

ENGINEERING DEPT.

PRODUCT SPECIFICATION

SPEC.NO.: SPCP003E

REVISIONS ECNT120217

For CP06 Series Connector System

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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 - 202Methods for test of connectors for electronic equipmentEIA - 364Test methods for electrical connectors

- 3. APPLICABLE SERIES NO.: CP06 Series
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD6.1 Thickness: 0.5mm(.020") ~ 2.0mm(.079")6.2 P.C. Board Layout: See attached drawings



REVIEWED : <u>Eisley</u> APPROVED : <u>Sun</u> VERIFIED : <u>Eric</u>



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 m Ω
7.3	Dielectric strength	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 M Ω

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#22~#28
8.2	Terminal crimp Tensile strength	When crimped AWG#22 size wire	More than 5.0 Kgf
	Tensile strength	When crimped AWG#24 size wire When crimped AWG#26 size wire	More than 3.0 Kgf More than 2.0 Kgf
		When crimped AWG#28 size wire	More than 1.3 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 700 gram
8.4	Contact retaining force in insulator	Retention speed 25 ± 3 mm per minute from housing	More than 2.5 Kgf
8.5	Single contact insertion force	Measure force to insertion using plug terminal at speed 25 ± 3 mm per minute	600 gram max.
8.6	Single contact withdrawal force	Measure force to withdrawal using plug terminal at speed 25 ± 3 mm per minute	60 gram min.
8.7	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial
8.8	Locking force	While withdrawing plug & receptacle W/O terminal at speed 25± 3 mm per minute	More than 1.3 Kgf

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.



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	ITEM	TEST CONDITION	REQUIREMENT
9.2	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.
9.3	Heat aging	85 ± 2 °C , 96 hours	No damage
9.4	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
9.5	Temperature cycling	One cycle consists of : (1)-55 $^{+0\circ}_{-3}$ 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
9.6	Salt spray	Temperature: $35 \pm 3 ^{\circ}$ C Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours (Stamping before plated) Spray time: 24 ± 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 on function Contact resistance: Less than twice of initial

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