

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.:	SPCVS001A	
REVISIONS	-	For CVS1 Series Connector System	PAGE:	1/5	

#### 1. SCOPE:

This product specification contains the test method the general performance and requirement for CVS1 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 drawing

#### 5. ACCOMMODATED P.C.BOARD

5.1 Thickness:  $0.8 \text{ mm} (.031'') \sim 1.6 \text{ mm} (.063'')$ 5.2 P.C. Board Layout: See attached drawings



REVIEWED : <u>Eisley</u> APPROVED : <u>Sun</u> VERIFIED : <u>Una</u> .



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## 6. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Rated current and voltage		0.5A AC/DC max. 100V AC/DC max.
6.2	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 40 m $\Omega$ Finally :Less than 80 m $\Omega$
6.3	Dielectric strength	Test between adjacent contacts with a voltage of 500 VAC for 1 minute at Sea level Test as per EIA364-20 Method B	No current leakage and flashover or damage detected.
6.4	Insulation Resistance	After 500 VDC for 1 minute, measure the insulation resistance between the adjacent contacts. Test as per EIA364-21	More than $100 \text{ M}\Omega$

### 7. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Contact retaining force in insulator	The end of terminal shall be pulled in a perpendicular to base housing at a maximum rate of 25 mm per minute.  Test as per EIA 364-29	0.15 Kgf(1.47N) Min.
7.2	Durability	Mating and Unmating the connectors for 20 cycles. EIA364-09	Appearance: No damage Meet requirements of specified in 6.2

## 8. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Vibration	Subject mated connectors to: Frequency: 10-55-10 Hz Amplitude: 1.5 mm Direction: three perpendicular axes Direction: X \ Y \ Z axes/2 hours Test as per EIA 364 – 28 Condition V test letter A.	Appearance: No damage Discontinuity: 1 micro second max.



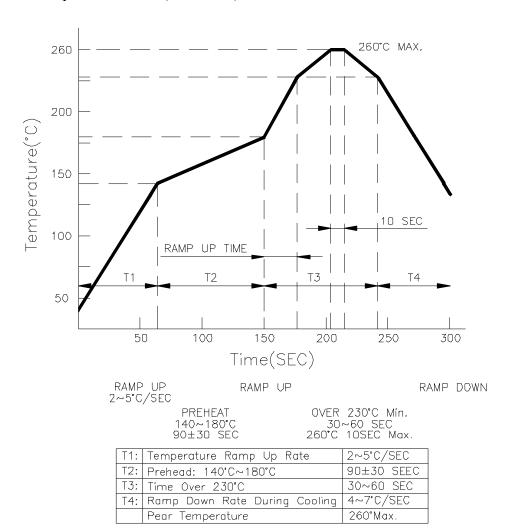
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	ITEM	TEST CONDITION	REQUIREMENT
8.2	Physical Shock	Subject mated connectors to 30 g's half-sine shock pulses of 11ms duration.  Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks.  Test as per EIA364-27 condition H	Appearance: No damage Discontinuity: 1 micro second max.
8.3	Humidity	Subject unmated connectors to 96 hours at 60°C with 90% to 95% R.H. Test as per EIA 364 – 31 Method II Test Condition A.	Appearance: No damage Contact resistance \times Insulation resistance and Dielectric strength shall meet requirement of 6.2 \times 6.3 \times 6.4
8.4	Temperature cycling	Subject unmated connectors shall be tested in accordance with EIA364–32 Test Condition I.	Appearance: No damage Contact resistance shall meet requirement of 6.2
		(1)-55°C±2,30 minute	
		$(2)+25^{\circ}C\pm 2,5$ minute	
		(3)+85°C±2,30 minute	
		(4)+25°C±2,5 minute	
	C-14	consecutive 5 cycles.	
8.5	Salt spray	Subject specimens to 5% salt concentration at 35±2°C for 48 hours	Appearance: No damage Contact resistance shall meet requirement of 6.2
8.6	Solderability	Solder time to be $5\pm 1$ seconds at $245^{\circ}$ C,	Minimum:
		using unactivated flux.	95% of immersed area
		Test as per EIA364-52	
8.7	Heat aging	The specimens subjected to the chamber temperature of 85±2°C for 96 hours.  Test as per EIA 364 − 17B	Appearance: No damage Contact resistance shall be meet 6.2
8.8	Resistance to soldering heat	Soldering time: 10 second Soldering pot: 260°C max. Reflow soldering (Infrared): Refer soldering method The conditions specified on paragraph 10 Shell be repeated twice.	No damage



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- 9.Operating temperature range : -40°C to +80°C; Storage temperature range : -40°C to +80°C
- 10..Recommended Temperature Profile(Lead-Free):





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# 11. TEST SEQUENCES IDENTIFICATION:

Test Group Test of description		A	В	С	D	Е	F	G	Н
1	Examination of product	1,5	1,9	1,5	1,5	1,5	1,3	1,3	1,4
2	Contact Resistance	2,4	2,6	2,4	2,4	2,4			
3	Dielectric strength		4,8						
4	Insulation Resistance		3,7						
5	Durability	3							
6	Humidity		5						
7	Heat aging			3					
8	Salt Spray				3				
9	Temperature Cycling					3			
10	Solderability						2		
11	Resistance to soldering heat							2	
12	Random Vibration								2
13	Physical Shock								3