



DDR3 S.O.DIMM Socket 204 Positions

1. Scope :

1. 1 Contents:

This specification covers the requirements for product performance, test methods and quality assurance provisions of DDR3 S.O.DIMM Socket 204 positions of Gold Plating.

This specification applies product which is including name of DDR3 SODIMM socket and written number of 108-78493 in customer drawing.

2. Applicable Documents:

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.

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2. 1 AMP Specifications:

A. 109-5000 Test Specification, General Requirements for Test Methods

B. 501-60051 Test Report (4mm Height)

501-60047 Test Report (5.2 mm Height)

501-60052 Test Report (8 mm Height)

501-60049 Test Report (9.2 mm Height)

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. Contact:

Copper Alloy

Finish:

Contact area: Gold Plated

Tine area: Gold Plated

Under-plate: Nickel Plated

B. Housing:

Thermo plastic UL94V-0

C. Latch

Stainless Steel

D. Floating Peg

Copper Alloy, Tin Plated

3.3 Ratings :

- A. Voltage Rating: 25 VAC
- B. Current Rating: 0.5 A
- C. Temperature Rating: -55 °C to 85 °C

3.4 Performance Requirements and Test Descriptions:

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Fig. 1.

All tests shall be performed in the room temperature, unless otherwise specified.

3.5 Test Requirements and Procedures Summary

Para.	Test Items	Requirements	Procedures
3.5.1	Examination of Product	Meets requirements of product drawing	Visual inspection No physical damage
Electrical Requirements			
3.5.2	Termination Resistance (Low Level)	50 mΩ Max. (Initial) 60 mΩ Max. (Final)	Subject mated contacts assembled in housing to closed circuit current of 10 mA Max. at open circuit voltage of 20mV Max. obtain resistance value by dividing the measured reading into two. Fig. 3 IEC 60512-2-2
3.5.3	Dielectric withstanding Voltage	No creeping discharge nor flashover shall occur. Current leakage : 0.5 mA Max.	0.25 kVAC for 1 minute. Test between adjacent circuits of unmated connectors. IEC 60512-4-1
3.5.4	Insulation Resistance	250MΩ Min.(Initial) 50MΩ Min.(Final)	Impressed voltage 500 V DC. Test between adjacent circuits of unmated connectors. IEC 60512-3-1, IEC 364-21C

Fig1-1

Para.	Test Items	Requirements	Procedures
Mechanical Requirements			
3.5.5	Vibration (Low Frequency)	No electrical discontinuity greater than 0.1 μ sec. shall occur. 60 m Ω Max. (Final)	Subject mated connectors to 10-55-10 Hz traversed in 1 minute at 1.52 mm amplitude 2 hours each of 3 mutually perpendicular planes. 100 mA applied. MIL-STD-202, 201 IEC 60512-6-4, EIA 364-28D
3.5.6	Physical Shock	No electrical discontinuity greater than 0.1 μ sec. shall occur. 60 m Ω Max. (Final)	Accelerated Velocity: 490 m/s ² (50 G) Waveform: Half sine Duration: 11 m sec. Number of Drops: 3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops. MIL-STD-202, 213 Condition A IEC 6512-6-3, EIA 364-27B
3.5.7	P.C.Board Mating Force	204 Pos.: 50N (5.10kgf) Max.	Operation Speed: 100 mm/min. Measure the force required to mate connectors.(In this test, the force required to turn PCB before it engages on lacking, is excluded.) IEC 60512-13-1
3.5.8	Durability (Repeated Mate/ Unmating)	60 m Ω Max. (Final)	Repeated insertion and extraction of P.C.B to and from the connector with the turns to lock it and then unlock it for 50 cycles. IEC 6512-9-1, EIA 364-9C
3.5.9	Solderability	Wet Solder Coverage : 95 % Min.	Solder Temperature: 245 \pm 5 $^{\circ}$ C Immersion Duration: 5 \pm 0.5 seconds Flux: Alpha 100 EIA 638, JESD22-B102D

Fig1-2

Para.	Test Items	Requirements	Procedures
Environmental Requirements			
3.5.10	Resistance to Reflow Soldering Heat	No physical damage shall occur	Test connector on P.C.Board Reflow condition is applied to Tyco electronics test specification 109-201 OR Apply to JEDEC standard (J-STD-020C)
3.5.11	Thermal Shock	60 mΩ Max. (Final)	Mated connector −55°C / 30 min., 85°C / 30 min. Making this a cycle, repeat 5 cycles. IEC 60512-11-4, EIA 364-32C
3.5.12	Humidity-Temperature Cycling	Insulation resistance 50 MΩ Min. (final) 60 mΩ Max. (Final)	Mated connector, 25~65°C, 90~95 % R. H. 5 cycles Cold shock −10°C performed IEC 60512-11-3, IEC 60512-11-12 EIA 364-31B
3.5.13	Salt Spray	60 mΩ Max. (Final)	Subject mated connectors to 5 % salt concentration for 48 hours : EIA 364-26B Condition B
3.5.14	Industrial Gas (SO ₂)	60 mΩ Max. (Final)	Mated connector SO ₂ Gas : 10 ppm, 95 % R. H. 25°C, 24 hours IEC 60512-11-7, EIA 364-65A
3.5.15	Temperature Life (Heat Aging)	60 mΩ Max. (Final)	Mated connector 85°C, Duration :2 days IEC 60512-11-9, EIA364-17B

Fig1-3

4. Product Qualification Test Sequence

Test Examination	Test Group											
	1	2(b)	3(b)	4	5	6	7	8	9	10	11	12
	Test Sequence (a)											
Examination of Product	1,7	1,5	1,5	1,3	1,5	1,3	1,3	1,5	1,5	1,5	1,5	1,5
Termination Resistance (Low Level)		2,4	2,4		2,4			2,4	2,4	2,4	2,4	2,4
Dielectric withstanding Voltage	3,6											
Insulation Resistance	2,5											
Vibration (Low Frequency)		3										
Physical Shock			3									
Connector Mating Force				2								
Durability (Repeated Mate/Unmating)					3							
Solderability						2						
Resistance to Reflow Soldering Heat							2					
Thermal Shock								3				
Temperature Humidity Cycling	4											3
Salt Spray									3			
Industrial SO ₂ Gas										3		
Temperature Life (Heat Aging)											3	

Fig. 2

- (a) Numbers indicate sequence in which the tests are performed.
- (b) Discontinuities shall nit take place in this test group, during tests.

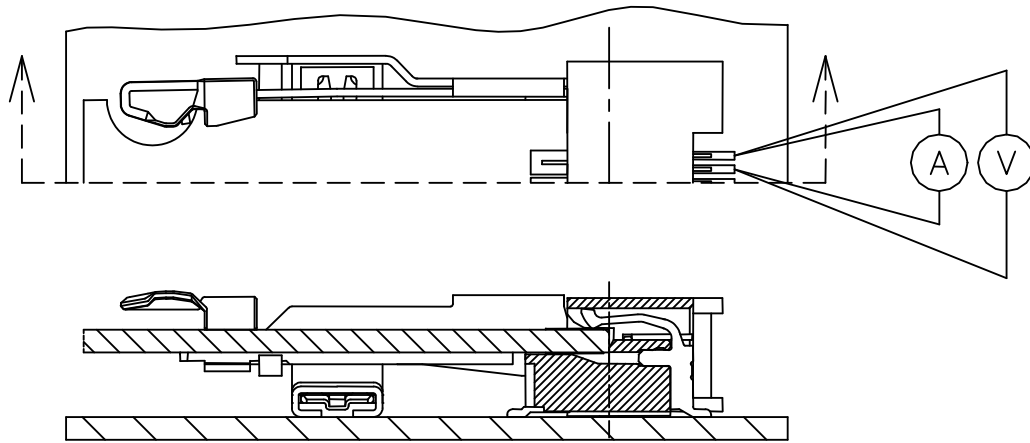


Fig.3 Termination Resistance Mesuring Points.

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