瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCVS005A
REVISIONS	-	For CVS5 Series Connector System	PAGE: 1/5

1. SCOPE:
This product specification contains the test method the general performance and requirement for CVS5 series connectors.

2. APPLICABLE DOCUMENTS:
Reference documents listed below shall be the latest revision unless otherwise specified. Should a conflict occur between this specification and any of the listed documents then this specification shall prevail.
2.1 Industry standards：
EIA-364-□□ electrical connector test procedures

3. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

4. MATERIALS
See attached drawings

CVILUX CORP
2011.07.28
ISSUED

REVIEWED : Eisley APPROVED : Sun VERIFIED : Sandy .

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5. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
5.1	Rated current and voltage		0.3A DC max. 50V AC/DC max.
5.2	Contact Resistance	Measured at 20 mV maximum open circuit at 100mA .Mated test contacts must be in a connector housing. Test as per EIA364-23	Initially :Less than 80 mΩ Finally :Less than 100 mΩ
5.3	Dielectric strength	Test between adjacent contacts with a voltage of 150 V AC for 1 minute at Sea level. Test as per EIA364-20 Method B	No current leakage and flashover or damage detected.
5.4	Insulation Resistance	After 250 V DC for 1 minute , measure the insulation resistance between the adjacent contacts. Test as per EIA364-21	More than 100 MΩ
5.5	Diferential Impedance	TDR method	100±15Ω

6. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Mating	Measure the force necessary to insert the connector between male and female at a maximum rate of 12.5 mm per minute. Test as per EIA364-13	4.0 Kgf max.
6.2	Unmating	Measure the force necessary to insert the connector between male and female at a maximum rate of 12.5 mm per minute. Test as per EIA364-13	0.7 Kgf min.
6.3	Durability	The connector shall be subject to 20 cycles for insertion and extraction .Test done at a maximum rate of 200 cycles per hour. Test as per EIA364-09	Appearance: No damage Meet requirements of specified in 5.2，6.1，6.2

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7. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Vibration	Subject mated connectors to ： Power spectral density：0.02 g^2/Hz Overall RMS .g：5.35 Duration：15 minute in each X.Y.Z. axis mutually perpendicular planes. Test as per EIA 364 – 28 Condition V Test letter A.	Appearance: No damage Discontinuity: 1 micro second max.
7.2	Physical Shock	Subject mated connectors to 30 g's half-sine shock pulses of 11ms duration. Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. Test as per EIA364-27 condition H	Appearance: No damage Discontinuity: 1 micro second max.
7.3	Humidity	Subject unmated connectors to 96 hours at 40℃ with 90% to 95% RH. Test as per EIA 364 – 31 Method Ⅱ Test Condition A.	Appearance：No damage Contact resistance and insulation resistance shall meet requirement of 5.2，5.3，5.4
7.4	Temperature cycling	Subject unmated connectors shall be tested in accordance with EIA364–32 Test Condition Ⅰ. (1)-55℃,30 minute (2) 25℃,5 minute (3) 85℃,30 minute (4) 25℃,5 minute consecutive 10 cycles.	Appearance：No damage Contact resistance and insulation resistance shall meet requirement of 5.2，5.3，5.4
7.5	Heat aging	Subject mated connectors to temperature life at 85℃±2℃ for 250 hours. Test as per EIA 364 – 17 Test Condition 3 Method A.	Appearance：No damage Contact resistance shall be meet 5.2
7.6	Salt Spray (Note：1)	Unmated connectors shall be tested in accordance with EIA364-26 Condition B. Temperature：35℃ +1℃/-2℃ Density：5% in weight Duration：48 hours	Appearance of contact area shall be no rusted or erodent. Contact resistance shall be meet 5.2

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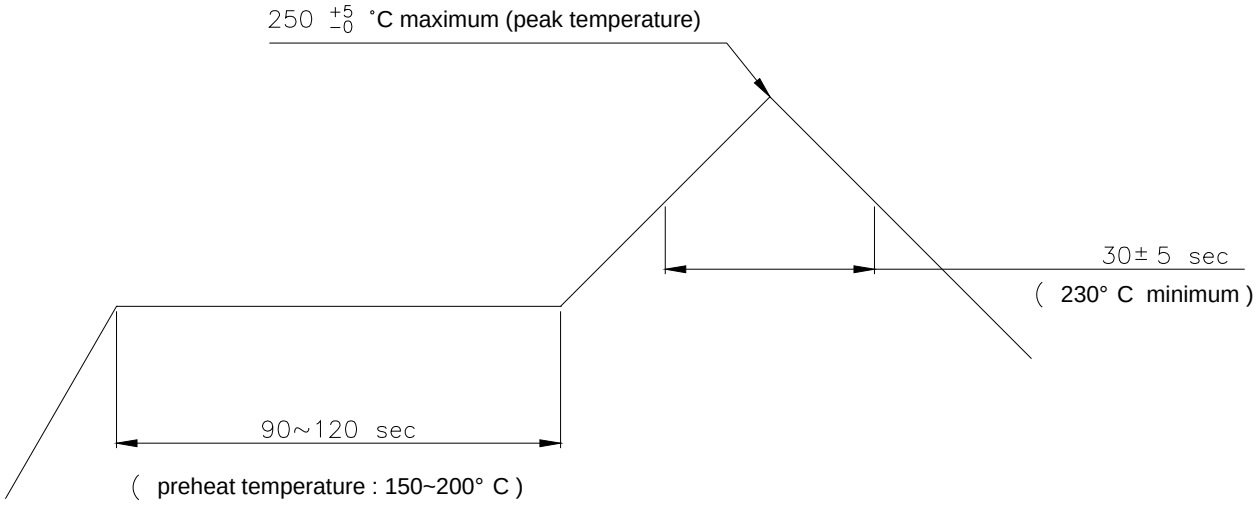
	ITEM	TEST CONDITION	REQUIREMENT
7.7	Solderability	Steam age 1 hour at 90℃～96℃ Solder time to be 5±1 seconds at 245℃, using unactivated flux. Test as per EIA364-52	Minimum: 95% of immersed area
7.8	Soldering Heat Withstanding	Reflow soldering (Infrared): Refer soldering method The conditions specified on paragraph 9 Shell be repeated twice.	Inspect dimension during the test, no physical damage

Note： 1. Plating under the 5μ" is not suited.

8.Operating temperature range：-55℃ to 85℃; Storage temperature range：-55℃ to 85℃

9. RECOMMENDED INFRARED REFLOW CONDITION：



11. TEST SEQUENCES IDENTIFICATION:

Test of description \ Test Group		A	B	C	D	E	F	G	H
1	Examination of Product	1,9	1,9	1,5	1,5	1,5	1,3	1,3	1,4
2	Contact Resistance	3,7	2,6	2,4	2,4	2,4			
3	Dielectric strength		4,8						
4	Insulation Resistance		3,7						
5	Mating	2,6							
6	Umating	4,8							
7	Durability	5							
8	Humidity		5						
9	Heat aging			3					
10	Salt Spray				3				
11	Temperature cycling					3			
12	Solderability						2		
13	Soldering Heat withstanding							2	
14	Vibration								2
15	Physical shock								3