

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CI01 Series Connector System	SPEC.NO.: SPCI001N
REVISIONS	ECN11185		PAGE: 1/5

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
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO: CI01 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



REVIEWED : David APPROVED : Eisley VERIFIED : Karen .

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CI01 Series Connector System	SPEC.NO.: SPCI001N
REVISIONS	ECN11185		PAGE: 2/5

7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		2A 250V AC/DC (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 800 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#24~#30
8.2	Terminal crimp Tensile strength	When crimped AWG#24 size wire When crimped AWG#26 size wire When crimped AWG#28 size wire When crimped AWG#30 size wire	More than 3.0 Kgf More than 2.0 Kgf More than 1.3 Kgf More than 0.8 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 1.5 Kgf
8.5	Single contact insertion force	Measure force to insertion using 0.50 mm square pin at speed 25± 3 mm per minute	700 gram max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 0.50 mm square pin at speed 25± 3 mm per minute	100 gram min.
8.7	Durability	Connector shall be subjected to 30 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 1.0 Kgf

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 For CI01 Series Connector System	SPEC.NO.: SPCI001N
REVISIONS	ECN11185		PAGE: 3/5

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: $230 \pm 5^{\circ}\text{C}$ Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^{\circ}\text{C}$	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	DIP Type Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: $240 \pm 5^{\circ}\text{C}$ DIP Type Lead-Free Process Soldering time: 5 ± 0.5 second Soldering pot: $260 \pm 5^{\circ}\text{C}$ SMT Type Tin-Lead Process: Refer Reflow temperature profile(12.1) Soldering time: 10 second Max. Soldering pot: $230 \pm 5^{\circ}\text{C}$ SMT Type Lead-Free Process: Soldering time: 20 second Max. Soldering pot: $250\sim 260^{\circ}\text{C}$ Refer Reflow temperature profile(12.2)	No damage
9.5	Heat aging	$105 \pm 2^{\circ}\text{C}$, 96 hours	No damage
9.6	Humidity	$40 \pm 2^{\circ}\text{C}$, 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} $^{\circ}\text{C}$, 30 min. (2)Room temp. 10-15 min. (3) 85^{+3}_{-0} $^{\circ}\text{C}$, 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CI01 Series Connector System	SPEC.NO.: SPCI001N
REVISIONS	ECN11185		PAGE: 4/5

	ITEM	TEST CONDITION	REQUIREMENT
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

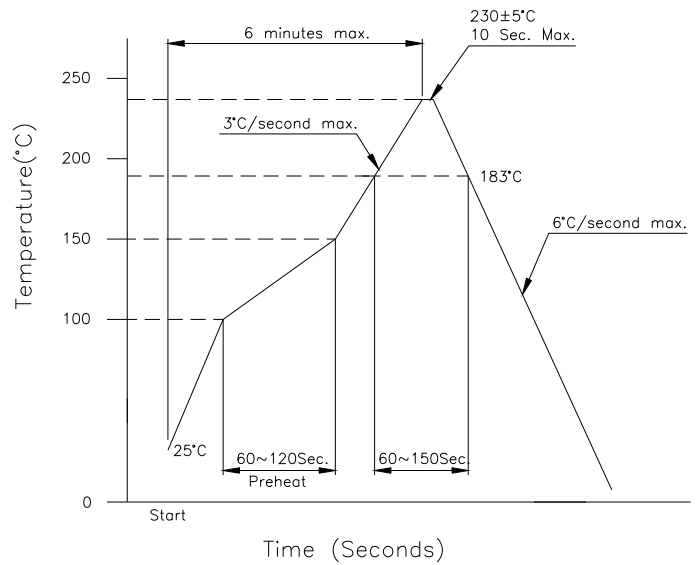
11.Mating and Unmating Force:

PIN No.	Mating(kgf max.)	Unmating(kgf min.)
2	1.5	0.3
3	3.0	0.6
4	3.0	0.6
5	4.0	1.0
6	4.0	1.0
7	5.0	1.2
8	5.0	1.2
9	5.0	1.2
10	6.0	1.4
11	6.0	1.4
12	6.0	1.4
13	7.0	1.8
14	8.0	2.0
15	10.0	2.5
16	10.0	2.5

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CI01 Series Connector System	SPEC.NO.: SPCI001N
REVISIONS	ECN11185		PAGE: 5/5

12. Recommended IR Reflow Temperature Profile:

12.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste

