

ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC.NO.: SPCP004E
REVISIONS: ECN09457	For CP11 Series Connector System	PAGE: 1/3

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

2. APPLICABLE STANDARDS:

MIL - STD - 202 Methods for test of connectors for electronic equipment
MIL - STD - 1344 Test methods for electrical connectors

3. APPLICABLE SERIES NO.: **CP11 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.8mm(.031") ~ 2.0mm(.079")
6.2 P.C. Board Layout: See attached drawings



REVIEWED : Alex APPROVED : David VERIFIED : Sun .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		5A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 1500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ

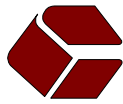
8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#18~#22
8.2	Terminal crimp Tensile strength	When crimped AWG#18 size wire When crimped AWG#20 size wire When crimped AWG#22 size wire	More than 9.0 Kgf More than 7.0 Kgf More than 5.0 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 1.5 Kgf
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 4.0 Kgf
8.5	Single contact insertion force	Measure force to insertion using plug terminal at speed 25± 3 mm per minute	1.2 Kgf max.
8.6	Single contact withdrawal force	Measure force to withdrawal using plug terminal at speed 25± 3 mm per minute	300 gram min.
8.7	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

9. INSERTION FORCE AND WITHDRAWAL FORCE:

(UNIT:Kgf)

NO OF CIRCUITS	INSERTION FORCE(Max.)	WITHDRAWAL FORCE(Min.)		
	Initial	Initial	10th	30th
2	2.5	0.40	0.30	0.25
3	3.0	0.60	0.50	0.45
4	3.5	1.00	0.70	0.60
6	4.0	1.40	1.00	0.80
9	5.0	2.30	2.00	1.50
12	6.0	4.10	3.00	2.50



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10. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
10.1	Temperature rise	Then carried the rated current	30°C max.
10.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.
10.3	Heat aging	85 ± 2°C , 96 hours	No damage
10.4	Humidity	40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
10.5	Temperature cycling	One cycle consists of : (1)-55 ⁺³ ₋₀ °C , 30 min. (2)Room temp. 10-15 min. (3) 85 ⁺³ ₋₀ °C , 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
10.6	Salt spray	Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -25 to + 85°C