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	Date Issued	2025-07-28	Prepared by	AShu
	Date revised	2025-07-28	checked by	SangShen
Product Specification	Rev. No.	A0	Approved by	Willy
Title: RJ45 Series Connector				

1. SCOPE（适用范围）

This specification covers the performance, tests and quality requirements for the **RJ Series Connector**. (本规范涵盖了盖 **RJ 系列** 连接器的性能、测试和质量要求。)

2. PRODUCT DESCRIPTION（产品描述）

DESCRIPTION（描述）	Part Number（料号）
RJ45连接器, 三层RJ45+双USB2.01000BASE	XA07U2009

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。)

- ANSI X3.263: Information Technology - Fiber Distributed Data Interface (FDDI) -Token Ring Twisted Pair Physical Layer Medium Dependent (TP-PMD). (信息技术——光纤分布式数据接口 (FDDI) 与使用双绞线作为物理层媒介(TP-PMD)的令牌网)
- EIA/TIA-568-B.2: Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted Pair Cabling Components. (商业建筑电讯电缆标准——第 2 部分：平衡式双绞线线缆组件)
- IEEE 802.3: Local Area Networks: Carrier Sense Multiple Access With Collision Detection (CSMA/CD) Access Method and Physical Layer Specification. (局域网：载波监听多路访问/冲突检测 (CSMA/CD) 访问方式和物理层规格)
- EIA-364: Electrical Connector/Socket Test Procedures Including Environmental Classifications. (包含环境分级的电子连接器和插孔的测试方法)
- FCC Part 68: Connection of Terminal Equipment to the Telephone, Connector Specifications. (连接电话的终端设备，连接器规格)

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)

Materials used in the structure of product shall be as specified on the applicable product drawing. (产品结构中使用的材料参考所适用的产品图纸)

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4.3. Ratings （额定功率）

Item （项目）	Standard （标准）
Rated Voltage (Maximum)额定电压	125V AC
Rated Current (Maximum)额定电流	1.5A
Operating temperature range工作温度范围	-40℃～+85℃ From -40 to +85 degree centigrade

5. 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	Appearance （外观）	Visual. （目视）	Should not have any flaw Scratch discoloration and crushed （无任何裂痕、刮伤、 污染和变形）

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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)	Subject mated contacts assembled housing to 20 mV maximum 100mA. Measured from plug side to PCB side. (组装好的端子施以最大电压 20mV 最大电流 100mA 从接触处到 PCB 端测试) EIA-364-23B	20 mΩ Max. (Initial 初始)
2	Insulation Resistance. (绝缘电阻)	Mated connectors with 500±10%VDC between adjacent contacts or ground. (对组装好的独立端子或接地物之间施以 500±10% VDC 的电压测试) EIA-364-21C	500 MΩ min.
3	Dielectric withstanding Voltage. (耐电压)	Mated connectors with 1000±5% VDC for 1minute 0.5mA between adjacent contacts or ground. (对组装好的独立端子或接地物之间施加交流 1000 VAC 0.5mA 电流 1 分钟) EIA-364-20B	Without damaged such as arcing or breakdown etc. (无击穿、闪烁现象不能有如跳电, 击穿, 破裂损坏)

6.3 MECHANICAL (机械)

ITEM	DESCRIPTION (类型)	TEST CONDITION (测试条件)	REQUIREMENT (要求)
1	Connector Mating Force (插入力)	Mating connectors at maximum rate 25±3mm Per minute and measure the force. (测试组装好值连接器在每分钟 25±3mm 的速度下之插入力) EIA-364-13B	23N Max
2	Durability (耐久)	Operation Speed :10 to 20 cycle /min. (测试速度: 每分钟 10 到 20 个循环) Durability Cycles:750 Cycles (测试次数: 750 Cycles Min) EIA-364-9C	No damage Termination Resistance:50mΩMAX (测试后无损坏, 最大接触阻抗 50mΩ)

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3	Plug Retention Force (Plug 保持力)	Put the connector and plug in a vertical position, hang a 77.5N object at the bottom of the plug for 60s±5s. (测试扣合好之连接器与 PLUG 垂直放置, PLUG 底部施以 0.1kg/pin Min 力, 自然吊重 60s±5s.)	0.1kg/pin Min
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6.4 ENVIRONMENTAL (环境)

ITEM	DESCRIPTION (类型)	TEST CONDITION (测试条件)	REQUIREMENT (要求)
1	Solder ability (可焊性)	Immerse the solder pin of the connector in the solder bath at 245℃±5℃ for 5±0.5 seconds . After dipped the pin in the flux of RAM or R type 5 seconds . (将端子脚浸入 RAM 或 R type 的助焊剂中 5-9 秒, 然后将端子脚浸入 245℃±5℃ 的锡炉中 5±0.5 秒)	More than 95% of the dipped surface shall be wet with solder. (锡附着的面积应超过浸入表面的 95% 以上) Mechanical characteristics shall be satisfied. (机械特性必须符合规格)
2	Resistance to Wave Soldering Heat (耐焊性)	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 Solder Temp. (将连接器置于 PCB 板上, 然后将露出 PCB 板面的 PIN 脚部分浸入锡炉中, 260±5℃, 5±0.5sec.) EIA-364-56C	Without deformation of case or excessive lossen. (塑胶不能有明显的变形或损坏)
3	Moisture Resistance (耐潮湿)	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 30 minute before measurements are made: 样品按下列条件进行耐潮湿试验, 试验后在正常温度和湿度条件下放置 30 分钟后测定 (1) Temperature 温度: 40±2℃ (2) Relative humidity 相对湿度: 90 to 95% (3) Time 时间: 96 hours Water drops shall be removed. 擦除水珠	Contact resistance 接触电阻: 50 mΩ Max. Insulation resistance 绝缘电阻: 500 MΩ Min. There shall be no defects in appearance or in the mechanical functions. (无论是在外观上还是在机械功能上, 都不得有任何缺陷)

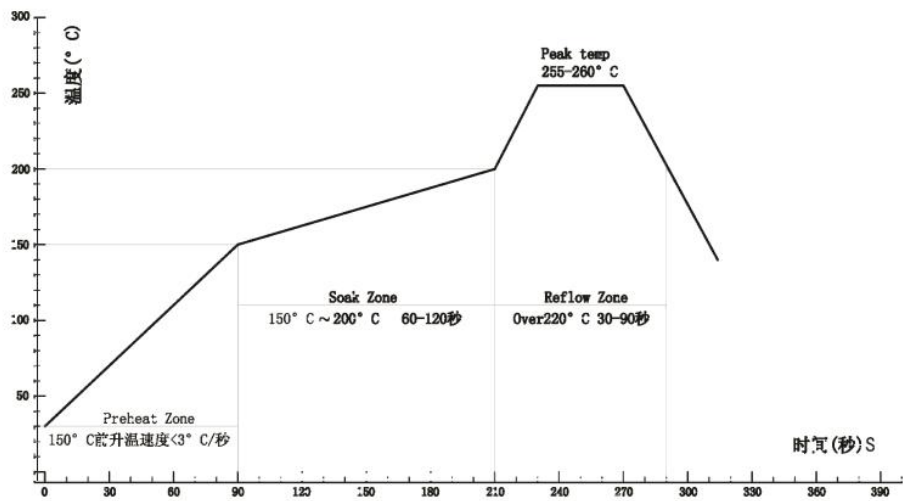
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4	TLow Temperature Resistance （耐低温）	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 30 minute before measurements are made: 样品按下列条件进行耐低温试验,试验后在正常温度和湿度条件下放置 30 分钟后测定 (1)Temperature 温度:-40±2℃ (2)Time 时间: 96 hours Water drops shall be removed.擦除水珠	Contact resistance 接触电阻:50 mΩ Max. Insulation resistance 绝缘电阻：500 MΩ Min. There shall be no defects in appearance or in the mechanical functions .（无论是在外观上还是在机械功能上，都不得有任何缺陷）
5	Salt Spray Test （盐雾试验）	Subject mated and unmated connectors should betested according to the condition listed below（连接器如下条件下测试）:Temperature（温度）:(35±2)℃ Humidity（湿度）:(95- 98)%(R.H) PH（浓度）:6.5-7.2 Duration（持续时间）： It shall be subjected to standard atmospheric condition 1 h. after removing the salt deposits.(物体在移出盐水槽后应置于标准大气条件中一个小时后再进行测量动作) It should meet the contact resistance.Non-contact area(5±1)%salt-solution(35±2)℃ for 8 hours.（待测品非接触部位测试条件：温度：(35±2)℃，盐水密度：(5±1)%，时间：24 小时） EIA-364-26B	Appearance shall no rust, oxidation, corrosion and other undesirable phenomena.（外观须无生锈、氧化、腐蚀等不良现象） Contact resistance 接 触 电 阻: 50 mΩ Max.

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7. SOLDERING 焊接:

- 7.1. Wave soldering（波峰焊）：DIP Suggestions solder temperature at 260℃ max.5 seconds . DIP 型推荐焊接焊锡温度为 260℃最多 5 秒
- 7.2. Hand soldering（手焊）：Use a soldering iron of 30 watts controlled at 350℃ approximately 5 seconds. while applying solder.
使用 30W 烙铁控制温度在 350℃,焊接时长约 5 秒
- 7.3. Reflow soldering profile(回炉焊):When the maximum temperature of the reflow furnace is 260 °C and the temperature is 260 °c. 10 seconds MAX. (reference) SMT 型回焊炉最高温度为 260℃，温度为 260℃时，最长时间不超过 10 秒（如图）



8. PACKAGING 包装

Please refer to the packing drawing. 请参考产品包装图纸

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01	New Release	2025/07/28	AShu