

 XB Connectivity Switch Connector	Doc. No.	SP-A0162-03	Page No.	1/7
	Date Issued	2020-04-06	Prepared by	Josephine
	Date revised	2020-11-23	checked by	Jay
Product Specification	Rev. No.	01	Approved by	Mei Chen
Title: X46XX SERIES PRODUCT				

1. SCOPE (适用范围)

This specification covers the performance, tests and quality requirements for the **X46XX SERIES** product. 本规范涵盖了**X46XX**系列产品的性能、测试和质量要求。)

2. PRODUCT DESCRIPTION (产品描述)

DESCRIPTION (描述)	Part Number (料号)
PITCH 2.0mm MALE CONNECTOR	X46XX SERIES

3. APPLICABLE DOCUMENT (适用文件)

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence. (下列文件构成本规范的一部分，在此规定的范围内。本规范要求与产品图纸有冲突时，以产品图纸为准。如果本规范的要求与参考文件发生冲突，应以本规范为准。)

4. REQUIREMENTS (要求)

4.1. Design and Structure (设计和结构)

Product shall be of the design, structure and physical dimensions specified on the applicable product drawing. (产品的设计、结构和物理尺寸参考所适用的产品图纸)

4.2. Materials/ Finish (材料/表面处理)

4.2.1. Housing(塑壳): LCP, Nylon 6T, PBT, Nylon 9T, Nylon 66 or Nylon 46, flame retardant 94V-0 per UL-94; or other high performance resin.

4.2.2. Contact (端子): Brass, Phosphor Bronze or other equivalent copper alloys.

Finish(表面处理): See product drawing. (见产品图纸)

4.2.3. Harmful Material Should Be Compliant to XB Standards (Per QPNQ0817).
有害物質應符合星坤公司的標準(参考文件QPNQ0817)

4.3. Ratings (额定功率)

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Item (项目)	Standard (标准)
Rated Voltage (Maximum)额定电压	3A AC/DC
Rated Current (Maximum)额定电流	250V AC/DC
Operating temperature range工作温度范围	-40℃~+105℃ From -40 to +105 degree centigrade
Storage Temperature Range储存温度范围	5℃~+30℃ From 5 to +30 degree centigrade

5.0 TEST STANDARD (测试条件)

5.1 Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows (除另有说明外, 用以进行测量和测试的标准环境条件范围如下)

Ambient temperature(环境温度): 5℃ to 35℃

Normal humidity (正常湿度): 45% to 85%

Air pressure (气压): 86Kpa to 106Kpa

5.2 However if doubt arises on the decision based on the measured Values under the above-mentioned Conditions. The following conditions shall be employed:

(但是在对判定产生疑问时,按下述状态实施)

Temperature (温度): 20±2℃

Relative humidity (相对湿度): 65±5%

Air pressure (气压): 86Kpa to 106Kpa

6. PERFORMANCE AND TEST DESCRIPTION (性能和测试类型)

6.1 APPEARANCE (外观)

ITEM	DESCRIPTION(类型)	TEST CONDITION(测试条件)	REQUIREMENT(要求)
1	Examination of Product (产品检查)	Per EIA-364-18 Visual and functional inspection. (依照 EIA-364-18 外观和功能性检查)	Meet requirements of product drawing. No evidence of physical Damage. (符合图面要求, 无物理损伤)

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6.2 ELECTRICAL (电气)

ITEM	DESCRIPTION(类型)	TEST CONDITION (测试条件)	REQUIREMENT(要求)
1	Low level contact resistance. (接触电阻)	Per EIA-364-23 Subject mated connector with a max. voltage of 20mV and current of 100mA. (依照EIA-364-23 在配对连接器上施加最大20mV电压和100mA电流)	Initial $\leq 20M\Omega$ Max. Final = $30m\Omega$ Max.
2	Dielectric Withstanding Voltage(耐电压)	Per EIA-364-20 Subject mated connector with a. voltage of 300V AC for 1 minute between adjacent terminals. (依照EIA-364-20 在配对好的连接器的相邻两个端子上接通300V的交流电, 持续1分钟)	No Breakdown. leakage Current: 5mA Max. (无击穿, 漏电流: 5 mA 最大)
3	Insulation Resistance (绝缘电阻)	Per EIA-364-21 Subject mated connector with a. voltage of 500V DC between adjacent terminals. (依照 EIA-364-21, 在配对好的连接器的相邻两个端子上接通500V 的直流电)	1000MΩ Min.

6.3 MECHANICAL (机械)

ITEM	DESCRIPTION(类型)	TEST CONDITION (测试条件)	REQUIREMENT(要求)
1	Contact Retention Force (保持力)	Per EIA-364-37 The end of a post shall be pulled in a perpendicular to base housing at a constant speed of 25.4mm/ minute. (依照 EIA-364-37, 垂直与基壳方向上以 25.4mm/ minute 恒定的测试速度拉端子末端)	1.00N Min. per pin.
2	Durability (耐久)	Per EIA-364-09 Perform 100 cycle Mating/unmating at a rate of 25.4mm/ minute. (依照 EIA-364-09以25.4mm/ minute匀速速度循环插拔100次)	No evidence of physical damage 无物理损伤现象

6.4 ENVIRONMENTAL (环境)

ITEM	DESCRIPTION(类型)	TEST CONDITION(测试条件)	REQUIREMENT(要求)
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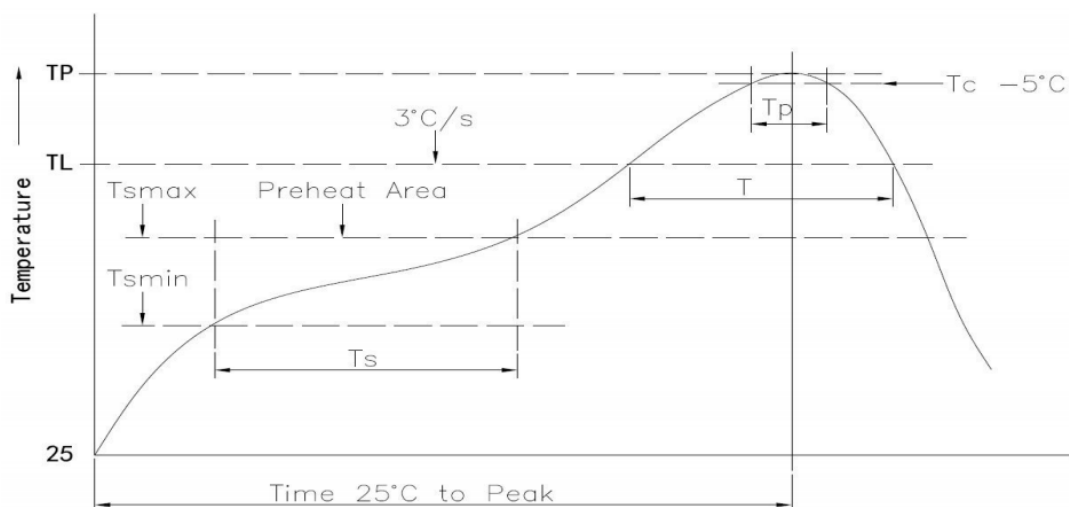
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1	Thermal Shock (冷热冲击)	Per EIA-364-32, Mated connectors: expose to 5cycles of: (依照EIA-364-32, 执行如下条件 的5次循环) Temperature°C Duration(Minutes) 温度 持续时间(分) -40°C +0/-5 30 Min. +25°C +10/-5 5 Max. +105°C +3/-0 30 Min. +25°C +10/-5 5 Max.	No evidence of physical damage 无物理损伤现象
2	Temperature Life (高温寿命测试)	Per EIA-364-17 Test Condition: 105°C, 96hours. (依照EIA-364-17, 测试条件: 105°C, 96小时。)	No evidence of physical damage 无物理损伤现象
3	Humidity Test (湿度测试)	Per EIA-364-31 Test Condition: 40±2°C, 90-95% RH, 96 hrs. (依照 EIA-364-31, 测试条件: 40±2°C, 90-95% RH, 96小时)	No evidence of physical damage 无物理损伤现象
4	Salt Spray (盐雾)	Per EIA-364-26 Test Condition: Temperature: 35±2°C; Atmosphere: 5% salt-solution. Duration: 16 hours exposure for gold area; 8 hours exposure for tin area. (依照 EIA-364-26 测试条件: 35±2°C, 锡区域: 8 小时; 金区域: 16 小时, 5% 盐溶液。)	No evidence of physical damage 无物理损伤现象
5	Solder ability Test (可焊性测试)	Per EIA-364-71 Test Temperature: 245±3°C, 3~5sec. (依照EIA-364-71 测试温度: 245±3°C, 3~5秒)	After exposure, the contact solder tails shall have a minimum of 95% solder coverage. (风干后, 端子焊锡覆盖率至少95%。)
6	Resistance to Soldering Heat (焊接耐热性)	Per EIA- 364- 56 Soldering iron method Solder Temp.: 380±10°C/3~5 seconds. Reflow(Only suitable for the materials with high temperature resistance.): Please see recommended profile. Pre Heat: 150°C~200°C/60 to 120 seconds Heat: 217 °C;60-150 seconds Peak Temp.: 260±5°C/5~15 seconds. (依照EIA-364-56, 手工焊接温度: 380 ±10°C/3~5秒, 回流焊(适用于耐高温材料): 预加热: 150°C~200°C / 60 -120 秒; 加热: 217 ° C;60-150 秒; 最高温度: 260±5°C /5~15 秒)	No evidence of physical damage 无物理损伤现象

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7. INFRARED REFLOW CONDITION (LEAD-FREE) 红外回流焊条件（无铅）：



Profile Feature (特性)	Pb-Free Assembly (无铅组装)
Preheat & Soak (预热&浸泡) Temperature min (Ts min) (最低温度) Temperature max (Ts max) (最高温度) Time (Ts min to Ts max) (ts) (时间)	150°C~200°C/60 to 120 seconds
Average ramp-up rate (Ts max to Tp) (平均升温率)	3 °C/second max.
Liquidous temperature (TL) (液化温度) Time at liquidous (TL) (液化时间)	217 °C 60-150 seconds
Peak package body temperature (Tp)* (封装最高温度)	260±5°C/5~15 seconds
Time (tp)** within 5 °C of the specified classification temperature (Tc) (在指定等级温度5°C内的时间)	20~40seconds