between adjacent terminals of ground. 没有配对的连接器在相邻的端子或接地之间通上500V的直流电压1分钟	100MΩ min (unmated) 没有配对需大于100 MΩ

## 4.3 Mechanical Performance(机械性能)

4.3.1	Insertion/Withdrawal Force 插入力/拔出力	(EIA-364-13) Insertion and withdrawal speed: 25mm/minute. 插入和拔出的速度为25mm/分	插入力 Insertion 0.50kgf/MIN, 2.0kgf/MAX 拔出力 Withdrawal 0.80kgf/MIN, 2.0kgf/MAX After 10000 cycles 0.6kgf/MIN, 2.0kgf/MAX
4.3.2	Durability 寿命测试	(EIA-364-09) 适合USB 3.1 TYPE-C; 用每分钟12.5mm的速度, 平行的插入, 拔出。 Insert and extract applicable USB 3.1 TYPE-C at the speed rate of 12.5 mm/minute.	10000 cycles
4.3.3	Vibration 振动	(EIA-364-28条件3) Amplitude:1.52mm P-P or 147m/s <sup>2</sup> {15G} Sweep time: 50-2000-50Hz in 20 minutes. Duration: 12 times in each (total of 36 times) X, Y, Z, axes. Electrical load DC 100mA current shall be flowed during the test.(ANSI/EIA-364-28 Condition III) 在直流100毫安通电状态下测试, 在X,Y,Z垂直3方向上, 频率50-2000-50赫兹(加速度往复20分钟), 全振幅1.52mm P-P或147 m/s <sup>2</sup> {15G}, 每轴12回计36回	Appearance: No damage 外观: 无损坏 Contact Resistance 接触阻抗 Contact: Change from initial Value:30mΩ Max. 端子: 从初始值开始变化量小于30mΩ 间断性: 不超过1微秒
4.3.4	Physical shock 冲击性	(EIA-364-27条件A) Pulse width: 11msec Waveform: Half-sine 490m/s <sup>2</sup> (50G) 3 strokes in each X, Y, Z axes. (ANSI/EIA-364-27 condition A) 周期: 11msec 冲击波形: 正弦半波490m/s <sup>2</sup> (50G) 3循环在X, Y, Z 轴	Appearance: No damage 外观: 无损坏 Contact Resistance 接触阻抗 Contact: Change from initial Value 40mΩ Max 端子: 从初始值开始变化量小于40mΩ Discontinuity: 1μ sec Max. 间断性: 不超过1微秒
4.4 Environmental Performance			
4.4.1	Thermal shock test 冷热冲击	EIA-364-32C条件1) 10 cycles of: a)-55±3℃ for 30 minutes b) +85±3℃ for 30 minutes 10个循环, a)-55±3℃ 30分钟 b) +85±3℃ 30分钟	Appearance: No Damage. 外观: 没有损坏 Contact Resistance 接触阻抗 Contact: Change from initial Value 40mΩ Max 端子: 从初始值开始变化量小于40mΩ

4.4..2	Solder ability 焊锡性	(EIA-364-52) To be sipped in the solder bath 260±5°C Coverage for 3 seconds. 将焊锡脚浸在260±5°C的锡炉中<3秒	The inspected area of each lead must have 90% solder coverage minimum
4.4..3	Humidity 恒温恒湿	(EIA-364-31B) (A) Mate connectors together and perform the test as follows 配对的连接器测试条件 Temperature: +25°C to +85°C(温度: +25°C到+85°C) Relative Humidity: 90% to 95%(相对湿度: 90%到95%) Duration:4 cycles(96 hours) (持续时间: 4个循环共96小时) Upon completion of the test, specimens shall be conditioned ambient room conditions for 24 hours, after which the specified measurements shall be performed. 试验完成后, 样品放置于室温条件中24小时后再进行测试	Appearance: No Damage 外观, 没有损坏 Contact Resistance 接触阻抗 Contact: Change from initial Value 30mΩ Max 端子: 从初始值开始变化量小于30mΩ
		(EIA-364-31B) (B) Unmated each connector and perform the test as follows. 没有配对的连接器测试条件 Temperature: +25°C to +85°C(温度: +25°C到+85°C) Relative Humidity: 90% to 95%(相对湿度: 90%到95%) Duration:4 cycles(96 hours) (持续时间: 4个循环共96小时)  Upon completion of the test, specimens shall be conditioned ambient room conditions for 24 hours, after which the specified measurements shall be performed. 试验完成后, 样品放置于室温条件中24小时后再进行测试	Appearance: No Damage 外观, 没有损坏  Conform to item of dielectric withstanding Voltage and Insulation Resistance. 符合耐电压及绝缘阻抗要求

4.4..4	Salt Spray 盐水喷雾	<p>EIA-364-26B)</p> <p>Temperature: 35±2°C 温度: 35±2°C</p> <p>Concentration for salt: 5% 盐水浓度: 5%</p> <p>(1)Duration: 24H 持续时间: 24小时</p> <p>Condition(条件):</p> <p>Contact plated gold more than 15u" (include 15 u" ),and the material of shell for copper alloy, or stainless.</p> <p>端子镀金厚度大于等于15 u" 且壳体材质是铜合金或是不锈钢</p> <p>(2) Duration: 12H 持续时间: 12小时</p> <p>Condition(条件):</p> <p>Contact plated gold less than 15 u" ,and/or the material of shell for steel</p> <p>端子镀金厚度小于15u" 且/或壳体材质是铁材</p>	<p>No detrimental corrosion( Terminal solder tail unrequested)</p> <p>产品无氧化, 锈蚀 (端子焊脚镀锡处不作要求)</p>
4.4.5	Cold resistance (Unmated) 冷阻抗	<p>(EIA-364-17B)</p> <p>Unmated connectors and expose to -25±3°C for168 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.</p> <p>没配对的连接器放置于-25±3°C温度中168小时, 当完成实验后, 样品放置一般环境中1到2小时后, 在进行测试</p>	<p>Appearance: No Damage.</p> <p>外观: 没有损坏</p> <p>Contact Resistance 接触阻抗</p> <p>Contact: Change from initial Value 30mΩ Max</p> <p>Shell Part: Change from initial Value 50mΩ Max</p> <p>端子: 从初始值开始变化量小于30mΩ</p> <p>外壳: 从初始值开始变化量小于50mΩ</p>
4.4..6	Heat resistance (Unmated) 热阻抗	<p>(EIA-364-17B)</p> <p>Mated connectors and expose to 85±2°C for168 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.</p> <p>配对的连接器放置于85±2°C温度中168小时, 当完成实验后, 样品放置一般环境中1到2小时后, 在进行测试</p>	<p>Appearance: No Damage.</p> <p>外观: 没有损坏</p> <p>Contact Resistance 接触阻抗</p> <p>Contact: Change from initial Value 30mΩ Max</p> <p>Shell Part: Change from initial Value 50mΩ Max</p> <p>端子: 从初始值开始变化量小于30mΩ</p> <p>外壳: 从初始值开始变化量小于50mΩ</p>

4.4.7	Thermal Aging 高温老化	<p>(EIA-364-31B, Condition 4, Method A) Unmated connectors and expose to +85±2°C for 250 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.</p> <p>没配对的连接器放置于+85±2°C温度中250小时，当完成实验后，样品放置一般环境中1到2小时后，在进行测试</p>	<p>Appearance: No Damage. 外观：没有损坏 Contact Resistance 接触阻抗 Contact: Change from initial Value 40mΩ Max 端子：从初始值开始变化量小于40m</p>
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4.4.8	Resistance to Soldering Heat	<p>for wave soldering : mil-std-202f,method 210 A,test condition B 波峰焊: mil-std-202f, method 210 A, 试验条件B Pre-heat : 80°C, 60 Seconds 预热:80°C, 60秒 Temperature : 260 ± 5 °C 温度:260±5°C Immersion duration : 10 ± 1 sec. 浸泡时间:10±1秒</p> <p>for manual soldering :手动焊接: mil-std-202f,method 210 A,test condition A Pre-heat : No 预热:没有 Temperature : 350 ± 10 °C 温度:350±10°C Immersion duration : 3.5±0.5 sec. 浸泡时间:3.5±0.5秒</p> <p>Solder Temp: 260±5°C, 10±0.5sec 焊锡温度: 260±5°C, 10±0.5sec</p> 	No physical damage shall occur. 不可有损坏
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Note 1: Shall meet visual requirements, show no physical damage, and meet requirement of additional tests as specified in the test sequence in Figures 2

说明1: 测试要求不能有物理损坏，测试依据表格二的顺序进行

3.Product Qualification And Requalification Test:产品测试顺序表 Figure 2

Test or Examination	Test Group													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Test Sequence														
4.1.1.Examination of Product 产品外观	1,9	1,3	1,5	1	1,5	1,5	1,5	1,3		1,5	1,5	1,5	1,5	1



4.2.1.Contact Resistance 接触阻	2,8		2,4		2,4	2,4	2,4		2,4	2,4	2,4	2,4	2,4	
4.2.2.Dielectric Withstanding	3,7													
4.2.3.Insulation Resistance 绝缘阻	4,6													
4.3.1.Insertion/Withdrawal force 插拔力		2												
4.3.2.Durability 寿命测试			3											
4.3.3.Vibration 振动性				3										
4.3.4.Physical shock 冲击性					3									
4.4.1.Thermal shock test 冷热冲击						3								
4.4.2.Solderability 焊锡性							2							
4.4.3.Humidity 恒温恒湿	5								3					
4.4.4.Salt Spray 盐水喷雾										3				
4.4.5.Cold resistance 冷阻抗											3			
4.4.6.Heat resistance 热阻抗												3		
4.4.7.Thermal Aging 高温老化													3	
4.4.8.IR-reflow 回流焊测试														2
NO. of Test samples(Min.) 测试	5	5	5	5	5	5	5	5	5	5	5	5	5	5

NOTE 2: (a) Numbers indicate sequence in which tests are performed.

(b) Discontinuities shall not take place in this test group, during tests.

说明 2: (a)测试依照矩阵要求数量进行。

(b)在测试中，群组测试不能间断

核准：唐竹君

制作人：魏红

## 測試報告

## TEST REPORT

產品名稱 Part Name	TYPE C 16P SMT 帶螺母有柱	測試日期 Date of Testing	2022.07.30 2022.08.01	報告編號 Report NO.	MD20220801-01						
產品型號 Part Name	U572-904B-G31038	樣品數量 Quantity	5PCS	測試環境 Measuring Environment	濕度 Temp:18 ±1.1C 相對濕度 R.H.:49% f57%						
一.電性測試 ELECTRICAL TEST											
序號 NO.	測試項目 Testing Item	測試條件 Testing Conditions	測試設備 Testing Equipment	規格 SPEC	測試記錄 Testing Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Contact resistance	Test current:100mA max	DIGITAL MICRO—OHMMETER	40 mΩ Max	14.77 mΩ	15.42 mΩ	15.86 mΩ	16.37 mΩ	17.53 mΩ	P	
2	Insulation resistance	Test voltage:500VDC Operation stated:1min	ULTRA HIGH RESISTANCE METER	100 mΩ Min	Pass	Pass	Pass	Pass	Pass	P	
3	Dielectric withstand voltage	Test voltage:100VAC Cut—off current:0.5mA Operation stated:1 min	BREAKDOWN TESTER	No discharge or flashover occur	Pass	Pass	Pass	Pass	Pass	P	
二.機械特性測試 MECHANICAL TEST											
序號 NO.	測試項目 Testing Item	測試條件 Testing Conditions	測試設備 Testing Equipment	規格 SPEC	測試記錄 Testing Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Durability test	Rate:200cycles/hour Total: 10000 cycles	LIFE TESTER FOR CONNECTOR	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
2	Mating Force	5N-20Newtons maximum at a maximum rate of 12.5mm per minute	Insertion force testing machine	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Un—Mating Force	8N-20N Newtons minimum at a maximum rate of 12.5mm per minute	Insertion force testing machine	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
三.環境特性測試 ENVIRONMENTAL TEST											
序號 NO.	測試項目 Testing Item	測試條件 Testing Conditions	測試設備 Testing Equipment	規格 SPEC	測試記錄 Testing Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Humidity—Temperature cycle	Temperature: 40±2°C Duration :168H	PROGRAM CONTROLLED TEMP. & HUMIDITY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	

2	Heat test	Temperature: 70±2°C Duration :168H	OVEN	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
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3	Cold test	Temperature: -25 ±3°C Duration :168H	PROGRAM CONTROLLED TEMP. & HUMIDTY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
4	Temperature cycling test	Temperature: 70—25°C Duration:5 cycle	PROGRAM CONTROLLED TEMP. & HUMIDTY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	

#### 四.物理測試 PHYSICAL TEST

序 NO.	測試項目 Testing Item	測試條件 Testing Con di tions	測試設備 Testing Equipment	規格 SPEC	測試記錄 Testing Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Salt spray test	Temperature: 35±2°C Concentration:5±1 % Duration:24H	SALT SPRAY TESTER	No Oxidation	Pass	Pass	Pass	Pass	Pass	P	
2	Solder ability test	Temperature: 260 ± 5°C Duration:10 ±1 sec	OVEN	NO physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Solder ability test	Temperature: 260 ±10 C Duration :10 ±1 sec	CONTROLLED CONSTANT-TEMP SOLDER POT	Soldering area 三 95%	Pass	Pass	Pass	Pass	Pass	P	
判定 Result		<input checked="" type="checkbox"/> 合格(ACCEPT) <input type="checkbox"/> 不合格(REJECT)									

核准(Approver): 欠必鋒

測試(Tester): 但芬

## 檢驗報告

首件檢驗
 入庫檢驗
 出貨檢驗
 客退檢驗
 退料檢驗
 其他

2022年08月02日 版次:A1

料號	U572-904B-G31038	制令單號	/	送檢單位	工程部	首件製作者	裝配	
品名	TYPE C 16P SMT帶螺母有柱	客戶代號	/	批 量	/	送檢時間	/	
				數 量	5PCS	確認時間	/	
抽樣標準		<input checked="" type="checkbox"/> 單次 <input type="checkbox"/> 雙次		抽樣數 ( 5PCS )	AQL	CRI:0 MAJ:0.40	MIN:0.65	
MIL-STD-105E(II)		<input checked="" type="checkbox"/> 正常 <input type="checkbox"/> 加嚴 <input type="checkbox"/> 減量			ACC/REJ	0	/	/
不良數: CRI ( / ) MAJ ( / ) MIN ( / )						不良率(%)		/

NO.	檢驗項目 單位:MM/G	檢測 儀器	檢 驗 記 錄					品管判定		CRI	MAJ	MIN	備注
			1	2	3	4	5	AC	RE				
	0.25±0.20	D	0.27	0.25	0.25	0.26	0.25	√					
	0.67±0.20	D	0.67	0.66	0.65	0.64	0.67	√					
	4.65±0.20	D	4.63	4.62	4.63	4.62	4.62	√					
	2.40±0.20	D	2.42	2.40	2.43	2.43	2.42	√					
	17.60±0.20	D	17.62	17.63	17.62	17.62	17.60	√					
	10.84±0.20	D	10.84	10.85	10.84	10.86	10.84	√					
	8.84±0.20	D	8.84	8.83	8.82	8.84	8.82	√					
	17.60±0.20	D	17.62	17.62	17.60	17.62	17.60	√					
	14.10±0.20	D	14.12	14.13	14.12	14.15	14.12	√					
	8.34+0.06/-0.02	D	8.34	8.35	8.33	8.34	8.35	√					
	6.69±0.20	D	6.68	6.69	6.68	6.64	6.67	√					
	5.06±0.20	D	5.04	5.05	5.06	5.06	5.07	√					
	1.45±0.20	D	1.46	1.45	1.46	1.47	1.45	√					
	0.95±0.20	D	0.95	0.96	0.95	0.94	0.95	√					
	2.48±0.20	D	2.48	2.49	2.48	2.48	2.49	√					

 檢驗依據: 《工程圖紙》 《檢驗規範》 《承認書》 樣品 其它

檢測儀器:A游標卡尺 B千分尺 C厚薄儀 D投影鏡 E放大鏡 F顯微鏡 G錫爐 H插拔力器 I間位尺 J其它

品保判定:

核 准 APP	欠必鋒	審 核 CHK	/	檢驗員 INSPBY	但芬
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保存期限:三年

保存部門:品保部

QR-M-003

品名:TYPE C 16P SMT带螺母有柱(端子)		版次:A.0			
电镀规格:Ni30u",Sn100u",Au G/Fu"		日期:2022-07-04			
页次:1/1					
厂商:同华					
测试设备:CMI X-射线膜厚测试仪					
1、底层电镀测试(Ni)					
数据	测试标准	实测值	判定	测试日期	测试时间
1	30u"MIN	50.5u"	OK	2022/7/4	10:20:15
2	30u"MIN	56.3u"	OK	2022/7/4	10:20:17
3	30u"MIN	67.5u"	OK	2022/7/4	10:20:19
4	30u"MIN	62.4u"	OK	2022/7/4	10:20:21
2、表层电镀测试(Sn)					
数据	测试标准	实测值	判定	测试日期	测试时间
1	100u"MIN	105.3u"	OK	2022/7/4	10:25:10
2	100u"MIN	104.7u"	OK	2022/7/4	10:25:12
3	100u"MIN	105.9u"	OK	2022/7/4	10:25:14
4	100u"MIN	107.4u"	OK	2022/7/4	10:25:16
3、表层电镀测试(Au)					
数据	测试标准	实测值	判定	测试日期	测试时间
1	0.5u"MIN	0.52u"	OK	2022/7/4	10:30:32
2	0.5u"MIN	0.55u"	OK	2022/7/4	10:30:34
3	0.5u"MIN	0.53u"	OK	2022/7/4	10:30:36
4	0.5u"MIN	0.54u"	OK	2022/7/4	10:30:38

核准: 欠必锋

审核: 李娟

检验员: 但芬

## 电镀报告表

品名:TYPE C 16P SMT带螺母有柱(外壳)		版次:A.0			
电镀规格:Ni:50u"MIN	日期:2022/07/20	页次:1/1			
厂商:金和源					
测试设备:CMI X-射线膜厚测试仪					
1、表层电镀测试(Ni)					
数据	测试标准	实测值	判定	测试日期	测试时间
1	50u"min	55.2u"	OK	2022/7/20	14:35:05
2	50u"min	51.3u"	OK	2022/7/20	14:35:07
3	50u"min	58.6u"	OK	2022/7/20	14:35:09
4	50u"min	56.8u"	OK	2022/7/20	14:35:11

核准: 欠必锋

审核: 刘联英

检验员: 但芬



# 深圳市华联威电子科技有限公司

## 盐水喷雾实验报告

试验方法	盐水喷雾腐蚀试验法	参考资料	MIL-STD-1345
METHOD	NEUTRL SALT SPRAY CORROSION TEST	REF	
客户		试验起始日期	2022年08月01日 20:00 时起
		DATE	2022年08月02日 20:00 时止
样品名称	TYPE C 16P SMT带螺母有柱	试验数量	5PCS
P/N	U572-904B-G31038	QTY	

### 试验条件 (TEST CONDITION)

- 1、盐水溶解 (SALT SOLUTION: 浓度 $50 \pm 10\text{g/L}$ , PH值6.5-7.2).
- 2、试验室温度 (TEMP. IN THE SPRAY CHAMBER):  $35 \pm 1^\circ\text{C}$ .
- 3、盐水桶温度 (TEMP. OF SALT SOLUTION TANK):  $35 \pm 1^\circ\text{C}$ .
- 4、压力桶温度 (TEMP. OF AIR SUPPLY):  $47 \pm 1^\circ\text{C}$ .
- 5、试验室相对湿度 (R. H IN THE CHAMBER) 85%.
- 6、压缩空气压力 (COMPRESSED AIR PRESSURE):  $1.00 \pm 0.01\text{Kg/cm}^2$ .
- 7、样品放置位置 (SPECIMEN SUPPORTED ANGLE): 尼龙绳吊挂 $70^\circ - 90^\circ$ .
- 8、喷雾收集量 (COLLECT RATE OF SALT SOLUTION)  $1-2\text{mL}/(8\text{ cm}^2\text{hr})$ .
- 9、盐雾测试时间: 24小时 (H)

### 判定方法 (ADFGSD METHOD)

试验后以20倍放大镜观察、无蓝、绿色腐蚀物之现象 (不包含折弯处), 即判定合格. (Inspect the specimen at 20 x magnification no blue or green corrosion products are acceptable)

样品序号	试验后现象	判定
	PHENOMENON AFTER TEST	COMMENT
1	无蓝、绿色腐蚀物之现象	OK
2	无蓝、绿色腐蚀物之现象	OK
3	无蓝、绿色腐蚀物之现象	OK
4	无蓝、绿色腐蚀物之现象	OK
5	无蓝、绿色腐蚀物之现象	OK

核准: 欠必锋

审核: 李娟

试验员: 但芬



# 鉅鼎銅材廠檢驗報告單


公司名稱 Customer	鉅鼎銅材廠檢驗報告單				重量 Weight(kg)	1078	出貨日期 Date	2021/11/23		
品名 Article	標準 Standard No				尺寸 Dimension		狀態 Tenper	銅卷編號 Coil No		
C2680	JISH3100:2017				0.18*400		EH	1021-C-08		
化學成分Chemical Compositions(%)										
元素 Element	Cu %	Zn%	Pb%	Fe%	\	\	\	\	化學成分	雜質
規範 Spec	64.0-68.0	餘量	<0.05	<0.05	\	\	\	\	合格	合格
實測 Actual	64.32	餘量	0.0036	0.0136	\	\	\	\	合格	合格
機械性質Mechanical Properties										
項目 Item	結晶粒度 Grain Size Mm	硬度 Hardness Hv	抗拉強度 TensionStrength Mpa	伸長度 Elongation %	導電率 Electrical Conduc %IACS	彎曲試驗 Bending Test 180	表面粗度 Surface Roughness Ra(u m)	彎曲度 Camber mm/n		
規範MAX Spec	\	170-190	490-610	\	\	\	\	\		
實測 Actual	\	178	574	5	\	\	\	\		

品質部



# 材 质 证 明 书 (2020/A)

## MATERIAL CERTIFICATE

生产厂家		SHNZHEN CITY XINQIA METAL PRODUCTS CO. LTD				生产编号		B20191101		开立日期 Issue Date		2019.11、5		证明书编号 Certificate No		20191105-01						
钢种名称		SUS 304 1\2H				订单编号 Order No		JIS		依据规范 By Standard												
项目 Item	钢卷编号 Coil No	厚度(mm) Thickness	宽度(mm) Width	长度 Length	数量(卷) Quantity©	重量(Kg) Weight (Kg)		成品表面加工														
1		0.3	296	COIL	1	1400																
2																						
3																						
4																						
5																						
6																						
化学成份Chemical Composition (%)											标准 Spec	硬度 Hardness	降伏强度 (N/mm <sup>2</sup> ) Yield stress	引张强度 (N/mm <sup>2</sup> ) Tensile Stress	伸长率(%) Elongation	弯曲试验 Bend Test						
C	Si	Mn	P	S	Cr	Ni	Mo	N														
标准 Spec	0.080 max	0.750 max	2.000 max	0.045 max	0.030 max	18.00 20.00	8.00 10.50				试片编号 Specimen	270-290HV	865 min	1059 min	- -							
1	0.042	0.320	1.180	0.031	0.006	18.03	8.01				20140328-01	270	497	870	-	OK						
2																						
3																						
4																						
5																						
6																						
以上列出的典型数据,仅供参考,并不代表技术数据的最大值或最小值,也不用于最终设计.任一具体材料的数据可能与此表中所列出的数据有所不同. Data shown are typical,For reference only,and should not be construed as maximum or minimum values for specification or for final design data. On any particular piece of material may vary from those shown herein.											如有异常,请于三天内回复 Only discrepancy pls contact us within 3 days		 技术部经理 Manager									

## 材质证明

Material identification

厂商 Customer: 东莞市三鑫塑胶原料有限公司

名称 Material name: 聚己二酰丁二胺

规格 Specifications: PA46 黑色 防火 V0

说明 Description: 材料包含 PA46 纯树脂+波纤及少量添加剂。

## 物料成份表

Chemical composition of

规格 Grade		PA46 BK V0	
组成 Chemical composition	分子式 Molecular formula	含量 (%) Content (%)	
1	PA46 树脂	聚己二酰丁二胺	≧69.69%
2	波纤	SiO <sub>2</sub>	30%
3	添加剂	N.A.	≦0.31