

	DESCRIPTION	DATE
A1	NEW FORM	2022/04/01

## 1. SCOPE

### 1.1. CONTENTS

This specification covers the performance, tests and quality requirements for the DDR S.O DIMM DDR5 right angle type socket.

## 2. APPLICABLE DOCUMENT

The following CHUNXIN documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. 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.

## 3. REQUIREMENTS

### 3.1. DESIGN AND CONSTRUCTION

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

### 3.2. MATERIALS

- A. Housing : Thermoplastic, UL 94v-0.
- B. Terminal : Copper Alloy, Gold plated over nickel under plated overall.
- C. Metal Latch : Stainless Steel, matte tin plated all over with nickel under plated.

### 3.3. RATINGS

- A. Voltage Rating : 25V AC
- B. Current Rating : 0.5A
- C. Contact Resistance : 60mΩ Max
- D. Withstanding Voltage : 250V AC
- E. Temperature : -55°C ~ +85°C



### 3.4. PERFORMANCE REQUIREMENT AND TEST DESCRIPTION

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in "4. TEST METHOD AND PERFORMANCE".

## 4. TEST METHOD AND PERFORMANCE

Unless otherwise specified, all tests and measurement should be performed under the following conditions in accordance with EIA-364.

### 4.1. TEST CONDITION

Temperature : 15°C ~35°C

Humidity : 45% ~ 75% RH.

Atmospheric Pressure : 86 ~ 106 kPa

<b>4-2 APPEARANCE CHECK</b>			
<b>TEST ITEM</b>		<b>REQUIREMENT</b>	<b>PROCEDURE</b>
4-2	Examination of Product	Meets requirements of product drawing. No physical damage.	Visual inspection.
<b>4-3 ELECTRICAL REQUIREMENT</b>			
4-3-1	LLCR Contact Resistance	Mobile 60 mΩ The resistance change, which is defined as the change in LLCR between the reading after stress and the initial reading shall not exceed 10 mΩ	EIA364-23B Subject mated contacts assembled in housing to 20 mV maximum voltage at 100 mA maximum current
4-3-2	Dielectric withstanding Voltage	One minute hold with no Break down or flash over.	EIA-364-20, Condition I. 250 volts ac at sea level.
4-3-3	Insulation Resistance	1 MΩ minimum	EIA-364 -21, 500Vdc±10%. 2 minutes
4-3-4	Temperature Rising	30° Max. Under loaded rating current.	Contact series-wired, apply test current of loaded rating current to the circuit, and measure the temperature rising by probing on contacts, after the temperature becomes stabilized deduct ambient temperature from the



			measured value.
<b>4-4 MECHANICAL REQUIREMENT</b>			
4-4-1	Insertion Force ( Module to Connector )	59.8 N Maximum (with 1.3 mm maximum PCB thickness)	EIA-364-13 Axial Tension/Compression machine such as an Instron Tensile Tester. Rate: 25.4 mm/min.
4-4-2	Durability (mating/unmating)	LLCR & No evidence of physical damage	EIA-364-09, Perform 25 cycles plug and unplug cycles at a rate of 25.4 mm/minute
4-4-3	Durability (preconditioning)	No evidence of physical damage	EIA-364-09, perform 5 plug/unplug cycles
4-4-4	Shock Unpackaged	No electrical discontinuities of $\geq 1$ microsecond and no evidence of physical damage	EIA-364 -27, Half sine shock 50 g, $\pm 10\%$ Duration 11 ms Three drops in each of six directions are applied to each of the three samples
4-4-5	Vibration Unpackaged	No electrical discontinuities of $\geq 1$ microsecond and no evidence of physical damage	EIA-364 -28, Random profile: 5 Hz @ 0.01 g <sup>2</sup> /Hz to 20 Hz @ 0.02 g <sup>2</sup> /Hz (slope up) 20 Hz to 500 Hz @ 0.02 g <sup>2</sup> /Hz (flat) Input acceleration is 3.13 g RMS 10 minutes per axis for all 3 axes on all samples Random control limit tolerance is $\pm 3$ dB
4-4-6	Thermal Shock	No evidence of physical damage	EIA-364-32, Method A, Table 2, Test Condition 1, -55°C to 85°C, perform 5 cycles in mated condition
<b>4-5 ENVIRONMENTAL REQUIREMENTS</b>			
4-5-1	Solderability - Lead Free	95% coverage minimum	JESD22-B102; Condition C, 8 hours $\pm$ 15 minutes steam precondition.
4-5-2	Lead Free Process ability	No physical damage to connector per visual inspection at 24 inches. No magnification	260 °C, 5 seconds.



4-5-3	Temperature Life	No evidence of physical damage	EIA-364-17, Method A (without electrical load) 60°C for 5 years. Test Temperature and Test Duration per EIA 364-1000 105°C For 72hours.
4-5-4	Temperature Life (preconditioning)	No evidence of physical damage	60°C for 5 years. Test Temperature and Test Duration per EIA 364-1000 105°C For 36hours.
4-5-5	Cyclic Temperature & Humidity	No evidence of physical damage	Mated Connector 25~65°C, 90~95% RH, 10 Cycles.
4-5-6	Thermal Disturbance	No evidence of physical damage	EIA-364-1000, Cycle the connector between 15 °C ± 3°C and 85°C ± 3°C, as measured on the part. Ramps should be a minimum of 2°C/minute. Dwell times should ensure that the contacts reach the temperature extremes (a minimum of 5 minutes), humidity is not controlled; perform 10 cycles in mated condition.
4-5-7	Mixed Flowing Gas	No evidence of physical damage	EIA-364-65, Class IIA, Option 4. Expose all specimens in the mated condition for the total mixed flowing gas exposure duration per EIA 364-1000, Table 4.
4-5-8	Reseating	No evidence of physical damage	Manually unplug/plug the connector. Perform 3 cycles
4-5-9	Salt Spray	Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 48hours (Contact plated Au GF for 24hours) . After test, rinse the sample with water and recondition the room temperature for 1 hour.	No detrimental corrosion allowed in contact area and base metal exposed.



Note 1 : Shall meet visual requirements, show no physical damage, and meet requirement of additional tests as specified in the test sequence in 4.6 TEST SEQUENCE

Note 2 : Resistance to soldering process is indicated on notes of customer drawing. Select the appropriate test type which drawing notes are matched with.

**4.6. TEST SEQUENCE**

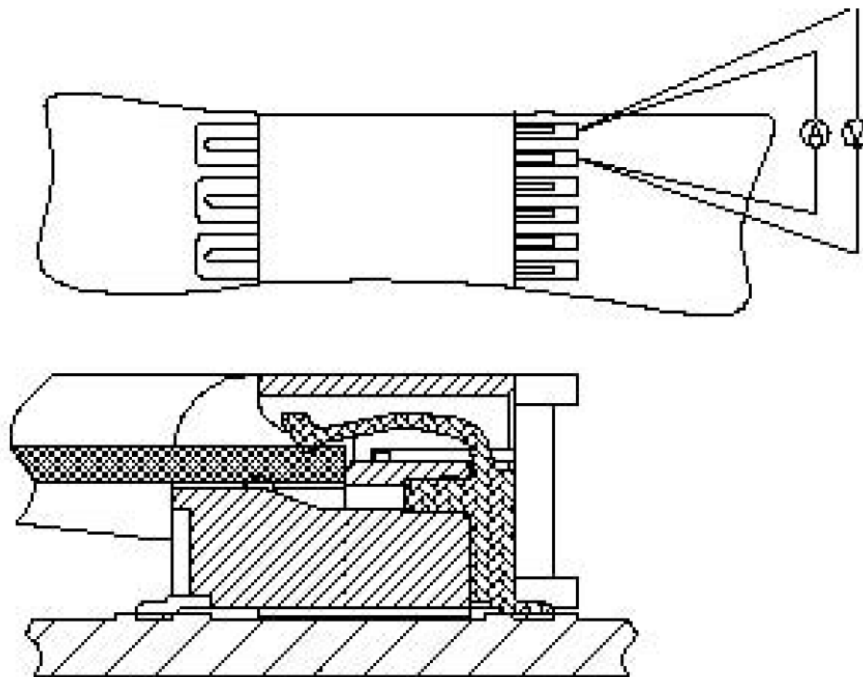
Test or Examination		Test Group									
		A	B	C	D	E	F	G	H	I	J
		Test Sequence (a)									
1	Examination of Product	1,8	1,10	1,8	1,12	1,10	1,9	1,3	1,3	1,3	1,5
2	LLCR (Contact Resistance)	2,5,7	2,5,7 ,9	2,5,7	2,5,7 ,9,11	2,5,7 ,9	2,6				2,4
3	Dielectric withstanding Voltage						8				
4	Insulation Resistance						7				
5	Temperature Rising							2			
6	Insertion force						3,5				
7	Durability						4				
8	Solder ability								2		
9	Resistance to Soldering Heat									2	
10	Durability (preconditioning)	3	3	3	3	3					
11	Temperature Life	4									
12	Temperature Life (preconditioning)				4	4					
13	Mechanical Shock			6							
14	Vibration			4							
15	Humidity Temperature Cycling		6								
16	Thermal Shock		4								



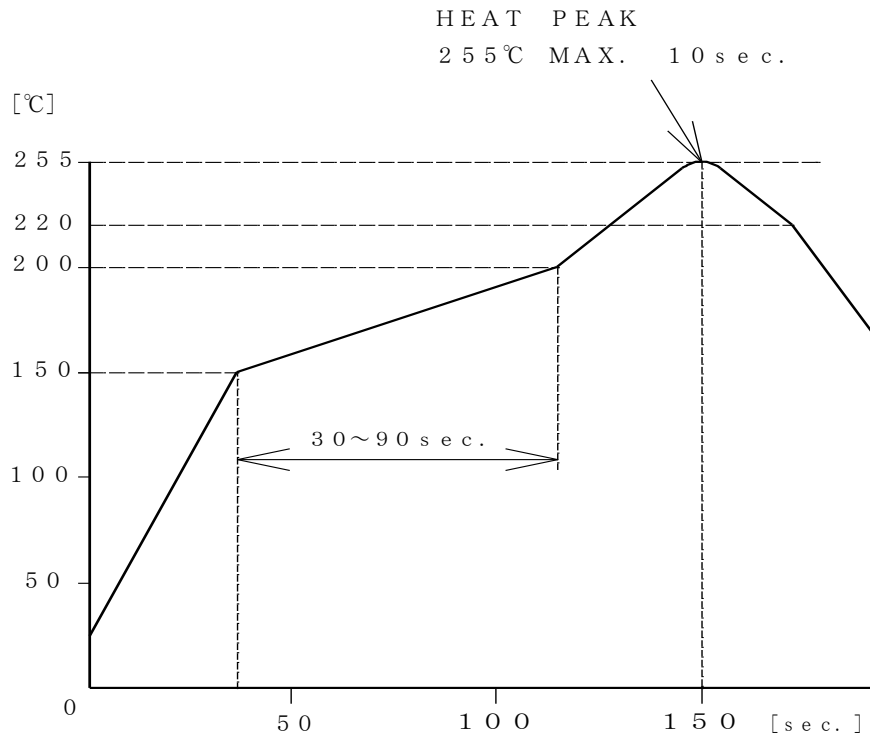
Test or Examination		Test Group									
		A	B	C	D	E	F	G	H	I	J
		Test Sequence (a)									
17	Thermal Disturbance				8	6					
18	Mixed Flowing Gas				6						
19	Reseating	6	8		10	8					
20	Salt Spray										3

NOTE :

- (a) Numbers indicate sequence in which tests are performed, each group 5pcs samples.
- (b) Group C should do 10pcs samples, 5pcs for LLCR and 5pcs for electrical discontinuities.



**Low Level Contact Resistance**



**Resistance to Flow Solder Heat**