瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI005I
REVISIONS	ECN10363	For CI22 Series Connector 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

3. APPLICABLE SERIES NO.: CI22 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS
   See attached drawings

5. MATERIALS
   See attached drawings

6. ACCOMMODATED P.C.BOARD
   6.1 Thickness: 0.8 mm (.031″) ~ 1.6 mm (.063″)
   6.2 P.C. Board Layout: See attached drawings

CVILUX CORP
2010.11.23
ISSUED

REVIEWED : David APPROVED : Clark VERIFIED : Sandy .

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI005I
REVISIONS	ECN10363	For CI22 Series Connector System	PAGE: 2/4

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 mΩ
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 1000 MΩ

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 When crimped AWG#24 size wire When crimped AWG#26 size wire When crimped AWG#28 size wire	More than 5.0 Kgf More than 3.0 Kgf More than 2.0 Kgf More than 1.3 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 600 gram
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 2.0 Kgf
8.5	Single contact insertion force	Measure force to insertion using 0.64 mm square pin at speed 25± 3 mm per minute	700 gram max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 0.64 mm square pin at speed 25± 3 mm per minute	100 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	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 1.5 Kgf

8.9 Insertion Force and Withdrawal Force :

8.9.1 Test method:

Housing with crimped contacts and a header shall be mated and unmated on the same axis. Initial insertion and withdrawal forces and withdrawal force at 30th shall be measured for single circuit and multi-circuits. For the measurement of single circuit, the housing lock shall be removed.

8.9.2 Requirements:

Unit: Kgf

NO. OF CIRCUITS	INSERTION FORCE (Max.)	WITHDRAWAL FORCE (Min.)
2	2.5	0.5
3	3.0	0.5
4	3.5	0.9
5	3.5	0.9
6	4.0	1.2
7	4.5	1.5
8	4.5	1.5
9	5.0	1.8
10	5.0	1.8
11	5.5	2.1
12	5.5	2.1
13	6.0	2.4
14	6.0	2.4
15	6.5	2.7
16	6.5	2.7
17	7.0	3.0
18	7.5	3.0
19	8.0	3.0
20	8.5	3.0

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.

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI005I
REVISIONS	ECN10363	For CI22 Series Connector System	PAGE: 4/4

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	**Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C **Lead-Free Process:** Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	**Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C **Lead-Free Process** Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C	No damage
9.5	Heat aging	105 ± 2°C , 96 hours	No damage
9.6	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
9.7	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.	Appearance: No damage Contact resistance: Less than twice of initial
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: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -25 to + 105°C