

# 承 认 书

Approval Sheet

客户 (Customer):

客户料号 (Cus .P/N):

华联威料号 (HLW P/N):305205-0010-D118

品名规格 (PronameSpec):BF 180度 3P 两脚接收器

送样日期 (Delivery Date):2023/08/09

承认日期 (Acknowledge Date): 2023/08/09

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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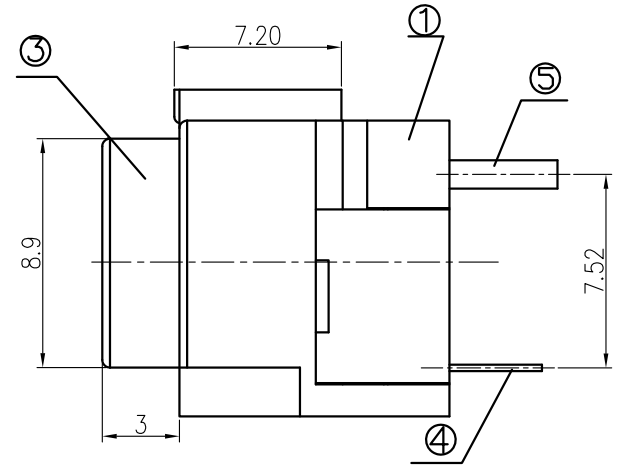
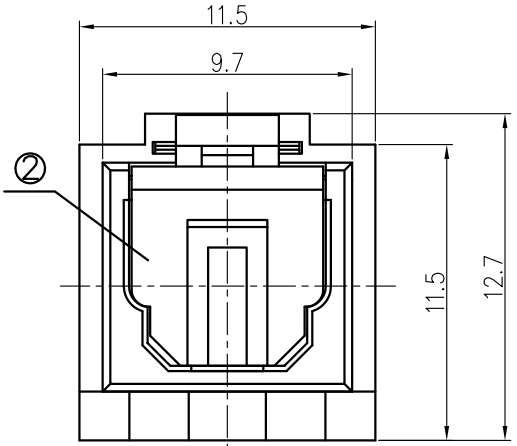


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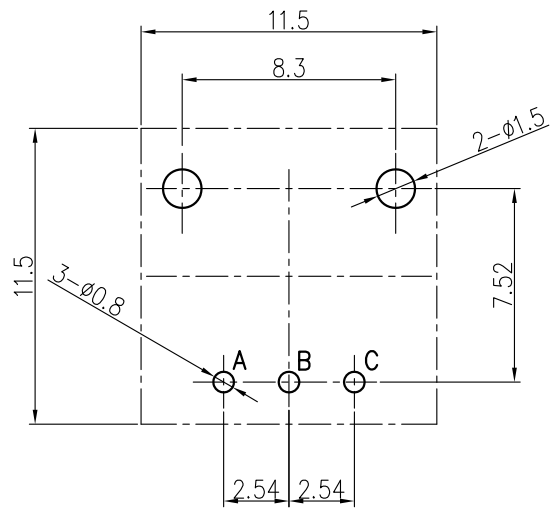
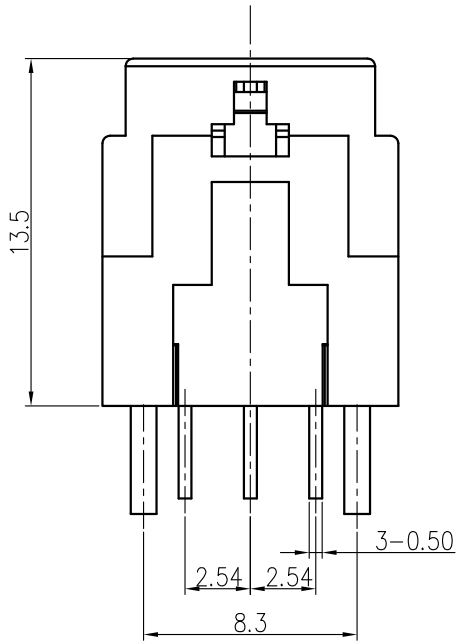
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REV.	ECN.NO.	APPD.
A	XXXXXXXXXX	chenyiting



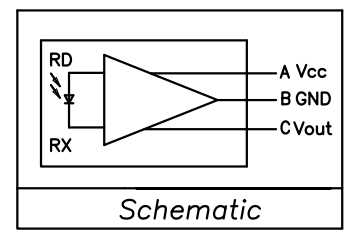
- NOTES:
- MATERIAL:
    - Housing:thermoplastic plastics
    - terminals:Copper Alloy  
Gold plated in contact area:  
Tin plated in termination  
Nickel Plated overall
    - Shell:Steel&Copper Alloy  
Nickel Plated overall
  - ELECTRICAL CHARACTERISTICS:
    - Rating Current :1.5 Ampere
    - Rating Voltage :30 V Max
    - Contact Resistance:30 Milli ohms
    - Insulation Resistance:1000 Mega ohms Min.
  - MECHANICAL CHARACTERISTICS:
    - Connector Mating force: 35N MAX(3.57Kgf)
    - Connector Unmating force:10N min(1.02Kgf)
    - Durability:1500Cycles.
  - ENVIRONMENT CHARACTERISTICS:
    - Operating temperature:-0°C to +50°C
    - Storage temperature:-20°C to +60°C



**RECOMMENDED PCB LAYOUT**  
TOP VIEW (TOLERANCE:±0.05)

305205-0010-D118

D: 镀银0.5u"  
1:PA66  
1: 黑色



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	.X ±0.20	.X ±0.30	.X ±3'	.XX ±2'		
APPROVED		PART NAME:	BF 180度 3P 两脚接收器			
CHECKED		PART No:	305205-0010-D118	C		
DRAWN	chenyiting	PROJECTION:	UNIT:	SCALE	SHEET	REV.
DATE	2023.04.03		mm	1:1	1 OF 1	A

### USB2.0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 USB2.0 Connector.

(此份产品规格适用于USB2.0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(操作温度范围):0°C to +50°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) Mated connectors, Contact: measure by dry circuit, 30 m Volts maximum,20 mA  配对的连接器, 端子: 测试端子在回路中施加直流最大30mV 20mA的电流再测端子的电阻值	Initial Contact resistance Excluding conductor Resistance:30 mΩ max (Target design value)  接触电阻初始值最大不能超过30 mΩ (目标设计值)
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4.2.2	Dielectric Withstanding Voltage (耐电压)	(EIA-364-20C) Unmated connectors, apply 500V 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500V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	1000MΩ min (unmated)  没有配对需大于1000 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	Maximum insertion force 35N 插入力不超过35N(3.57kg) Withdrawal force 9.8N min 10N max 拔出力最小10N (1.02kg)
4.3.2	Durability 寿命测试	(EIA-364-09) Measure contact and shell resistance after the Following. Automatic cycling:1500 cycles at 100±5 Cycles per hour. 以每小时100±5插拔次数测试1500循环后测量端子的接触阻抗	Contact Resistance 接触阻抗 Contact: Change from initial Value: 30 milliohms maximum. 端子: 从初始值开始变化量小于30mΩ Maximum insertion force 35N 插入力不超过35N(3.57kg) Withdrawal force 9.8N min 8N max 拔出力最小8N (1.02kg)
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 Shell Part: Change from initial Value:50mΩ Max.  间断性: 不超过1微秒

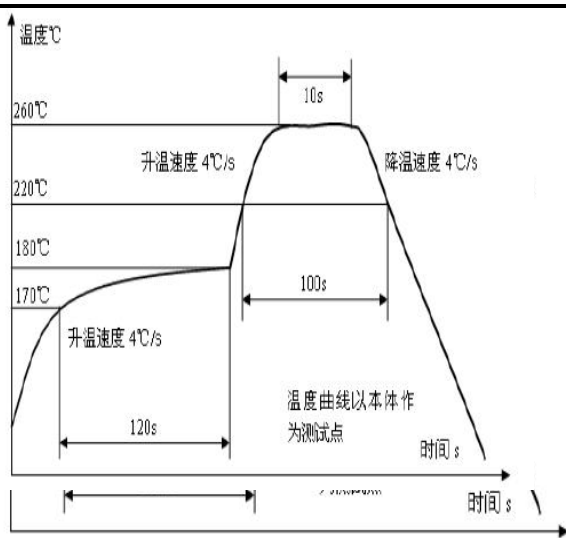
4.3.4	Physical shock 冲击性	<p>(EIA-364-27条件A)</p> <p>Pulse width: 11msec</p> <p>Waveform: Half-sine</p> <p>490m/s<sup>2</sup> (50G) 3 strokes in each X, Y, Z axes.</p> <p>(ANSI/EIA-364-27 condition A)</p> <p>周期: 11msec</p> <p>冲击波形: 正弦半波490m/s<sup>2</sup> (50G) 3 循环在X, Y, Z 轴</p>	<p>Appearance: No damage</p> <p>外观: 无损坏</p> <p>Contact Resistance 接触阻抗</p> <p>Contact: Change from initial Value 30mΩ Max</p> <p>端子: 从初始值开始变化量小于30mΩ</p> <p>Discontinuity: 1μ sec Max.</p> <p>间断性: 不超过1微秒</p>
4.4 Environmental Performance			
4.4.1	Thermal shock test 冷热冲击	<p>EIA-364-32C条件1)</p> <p>10 cycles of:</p> <p>a)-55±3°C for 30 minutes</p> <p>b) +85±3°C for 30 minutes</p> <p>10个循环,</p> <p>a)-55±3°C 30 分钟</p> <p>b) +85±3°C 30 分钟</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>端子: 从初始值开始变化量小于30mΩ</p>
4.4.2	Solder ability 焊锡性	<p>(EIA-364-52)</p> <p>To be sipped in the solder bath 245±5°C</p> <p>Coverage for 3 seconds.</p> <p>将焊锡脚浸在260±5°C的锡炉中&lt;3秒</p>	<p>The inspected area of each lead must have 90% solder coverage minimum</p>
4.4.3	Humidity 恒温恒湿	<p>(EIA-364-31B)</p> <p>(A) Mate connectors together and perform the test as follows</p> <p>配对的连接器测试条件</p> <p>Temperature: +25°C to +85°C(温度: +25°C到+85°C)</p> <p>Relative Humidity: 90% to 95%(相对湿度: 90%到95%)</p> <p>Duration:4 cycles(96 hours) (持续时间: 4个循环共96小时)</p> <p>Upon completion of the test, specimens shall be conditioned ambient room conditions for 24 hours, after which the specified measurements shall be performed.</p> <p>试验完成后, 样品放置于室温条件中24小时后再进行测试</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>端子: 从初始值开始变化量小于30mΩ</p>

		<p>(EIA-364-31B)</p> <p>(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)</p> <p>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</p>	<p>Appearance: No Damage 外观, 没有损坏</p> <p>Conform to item of dielectric withstanding Voltage and Insulation Resistance. 符合耐电压及绝缘阻抗要求</p>
4.4..4	Salt Spray 盐水喷雾	<p>EIA-364-26B)</p> <p>Temperature: 35±2°C 温度: 35±2°C Concentration for salt: 50g±10g/1L 盐水浓度: 50±10g/L (1)Duration: 12H 持续时间: 12小时 Condition(条件): Contact plated gold more than 15u" (include 15 u" ),and the material of shell for copper alloy, or stainless. 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 (2) Duration: 12H 持续时间: 12小时 Condition(条件): Contact plated gold less than 15 u" ,and/or the material of shell for steel 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) 产品无氧化, 锈蚀(端子焊脚镀锡处不作要求)</p> <p>Contact Resistance 接触阻抗 Contact: Change from initial Value 30mΩ Max Shell Part: Change from initial Value 50mΩ Max 端子: 从初始值开始变化量小于30mΩ 外壳: 从初始值开始变化量小于50mΩ</p>
4.4..5	Cold resistance (Unmated) 冷阻抗	<p>(EIA-364-17B)</p> <p>Unmated connectors and expose to -25±3°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. 没配对的连接器放置于-25±3°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</p> <p>Contact Resistance 接触阻抗 Contact: Change from initial Value 30mΩ Max Shell Part: Change from initial Value 50mΩ Max 端子: 从初始值开始变化量小于30mΩ 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 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>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.</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)</p> <p>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.</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>
4.4.8	Resistance to Soldering Heat	<p>for wave soldering : mil-std-202f,method 210 A,test condition B</p> <p>波峰焊：mil-std-202f, method 210 A, 试验条件B</p> <p>Pre-heat : 80°C, 60 Seconds 预热:80°C, 60秒</p> <p>Temperature : 260 ± 5 °C 温度:260±5°C</p> <p>Immersion duration : 10 ± 1 sec. 浸泡时间:10±1秒。</p>	<p>No physical damage shall occur.</p> <p>不可有损坏</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



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	1,5	1
4.2.1.Contact Resistance 接触阻抗	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 Voltage	3,7													
4.2.3. Insulation Resistance 绝缘阻抗	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.) 测试样	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

深圳市华联威电子科技有限公司  
SHENZHENHUALIANWEIELECTRONICS CO., LTD.  
測試報告

## TEST REPORT

品名稱 Part Name	BF 180 度 3P 两脚接收器	測試日期 Date of Testing	2023.08.07- 2023.08.09	報告編號 Report NO.	MD20230809-01
產品型號 Part Name	305205-0010-D118	樣品數量 Quan tity	5PCS	測試環境 Measuring Environment	濕度 Temp:18~21°C 相對 濕度 R.H.: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 ㄩTesting Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Contact resistance	Test current:100mA max	DIGITAL MICROHMMETER	30 mΩ Max	14.36 mΩ	16.42 mΩ	15.63 mΩ	17.52 mΩ	16.18 mΩ	P	
2	Insulation resistance	Test voltage:500VDC Operation stated:1min	ULUSB AF 90 度 直脚有盖无卷边脚长 1.9 针长 1.9TRA HIGH RESISTANCE	1000 MΩ Min	Pass	Pass	Pass	Pass	Pass	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 ㄩTesting Result					判定 Judge	
					1	2	3	4	5	Pass	Fail
1	Durability test	Rate:200cycles/hour Total: 1500cycles	LIFE TESTER FOR CONNECTOR	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
2	Mating Force	35 Newtons maximum at a maximum rare of 12.5mm(0.492") per minute	Insertion force testing machine	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Un-Mating Force	10 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 ㄩTesting Result					判定 Judge	
					1	2	3	4	5	Pass	Fail

1	Humidity-Temperature cycle	Temperature: -30°C to 75°C Humidity: 90-95% Duration: 168H	PROGRAM CONTROLLED TEMP. & HUMIDITY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
2	Heat test	Temperature: -40°C to 85°C Duration: 168H	OVEN	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Cold test	Temperature: -25±3°C Duration: 168H	PROGRAM CONTROLLED TEMP. & HUMIDITY CHAMBER	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
4	Temperature cycling test	Temperature: 70—25°C Duration: 5 cycle	PROGRAM CONTROLLED TEMP. & HUMIDITY 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±2°C Concentration: 5 ± 1 % Duration: 12H	SALT SPRAY TESTER	No Oxidation	Pass	Pass	Pass	Pass	Pass	P	
2	Resistance to soldering heat test	Temperature: 260±5°C Duration: 10 ± 1 sec	OVEN	No physical damage	Pass	Pass	Pass	Pass	Pass	P	
3	Solderability test	Temperature: 260±5°C Duration: 10 ± 1 sec	CONTROLLED CONSTANT-TEMP SOLDER POT	Soldering area 295%	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



品名: BF 180度 3P 两脚接收器 (端子)		版次:A. 0			
电镀规格: Ni30u", Sn100u", Au0.5u"		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	0.55u"	OK	2023/3/4	10:30:32
2	0.5u"MIN	0.58u"	OK	2023/3/4	10:30:34
3	0.5u"MIN	0.56u"	OK	2023/3/4	10:30:36
4	0.5u"MIN	0.59u"	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08月08日 20:00 时起
		DATE	2023年08月09日 08:00 时止
样品名称	BF 180度 3P 两脚接收器	试验数量	5PCS
P/N	305205-0010-D118	QTY	
试验条件 (TEST CONDITION)			
1、盐水溶解 (SALT SOLUTION: 浓度 $50 \pm 10$ g/L, PH值6.5-7.2).			
2、试验室温度 (TEMP. IT THE SPRAY DHAMBR): $35 \pm 1$ °C.			
3、盐水桶温度 (TEMP. OF SALE SOL' N TANK): $35 \pm 1$ °C.			
4、压力桶温度 (TEMP. OF SAR SUPPLIERY): $47 \pm 1$ °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): $1.00 \pm 0.01$ Kg/cm <sup>2</sup> .			
7、样品放置位置 (SPECIMEN SUPPORTED ANGLE): 尼龙绳吊挂70° -90° .			
8、喷雾收集量 (COLLECT RATE OF SALT SOL' N) 1-2mL/(8 cm <sup>2</sup> hr).			
9、盐雾测试时间: 12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



# 产品质量证明书

INSPECTION CERTIFICATE

QIAN YI

DONGGUAN QIANYI METAL MATERIAL CO., LTD

客户 CUSTOMER: 华联威

牌号: C2680 R 状态: EH 规格 (mm): 0.18

化学成分 CHEMICAL COMPOSITION% 化学标准 GB/T5231-2001

成份	Cu	Pb	Fe	Zn	杂质
标准值	63.5-68.0	max0.03	max0.10	rem	.....
实测值	64.36	0.0067	0.0276	rem	.....

物理性能 PHYSICAL PROPERTY 性能标准 GB/T5231-2001

性能	抗拉 (Mpa)	延伸率 (%)	维氏硬度 (HV)	厚度公差 (mm)	宽度公差 (mm)
	Tensile strength	Elongation	Hardness Test	Thickness	Width
标准值	530-620	≥4	160-190	+0	+0
实测值	558.4	good	178.4	-0.01	-0.05

发货日期: 2023-07-11





# MATERIALS

## 1. HOUSING : GLASS FILLED POLYESTER UL 94V-0(BLACK)

PHYSICAL PROPERTIES	ASTM TEST METHOD	VALUES	UNIT	TEST RESULTS
<b>MECHANICAL</b>				
<b>Tensile Strength</b>	D638	110 min	Mpa	131
<b>Elongation</b>	D638	1.5 min	%	OK
<b>Flexural Modulus</b>	D790	7,800	Mpa	1.6 OK 11,380 OK
<b>IMPACT</b>				
<b>Izod,Notched</b>	D256	68 min	J/M	92 OK
<b>Thermal Deflection Temperature @1.8Mpa(264psi)</b>	D648	230 min	degree C	240 OK
<b>OTHER</b>				
<b>Specific Gravity</b>	D792		---	1.69
<b>Flammability Rating @0.8mm(0.032in)</b>	UL94		---	OK v-0 OK
<b>ELECTRICAL</b>				
<b>Dielectric Strength @3.1mm(0.125in)</b>	D149		kV/mm(V/mil)	580(22.8) OK
<b>Dielectric Constant 1kHZ / 1MHZ</b>	D150	3.3/3.3	---	3.3 OK
<b>Dissipation Factor 1kHZ / 1MHZ</b>	D150	0.003/0.008	---	0.003/0.080 OK