

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CVS4 Series Connector System	SPEC.NO.: SPCVS004A
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1. SCOPE:

This product specification contains the test method the general performance and requirement for CVS4 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. APPLICABLE SPECIFICATION FOR COAXIAL/WIRE CABLE

Coaxial cable : AWG #34/#36/#40(Outer diameter must be under 0.38mm)

Wire cable : AWG #32/#34/#36/#40(Outer diameter must be under 0.5mm)



REVIEWED : Eisley APPROVED : Sun VERIFIED : Sandy

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6. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Rated current and voltage		0.3A 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
6.5	Differential Impedance	TDR method	100±15Ω

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	4.0 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	0.6 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 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.
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 10 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 and insulation resistance shall meet requirement of 6.2 , 6.4
8.6	Salt Spray (Note : 1)	Unmated connectors shall be tested in accordance with EIA364-26 Condition B. Temperature : 35°C +1°C/-2°C Density : 5% in weight Duration : 48 hours	Appearance of contact area shall be no rusted or erodent. Contact resistance shall be meet 6.2

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	ITEM	TEST CONDITION	REQUIREMENT
8.7	Solder ability	Steam age 1 hour at 90°C ~ 96°C Solder time to be 5±1 seconds at 245°C, using unactivated flux. Test as per EIA364-52	Minimum: 95% of immersed area

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

9. Operating temperature range : -55°C to 85°C; Storage temperature range : -55°C to 85°C

10. TEST SEQUENCES IDENTIFICATION:

Test of description		Test Group						
		A	B	C	D	E	F	G
1	Examination of Product	1,9	1,9	1,5	1,5	1,5	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	Unmating	4,8						
7	Durability	5						
8	Humidity		5					
9	Heat aging			3				
10	Salt Spray				3			
11	Temperature cycling					3		
12	Solderability						2	
13	Vibration							2
14	Physical shock							3