1.0 SCOPE

This specification covers performance, tests and quality requirements for 1.25 mm pitch Wire to Board DIP & SMT Type of 10114826~10114831 Series.

2.0 REFERENCE DOCUMENTS

EIA-364 ELECTRONICS INDUSTRIES ASSOCIATION

3.0 DEFINITIONS

3.1 Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.
All materials conform to RoHS

3.2 Materials and Finish

3.2.1 Contact: Copper alloy
Finish: (a) Contact Area: Based on drawing specification.
(b) Under plate: Nickel-plated all over.
(c) Solder area: Based on drawing specification.
3.2.2 Housing: Thermoplastic or Thermoplastic High Temp., UL94V-0 and meet IEC 60695-2 glowing/hot wire test.
3.2.3 M.H.D: Copper Alloy, Plating based on drawing specification.

3.3 Ratings

3.3.1 Voltage: 125 Volts AC (per pin)
3.3.2 Current: 1 Amp (0.8 A --32 AWG)

4.0 REQUIREMENTS

4.1 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	**20 m Ω Max.(initial)per contact 40 m Ω Max. after test**	**Mate connectors, measure by dry circuit, 20mV Max., 100mA Max. (EIA-364-23)**

Insulation Resistance	**100 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: 1 mA max.**	**Test between adjacent contacts of unmated connectors. (EIA-364-20)**

MECHANICAL		
Item	Requirement	Standard
Durability	**30 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. (EIA-364-09)**
Insertion/Withdrawal Force	**See Section 7.**	**Operation Speed : 25.4 ± 3 mm/minute.. Measure the force required to mate/Unmate connector. (EIA-364-13)**
Contact Retention Force	**0.5kgf MIN.**	**Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the terminal assembled in the housing.**
Hold down /Housing Retention Force	**1.0kgf MIN.**	**Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the hold down assembled in the housing.**
Wire Retention Force	**0.5kgf MIN.**	**Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the terminal assembled in the housing.**
Terminal / Housing Retention Force	**0.5kgf MIN.**	**Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the terminal assembled in the housing.**

Vibration	**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)**

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)**

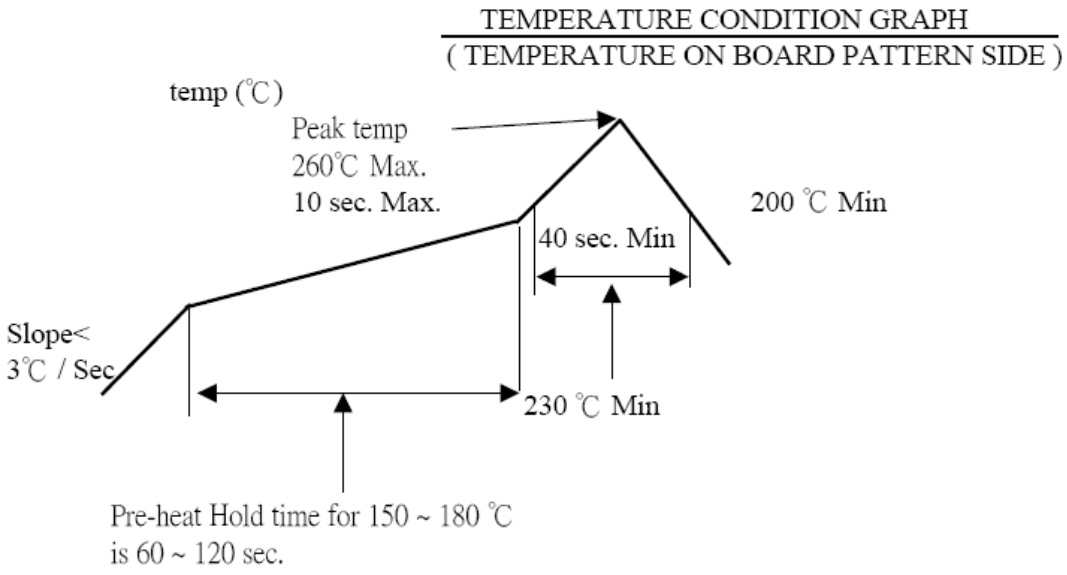
ENVIRONMENTAL		
Item	Requirement	Standard
Resistance to Reflow Soldering Heat	**See Product Qualification and Test Sequence Group 9 (Lead Free)**	**Pre Heat：150℃~180℃, 60~90sec. Heat：230℃ Min., 40sec Min. Peak Temp.：260℃Max, 10sec Max.**
Resistance to Hand Soldering Heat	**Excessive pressure shall not be applied to the terminals. See Product Qualification and Test Sequence Group 10**	**Soldering iron：350±10℃ Duration：3~4 sec. at least**
Thermal Shock	**See Product Qualification and Test Sequence Group 3**	**Mate module and subject to follow condition for 5 cycles. 1 cycles: -40 +0/-3 □, 30 minutes +85 +3/-0 □, 30 minutes (EIA-364-32, test condition A)**
Humidity	**See Product Qualification and Test Sequence Group 3**	**Mated Connector 40℃, 90~95% RH, 96 hours (EIA-364-31, test condition A)**

Temperature life	**See Product Qualification and Test Sequence Group 4**	**Subject mated connectors to temperature life at 105□ 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□ for 48 hours. (EIA-364-26, Test condition B)**
Solder ability	**Solder able area shall have minimum of 95% solder coverage.**	**And then into solder bath, Temperature at 245 ±5□, for 4-5 sec.**

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

5.0 INFRARED REFLOW CONDITION

5.1 Lead-Free Process



6.0 PRODUCT QUALIFICATION AND TEST SEQUENCES

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				1	1
Low-signal Level Contact Resistance	1、5	1、4	2、10	2、9	2、5				3	
Insulation Resistance			3、9	3、8						
Dielectric Withstanding Voltage			4、8	4、7						
Insertion / Withdrawal Force	2、4									
Durability	3									
Contact Retention Force (Wafer)							1			
Vibration(Random) / Vibration		2								
Shock (Mechanical)		3								
Thermal Shock			5							
Humidity			6							
Temperature life				5						
Salt Spray					3					
Solder ability						1				
Wire Retention Force								1		
Terminal / Housing Retention Force								2		
Metal Hold-Down /Housing Retention Force							2			
Resistance to Reflow Soldering Heat									2	
Resistance to Hand Soldering Heat										2
Sample Size	4	4	4	4	4	2	4	4	4	4

7.0 INSERTION / WITHDRAWAL FORCE

No of CKT	Insertion Force (Kgf, Max)			Withdrawal Force (Kgf, Min)		
	1st	6th	30th	1st	6th	30th
2	2.00	1.80	1.60	0.28	0.23	0.18
3	2.50	2.30	2.10	0.30	0.25	0.20
4	3.00	2.80	2.60	0.33	0.28	0.23
5	3.50	3.30	3.10	0.38	0.33	0.28
6	4.00	3.80	3.60	0.43	0.38	0.33
7	4.50	4.30	4.10	0.48	0.43	0.38
8	5.00	4.80	4.60	0.53	0.48	0.43
9	5.50	5.30	5.10	0.56	0.51	0.46
10	6.00	5.80	5.60	0.59	0.54	0.49
11	6.50	6.30	6.10	0.62	0.57	0.52
12	7.00	6.80	6.60	0.65	0.60	0.55
13	7.50	7.30	7.10	0.68	0.63	0.58
14	8.00	7.80	7.60	0.71	0.66	0.61
15	8.50	8.30	8.10	0.74	0.69	0.64

RECORD RETENTION

Revision	Page	Description	ECR No.	Date
A	**ALL**	**New release**	**T10-0090**	**11/09/2010**

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