

<b>ENGINEERING DEPT.</b>		<b>PRODUCT SPECIFICATION</b> <b>For CVS3 Series Connector System</b>	<b>SPEC.NO.: SPCVS003D</b>
<b>REVISIONS</b>	<b>ECNT120150</b>		<b>PAGE: 1/5</b>

1. SCOPE:

This product specification contains the test method the general performance and requirement for CVS3 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

5. ACCOMMODATED P.C.BOARD

5.1 Thickness: 0.8 mm (.031") ~ 1.6 mm (.063")

5.2 P.C. Board Layout: See attached drawings

REVIEWED : Eisley APPROVED : Sun VERIFIED : Jessie .

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6. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Rated current and voltage		0.5A DC max. 50V 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 80 mΩ Finally :Less than 100 mΩ
6.3	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.
6.4	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

7. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	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	5.0 Kgf max.
7.2	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	0.8 Kgf min.
7.3	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 6.2 , 7.1 , 7.2

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### 8. ENVIRONMENTAL PERFORMANCE

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Vibration	Subject mated connectors to : Power spectral density : 0.02 g <sup>2</sup> /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.
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 40°C 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 6.2 , 6.3 , 6.4
8.4	Temperature cycling	Subject unmated connectors shall be tested in accordance with EIA364-32 Test Condition I. (1)-55°C,30 minute (2)+25°C,5 minute (3)+85°C,30 minute (4)+25°C,5 minute Consecutive 5 cycles.	Appearance : No damage Contact resistance and insulation resistance shall meet requirement of 6.2 , 6.3 , 6.4
8.5	Heat aging	Subject mated connectors to temperature life at 85°C±2°C for 250 hours. Test as per EIA 364 – 17 Test Condition 3 Method A.	Appearance : No damage Contact resistance shall be meet 6.2

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	<b>ITEM</b>	<b>TEST CONDITION</b>	<b>REQUIREMENT</b>
8.6	Salt Spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: $48 \pm 4$ hours (Stamping before plated) Spray time: $24 \pm 4$ hours (Stamping after plated) Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed. The specimens shall be suspended from the top using waxed twine, string or nylon thread. The test only define the plating area, without plating area (as copper cross section) will not be defined. (EIA 364-26B / MIL-STD-202 Method 101)	Appearance: No damage Contact resistance: Less than twice of initial
8.7	Solder ability	Steam age 1 hour at $90^{\circ}\text{C} \sim 96^{\circ}\text{C}$ Solder time to be $5 \pm 1$ seconds at $245^{\circ}\text{C}$ , using unactivated flux. Test as per EIA364-52	Minimum: 95% of immersed area
8.8	Soldering Heat Withstanding	Reflow soldering (Infrared): Refer soldering method The conditions specified on paragraph 10 Shell be repeated twice.	Inspect dimension during the test, no physical damage

Note : 1. Plating under the  $5\mu''$  is not suited.

