瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CP04 Latch Type Series Power Connector	SPEC.NO.: SPCP0251 PAGE: 1 / 4

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.: CP04 With Latch Type Series
Header: P/N: CP042EP1MD0
Housing: P/N: CP042ESC000
Terminal: P/N: CP05T021PE0 or CP05T031PE0

4. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
6.1 P.C. Board Layout: See attached drawings

CVILUX CORP.
2006.09.05
ISSUED

REVIEWED : Alex APPROVED : David VERIFIED : Clark .

7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage	Current rating:When applying AWG #24 wire	1.0A , AC, DC
		Voltage rating:2-circuit (13mm Pitch)	3000V AC,DC
7.2	Contact resistance	Dry circuit of DC 20mV max. , 100mA max., Wire resistance shell be removed from the measured value.	Less than 10 mΩ
7.3	Dielectric strength	Applied 1minute between adjacent tetminal For 13 mm Pitch: 5000 V AC	No Breakdown
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#24-#28
8.2	Terminal crimp strength	When crimped AWG#24 size wire	More than 3 kgf
		When crimped AWG#26 size wire	More than 2 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 0.5 kgf
8.4	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from Wire to Wire Housing	More than 1.0 kgf
8.5	Single contact insertion force	Measure force to insertion using mating square pin at speed 25± 3 mm per minute	500 gram max.
8.6	Single contact withdrawal force	Measure force to withdrawal using mating square pin at speed 25± 3 mm per minute	100 gram min.
8.7	Pin retention force in Board mount Header	Push Pin for insulator base at speed 25± 3 mm per minute	More than 1.0 kgf

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	ITEM	TEST CONDITION	REQUIREMENT	
8.8	Mating and Unmating force	Speed 25± 3 mm per minute	Mating (Max.)	Unmating (Min.)
			2.0 kgf	3.0 kgf
8.9	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.
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 $^{+0}_{-3}$ °C , 30 min. (2) Room temp. 10-15 min. (3) 85 $^{+3}_{-0}$ °C , 30 min. (4) Room temp. 10-15 min. Total cycles : 5 cycles	Appearance: No damage Contact resistance: Less than twice of initial
9.6	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

	ITEM	TEST CONDITION	REQUIREMENT
9.7	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.8	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(11.1)	No damage

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

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste