



规格书

SPECIFICATION

CUSTOMER NAME	客户名称:	
CUSTOMER NO.	客户编号:	
SERIES	系 列:	防水USB AF 插座
MODEL NO.	型 号:	XB-USB-A-4P series
DRAWING NO.	图 形 号:	Waterproof USB AF socket

If specification of this product meets your request, please confirm all the items of it and return to us with signature and stamp, it will be basis of our production and record. Thanks your cooperation in advance!

若此产品规格符合贵司要求，敬请确认此规格书内所有项目
并签名和盖章后回传给我司，以作我司产品制作之
依据和存档之用，多谢合作！

EXAMINE & APPROVAL 审批

APPROVE 接受			NOT APPROVE 不接受		
SIGNATURE 签署					
STAMP 盖章					
DATE 日期					

PREPARED BY.制表人	CHECKED BY.校对	APPROVED BY.审核	APPROVAL BY.批准
<div>研发部</div> <div>戴海明</div> <div>2022. 06. 08</div>	<div>品质部</div> <div>黄自清</div> <div>2022. 06. 08</div>	<div>工程部</div> <div>庞军</div> <div>2022. 06. 08</div>	<div>总经办</div> <div>吴量</div> <div>2022. 06. 08</div>

东莞市溪榜电子有限公司

Dong guan Xi Bang Electronics Co., Ltd

地址：广东省东莞市黄江镇合路工业区

**Address:He Lu Industrial Zone, Huangjiang Town
Dongguan City, Guangdong Province**

Tel: (0769)82055138/82056828

Fax:(0769)83663452

邮箱: admin@alspr.com switch@alspr.com

<http://www.alpsr.cn/> <http://www.alpsr.com/>

Dong Guan XB ElectronicsCo., Ltd

AccountNumber: 705540238

BankName: CitibankN.A.,HongKongBranch

Country/Region: Hong Kong

BankCode:006

BankAddress: 3GardenRoad, Central, Hong Kong

SWIFT/BIC: CITIHKHX (CITIHKHXXXX*If 11 characters are required)

MaIl: HK@ALPSR.CN XB@ALPSR.CN XB@ALPSR.COM

Quality core! Afterburner for Made in China!



规格书

SPECIFICATIONS

MODEL TYPE: 系列类型	USB AF 防水母座	编写 WRTN BY:	审核CHECKED BY:	批准APPROVED BY:
PART NO: 型号	XB-USB-A-4P series	谢冰芯	贺龙飞	庞东
VERSION版本:	A0			
DATE日期:	2024. 7. 6			

1. Scope适用范围

This product specification defines the product performance, tests and quality requirements for “USB Receptacle” series products. 本产品规范阐述了“防水USB 插座”系列产品的性能、测试和品质要求。

2. APPLICABLE DOCUMENTS 适用文件

In the event of conflict between the requirements of the specification and product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of the specification and the referenced documents, the specification shall take precedence. 如果产品规范和产品图发生冲突时，以产品图为准；如果产品规范和相关参考文件发生冲突时，以产品规范为准。

3. REQUIREMENTS 要求

3.1 Design And Construction 设计和结构

Product shall be conformed the design, construction and physical dimensions specified on the applicable product drawing.

产品需符合产品图面规定的设计，结构和尺寸要求。

3.2 Material and Plating 材料和电镀 Refer to respective Getwell product drawings for information on materials, plating and marking; Solder component shall be met lead-free soldering requirements and the connectors shall be RoHS compliant.

相关的材料、电镀及标记等信息请参照产品图面；焊接件需满足无铅焊接要求，产品需符合RoHS标准。

4. PRODUCT DESCRIPTION 产品描述

4.1 Rating: 工作能力

Rated Current 额定电流: 3A Max

INSULATION RESISTANCE :100M Ω MIN AT VOLTAGE 100VAC MIN

LOW LEVEL CONTACT RESISTANCE INITIAL 40m Ω MAX;

Operating Temperature Range 工作温度范围: -30 $^{\circ}$ C~+85 $^{\circ}$ C. Operating Relative Humidity 工作相对湿度: 95% Maximum (non-condensing).

4.2 Test Condition: 测试条件

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

除非另有要求，所有测试需在以下条件下进行。

Temperature range 温度范围: 25 $^{\circ}$ C \pm 10 $^{\circ}$ C. Relative Humidity range 相对湿度范围: 25% to 85%.

Atmospheric pressure 大气压强:

86kPa~106kPa(650mm ~ 800mmHg).

5. TEST REQUIREMENTS AND PROCEDURES SUMMARY 测试要求和程序概要

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified as belows.

产品的设计应满足如下电气，机械，及环境特性需求。

Test items 测试项目	Requirments 规格要求	Condition and Test method 条件和测试方法格
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5.1 Examination of product 产品检查

5.1	Visual Examination 目视检查	Appearance shall no physical damage. 外观无损伤。	Visual examination shall be performed by the unaided eye, corrected to normal vision. 目视检查应通过肉眼在正常视力下进行。
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SPECIFICATIONS			
Item 项目		Test condition 测试条件	Performance规格
6.1	Contact resistance 接触阻抗	Being measured at 1 KHz small current contact resistance meter. 在1kHz 小电流下测量	40mΩ max. 40毫欧以内。
6.2	绝缘阻抗测试 Insulation Resistance	Between adjacent contacts of unmated Insulation impedance 100MΩ min; 单独及配对的连接器，绝缘阻抗 100MΩ 最小	100MΩ min. 100兆欧以上。
6.3	耐高压测试 Dielectric Withstandin g Voltage Test	100V交流电下测试未配对连接器间相邻端子电路一分钟，不可跳火、不可有火花，不可超出泄漏额，不可击穿 Test voltage 100V AC for one minute. No flashover & spark over & excess leakage & breakdown	There shall be no breakdown. 无击穿现象出现。
7. Durability 耐焊性			
7.1	Soldering test 可焊性试验	The tip of the terminals shall be dipped 2mm in the solder bath at a temperature of 245±5℃ for 4±0.5 sec. 将端子顶部浸入焊锡池2mm深，温度 245±5℃时间4±0.5秒。	One new uniform coating of solder shall cover a minimum of 95% of the surface being immersed. 浸入部分95%以上表面被锡覆盖。
7.2	Resistance to Reflow Soldering Heat 耐回流焊热	Pre-Heat 预热150~170° C: 60~120sec Heat加热220+/-10° C: 60sec. Min. Heat Peak 峰值260+/-5° C: 10sec. Max. (See Figure 1)	No evidence deformation or fusion of housing. 无明显变形或塑胶熔化。
<div> <div>Figure 1</div> </div>			

7.3	Insertion & extraction force 插入&拔出力	Insertion force 插入力: 8N-35N Extraction force 拔出力: Initial 初始值: 8N-35N After Durability 耐久后: 8N-35N	Measured at a maximum speed of 12.5 mm per minute. 测试速度最大为12.5mm/分钟.
7.3	Durability 插拔耐久	No evidence of physical damage. 无明显损伤。	Measured up to 1500 cycles repeatedly at the rated of 200±10 每小时插拔200±10次, 重复插拔1500次以上。
7.4	Heat test 耐热试验	80±2℃ for 96 hours, test after keeping in normal condition for 30 minutes. 在80±2℃环境中放96小时, 再放在正常环境中, 30分钟后进行测试。	(1) Contact resistance: 50mΩ max 接触电阻: 50毫欧以下 (2) Insulation resistance: 100MΩ min.
SPECIFICATIONS			
Item 项目		Test condition 测试条件	Performance 规格
7.5	Humidity test 耐湿试验	40±2℃ 90-95%RH for 96 hours, test after, keeping in normal condition for 30 min. 在40±2℃ 90-95%RH 环境中放96小时, 再放在正常环境中30分钟后进行测试。	绝缘电阻: 100兆欧以上。 (3) There shall be no sign of damage mechanically and electrically.
7.6	Cold test 耐冷试验	At -40±3℃ for 96 hours, test after keeping in normal condition for 30 min. 在负40±3℃环境中放96小时, 再放在正常环境中30分钟后进行测试。	无任何迹象显示机械及电气性能损坏。
7.7	Temperature cycling test 温度交变试验	In FIG. For 5 cycles, test after keeping in normal condition for 30 min. 如图示之环境中, 循环5次后, 再置于正常环境中30分钟后进行测试。 	(1) Contact resistance: 50mΩ max. 接触电阻: 50毫欧以下。 (2) Insulation resistance: 100MΩ min. 绝缘电阻: 100兆欧以上。 (3) There shall be no sign of damage mechanically and electrically. 无任何迹象显示机械及电气性能损坏。

7.8	盐雾测试 Salt spray	对插产品测试环境：温度：35±2℃，盐水浓度：重量比 5±1%，时间：24小时。测试后常温水洗，干燥。 EIA-364-26B	外观：无损伤； 接触阻抗最大：50mΩ
		Mated connectors and expose to the following salt mist conditions. Upon Completion of the exposure period, salt deposits shall be removed by a gentle Wash or dip in running water, after which the specified measurement shall Be performed. NaCl solution: Concentration: 5±1% Spray time: 24 hours ambient Temperature: 35±2℃ EIA-364-26B	Appearance: no damage. Contact Resistance:50mΩ Max
7.9	The waterproof Level test of IPX8 IPX8防水等级测试 No water enters into enclosure through USB interface	The product is 1.5 meters away from the water surface for 30 minutes without water seepage. 产品距离水面1.5米，连续30分钟，不漏水	No water enters into enclosure through USB interface 水不会通过 USB 进入到产品壳内
When the amendment of this specification comes into necessity, the amendment must be made by the mutual consultation and agreement between manufacturer and customer			