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变更履历:

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1. SCOPE:

1.1. CONTENTS

This specification covers the performance, tests and quality requirements for the [0.6 mm pitch wire To board connector](#) series

1.2. QUALIFICATION

When tests are performed on the subject product line, the procedures specified in CRS [WB0611/WB0612/WB0615](#) series specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

2. APPLICABLE DOCUMENTS:

The following CRS 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

NO	DIMENSIONS	MATERIAL	PLATING&COLOR
1	Housing	LCP	UL94V-0
2	Contact	copper alloy	Finish:follow the drawing

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3.3.RATINGS

A. Current Rating: 0.2A AC,DC (AWG#36)
0.3A AC,DC (AWG#34)

B. Voltage Rating: 30V (AC,DC)

C. Contact Resistance: Initial: 30mΩ max
After environmental: 50mΩmax

D. Insulator Resistance: Initial 100MΩ min
After environmental:100MΩ min

E. Withstanding Voltage: 200v AC for 1 minute

F. Temperature Range: -40℃ ~+85℃

G. Applicable Wire: AWG #34 , AWG #36

F. Insulation O.D.: $\phi 0.29 \pm 0.02\text{mm}$ (AWG#36); $\phi 0.32 \pm 0.02\text{mm}$ (AWG#34)

3.4.PERFORMANCE REQUIREMENT AND TEST DESCRIPTION

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

4. TEST REQUIREMENTS AND PROCEDURES SUMMARY

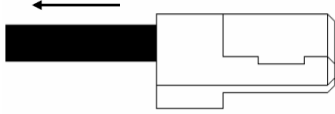
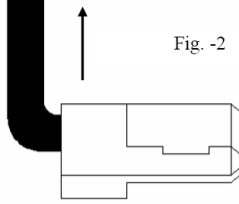
TEST DESCRIPTION		REQUIREMENTS	PROCEDURES
1	Examination of product	Meet requirements of product drawing	Visual, dimensional and functional Per applicable quality inspection plan
Electrical Requirement			
2	Contact Resistance (Low Level)	30mΩ Max Initial 50mΩ Max. After environmental	Mated connector, 20 mV Max. Open circuit at 1 mA Max. Wire length:30mm EIA 364-23B
3	Insulation Resistance	100 MΩ Min	250V DC for 1 minute. Test between adjacent circuits and contact. EIA 364-21C
4	Dielectric withstanding Voltage	No creeping discharge or flash over shall occur, Current leakage: 1mA Max.	200V AC 1 minute. Test between adjacent circuits and contact. EIA 364-20B

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MECHANICAL REQUIREMENT

5	Vibration	No discontinuities 1 microsecond Or longer duration. Contact Resistance: 30mΩ Max Initial 50mΩ 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 passing DC 5mA current during the test. MIL-STD-202, Method 201, Condition A
6	Physical shock	Appearance :No damage ; No discontinuities 1 microsecond or longer duration. Contact Resistance: 30mΩ Max Initial 50mΩ Max Final	Accelerated Velocity: 490 m/s ² (50g) waveform: half-sine shock pulse Duration: 11msec. Number of Drops: 3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops, passing DC 100m A current during the test
7	Durability	Contact Resistance: 30mΩ Max Initial 50mΩ Max Final	Mate and unmate samples for 30 cycles at a speed of 10times/min. EIA-364-09C
8	Insertion And Removal Force	See table	Measure the force required to mate and unmate the connector. Speed: 25±3mm/min.Test Method: EIA-364-13,

Number of circuit	At initial		At 30th
	I.F. (max.)kgf	R.F. (min.)kgf	R.F. (min.)kgf
2	1.4	0.20	0.15

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4	1.4	0.20	0.15
5	1.4	0.20	0.15
6	1.4	0.20	0.15
8	2.0	0.35	0.25
10	2.0	0.35	0.25
12	2.0	0.35	0.25
16	2.5	0.50	0.30
9	Contact Retention Force	0.12kgf min.	A base contact shall be mounted in a wafer and pulled in alignment at a constant speed of 25 mm per minute. The Load to pull the contact out of the wafer shall be measured.
10	Wire Retention Force	Parallel direction: AWG #34 #36 : 0.3kgf MIN Perpendicular direction: AWG #34 #36 : 0.10 kgf MIN	Pulling load shall be applied between a correctly terminated contact and the wire at the constant speed of 25mm per minute. The load to pull the wire out of the contact or break the wire shall be measured (1~5mm/sec.)
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Fig. -1</p> <p>Parallel Direction</p> </div> <div style="text-align: center;">  <p>Fig. -2</p> <p>Perpendicular Direction</p> </div> </div>			
<p>Note:</p> <p>If need retention force more, You must use the UV glue.</p>			
11	Temperature Rise	△ 30℃ Max.	Carrying rated current load. UL-498

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12	Thermal shock	Appearance: No damage Contact Resistance: 30mΩ Max Initial 50mΩ Max Final	Subject mated samples to 25 cycles between -55℃ and 85℃ MIL-STD-202G, Condition A EIA 364-32C Condition I
13	Salt Spray	No evident corrosion. Contact Resistance: 30mΩ Max Initial 50mΩ Max Final Insulation Resistance:100MΩ Min	Subject mated samples. 35℃±2℃, 5+1% Salt condition, 48 hours EIA 364-26B condition B
14	Humidity	Contact Resistance: 30mΩ Max Initial 50mΩ Max Final Insulation Resistance:100MΩ Min	Mated connectors shall be subjected to the following condition. Temperature: 40℃ Relative humidity: 90~95% Duration: 96hMIL-STD-202 Method 103B Condition B
15	Cold Resistance	Contact Resistance: 30mΩ Max Initial 50mΩ Max Final Insulation Resistance: 100MΩ Min	Mated connector. -40℃±2℃, 96 Hours. After test, recondition under standard atmospheric condition for 2 hours.JIS C0020
16	Temperature Life	Contact Resistance: 30mΩ Max Initial 50mΩ Max Final	Subject mated samples to temperature life at 85℃ for 96 hours.EIA 364-17B Condition A

Figure 1 (End)

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NOTE: Shall meet visual requirements, show no physical damage, and meet requirement of additional tests as specified in the test sequence in Figures 2

3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST

Test of Examination	Test Group										
	A	B	C	D	E	F	G	H	I	J	K
	Test Sequence										
1、 Examination of Product	1,9	1,5	1,7	1,3	1,3	1,5	1,5	1,3	1,5	1,7	1,5
2、 Contact Resistance(Low Level)	2,6	2,4	2,6			2,4	2,4		2,4	2,5	2,4
3、 Insulation Resistance	3,7									3,6	
4、 Dielectric withstanding Voltage	4,8										
5、 Vibration		3									
6、 Physical shock						3					
7、 Durability			4								
8、 Insertion And Removal Force			3,5								
9、 Contact Retention Force				2							
10、 Wire Retention Force.					2						
11、 Temperature Rise							3				
12、 Thermal shock								2			
13、 Salt Spray									3		
14、 Humidity	5										
15、 Cold Resistance										4	
16、 Temperature Life											3

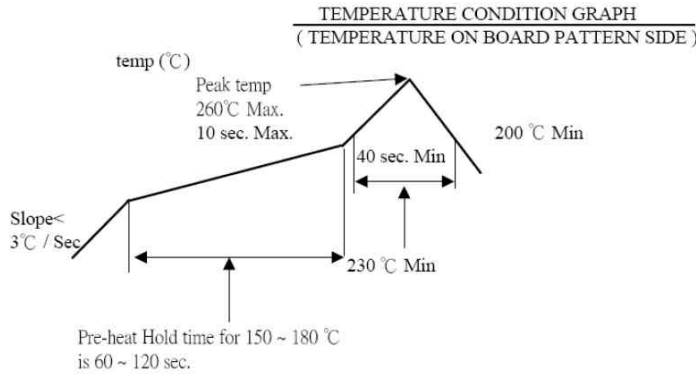
Figure 2

NOTE: (a) Numbers indicate sequence in which tests are performed.

(b) Discontinuities shall not take place in this test group, during tests.

5. INFRARED REFLOW CONDITION

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6. MATING/UNMATING METHOD CONNECTOR

6.1 Mating method of connector

Mated receptacle with header straight on same axis. When the position of mating part of header and receptacle is aligned, align one side of mating part of header with the end of receptacle within 20 degrees to mating axis as shown in Fig.-1.

Do not mate receptacle at the angle of 20 degrees or more, because such handling may cause breakage of connector, etc.

When position of receptacle and header is aligned, hold wires in a bundle in order to prevent applying external force to receptacle. Then, mate receptacle with header up to the back straight against mating axis.

Besides, after mating operation, check that there is no clearance between header and receptacle as shown in Fig.-2, because such clearance may lead discontinuity of connector.

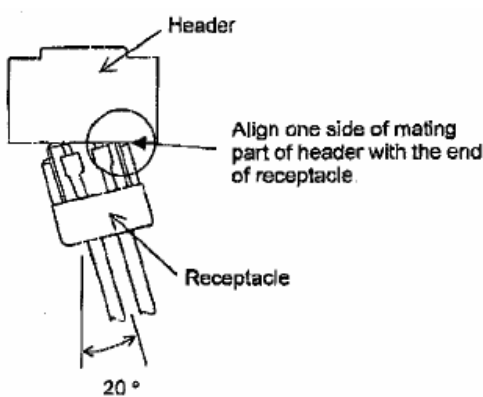


Fig.-1

Align the position (Side entry type)

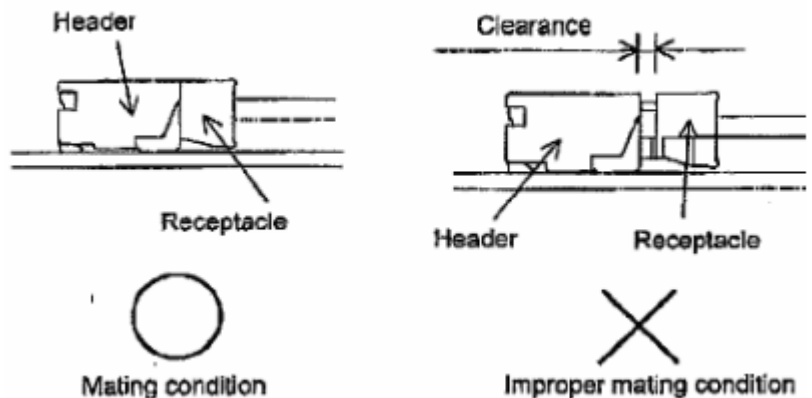


Fig.-2

Mating condition (Side entry type)

6.2 Unmating method of connector

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Hold wires in a bundle and unmate receptacle from header on the same axis. At this time, conduct operation within 20 degrees to mating axis.

Do not unmate receptacle forcibly with prying more than 20 degrees, because such handling may cause breakage of connector, etc.

If receptacle is unmated with holding wire of only one end, such handling is the same as prying connector.

Beside, there is a possibility that wire may come off housing when they are unmated without holding in a bundle.

Even when all wires cannot be held in routing of wires, wire more than the number shown in the Table-1 should be held and unmated

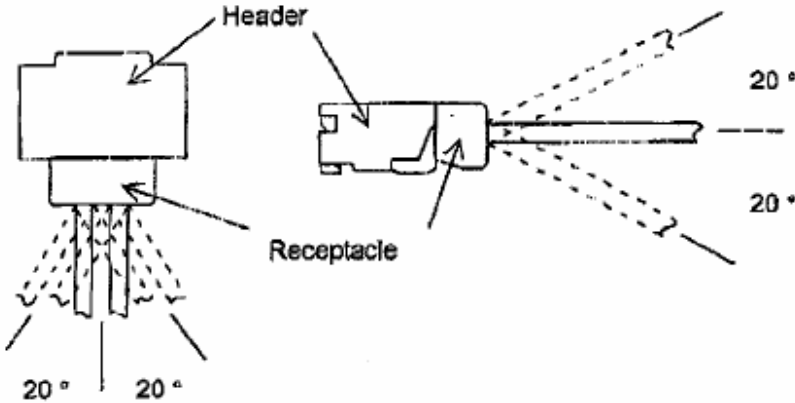


Fig.-3

CKTS	Wires
2	hold 2 wires without fail
3~5	hold more than 3 wires
6~10	hold more than 4 wires
11~15	hold more than 5wires
16~20	hold more than 6 wires

Table -1

6.3 Routing of wire

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In routing wire, careful operation is required so that tension more than 1N may not be applied per connector and one wire (one circuit).