SPEC. NO.: PS-50722-XXXXX-XXX **REVISION:** E

PRODUCT NAME: 0.8mm EDGE CARD SOCKET SMT D/R S/T TYPE

PRODUCT NO: 50722、52722、52702 SERIES

APPROVED:	CHECKED:	PREPARED:
LUTAOTAO	BRAVE	BRAVE
DATE: 2021/05/17	DATE: 2021/05/17	DATE: 2021/05/17

1 Revision History

Rev.	ECN #	Revision Description	Approved	Date
O	ECN-1712320	NEW SPEC	JINTAO	2017/12/18
A	ECN-1810XXX	ADD 52702 series	JINTAO	2018/09/28
B	ECN-1905XXX	Release Voltage to 80V	JINTAO	2018/09/28
C	ECN-2003396	Release Operating Temperature-55℃ to +125℃	JINTAO	2020/03/25
D	ECN-001942	更新文件內版次	LUTAOTAO	2021/01/11
E	ECN-003628	插拔力規格變更為 per pin 定義；Group 4&5 溫度變更為-55℃ & +125℃	LUTAOTAO	2021/05/17

2 SCOPE

This specification covers performance, tests and quality requirements for 0.8mm EDGE CARD SOCKET SMT D/R S/T TYPE.

3 APPLICABLE DOCUMENTS

EIA-364 ELECTRONICS INDUSTRIES ASSOCIATION

4 REQUIREMENTS

4.1 Design and Construction

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

4.2 Materials and Finish

4.2.1 Contact: High performance copper alloy (Phosphor Bronze)
Finish: (a) Contact Area: Refer to the drawing
(b) Under plate: Refer to the drawing
(c) Solder area: Refer to the drawing
4.2.2 Housing: Thermoplastic or Thermoplastic High Temp., UL94V-0
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4.3 Ratings

4.3.1 Working Voltage Less than 36 Volts AC (per pin)
4.3.2 Voltage: 80 Volts AC (per pin)
4.3.3 Current: 1.5 Amperes (per pin)
4.3.4 Operating Temperature : -55℃ to +125℃

5 Performance

5.1. Test Requirements and Procedures Summary

Item	Requirement	Standard
Examination of Product	Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.

ELECTRICAL		
Item	**Requirement**	**Standard**
Low-signal Level Contact Resistance	40 m Ω Max.(initial)per contact 20 m Ω Max. Change allowed	Mate connectors, measure by dry circuit, 20mV Max., 100mA Max. (EIA-364-23)
Insulation Resistance	1000 M Ω Min.	Unmated connectors, apply 500 V DC between adjacent terminals. (EIA-364-21)
Dielectric Withstanding Voltage	No discharge, flashover or breakdown. Current leakage: 1 mA max.	500V AC Min. at sea level for 1 minute. Test between adjacent contacts of unmated connectors. (EIA-364-20)
Temperature rise	30℃ Max. Change allowed	Mate connector: measure the temperature rise at rated current until temperature stable. The ambient condition is still air at 25℃ (EIA-364-70,METHOD1,CONDITION1)
MECHANICAL		
Durability	50 cycles	The sample should be mounted in the tester and fully mated and unmated the number of cycles specified at the rate of 25.4 ± 3mm/min.
Mating / Unmating Forces	Mating Force: 50gf/per pin Max. Unmating Force: 3gf/per pin Min.	Mate applicable PCB and Operation Speed：25.4 ± 3 mm/minute.. Measure the force required to mate/Unmate connector. (EIA-364-13)
Contact Retention Force	0.98 N〔0.1kgf〕Min.	Operation Speed：25.4 ± 3 mm/minute. Measure the contact retention force with Tensile strength tester.
Vibration (Random)	1 μs Max.	The electrical load condition shall be 100 mA maximum for all contacts. Subject to a simple harmonic motion having amplitude of 0.76mm (1.52mm maximum total excursion) in frequency

		between the limits of 10 and 55 Hz. The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute. This motion shall be applied for 2 hours in each of three mutually perpendicular directions. (EIA-364-28 Condition I) (EIA-364-28, test conditions V, test condition letter B)
Shock (Mechanical)	1 μs Max.	Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts. (EIA-364-27, test condition A)

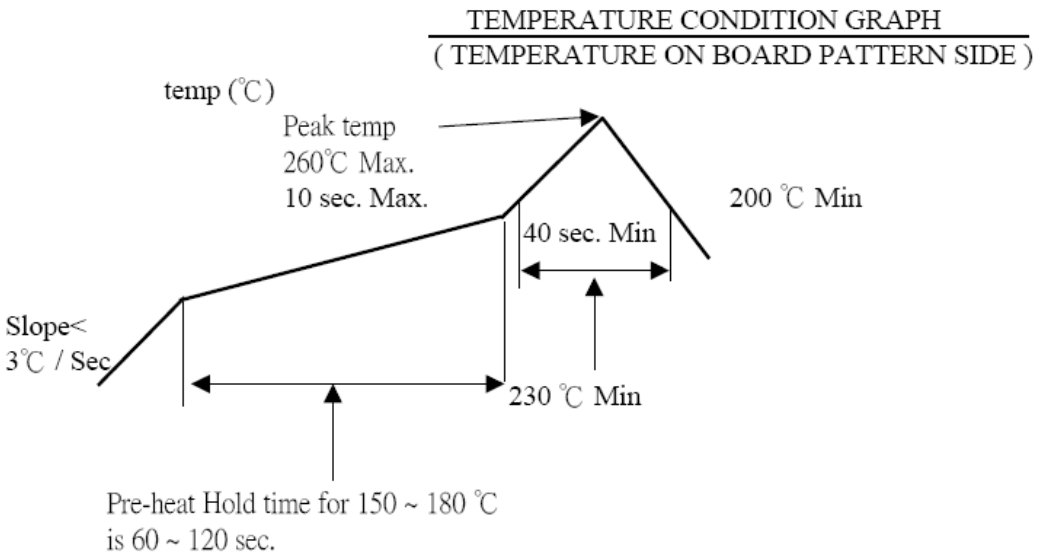
ENVIRONMENTAL		
Resistance to **Hand** Soldering Heat	Appearance: No damage	T≧350℃, 3sec at least.
Resistance to **Reflow** Soldering Heat	See Product Qualification and Test Sequence Group 8 **(Lead Free)**	Pre Heat：150℃~180℃, 60~120sec. Heat：230℃ Min., 40sec Min. Peak Temp.：260℃Max, 10sec Max.
Thermal Shock	See Product Qualification and Test Sequence Group 4	Mate module and subject to follow condition for 5 cycles. 1 cycles: -55 +0/-3 ℃, 30 minutes +125 +3/-0 ℃, 30 minutes (EIA-364-32, test condition I)
Humidity	See Product Qualification and Test Sequence Group 4	Mated Connector 40℃+2/-2℃, 90~95% RH, 96 hours. (EIA-364-31,Condition A, Method II)
Temperature life	See Product Qualification and Test Sequence Group 5	Subject mated connectors to temperature life at 125℃ for 96 hours. (EIA-364-17, Test condition A)
Salt Spray	See Product Qualification and Test Sequence Group 6	Subject mated/unmated connectors to 5% salt-solution concentration, 35℃ (I) Gold plating ＜3u" for 8 hours. (II) 3u"≤Gold plating＜5u" for 48 hours

		(III) Gold plating≥5u" for 96 hours. (EIA-364-26)
Solder ability	Tin plating: Solder able area shall have minimum of 95% solder coverage. Gold plating: Solder able area shall have minimum of 75% solder coverage	And then into solder bath, Temperature at 245 ±5℃, for 4-5 sec. (EIA-364-52)

Note. Flowing Mixed Gas shell be conduct by customer request.

6 INFRARED REFLOW CONDITION

6.1. Lead-free Process



7 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test or Examination	Test Group									
	1	2	3	4	5	6	7	8	9	10
	Test Sequence									
Examination of Product				1、7	1、6	1、4				
Low-signal Level Contact Resistance		1、5	1、4	2、10	2、9	2、5				
Insulation Resistance				3、9	3、8					
Dielectric Withstanding Voltage				4、8	4、7					
Temperature rise	1									
Mating / Unmating Forces		2、4								
Durability		3								
Contact Retention Force	2									
Vibration(Random)			2							
Shock (Mechanical)			3							
Thermal Shock				5						
Humidity				6						
Temperature life					5					
Salt Spray						3				
Solder ability							1			
Resistance to Soldering Heat								1		
Sample Size	2	4	4	4	4	4	2	4		