瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC.NO.: SPCI078C
REVISIONS: ECN12250-0	For 0.80mm Pitch Wire to Board Connector of CI18 System	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
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: CI18 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
6.1 Thickness: 1.6 mm (.063″)
6.2 P.C. Board Layout: See attached drawings

CVILUX CORP
2012.10.12
ISSUED

REVIEWED : David APPROVED : Eisley VERIFIED : Enya .

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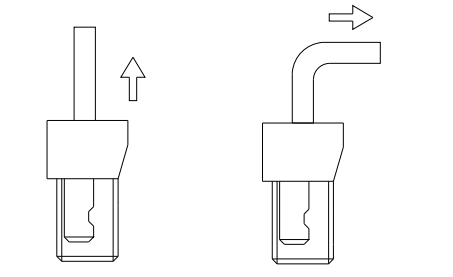
7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		0.5A AC /DC (AWG#32) 0.2A AC /DC (AWG#36) 30V/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 10 mA max. (EIA-364-23)	Initial: Less than 20 mΩ After tests: Less than 40 mΩ
7.3	Dielectric strength	When applied AC 1 minute between adjacent terminal (EIA-364-20)	Initial: AC 200 V No change After tests: AC 100V No change
7.4	Insulation resistance	When applied DC 250 V between adjacent terminal or ground (EIA-364-21)	More than 100 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire pull out force	Measure force to insertion using 0.50 mm square pin at speed 25± 3 mm per minute  	Parallel direction: AWG#32 More than 0.60 Kgf AWG#36 More than 0.40 Kgf Perpendicular direction: AWG#32 / AWG#36 More than 0.15 Kgf
8.2	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.20 Kgf
8.3	Mating & Un-mating force	Insert and withdraw connector at speed of 25 ± 3 mm per minute	See Item 11
8.4	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal (repeatedly by the rate of 10 cycles per minute)	Contact resistance: Less than twice of initial

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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	Solder ability	Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(12.1)	Appearance: No damag Contact resistance: To pass para 7-2
9.5	Heat aging	85 ± 2°C , 96 hours	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4
9.6	Humidity	60 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4
9.7	Temperature cycling	Five 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.	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4
9.8	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: 40mΩ Max.

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

11.Mating and Un-mating Force:

PIN No.	Mating(kgf max.)	Un-mating(kfg)min.)	30th Un-mating(kfg)min.)
2	1.20	0.20	0.08
3	1.30	0.25	0.12
4	1.40	0.30	0.16
5	1.50	0.35	0.20
6	1.60	0.40	0.24
7	1.70	0.45	0.28
8	1.80	0.50	0.32
9	1.90	0.55	0.36
10	2.00	0.60	0.40
12	2.20	0.70	0.48
14	2.40	0.80	0.57
15	2.50	0.85	0.61
16	2.70	0.90	0.65
17	2.80	0.95	0.69
20	3.10	1.10	0.82
22	3.30	1.20	0.90

12. Recommended IR Reflow Temperature Profile:

12.1 Using Lead-Free Solder Paste