

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.:	SPCVS002A	
REVISIONS	-	For CVS2 Series Connector System	PAGE:	1/4	

1. SCOPE:

This product specification contains the test method the general performance and requirement for CVS2 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 #36~#42

Wire cable: AWG #32



	REVIEWED: Eis	ley 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 (r.m.s) 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 m Ω Finally :Less than 100 m Ω
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 M Ω

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

8. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Vibration	Subject mated connectors to: Power spectral density: 0.02 g²/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.



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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 40°C with 90% to 95% RH. Test as per EIA 364-31 Method Ⅱ Test Condition A.	Appearance: No damage Contact resistance \(\) Insulation resistance and Dielectric strength 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 $^{\circ}$ C,30 minute (2)+25 $^{\circ}$ C,5 minute (3)+85 $^{\circ}$ C,30 minute (4)+25 $^{\circ}$ C,5 minute consecutive 10 cycles.	Appearance: No damage Contact resistance \(\) Insulation resistance and Dielectric strength shall meet requirement of 6.2 \(\) 6.3 \(\) 6.4
8.5	Heat aging	Subject mated connectors to temperature life at $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 250 hours. Test as per EIA $364 - 17$ Test Condition 3 Method A.	Appearance: No damage Contact resistance shall be meet 6.2
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
8.7	Solder ability	Steam age 1 hour at $90^{\circ}\text{C} \sim 96^{\circ}\text{C}$ 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 \div -55°C to 85°C; Storage temperature range \div -55°C to 85°C



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10. TEST SEQUENCES IDENTIFICATION:

Test Group Test of description		A	В	С	D	Е	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