

	Doc. No.	SP-A0162-11	Page No.	1/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
Product Specification	Rev. No.	01	Approved by	Mei Chen
Title: DDR5 288P 0.85 Pitch Connector				

1. SCOPE (适用范围)

This specification covers the performance, tests and quality requirements for the **DDR5 288P 0.85 Pitch Connector**. (本规范涵盖了 **DDR5 288P 0.85 Pitch** 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)
DDR5 连接品 SMT双塑焊脚TAB板锁型 ,Key=1.425mm,黑色NY9T,镀金15u "	X9414WVS-XXTX-9TV15
DDR5 连接品 SMT双塑焊脚TAB板锁型 ,Key=1.425mm,黑色NY9T,镀金30u "	X9414WVS-XXTX-9TV30

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)

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)

	Doc. No.	SP-A0162-11	Page No.	2/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

4.3. Ratings （ 额定功率 ）

Item （项目）	Standard （标准）
Rated Voltage (Maximum)额定电压	25V AC
Rated Current (Maximum)额定电流	0.75A
Operating temperature range工作温度范围	-55℃～+105℃ From -55 to +105 degree centigrade
Storage Temperature Range储存温度范围	-55℃～+105℃ From -55 to +105 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

	Doc. No.	SP-A0162-11	Page No.	3/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

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	Initial examination of Product. （产品初步检验）	EIA-364-18 Visual and dimensional (C of C) inspection per product drawing. （根据产品图纸进行目检和尺寸检验）	Meets requirements of product drawing. （符合产品图纸要求）
	Final examination of product.(产品最终检验)	EIA-364-18. Visual inspection. （目视检验）	Meets visual requirements. （符合外观要求）

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）	EIA-364-23. Subject specimens mated with ussed module boards to 100milliamperes maximum and 20millivolts maximum open circuit oltage. Measure all 288 positions. （配对连接器，开路最大电压为 20mV 最大电流为 100mA 的电路下条件下测试，测试 288 个位置）	20 milliohms maximum initial. （初始电阻 20 mΩ 最大） ΔR 20 milliohms maximum. （测试后 20 mΩ 最大变化量）
2	Insulation resistance. （绝缘电阻）	EIA-364-21 500 volts DC, 2 minute hold. Test between adjacent contacts of mounted specimens. . （在相互绝缘的端子之间及端子与金属外壳之间施加电流 DC500V，持续时间 2 分钟）	1 megohms minimum. （1 兆欧最小）
3	Withstanding Voltage. （耐电压）	EIA-364-20, Condition I 500 volts AC at sea level. Test between adjacent contacts of unmated and mounted specimens. （未配对的连接器，在相互绝缘的端子之间及端子与金属外壳之间施加电流 DC500V，持续时间 1 分钟）	One minute hold with no breddown or flashover. Current leakage: 0.5Ma Max.. （保持 1 分钟，无击穿或闪断现象，漏电流 0.5ma 最大）

	Doc. No.	SP-A0162-11	Page No.	4/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

4	Current carrying capacity. (载电流能力)	EIA 364-70 Connect 6 consecutive contacts on 1 side of specimen in series and load with 0.75 ampere. Place a thermocouple through a small hole in the housing as close to the contact as possible. (在样品一侧串联 6 个连续触点，负载 0.75A，将热电穿过塑胶上的一个小孔，尽量靠近触点)	30°C maximum temperature rise at specified current. (额定电流下最高升温 30 °C)
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6.3 MECHANICAL （机械）

ITEM	DESCRIPTION （类型）	TEST CONDITION （测试条件）	REQUIREMENT （要求）
1	Reseating （修整）	Manually unplug and plug module card 3 times with latches enabled. (手动插入/拔出连接器 3 次进行，需能锁卡)	See Note. (看到需注意)
2	Solderability, lead free (可焊性 (无铅))	JESD22-B-102, Condition C, Flux type-ROL0 Unmated connector. Steam age for 8 hours +/-15 min. Dip solder tails into solder pot at a temperature of 260±5°C for 5±0.5 seconds. (焊剂类型 ROL0，未配对连接器，将焊脚浸入 260±5°C 的锡炉中 5±0.5 秒取出)	Wet Solder Coverage: 95% minimum. No physical damage; contact gap within manufacturer's tolerance. (锡覆盖范围最少 95%，无物理损伤，接触间隙在公差范围内)
3	Vibration, random (随机震动)	EIA-364-28 Module thickness (模块厚) : 1.27 +0/-0.10mm Module weight (模块重) : 53 ± 2 g Duration (时间) : 10 minutes per axis for all 3axes on all samples. (共 3 个轴向，每个轴向 10 分钟) Frequency range (频率范围) : 5 to 500 Hz. 5 Hz @ 0.01 g2/Hz to 20 Hz @ 0.02g2/Hz (slope up) (斜率上升) . 20 Hz to 500 Hz @ 0.02 g2/Hz (flat). (平) Input acceleration is 3.13 g RMS; Random control limit tolerance: ± 3dB. (加速度 3.13g，随机控制极限容差±3dB)	No discontinuities of 1 microsecond or longer duration. See Note. (瞬断 1 微秒最大，或更长，看到注意)

	Doc. No.	SP-A0162-11	Page No.	5/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

4	Mechanical shock. (机械冲击)	EIA-364-27 Module thickness (模块厚) :1.27 +0/-0.10mm Module weight (模块重) : 53 ± 2 g Profile (形状) : Trapezoidal shock of 50 g ±10% (梯形冲击 50 g ±10%) Duration (时间) : 11 ms. Velocity change (速度变化) : 170 inches/sec ± 10%. (170 英寸/秒±10%) Quantity (数量) : Three drops in each of 6 directions are applied to each of the three samples. (3 个样品 6 个方向各 3 次)	No discontinuities of 1 microsec ond or longer duration. See Note. (瞬断 1 微秒最大，或更长，看到注意)
5	Durability (耐久)	EIA-364-9 Mate and unmate specimens with 1.37 mm thick steel gauge for 25 cycles at a rate of 25.4mm/minute. (以 1. 37mm 厚钢规，以 25. 4mm/分钟的速度进行 25 次插拔循环)	Rating of 25 cycles as determined by EIA-TS-364-1000.1.(25 次耐久插拔循环)
6	Mating force (插入力)	EIA-364-13 Measure force necessary to mate Specimens with a 1.37 mm steel gauge at a rate of 25.4 mm per minute. (将试样与 1. 37mm 厚钢规，以 25. 4mm/分钟的速度配对插入所需的力)	106.8 N maximum. (106. 8N 最大)
7	Unmating force (拔出力)	EIA-364-13 Axial Tension/Compression machine such as an Instron Tensile Tester. Rate: 12.7 mm/min Use 1.17mm steel gauge. (使用轴向拉力试验机，将试样与 1. 17mm 厚钢规，以 12. 7mm/分钟的速度配对拔出所需的力)	19.77N minimum. (19. 77N 最小)
8	Contact retention force (端子保持力)	EIA-364-29 Apply specified load to contact tail and hold for 6 seconds. (在端子脚施加规定的载荷并保持 6 秒)	3 N minimum per pin. No movement of contact more than 0.38 mm. (每 PIN 3N 最小，端子移动不超过 0. 38mm)

	Doc. No.	SP-A0162-11	Page No.	6/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

9	Boardlock retention force (锁板保持力)	EIA-364-29 Apply specified load to contact tail and hold for 6 seconds. (对板锁施加指定载荷并保存持 6 秒)	13.3 N minimum per boardlock.Maximum movement of 0.38mm. (每板 13.3N 最小，端子移动不超过 0.38mm)
10	Connector insertion force into PCB (连接器插入 PCB 的力)	EIA-364-05 Press socket onto board at a rate of 12.7 mm per minute. (以 12.7mm/分钟的速度插入 PCB, , 所需的力)	35 N maximum

6.4 ENVIRONMENTAL (环境)

ITEM	DESCRIPTION (类型)	TEST CONDITION (测试条件)	REQUIREMENT (要求)
1	Resistance to Reflow soldering heat (回流焊耐热)	Test connector on PCB. Reflow condition: Comply with JEDEC standard (J-STD-020C) See Figure 3. (测试连接器焊板，回流焊条件：符合 JEDEC 标准，见图 3)	No physical damage shall Occur . (无物理损坏)
2	Thermal Shock (热冲击)	EIA-364-32, Method A, Table 2, Test Condition I. -55 and 85℃, perform 5 cycles in mated condition. (测试条件 1, -55 和 85° C, 在配合条件下进行 5 次循环)	See Note. (看到需注意)
3	Cyclic Temperature & Humidity (温湿度循环)	EIA-364-31, Method III. Subject mated and mounted specimens to 24 cycles between 25℃ at 80% RH and 65℃ at 50%RH. Ramp times shall be 0.5 hour with 1 hour dwell time. (样品在 25° C (80% RH) 和 65° C (50%RH) 之间进行 24 次插拔，转换时间 0.5 小时，停留时间 1 小时)	See Note. (看到需注意)

	Doc. No.	SP-A0162-11	Page No.	7/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

4	Salt Spray（盐雾）	Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 1 hour. (EIA-364-26B)（配对连接器置于 35±2° C 和 5±1%的盐水中 48 小时，测试后用水冲洗样品并在室温下恢复 1 小时）	No detrimental corrosion allowed in contact area and base metal exposed.(接触区及外露区不可有腐蚀现像)
5	Temperature Life（温度寿命） Temperature Life (precondition)（温度寿命（前提条件））	EIA-364-17, Method A, Test condition 4. Subject mated and mounted specimens to 105°C for 120 hours.（配对连接器置于温度 105° C 下 120 小时）） Subject mated and mounted specimens to 105°C for 72 hours.（配对连接器置于温度 105° C 下 72 小时））	See Note.（看到需注意）
6	Mixed flowing gas（混合气体）	EIA-364-65, Class IIA. 30u” Au version (field life 7 years): Five specimens unmated for 160 hours, mated for 80 hours. Five specimens mated for 240 hours.Store module cards at laboratory ambient during the unmated portion of the exposure.（镀 30u” 金（野外寿命 7 年）：5 个未配对样品放置 160 小时，插拔 80 小时。5 个配对样品放置 240 小时） 15u” Au version (field life 5 years): Five specimens unmated for 112 hours, mated for 56 hours. Five specimens mated for 168 hours.（镀 15u” 金（野外寿命 5 年）：5 个未配对样品放置 112 小时，插拔 56 小时。5 个配对样品放置 168 小时） Store module cards at laboratory ambient during the unmated portion of the exposure.（未完成测试时，应将模拟卡存放于实验室中）	See Note.（看到需注意）

XKLB-星坤 Connectivity	Doc. No.	SP-A0162-11	Page No.	8/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

7	Thermal Disturbance （热扰动）	Subject mated and mounted specimens to 10 cycles between 15±3℃ and 85±3℃ as measured on the part. Ramps shall be a minimum of 2℃ per minute. Dwell times shall ensure that the contacts reach the temperature extreme (5 minutes minimum). Humidity not controlled. （将配对样品，在 15±3° C 和 85±3° C 之间进行循环 10 次，转换时间至少 2° C/分钟，停留时间应确保触点达到极端温（至少 5 分钟）。湿度不限。）	See Note. （看到需注意）
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NOTE: Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.

（产品需满足外观要求，无物理损坏，并满足图 2 所示产品确认和再确认测试顺序中规定的附加测试要求）

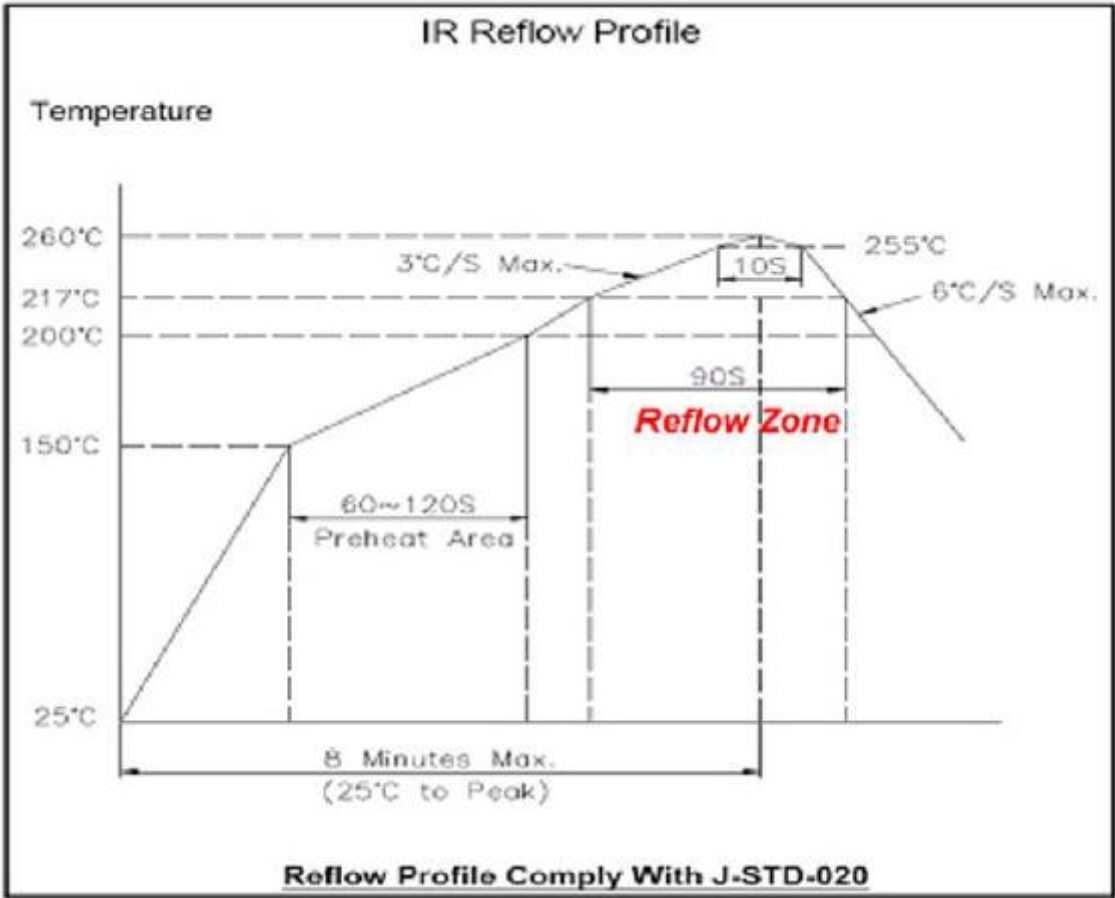


Figure 1 Recommended temperature profile of infrared reflow.

（图 1 为红外回流焊推荐温度曲线图）

	Doc. No.	SP-A0162-11	Page No.	9/10
	Date Issued	2022-04-06	Prepared by	Josephine
	Date revised	2022-11-23	checked by	Jay
	Rev. No.	01	Approved by	Mei Chen
Product Specification				
Title: DDR5 288P 0.85 Pitch Connector				

7. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE 产品确认和再确认测试顺序：

Test or Examination	Test Group									
	1	2	3	4	5	6	7	8	9	10
	Test Sequence (a)									
Initial examination of product (产品初步检验)	1	1	1	1	1	1	1	1	1	1
Low level contact resistance. (接触电阻)	2, 7, 9, 13	2,4,6, 8, 10	2,5,7, 9,11							2, 4
Insulation resistance. (绝缘电阻)	3, 10									
withstanding voltage. (耐电压)	4, 11									
Current carrying capacity. (载电流能力)								2		
Reseating. (修整)										
Solderability, lead free. (可焊性(无铅))	12		10							
Vibration, random. (随机震动)		7								
Mechanical shock. (机械冲击)		9								
Durability (耐久)	5(b)	3(b)	3(b)							
Mating Force (插入力)				2						
Unmating Force (拔出力)				3						
Contact retention force. (保持力)						3				
Boardlock retention force. (锁板保持力)						2				
Connector insertion force into PCB.(连接器插入 PCB 的力)			4				2			
Resistance to Reflow soldering heat (回流焊耐热)									2	
Thermal shock. (热冲击)	6									
Cyclic Temperature & Humidity. (温湿度循环)	8									
Temperature life (温度寿命)		5(c)	4(c)							2
Mixed flowing gas (混合气体)			6							
Salt Spray (盐雾)			8							
Thermal disturbance (热扰动)										3
Final examination of product .(产品终检)	14	11	12	4	3	4	3	3	3	5
Test specimens (试验样品数)	5	5	5	5	5	5	5	5	5	5

NOTE (a) Numbers indicate sequence in which test are performed. (a) 表示测试顺序

