

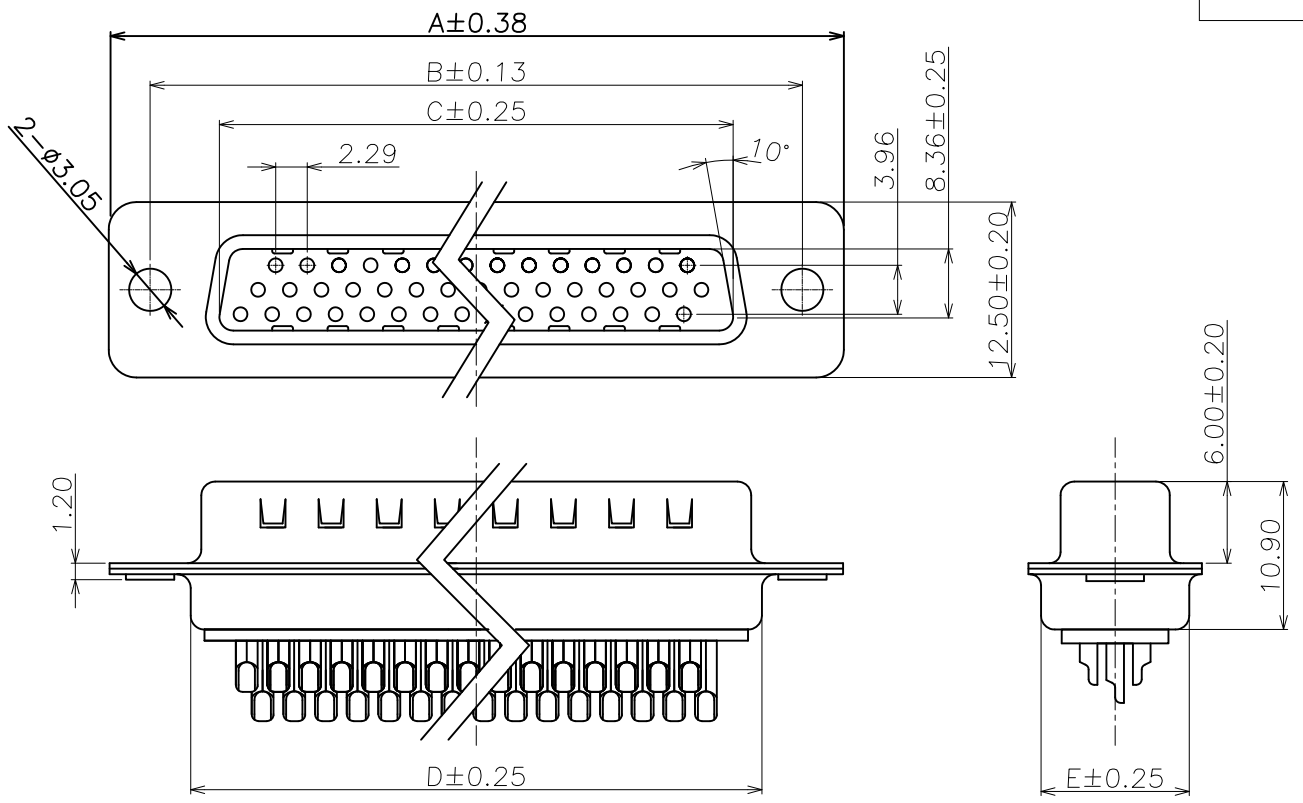
符合"DLK环境管理物质技术标准"

工程变更通知单 ECN(DCN) NO.	版本 REV	日期 DATE	说明 DESCRIPTION	改变 CHANGE	承认 APPRO.
—	A	20211222	NEW	—	—

DSB97 C-44 B S4 Y N3 0  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- 1.PRODUCTION CODE (产品编码):  
DSB97: D-SUB
- 2.CHARACTER (特征):  
C: DIP TYPE(180°)
- 3.POSITION (位数):  
15:15PIN  
26:26PIN  
→ 44:44PIN  
62:62PIN
- 4.COLOR OF HOUSING(本体颜色):  
B:BLACK
- 5.PLATING OF CONTACT(端子电镀):  
S1 :Au 1u" AND MATTE TIN PLATED  
S2 :Au 5u" AND MATTE TIN PLATED  
→ S4 :Au 15u" AND MATTE TIN PLATED  
S5 :Au 30u" AND MATTE TIN PLATED
- 6.PACKAGE(包装):  
Y :TRAY PACKAGE
- 7.PLATING OF SHELL(铁壳电镀):  
N3:NI PLATD
- 8.TYPE:  
O:无螺丝

- 1.ELECTRICAL CHARACTERISTICS  
CURRENT RATING: 3.0 AMP  
VOLTAGE RATING: 100 V AC  
CONTACT RESISTANCE :20 MILLIOHMS MAX.  
DIELECTRIC WITHSTANDING VOLTAGE : 1000 V AC MIN.  
INSULATION RESISTANCE :1000 MEGAOHMS MIN.
- 2.ENVIRONMENTAL  
OPERATING TEMPERATURE: -55°C ~ +105°  
STORAGE TEMPERATURE:-55°C ~ +105°C



PIN \ DIM	A	B	C	D	E
HDD15P	30.81	24.99	16.92	19.28	10.72
HDD26P	39.14	33.32	25.25	27.65	10.72
HDD44P	53.04	47.04	38.96	41.30	10.72
HDD62P	69.32	63.50	55.42	57.44	10.72

NO.	ITEM	Q'TY	DESCRIPTION	FINISH
3	SHELL	2	SPCC	Ni PLATED
2	CONTACT	44	BRASS	Au AND Tin PLATED
1	INSULATOR	2	PBT+30%G/F	UL94V-0 BLUE

GENERAL TOLERANCE UNLESS OTHERWISE NOTED	
Angle	±5°
X.	±0.38
.X	±0.30
.XX	±0.25
.XXX	±0.10

**DLK** 德力康电子科技有限公司  
DELIKANG ELECTRONICS TECHNOLOGY CO.,LTD

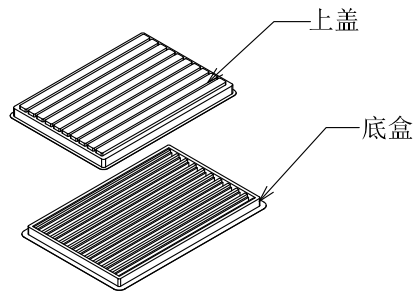
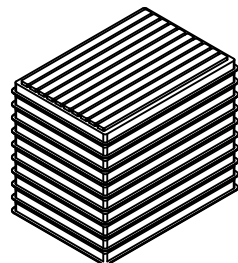
**C** 名称 TITLE: HDB-44P公传统焊线式半金锡15U"  
档案名称 FILE NAME: C-DSB97-00-00 料号 PART NO: DSB97C-44BS4YN30

DRAWING 蒋召 CHECKED 覃智森 APPROVED 段国强

UNIT: mm SCALE 1:1 SHEET: 1 of 1

符合"DLK 环境管理物质技术标准"

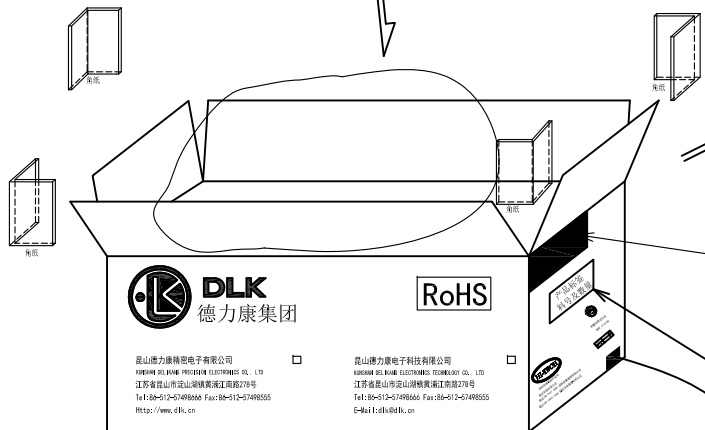
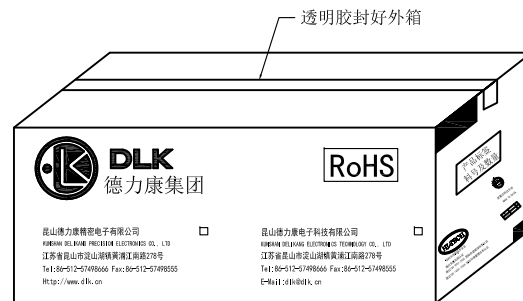
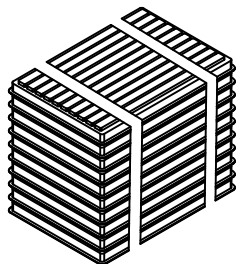
工程变更通知单 ECN(DCN) NO.	版本 REV	日期 DATE	说明 DESCRIPTION	改变 CHANGE	承认 APPRO.
_____	X0	20211222	NEW RELEASE	_____	_____



每盘放入50PCS产品

包装说明:

- 数量:  
一盘=50Pcs,
- 装入PE袋, 加入干燥剂, 封口后装入纸箱; 包装过程中注意不可碰伤产品
- 适用料号:  
DSB97C-44BS4YN30
- 外箱材质K=K, 要求破裂强度为6KgF.



产品标签  
纸箱两面贴

周别标签

GENERAL TOLERANCE UNLESS OTHERWISE NOTED	
Angle	±1°
X.	±0.25
.X	±0.15
.XX	±0.10
.XXX	±0.05
A4	

<b>德力康电子科技有限公司</b> DELIKANG ELECTRONICS TECHNOLOGY CO.,LTD				
P 名称 TITLE: HDB-44P 公半金锡15u 传统焊线式 包装图		料号		
档案名称 FILE NAME: P-DSB97-00-00		PART NO: DSB97C-44BS4YN30		
DRAWING	蒋召	CHECKED	覃智森	APPROVED 段国强
UNIT:	mm	SCALE	1:1	SHEET: 1 of 1

## BOM OF AVL

產品名稱 Commodity Name	供應商名稱 Manufacture Name	供應商產地 Manufacture Location	廠商產品型號 Manufacture Product type	部件的組成部位 Portion of Composition part	部件的原材料名稱及型號 Raw Material Name and Type of Composition part	原材料廠商名稱 Raw Material Manufacturer Name	原材料原產地 Raw material Manufacture Area	Safety licenses	Plastic Flame Retardant Grade (94V-0 ...etc)	部件或原材料的重量比例 (%) Composition Portion or Raw Material Weight Rate (%)
HDB-44P 公半金锡 15u 传统 焊线式	DLK	苏州	DSB97C-44BS4YN30	Housing	PBT	泰塑	广东	E106764	UL94V-0	2.23克 (占比例26.2%)
				Contact	C2680	广铜	广州	NA	NA	2.47克 (占比例29.1%)
				Plating Ni	Ni	长风	安徽	NA	NA	
				Plating Tin	Sn	长风	安徽	NA	NA	
				Plating Au	Au	长风	安徽	NA	NA	
				Shell	SPCC	华为	苏州	NA	NA	3.8克 (占比例44.7%)
				Plating Ni	Ni	长风	安徽	NA	NA	
授權聲明人 Authorized Declarer	贾文强	公司法定代表人 Legal Representative		范德文		公司印章 Company Seal :				
授權聲明人職位 Title of Authorized Declarer	品质经理	法定代表人職位 Legal Representative's Title		董事长						
聲明日期 Date of Declaration	2022.10.27									

**Notes:**

- Bom of AVL(Approval Vendor List)指生產Bom表,如原材料廠商/型號不在此Bom中,後續量產需提交PCN(Product Change Note)給DELTA並得到同意後方能變更.  
Bom of AVL(Approval Vendor List) means production Bom, if the raw material vendor/type isn't in the Bom, the supplier need to provide PCN(Product Change Note) and approved by DELTA at mass production stage, then can implement the alteration.
- 簽署人保證已經獲得公司充分授權,並保證本表格的內容以及所附的測試報告完全準確、真實。  
The below undersigned person declares that he/she is duly authorized by their organization to sign on its behalf and that the contents of this sheet and corresponding test reports are

環境管有害物質成份或部件展開表  
The Ingredients or Part List of Environment-related Substances

ID CODE: B-13-053-0005-03-B

- 1. 所有信息必須準確填寫  
1. All information must be accurate.
- 2. 不可留空白, 不適用時, 請填 "NA". 比如金屬部位不需要測試PBBs, PBDEs時, 在PBBs, PBDEs欄位填寫 "NA".  
2. Don't leave blank. If not applicable, please fill in "NA". For example, metal parts do not have to test PBBs, PBDEs, so PBBs, PBDEs fields may be filled in "NA".
- 3. 組成部位必須完整填寫, 不可遺漏. 如果有多家廠商, 多種原材料, 請分別列出.  
3. Composition must be filled in completely, no omissions. If there are multiple vendors/materials, please list them separately.
- 4. 欄位不夠用時, 可加頁.  
4. Please add more pages if needed.

公司名稱 Company Name: 德力康電子科技有限公司

公司印章 Company Seal:



Wafer FAB. Site: (只限半導體製廠 Semiconductor manufacturer only)  
Assembly location: (只限半導體製廠 Semiconductor manufacturer only)

零件料號 Data Part Number	供應商料號 Supplier Part Number	供應商名稱 Supplier Name	產品的產地 Product Manufacture Area	供應商產品 型號 Supplier Product type	產品重量(g) Product Weight (g)	組成部位 Portion of Composition part	部位的原材料名稱及型號 Raw Material Name and Type of Composition part portion	原材料廠名稱 Raw Material Manufacturer Name	原材料原產地 Raw material Manufacture Area	原材料廠SONY GP ID編號 Raw Material Manufacturer SONY GP ID Code	部位或原材料的重量 (g) Composition Portion or Raw Material Weight (g)	均質材料中有害物質含量 (PPM) Hazardous Substances content in Homogeneous Material																												Remark		
												RoHS											Others										Halogen Free (only for HF parts)									
												測試機構 Test Lab.	測試報告編號 Test Report No.	測試日期 Test Date	Cd	Pb	Hg	Cr6+	PBBs	PBDEs	DEHP	DBP	BBP	DIBP	HCDD	DPP	DnOP	DIDP	DINP	Be	PFOS	PFOA	Red-P	Others (As, Formaldehyde, PAHs, Sb, RE ACHS等)	測試機構 Test Lab.	測試報告編號 Test Report No.	測試日期 Test Date	Cl	Br			
3074046700	DSB97C-44BS4YN30	DLK	苏州	DSB97	8.5g	Housing	PBT	泰塑	苏州	TS	1.2 克	SGS	SHAEC2300886761C	2023-7-4	N.D	6	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	SGS	SHAEC23008867610	2023-7-4	94	34768				
						CAP	PBT	泰塑	苏州	TS	1.03 克	SGS	SHAEC2300886761C	2023-7-4	N.D	6	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	SGS	SHAEC23008867610	2023-7-4	94	34768			
						Contact	C2680	广钢	广东	GT	2.47 克	SGS	CANEC2300050001C	2023-3-6	N.D	33	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	NA	NA	NA	NA	NA			
						Shell	SPCC	华为	苏州	HW	3.8 克	SGS	SHAEC2300886762C	2023-7-4	N.D	N.D	N.D	N.D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						Plating Ni	Ni	长风	安徽	CF	0.01 克	SGS	TA0EC2304135203	2023-6-27	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	NA	NA	NA	NA	NA	NA	NA		
						Plating Tin	Sn	长风	安徽	CF	0.01 克	SGS	TA0EC2304135207	2023-6-27	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	NA	NA	NA	NA	NA	NA	NA	NA	
						Plating Au	Au	长风	安徽	CF	0.01 克	SGS	TA0EC2304135201	2023-6-27	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.A	N.A	N.A	N.A	N.A	N.A	NA	NA	NA	NA	NA	NA	NA						

簽署人保證已經獲得公司充分授權, 並保證本表格的內容以及所附的測試報告完全準確、真實。

The below undersigned person declares that he/she is duly authorized by their organization to sign on its behalf and that the contents of this sheet and corresponding test reports are completely true and accurate.

授權聲明人 Authorized Declarer	賈文強	公司法定代表人 Legal Representative	高德文
授權聲明人職位 Title of Authorized Declarer	品質經理	法定代表人職位 Legal Representative's Title	董事長
聲明日期 Date of Declaration	2023-9-21		



# PRODUCT SPECIFICATION

1.0 Applicable Connector: Applicable to DLK D-SUB Series connector.

(适用于德力康公司 D-SUB 系列连接器.)

Scope: This specification covers the requirements for product performance and test methods of DLK's D-SUB Series Connectors of the part numbers specified as bellow.

(覆盖范围: 此规格书内容含盖德力康公司 D-SUB 系列连接器产品性能及测试方法。)

2.0 Rating (要求) :

2.1 Rated Voltage : 100 V AC, (额定电压: 100V)

2.2 Rated Current:3.0 A (额定电流: 3.0A)

2.3 Electric Pressure: Keeping 60 second in AC 1000V/1mA(耐压 1000V AC 持续 60 秒)

2.4 Insulation Resistance: 1000 MΩ Min. in DC 500V(绝缘阻抗最小 1000 兆欧)

2.5 Contact Resistance: 20 mΩ Max. (接触阻抗最大 20 毫欧)

2.6 Operating Temperature: -55°C~ +105°C(工作温度-55°C ~ +105°C)

2.7 Storage Temperature:-55°C+105°C(存储温度-55°C ~ +105°C)

3.0 Test Condition (测试条件) :

All tests shall be performed as bellow conditions unless otherwise specified.

(所有的测试都在下列条件下完成, 除非另有说明.)

3.1 Temperature range : +15°C to 35°C. (温度: +15°C至 35°C)

3.2 Humidity range: 25%to85%. (湿度: 25%至 85%)

3.3 Atmospheric Pressure : 860 to 1060 mber

(大气压力: 860 至 1060 兆帕)

4.0 Test Methods and Requirements (测试方法和要求) :

4.1 Examination of product (检查尺寸) :

Item (条目)	Test Description (测试内容)	Test Methods (测试方法)	Requirement (要求)
4.1.1	Examination of product Outward Appearance Structure (产品外形/尺寸检查)	Shall be confirm with eyes in accordance with each drawing. Shall be confirmed by using proper measuring instruments. (依照图面要求对产品目视检查, 再用测量工具, 按图面要求测量尺寸)	Outward appearance shall be good without such injurious problem structure shall be meet the design and dimensional requirements of drawing (外观良好, 无任何有害问题; 结构符合图面设计要求。)

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: DATE: <b>2023 / 09 / 12</b>	TITLE: <b>D-SUB CONNECTOR</b>	SHEET No. <b>1 of 6</b>
DOCUMENT NUMBER: <b>SP-DSBXX-00-00</b>	CREATED / REVISED BY: <b>QIUYU</b>	CHECKED BY: <b>JIANGZHAO</b>	APPROVED BY: <b>ROY</b>



# PRODUCT SPECIFICATION

## 4.2 Electrical performance (电气性能) :

Item (条目)	Test Description (测试内容)	Test Methods (测试方法)	Requirement (要求)
4.2.1	Contact Resistance (接触阻抗)	Mated connectors. Contact: measure by dry circuit, 20 mvolts maximum., 10mA Shell: measured by open circuit, 5 Volts maximum, 100mA. (ANSI/EIA-364-06A-83) (配对的连接器, 端子在回路施加直流最大 20mV 10mA 的电流; 铁壳在回路施加直流最大 5V 100mA 的电流; 再测量相对应端子或铁壳的电阻值)	Excluding Conductor Resistance :20 mΩ maximum. (接触阻抗最大不能超过 20 毫欧) After Test Contact Resistance: 30 mΩ maximum. (测试后接触阻抗最大不能超过 30 毫欧)
4.2.2	Insulation Resistance (绝缘阻抗)	Unmated connectors, applied DC 500 Volts for 1minute between adjacent terminal. (ANSI/EIA 364-21, Method 302) (未交配的连接器的, 在相邻的端子间施加 DC 500V 的电压测试 1 分钟; )	1000MΩ minimum (unmated) (最小为 1000 兆欧)
4.2.3	Dielectric Strength (耐电压)	Unmated connectors, applied AC 1000 Volts and leak current 1mA for 1minute between adjacent terminal . (ANSI/EIA 364-20,Method 301) (未交配的连接器的, 在相邻的端子间施加 AC 1000V 的电压与 1mA 漏电流测试 1 分钟;	No Breakdown (没有损坏)

## 4.3 Mechanical Performance (机械性能) :

Item (条目)	Test Description (测试内容)	Test Methods (测试方法)	Requirement (要求)
4.3.1	Connector Insertion Force (插入力)	Solder each of the plug and receptacle connector to the P.C.Board then do insertion/extraction along the axis 3 times at speed 25mm. After place each of the P.C.Board onto the push-on/pull-off machine to be measurement the insertion force. (ANSI/EIA-364-13) (将公、母座焊接在 PCB 板上, 再将 PCB 板置于插拔力实验机上, 然后以每分钟 25mm 的速度沿轴向插拔 3 之次后再测试其插入力。)	Insertion force (插入力) : 9PIN: 3.00kgf Max. 15PIN: 5.00kgf Max. 25PIN: 8.30kgf Max. 37PIN: 12.30kgf Max. 44PIN: 14.60kgf Max.

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: DATE: 2023 / 09 / 12	TITLE: <b>D-SUB CONNECTOR</b>	SHEET No. <b>2 of 6</b>
DOCUMENT NUMBER: <b>SP-DSBXX-00-00</b>	CREATED / REVISED BY: <b>QIUYU</b>	CHECKED BY: <b>JIANGZHAO</b>	APPROVED BY: <b>ROY</b>



# PRODUCT SPECIFICATION

4.3.2	Connector Withdrawal Force (拔出力)	Solder each of the plug and receptacle connector to the P.C.Board then do insertion/extraction along the axis 3 times at speed 25mm. After place each of the P.C.Board onto the push-on/pull-off machine to be measurement the insertion force. (ANSI/EIA-364-13) (将公、母座焊接在 PCB 板上，再将 PCB 板置于插拔力实验机上，然后以每分钟 25mm 的速度沿轴向插拔 3 之次后再测试其拔出力。)	Withdrawal Force (拔出力) : 9PIN: 0.33-2.0kgf . 15PIN: 0.45-3.3kgf. 25PIN: 0.78-5.6kgf. 37PIN: 1.10-8.2kgf. 44PIN: 1.25-9.8kgf.
4.3.3	Durability (寿命)	Solder each of the plug and receptacle connector to the P.C. Board,then place each of the P.C. Board onto the push-on/pull-off machine,then do insertion / Withdrawal 500 cycles along the axis at speed of 100 650 cycles per hours (ANSI/EIA 364-09) (将公、母座焊接在 PCB 上，再将 PCB 板置于耐插拔实验机上，然后以每小时 100±50 次的速度沿轴向插拔 500 次)	1) Insertion force (插入力) : 9PIN: 3.00kgf Max. 15PIN: 5.00kgf Max. 25PIN: 8.30kgf Max. 37PIN: 12.30kgf Max. 44PIN: 14.60kgf Max. 2) Withdrawal Force (拔出力) : 9PIN: 0.33kgf Min . 15PIN: 0.45kgf Min. 25PIN: 0.78kgf Min. 37PIN: 1.10kgf Min. 44PIN: 1.25kgf Min.
4.3.4	Terminal strength (端子强度)	Apply 5N gravity in the direction of the terminal of axis X,Y,Z for 10 seconds. After soldering and fixing the PC board properly, insert and withdraw 100 cycles. But the insertion force is 15N max. (在端子各方向加 5N 的重力 (X, Y, Z 方向) , 时间 10 秒。焊接并固定好印刷线路板后，插拔 100 次。但插力在 15N 以下)	There are no crack,no damage,electrical performance normal. (端子无裂痕，损伤等；电气电能正常。)

## 5.4 Environmental Performance (环境性能) :

Item (条目)	Test Description (测试内容)	Test Methods (测试方法)	Requirement (要求)													
5.4.1	Salt Spray (盐水喷雾)	Salt density:5% Temperature: 35± 2°C 盐水浓度：5% 温度：35± 2°C After keeping in above surrounding for Au 48 hours EIA-364-26	<table border="1"> <thead> <tr> <th>膜厚類型</th> <th>測試時間</th> <th>判定</th> </tr> </thead> <tbody> <tr> <td>D-SUB</td> <td></td> <td></td> </tr> <tr> <td>金屬件與非金屬/折彎處/切</td> <td>24H</td> <td rowspan="3">無氧化,銹蝕</td> </tr> <tr> <td>外部連接 port</td> <td>24H</td> </tr> <tr> <td>接觸端鍍金</td> <td>48H</td> </tr> </tbody> </table>	膜厚類型	測試時間	判定	D-SUB			金屬件與非金屬/折彎處/切	24H	無氧化,銹蝕	外部連接 port	24H	接觸端鍍金	48H
膜厚類型	測試時間	判定														
D-SUB																
金屬件與非金屬/折彎處/切	24H	無氧化,銹蝕														
外部連接 port	24H															
接觸端鍍金	48H															

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: DATE: 2023 / 09 / 12	TITLE: <b>D-SUB CONNECTOR</b>	SHEET No. <b>3 of 6</b>
DOCUMENT NUMBER: <b>SP-DSBXX-00-00</b>	CREATED / REVISED BY: <b>QIUYU</b>	CHECKED BY: <b>JIANGZHAO</b>	APPROVED BY: <b>ROY</b>



# PRODUCT SPECIFICATION

5.4.2	Withstand humidity (恒温恒湿)	<p>Solder each of the plug and receptacle connector to the P.C.Board ,then mate them together and exposed at temperature of <math>40^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> and humidity of 90-95% for a period of 96 hours. after removal from chamber, socket shall be returned at room condition for a period of 2 hours. the socket shall be capable of.</p> <p>(ANSI/EIA-364-31)</p> <p>(将公母座连接器各自焊接于 PCB 板上后将其对插再暴露在温度为 <math>40^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> ,湿度为 90-95%的恒温恒湿槽中放置 96 小时进行测试,完成测试后将插座取回在常温常湿下放置 2 小时后测定。)</p>	<p>1) Appearance: no damage (外观无损害)</p> <p>2) Contact resistance: 30 mΩ Max. (接触阻抗最大 30 毫欧)</p> <p>3) Insulation resistance: 1000 megaohms minimum. (绝缘阻抗最小 1000 兆欧)</p> <p>4) dielectric withstanding Voltage: AC 1000V No Breakdown. (耐电压 AC 1000V 测试无损坏。)</p>
5.4.3	Withstand heat (耐热)	<p>The connector shall be exposed in a hot chamber at temperature of <math>70 \pm 2^{\circ}\text{C}</math> for a period of 96 hours ,shall then be returned at room conditions for 2 hours. the socket shall be capable of satisfactory performance.</p> <p>(ANSI/EIA-364-17)</p> <p>(将连接器暴露在温度为 <math>70 \pm 2^{\circ}\text{C}</math> 的恒温恒湿槽中放置 96 小时后,再在室温下自然干燥 2 小时后,绝缘部分应无变形、裂痕、金属部分无变色。)</p>	<p>Appearance: no obvious damage on appearance and configuration (外观和构造无损坏)</p>
5.4.4	Withstand cold (耐寒)	<p>The connector shall be exposed in a cold chamber at temperature of <math>-40^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> for a period of 96hours, shall then be returned at room conditions for 2 hours, the socket shall be capable of satisfactory performance.</p> <p>(ANSI/EIA-364-17)</p> <p>(将连接器暴露在温度为 <math>-40 \pm 2^{\circ}\text{C}</math> 的恒温恒湿槽中放置 96 小时后,再在室温下自然干燥 2 小时后,绝缘部分应无变形、裂痕、金属部分无变色。)</p>	<p>Appearance: no obvious damage on appearance and configuration (外观和构造无损坏)</p>
5.4.5	Composite temperature/humidity cyclic (高低温循环)	<p>The socket shall be subjected to the condition described below, for a total of 5 cycles, first step - <math>25^{\circ}\text{C} \pm 2^{\circ}\text{C}/0.5\text{h}</math>, second step: <math>85^{\circ}\text{C} \pm 2^{\circ}\text{C}/0.5\text{h}</math> ,shall then be returned at room condition for a period of 2 hours .</p> <p>(ANSI/EIA-364-17)</p> <p>(在下列条件下持续进行 5 次循环测试,第一步: <math>-25^{\circ}\text{C} \pm 2^{\circ}\text{C}/0.5\text{h}</math>, 第二步: <math>85^{\circ}\text{C} \pm 2^{\circ}\text{C}/0.5\text{h}</math>, 常温常湿中放置 2 小时后测定。)</p>	<p>1) Appearance: no damage (外观无损害)</p> <p>2) Contact resistance: 30 mΩ Max. (接触阻抗最大 30 毫欧)</p> <p>3) Insulation resistance: 1000 megaohms minimum. (绝缘阻抗最小 1000 兆欧)</p> <p>4) dielectric withstanding Voltage: AC 1000V No Breakdown. (耐电压 AC 1000V 测试无损坏。)</p>

<u>REVISION:</u> <b>A</b>	<u>ECR/ECN INFORMATION:</u> <u>EC No:</u> <u>DATE:</u> 2023 / 09 / 12	<u>TITLE:</u>  <p style="text-align: center;"><b>D-SUB CONNECTOR</b></p>	<u>SHEET No.</u>  <p style="text-align: center;"><b>4 of 6</b></p>
<u>DOCUMENT NUMBER:</u> <b>SP-DSBXX-00-00</b>	<u>CREATED / REVISED BY:</u> <b>QIUYU</b>	<u>CHECKED BY:</u> <b>JIANGZHAO</b>	<u>APPROVED BY:</u> <b>ROY</b>



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5.4.6	Solderability (可焊性)	Immerse the solder pin of the connector in the solder bath at $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for $5 \pm 0.5$ seconds. After dipped the pin in the flux for 5 seconds. (ANSI/EIA-364-52) (将端子脚浸入助焊剂中 5 秒, 然后将端子脚浸入 $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 的锡炉中 $5 \pm 0.5$ 秒.)	Solder wetting: 95% of immersed area must show no voids, Pin holes. (粘锡面积: 锡附着的面积应超过浸入表面积的 95% 以上)
5.4.7	Resistance to soldering heat (耐焊接热)	Place the connector on the P.C.Board, then immerse the solder pin up to the surface of the board in the solder bath at $260^{\circ}\text{C} + 5^{\circ}\text{C}$ for 10 seconds. (ANSI/EIA-364-52) (将连接器置于 PCB 上, 然后将露出 PCB 板表面的 Pin 脚部分浸入 $260 + 5^{\circ}\text{C}$ 的锡炉中 10 秒)	1) Without deformation of case or excessive lossen. (塑胶不得有明显变形或损坏) 2) Electrical characteristics shall be satisfied. (电气特性必须符合规格)
5.4.8	Vibration (振动)	Solder each of plug and receptacle connector to the P.C.Board, then mate them together. place the mated connector firmly on the vibrator and apply the following condition shall be done. Amplitude: 1.52 mm P-P or 147m/s <sup>2</sup> {15G} Vibration frequency: 10Hz-55Hz-10Hz/minute. Direction: along three mutually perpendicular direction. Sweep time: two hours along each direction, a total six hours. Electrical load: DC 100ma current shall be flowed during the test. (ANSI/EIA-364-28) (将公母座各自焊接于 PCB 板上, 然后将其对插再固定于振动机上, 并施加下列条件) 振幅: 1.52mm; 振动频率: 一分钟内变换 10Hz-55Hz-10Hz; 方向: 沿著三个互相垂直的方向; 时间: 每个方向两小时, 共 6 小时; 电力负载: 施加 DC 100mA 电流测试。	1) No electrical discontinuity greater than 1 microsecond shall occur. (电气上不能有超过 1 微秒断讯的情形发生。) 2) Lossen, crack and breakage of the plastic part and other detrimental damage shall not be observed. (塑胶件不能有松脱破损或其它不利的损坏。) 3) Contact resistance: 30 mΩ Max. (接触阻抗最大 30 毫欧)

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DOCUMENT NUMBER: <b>SP-DSBXX-00-00</b>		CREATED / REVISED BY: <b>QIUYU</b>	CHECKED BY: <b>JIANGZHAO</b>	APPROVED BY: <b>ROY</b>



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## 6.0 Test Sequence (测试顺序):

Test Group (群组测试)		Sample Groups (群组样品)									
Test Item (项目)	Test Description (测试种类)	A	B	C	D	E	F	G	H	I	J
6.1.1	Examination of product(尺寸/外形检查)	1,9	1,9	1,5	1,7	1,3	1,3	1,9	1,3	1,3	1,5
6.2.1	Contact Resistance(接触阻抗)	3,7	2,6	2,4				2,6			2,4
6.2.2	Insulation Resistance(绝缘阻抗)		3,7		2,5			3,7			
6.2.3	Dielectric Withstanding Voltage(耐电压)		4,8		3,6			4,8			
6.3.1	Connector Insertion Force(插入力)	2,6									
6.3.2	Connector Withdrawal Force(拔出力)	4,8									
6.3.3	Durability(寿命)	5									
6.3.4	Terminal strength(端子强度)		5								
6.4.1	Salt Spray(盐水喷雾)			3							
6.4.2	Withstand humidity(恒温恒湿)				4						
6.4.3	Withstand heat(耐热)					2					
6.4.4	Withstand cold(耐寒)						2				
6.4.5	Composite temperature/humidity cyclic (高低温循环)							5			
6.4.6	Solderability(可焊性)								2		
6.4.7	Resistance to soldering heat(耐焊接热)									2	
6.4.8	Vibration(振动)										3
Number of Test Samples (Minimum)最小试样数量		5	5	5	5	5	5	5	5	5	5

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# 功能性测试报告

产品名称	HDB-44P 公半金锡15u 传统焊线式	产品料号	DSB97C-44BS4YN30	环境温度	26℃	试验日期	2023. 10. 16
样品数量	35PCS	组件料号		相对湿度	65%	委托单位	研发部
测试原因	<input type="checkbox"/> 新开发 <input type="checkbox"/> ECN <input type="checkbox"/> 品质异常 <input checked="" type="checkbox"/> 日常验证 <input type="checkbox"/> 其他					测试依据	测试规范
样品描述	ECN编号:	版本:		塑胶模穴号		端子模号	/
	产品简述:测试产品的可靠性			塑胶材质	PBT	端子材质	C2680
试验顺序	试验项目	试验仪器	试验方法与要求		试验记录		是否符合
1	接触电阻	小电流电阻测试仪	接触电阻 $\leq 20\text{ m}\Omega$		MAX: 15m $\Omega$ MIN: 5m $\Omega$		符合
2	绝缘电阻	绝缘电阻测试仪	施加DC500V于相邻端子之间; IR $\geq 1000\text{ M}\Omega$		均大于1000 M $\Omega$		符合
3	耐电压	耐电压测试仪	施加AC 1000V于相邻端子之间60S; 无击穿放电现象		无击穿		符合
4	插入力	插拔力机	将公头垂直匀速插入母头时最大力 $\leq 14.60\text{kgf}$		3.58kgf, 3.42kgf, 3.42kgf, 3.38kgf, 3.42kgf		符合
5	拔出力	插拔力机	将公头垂直匀速拔出母头时1.25-9.8kgf		3.72kgf, 3.68kgf, 3.61kgf, 3.69kgf, 3.74kgf		符合
6	沾锡性	锡炉	焊锡时间: 5 $\pm 0.5$ 秒焊锡温度: 245 $\pm 5^\circ\text{C}$		沾锡面积达95%以上无空焊、漏焊		符合
7	盐雾试验	盐雾测试仪	公母配插后, 放置于温度35 $\pm 2^\circ\text{C}$ 、盐水浓度5 $\pm 1\%$ 试验箱中测试: Au 48H/外部连接24H		外观无损伤		符合

核准: 贾文强

审核: ~

测试: 李莉清

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View additional material information including performance and processing data

The information presented on the UL Prospector datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

E321019

Component - Plastics

Guide Information

**GUANGDONG HTASO NEW MATERIALS TECHNOLOGY CO., LTD**

Tanwoling, Chizhukeng, Tangquan Forest Farm, Luoyang Town, Boluo County, Huizhou Guangdong CN

**PBT T301 30 GF**

Polybutylene Terephthalate (PBT), glass reinforced, furnished as pellets

Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
NC, RD, BK	0.4	V-0	4	1	140	140	140
ALL	0.8	V-0	3	1	140	140	140
	1.6	V-0	2	1	140	140	140
	3.0	V-0	1	1	140	140	140

Comparative Tracking Index (CTI): 2

Dielectric Strength (kV/mm): 30

High-Voltage Arc Tracking Rate (HVTR): -

Dimensional Stability (%): -

Inclined Plane Tracking (IPT) kV: -

Volume Resistivity (10<sup>x</sup> ohm-cm): 18

High Volt, Low Current Arc Resis (D495): -

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2013-03-28

Last Revised: 2018-02-12

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IEC and ISO Test Methods				
Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.4	V-0 (NC, RD, BK)
			0.8	V-0 (ALL)
			1.6	V-0 (ALL)
			3.0	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	0.4	960
			0.8	960
			1.6	960
			3.0	960
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	3.0	825
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	°C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m <sup>2</sup>	-	-
ISO Izod Impact	ISO 180	kJ/m <sup>2</sup>	-	-
ISO Charpy Impact	ISO 179-2	kJ/m <sup>2</sup>	-	-

