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变更履历：

版本号	变更内容	日期	制订	核准
A0	新版发行	2021/07/23	于小芳	Leo_he
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Approval By	Check By	Originator By
Shenzijin	**Leo-he**	**Yuxiaofang**

一、 SCOPE:

This specification covers performance, tests and quality requirements for 0.5mm Pitch Connector.These connectors are used to computer or other application.

二、APPLICABLE DOCUMENTS

The following 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.

EIA-364: ELECTRONICS INDUSTRIES ASSOCIATION REQUIREMENTS

三、REQUIREMENTS

3.1 Design and Construction

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

3.1.2 All materials conform to R.O.H.S.

3.2 Materials and Finish

3.21 Materials ：

LV0523H-XXXXX			
NO	**DIMENSIONS**	**MATERIAL**	**PLATING&COLOR**
1	Housing	LCP	UL 94V-0
2	SHELL	COPPER ALLOY	MATTE SN 'OVER ALL;
3	terminal	COPPER ALLOY	SOLDER AREA GOLD FLASH
4	MYLAR	POLYIMIDE FILM TAPE	/

3.3 Ratings

3.3.1 Voltage: 50V AC/DC

3.3.2 Operating Temperature : -55℃ to +85℃(NO FREEZE TO LOW TEMP.)

3.3.3 0.3~0.2 Amperes /pin (depending on the diameter of cable conductor)

Coaxial cables AWG#36: 0.30A AC,DC PER CONTACT

AWG#40: 0.25A AC,DC PER CONTACT

AWG#42: 0.20A AC,DC PER CONTACT

四、 Test Requirements and Procedures Summary：

APPEARANCE REQUIREMENTS			
N0.	**Test Item**	**Test Procedure**	**Requirements**
1	Visual and dimensional inspections	•Visual, dimensional and functional. •per applicable quality inspection. •plan.	Product shall meet requirements of applicable product drawing and specification.

ELECTRICAL PERFORMANCE			
N0.	**Test Item**	**Test Procedure**	**Requirements**
2	Contact Resistance	Mated connector, 20 mV Max. Open circuit at 100 MA Max. EIA 364-23B	60 m Ω Max.(initial)per contact 90 m Ω Max. (After test)
3	Insulation Resistance	Test between adjacent contacts of unmated connector assemblies apply a voltage of 250V DC for 1 minute (EIA-364-21)	100 MΩ Minimum
4	Dielectric Withstanding Voltage	150 V AC for 1 minute. Test between adjacent contacts of unmated connectors.(EIA-364-20)	No discharge, flash over or breakdown. Current leakage: 1 mA max.

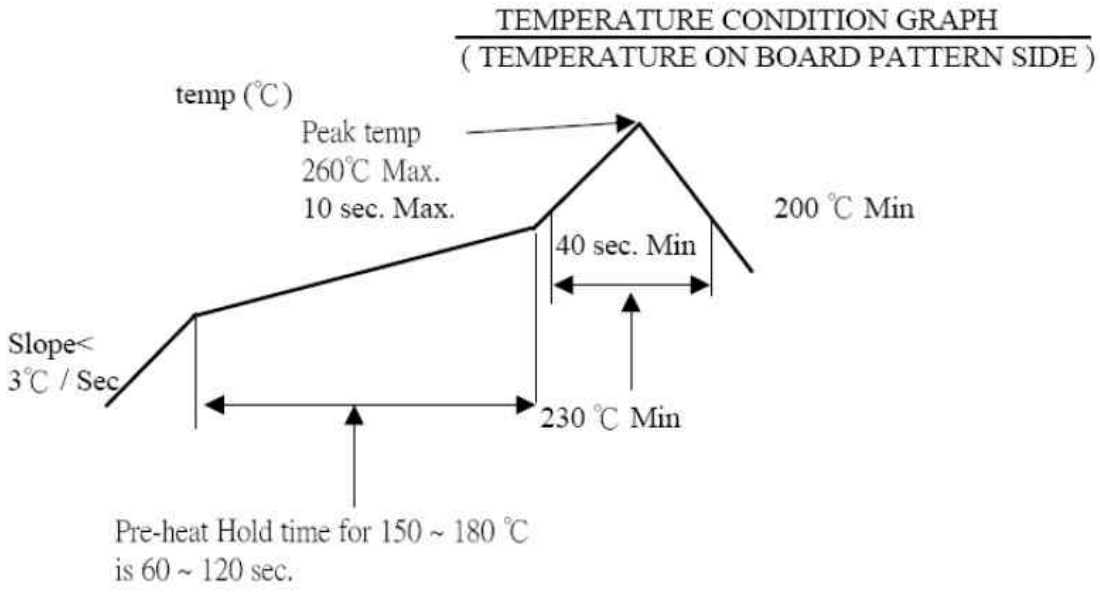
Mechanical Performance			
N0.	**Test Item**	**Test Procedure**	**Requirements**
5	Mating / Unmating Forces	Measure the force required to mate and unmate the connector.Speed:25.4mm/ min.Test Method: MIL-STD-134A,	See item 6
6	Durability	Mate The sample connectors should be mounted in the tester and fully mated and unmated the number of 30 cycles specified at the rate of 25 ± 3mm/min. (EIA-364-09)	Appearance： No Damage Contact Resistance： 60mΩ Max Initial. 90mΩ Max Final.
7	Vibration	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	Appearance： No Damage Discontinuity : 1 μs Max. Contact Resistance： 60mΩ Max Initial. 90mΩ Max Final.
8	Shock (Mechanical)	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	Discontinuity :1 μs Max. Contact Resistance： 60mΩ Max Initial. 90mΩ Max Final.

		specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts.	

Environmental Performance			
N0.	**Test Item**	**Test Procedure**	**Requirements**
9	Temperature Rise	Mate connector: measure the Temperature Rise at rated current until temperature stable. The ambient condition is still air at 25℃ EIA 364-70 Method B	Appearance：No Damage 30℃ max change allowed
10	Heat Resistance	Mate The sample connectors shall expose to 85± 2 ℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed.	Appearance：No Damage Contact Resistance： 60Ω Max Initial. 90mΩ Max Final.
11	Humidity	Temperature: 40℃ Relative humidity: 90~95% Duration: 96h	Appearance：No Damage Dielectric Strength:No Breakdown Insulation Resistance:100 MΩ Minimum
12	Thermal Shock	Mate module and subject to follow condition for 5 cycles. 1 cycles. -55 +0/-3 ℃, 30 minutes +85 +3/-0 ℃, 30 minutes	Appearance：No Damage Contact Resistance：

		(EIA-364-32, test condition A)	60mΩ Max Initial. 90mΩ Max Final.
13	Salt Spray	Subject mated/unmated connectors to 5% salt-solution concentration, 35℃+/-2℃ 48H recondition under standard atmospheric condition for 2 hours. (EIA-364-26)	Shall meet visual requirement, show no physical damage.
14	Solder ability (Board side)	And then into solder bath, Temperature at 245±5℃,for 5sec (EIA-364-52)	Solder able area shall have minimum of 95% solder coverage.
15	Resistance to Soldering Heat (Board side)	Peak Temp.：260℃Max, 10sec Max.	Shall meet visual requirement, show no physical damage.

五、 REFLOW TEMPERATURE PROFILE



六、 Insertion / Extraction Force

Number	At initial		At 30th
circuit	I.F.(max.)kgf	R.F.(min)kgf	R.F.(min.)kgf
20	6.0	0.3	0.3
40	6.0	0.3	0.3

七、 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test of Examination	Test Group									
	A	B	C	D	E	F	G	H	I	J
	Test Sequence									
1、Visual and dimensional inspections	1，7	1,7	1,6	1,6	1,3	1,7	1,7	1,7	1,3	1,3
2、Contact Resistance		2,6	2,5	2,5		2,6	2,6	2,6		
3、Insulation Resistance	2，6					3,5	3,5	3,5		
4、Dielectric Withstanding Voltage	3 , 5									
5、Mating / Unmating Forces		3,4								
6、Durability		5								
7、Vibration			3,4							
8、Shock Mechanical				3,4						
9、Temperature Rise					2					
10、Heat Resistance						4				
11、Humidity	4									
12、Thermal Shock							4			
13、Salt Spray								4		
14、Solder ability									2	
15、Resistance to Soldering Heat										2
Number of Test Samples (Minimum)	5	5	5	5	2	5	5	5	5	5