



SPECIFICATION

宏致電子股份有限公司

桃園縣中壢市東園路13號

No.13, Dongyuan Rd., Jhongli City,

Taoyuan County 320, Taiwan (R.O.C.)

TEL: +886-3-463-2808

FAX: +886-3-463-1800

SPEC. NO.: PS-91960-XXXXX REVISION: C

PRODUCT NAME: 1.27 mm SPI FLASH SOCKET SMT S/T TYPE

PRODUCT NO: 91960-XXXXX

PREPARED: WARLES DATE: 2015/4/27	CHECKED: SEAN DATE: 2015/4/27	APPROVED: JASON DATE: 2015/4/27
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TITLE: 1.27MM SPI FLASH SOCKET SMT S/T TYPE

RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **2** OF **8**

1	REVISION HISTORY	3
2	SCOPE	4
3	APPLICABLE DOCUMENTS.....	4
4	REQUIREMENTS	4
5	PERFORMANCE	5
6	INFRARED REFLOW CONDITION	7
7	PRODUCT QUALIFICATION AND TEST SEQUENCE	8
8	CONNECTOR OPERATION.....	9



Aces P/N: **91960 series**

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RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **3** OF **8**

1 Revision History

Rev.	ECN #	Revision Description	Approved	Date
1	ECN-0609018	NEW PRODUCT SPEC	Jason	2006/9/20
O	ECN-0611076	RELEASE REV. O	Jason	2006/11/15
A	ECN-0611115	MODIFY OPERATING TEMPERATURE	Jason	2006/11/23
B	ECN-1401277	ADD WORKING VOLTAGE	Jason	2014/1/18
C	ECN-1504395	ADD CONNECTOR OPERATION	Jason	2015/4/27

TITLE: **1.27MM SPI FLASH SOCKET SMT S/T TYPE**

RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **4** OF **8**

2 SCOPE

This specification covers performance, tests and quality requirements for **1.27 mm pitch SPI FLASH SOCKET**.

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: **Tin plated (Lead Free)**
(b) Under plate: **Nickel-plated all over**
(c) Solder area: **Tin plated (Lead Free)**

4.2.2 Housing: Thermoplastic or Thermoplastic High Temp., UL94V-0

4.3 Ratings

4.3.1 Working Voltage Less than **36 Volts AC (per pin)**

4.3.2 Voltage: **50 Volts AC (per pin)**

4.3.3 Current: **1 Amperes (per pin)**

4.3.4 Operating Temperature : **-40°C to +85°C**

TITLE: **1.27MM SPI FLASH SOCKET SMT S/T TYPE**

RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **5** OF **8**

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	120 m Ω Max.(initial)per contact 30 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	500 VAC Min. at sea level for 1 minute. No discharge, flashover or breakdown. Current leakage: 0.5 mA max.	Test between adjacent contacts of unmated connectors. (EIA-364-20)
Temperature rise	30°C Max. Change allowed	Mate connector: measure the temperature rise at rated current after: 1.0 A /Power contact. The temperature rise above ambient shall not exceed 30°C The ambient condition is still air at 25°C (EIA-364-70 METHOD 2)
MECHANICAL		
Durability	25 cycles.	The sample should be mounted in the tester and fully mated and unmated the number of cycles. Operation method: manual

TITLE: **1.27MM SPI FLASH SOCKET SMT S/T TYPE**

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ECN No: 1504395

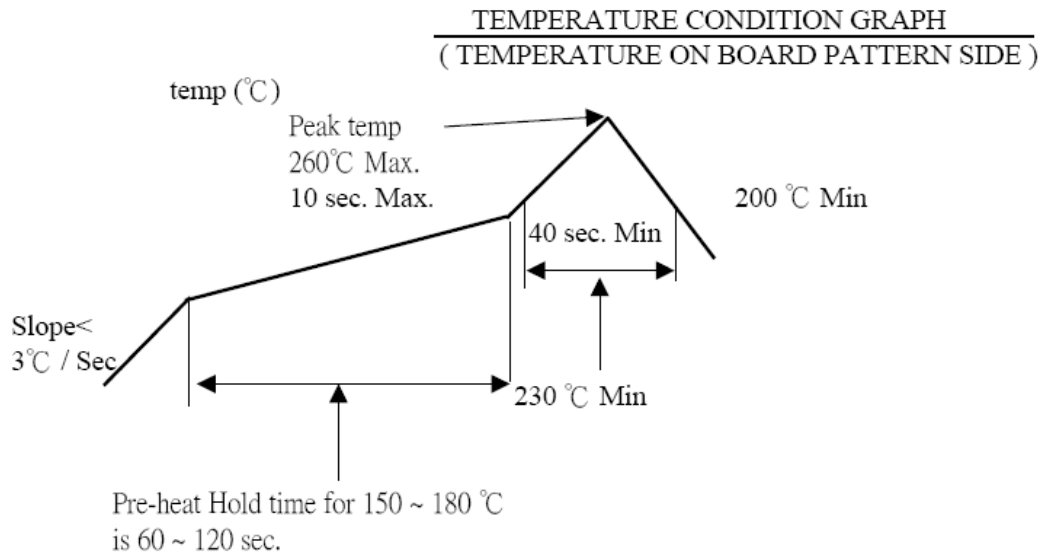
PAGE: **6** OF **8**

MECHANICAL		
Item	Requirement	Standard
Terminal / Housing Retention Force	0.2kgf MIN.	Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the terminal assembled in the housing.
Vibration (Random)	1 μs Max.	15 minutes in each of 3 mutually perpendicular directions, Both mating halves should be rigidly fixed so as not to contribute to the relative motion of one contact against another (EIA-364-28, test conditions V, test condition letter A)
ENVIRONMENTAL		
Resistance to Reflow Soldering Heat	See Product Qualification and Test Sequence Group 8 (Lead Free)	Pre Heat : 150°C~180°C, 60~90sec. Heat : 230 °C Min., 40sec Min. Peak Temp. : 260°C Max, 10sec Max.
Thermal Shock	See Product Qualification and Test Sequence Group 3	Mate module and subject to follow condition for 5 cycles. 1 cycles: -55 +0/-3 °C, 30 minutes +85 +3/-0 °C, 30 minutes (EIA-364-32, test condition A)
Humidity	See Product Qualification and Test Sequence Group 3	Mated Connector 40°C±2°C, 90~95% RH, for 96 hours. Refer to Method II . (EIA-364-31, Test condition A)
Temperature life Heat	See Product Qualification and Test Sequence Group 4	Subject mated connectors to temperature life at 85°C±2°C for 96 hours. Measure Signal. (EIA-364-17, Test condition A)
Temperature life Cold	See Product Qualification and Test Sequence Group 9	Subject mated connectors to temperature life at -40°C±2°C for 96 hours. Measure Signal. (EIA-364-17, Test condition A)
Salt Spray	See Product Qualification and Test Sequence Group 5	Subject mated/unmated connectors to 5% salt-solution concentration, 35°C for 48 hours. (EIA-364-26, Test condition B)
Solder ability	Solder able area shall have minimum of 95% solder coverage.	Subject the test area of contacts into the flux for 5-10 sec. And then into solder bath, Temperature at 245 ±5°C, for 4-5 sec. (EIA-364-52)

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

6 INFRARED REFLOW CONDITION

6.1. Lead-free Process



TITLE: **1.27MM SPI FLASH SOCKET SMT S/T TYPE**

RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **8** OF **8**

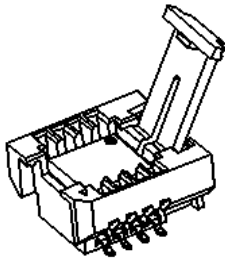
7 PRODUCT QUALIFICATION AND TEST SEQUENCE

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

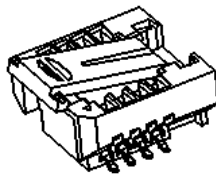
8 CONNECTOR OPERATION

Exercise care when handling connectors. Follow recommendations given below.

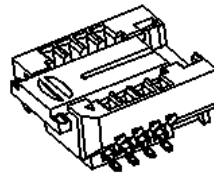
A: Insert IC



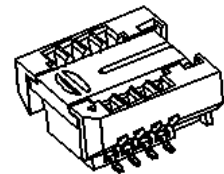
STEP 1



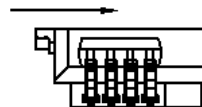
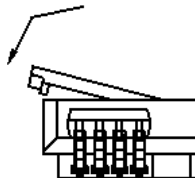
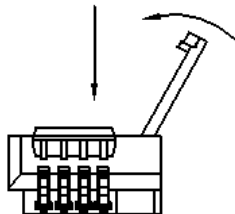
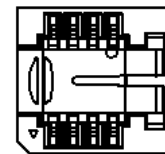
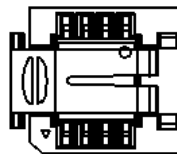
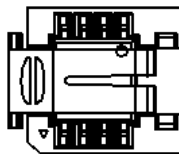
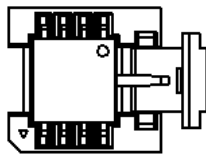
STEP 2



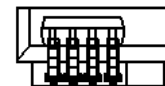
STEP 3



STEP 4



COVER CLOSE



CHIP INSIDE WHEN COVER OPEN

TITLE: **1.27MM SPI FLASH SOCKET SMT S/T TYPE**

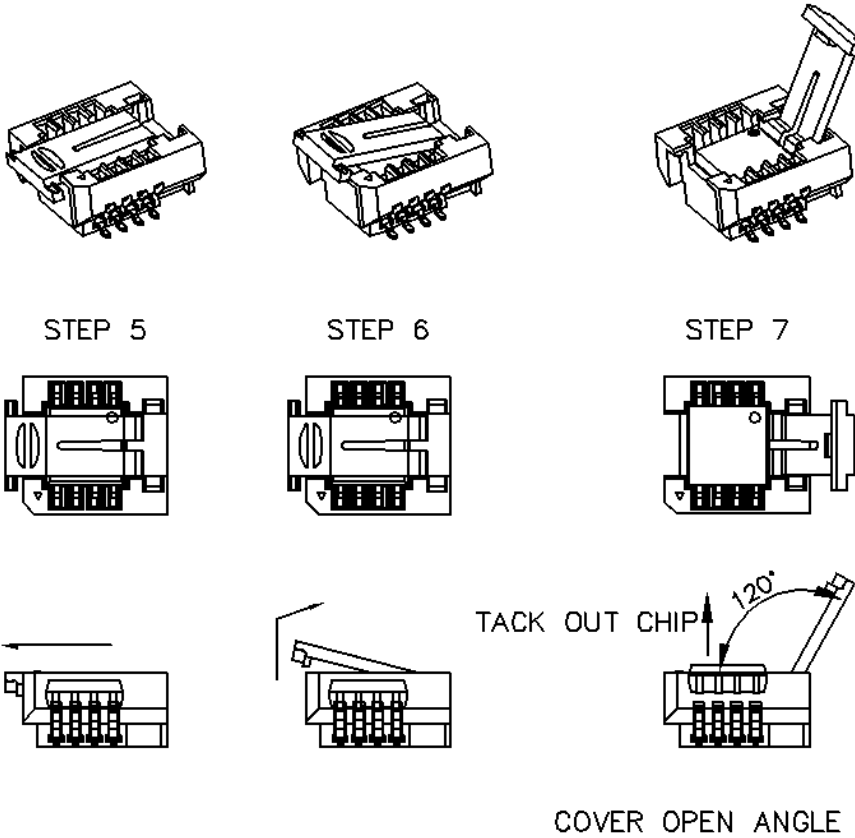
RELEASE DATE:2015/4/27

REVISION: C

ECN No: 1504395

PAGE: **10** OF **8**

B: Pick up IC



C: This connector is small and requires delicate and careful handling.
 Be careful, not to apply any force to the actuator cover after inserting.
 Not to apply any force to the actuator cover, when actuator is opening over 120 angle.
 Otherwise, the actuator cover may break.

