

# 承 认 书

Approval Sheet

客户 (Customer): /

客户料号 (Cus .P/N): /

华联威料号 (HLW P/N): DP13-0715-G61018

品名规格 (PronameSpec): MINI DP母座夹板1.2

送样日期 (Delivery Date): 2023/05/22

承认日期 (Acknowledge Date): 2023/05/22

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.			
业 务 部 Sales Dept	品 管 部 QC Dept	工 程 部 Engineering Dept	核 准 Checked By
欧阳小丽	欠必锋	陈依婷	唐竹君

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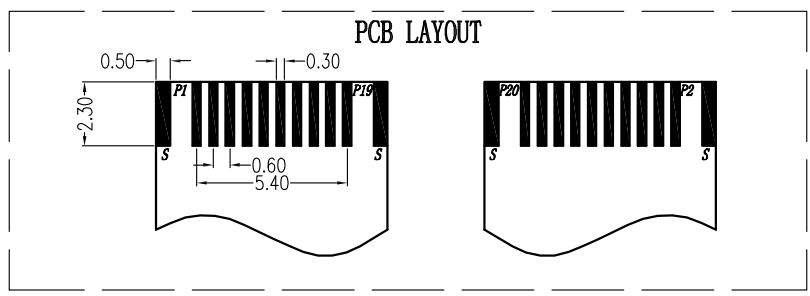
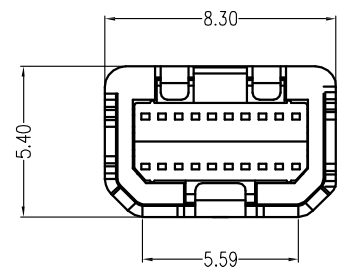
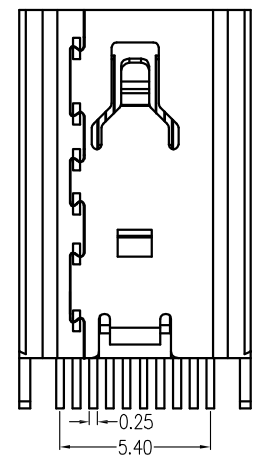
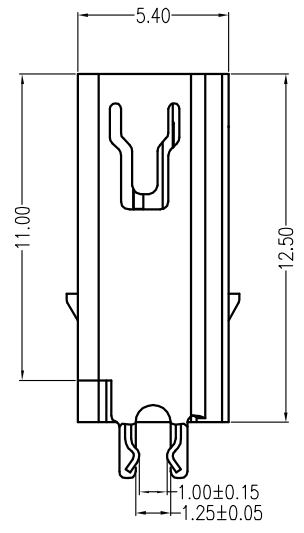
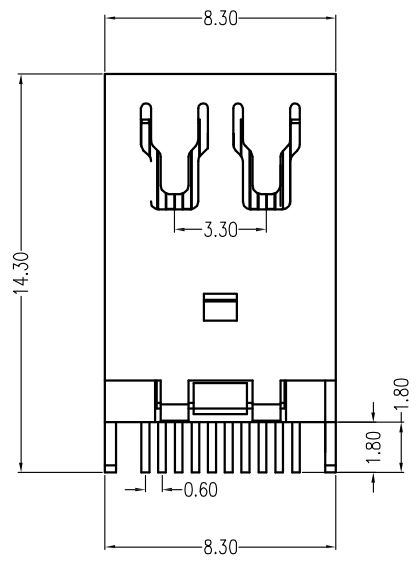
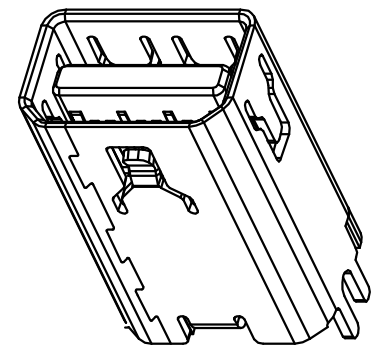
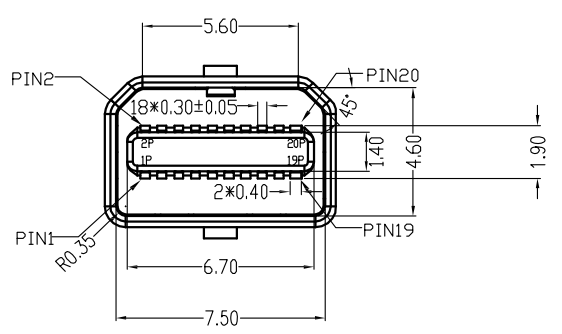
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A	EXXXXXXXXXX	chenyiting

NOTES:

- SPECIFICATION:
  - CURRENT RATING: 0.5 A
  - CONTACT RESISTANCE: 30mΩ MAX.
  - DIELECTRIC WITHSTANDING VOLTAGE: 500V AC R.M.S FOR ONE MINUTE.
  - INSULATION RESISTANCE: 100MΩ MIN AT 500V DC.
  - OPERATING TEMPERATURE: -25° TO +85°.
  - DURABILITY: 10000 CYCLES.
  - MATING FORCE: 4.5KG MAX.
  - UNMATING FORCE: 1.0KG MIN

DP13-0715-G61018

- 5: 铜壳镀镍
- G: 半金G/Fu
- 6: LCP
- 1: 吸塑盒
- 1: 黑色



Top Row			Bottom Row		
Pin Number	Signal Type	Pin Name	Pin Number	Signal Type	Pin Name
1	GND	GND	2	In	HotPlug Detect
3	Out	ML_Lane 0(p)	4	CONFIG	CONFIG1
5	Out	ML_Lane 0(n)	6	CONFIG	CONFIG2
7	GND	GND	8	GND	GND
9	Out	ML_Lane 1(p)	10	Out	ML_Lane 3(p)
11	Out	ML_Lane 1(n)	12	Out	ML_Lane 3(n)
13	GND	GND	14	GND	GND
15	Out	ML_Lane 2(p)	16	I/O	AUX_CH(p)
17	Out	ML_Lane 2(n)	18	I/O	AUX_CH(n)
19	GND	GND	20	PWR Out	DP_PWR

TOLERANCE UNLESS OTHERWISE SPECIFIED		<b>FLW</b> 深圳市华联威电子科技有限公司 HUA LIAN WEI TECHNOLOGY ELECTRONICS CO;LTD.			
.XXX ±0.10	.XX ±0.20	.X ±0.30	.X' ±3'	PART NAME: MINI DP母座夹板1.2	
.XX ±0.20	.X ±0.30	.X' ±2'	PART No: DP13-0715-G61018		C
APPROVED	chenyiting	PROJECTION:	UNIT: mm	SCALE: 1:1	SHEET: 1 OF 1
CHECKED		DATE: 2023.05.22	REV. A		

## DP 系列產品SPEC

TEST ITEM		REQUIREMENT	PROCEDURE
1	Examination of Product	Meets requirements of product drawing. No physical damage.	Visual inspection.
2	Operating Temperature :	0°C ~+50°C	
3	Storage Temperature :	-25°C ~+85°C	
<b>ELECTRICAL REQUIREMENT</b>			
4	Rating Voltage	40V rms maximum	
5	Rating Current	1.5A mpheres max	
6	Contact Resistance	[ 30 ] m Ohm maximum	EIA 364-23 Subject mated contacts assembled in housing to 20mV Max open circuit at 100mA Max.
7	Dielectric withstanding Voltage	No creeping discharge or flashover shall occur.Current leakage: 2 mA MAX	EIA 364-20 [ 500 ]VAC for 1minute Test between adjacent circuits of unmated connector.
8	Insulation Resistance	[1000 ] M Ohm Min.	EIA 364-21 Impressed voltage 500 VDC.Test between adjacent circuits of unmated connector.
<b>Mechanical Requirement</b>			
9	Connector Mating Force	<u>44.1N Max.</u>	EIA 364-13 Operation Speed : [7.5+/-3 ] mm/min.Measure the force required to mate connector.
10	Connector Unmating Force	<u>10N Min.initial</u>	EIA 364-13 Operation Speed : [7.5+/-3 ] mm/min.Measure the force required to unmate connector.
11	Durability	See Note	EIA 364-09 Operation Speed: [200] cycle/Hour.Durability Cycles: 10000 Cycles
12	Solder ability	Wet solder coverage:95%Min	EIA 364-52 Solder Temperature : 260+/-5°C Duration : 5+/-0.5 sec,
<b>Environmental Requirements</b>			
13	Resistance to Wave Soldering Heat	No physical damage shall occur.	Test connector on PCB Pre-Heat : 150~200°C: 60 sec. max. ,Heat 235°C min for 10 Seconds max. Peak 260°C ±5 °C
備注		無客戶指定增加測試項目外，依照此標準進行產品可靠性評估。	

## 測試報告

## TEST REPORT

產品名稱 Part Name	MINI DP母座夾板1.2	測試日期 Date of Testing	2023.05.20- 2023.05.22	報告編號 Report NO.	MD20230522-01
產品型號 Part Name	DP13-0715-G61018	樣品數量 Quantity	5PCS	測試環境 Measuring Environment	濕度 Temp:18~21°C 相對濕度RH:49~57

## 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	30 mΩ Max	23.17 mΩ	24.55 mΩ	25.47 mΩ	26.32 mΩ	27.83 mΩ	P	
2	Insulation resistance	Test voltage:500VDC Operation stated:1min	ULTRA HIGH RESISTANCE METER	500 MΩ Min	247 MΩ	285 MΩ	317 MΩ	355 MΩ	412 MΩ	P	
3	Dielectric withstand voltage	Test voltage:500VAC 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:100cycles/hour Total: 10000cycles	LIFE TESTER FOR CONNECTOR	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
2	Mating Force	44.1 Newtons maximum at a maximum rare of 12.5mm(0.39") per minute	Insertion force testing machine	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Un-Mating Force	9.8 Newtons minimum at a maximum rare of 12.5mm(0.492") 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 Humidity: 90~95 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	

3	Cold test	Temperature: $-25 \pm 3^{\circ}\text{C}$ Duration:168H	PROGRAM CONTROLLED TEMP. & HUMIDTY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
4	Temperature cycling test	Temperature: $70 \sim 25^{\circ}\text{C}$ 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	Salt spray test	Temperature: $35 \pm 2^{\circ}\text{C}$ Concentration: $5 \pm 1\%$ Duration:24H	SALT SPRAY TESTER	No Oxidation	Pass	Pass	Pass	Pass	Pass	P	
2	Resistance to soldering heat test	Temperature: $260 \pm 5^{\circ}\text{C}$ Duration: $10 \pm 1$ sec	OVEN	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Solder ability test	Temperature: $260 \pm 5^{\circ}\text{C}$ Duration: $5 \pm 0.5$ sec	CONTROLLED CONSTANT-TEMP SOLDER POT	Soldering area $\geq 95$	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



## 电镀报告表

品名: MINI DP母座夹板1.2		版次:A.0																															
电镀规格:Ni:50u"MIN		日期:2023/03/04																															
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)																																	
<table border="1"><thead><tr><th>数据</th><th>测试标准</th><th>实测值</th><th>判定</th><th>测试日期</th><th>测试时间</th></tr></thead><tbody><tr><td>1</td><td>50u"min</td><td>55.3u"</td><td>OK</td><td>2023/3/4</td><td>14:35:25</td></tr><tr><td>2</td><td>50u"min</td><td>54.8u"</td><td>OK</td><td>2023/3/4</td><td>14:35:27</td></tr><tr><td>3</td><td>50u"min</td><td>53.4u"</td><td>OK</td><td>2023/3/4</td><td>14:35:29</td></tr><tr><td>4</td><td>50u"min</td><td>52.5u"</td><td>OK</td><td>2023/3/4</td><td>14:35:31</td></tr></tbody></table>				数据	测试标准	实测值	判定	测试日期	测试时间	1	50u"min	55.3u"	OK	2023/3/4	14:35:25	2	50u"min	54.8u"	OK	2023/3/4	14:35:27	3	50u"min	53.4u"	OK	2023/3/4	14:35:29	4	50u"min	52.5u"	OK	2023/3/4	14:35:31
数据	测试标准	实测值	判定	测试日期	测试时间																												
1	50u"min	55.3u"	OK	2023/3/4	14:35:25																												
2	50u"min	54.8u"	OK	2023/3/4	14:35:27																												
3	50u"min	53.4u"	OK	2023/3/4	14:35:29																												
4	50u"min	52.5u"	OK	2023/3/4	14:35:31																												

核准: 欠必锋

审核: 李娟

检验员: 但芬



品名: MINI DP母座夹板1.2				版次:A.0	
电镀规格: Ni30u", Sn100u", Au G/Fu"			日期: 2023/03/04		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	53.5u"	OK	2023/3/4	10:20:15
2	30u"MIN	52.3u"	OK	2023/3/4	10:20:17
3	30u"MIN	60.5u"	OK	2023/3/4	10:20:19
4	30u"MIN	63.4u"	OK	2023/3/4	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	107.3u"	OK	2023/3/4	10:25:10
2	100u"MIN	104.7u"	OK	2023/3/4	10:25:12
3	100u"MIN	106.9u"	OK	2023/3/4	10:25:14
4	100u"MIN	103.4u"	OK	2023/3/4	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	0.65u"	OK	2023/3/4	10:30:32
2	0.5u"MIN	0.54u"	OK	2023/3/4	10:30:34
3	0.5u"MIN	0.56u"	OK	2023/3/4	10:30:36
4	0.5u"MIN	0.54u"	OK	2023/3/4	10:30:38

核准: 欠必锋

审核: 李娟

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	2023年05月21日 08:00 时起
		DATE	2023年05月22日 08:00 时止
样品名称	MINI DP母座夹板1.2	试验数量	5PCS
P/N	DP13-0715-G61018	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. IT THE SPRAY DHAMBR): $35\pm 1^\circ\text{C}$ .			
3、盐水桶温度 (TEMP. OF SALE SOL' N TANK): $35\pm 1^\circ\text{C}$ .			
4、压力桶温度 (TEMP. OF SAR SUPPLIERY): $47\pm 1^\circ\text{C}$ .			
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 SOL' N) $1-2\text{mL}/(8\text{ cm}^2\text{hr})$ .			
9、盐雾测试时间: 24小时 (H)			
判定方法 (ADFUSGD 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. (Inspext the ecimen at 20 xmagnification 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



## Materials Information

**PRODUCT NAME: LCP M-401 BK**

**COMPOSITION/INFORMATION OF LCP M-401 BK**

**SUBSTANCE/MIXTURE: Mixture**

**SYNONYM(S): Aromatic Liquid Crystal Polymer(LCP)**

品名	比例	用途
德众泰 LCP 树脂	0.565	构成材料主要成分
抗氧化剂	0.002	抗氧化
科莱恩热稳定剂	0.003	增加高温稳定性
黑色母	0.01	着色
滑石粉	0.2	增强剂, 增加流动性
玻纤	0.22	增强

NAME OF COMPANY: DZT Engineering Plastics Tech. Co.,Ltd

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