

<b>ENGINEERING DEPT</b>		<b>PRODUCT SPECIFICATION</b> <b>For CI06 Series Connector System</b>	<b>SPEC.NO.: SPCI052D</b>
<b>REVISIONS</b>	<b>ECN10052</b>		<b>PAGE: 1/4</b>

**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: CI06 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 : Sandy .

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**7. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		2A 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 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	3.0 Kgf (29.4 N) Min. 2.0 Kgf (19.6 N) Min. 1.3 Kgf (12.7 N) Min. 0.8 Kgf (7.8 N) Min.
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	0.6 Kgf (5.9 N) Max.
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	1.5 Kgf (14.7 N) Min.
8.5	Single contact insertion force	Measure force to insertion using 0.50 mm square pin at speed 25± 3 mm per minute	0.7 Kgf (6.9 N) Max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 0.50 mm square pin at speed 25± 3 mm per minute	0.10 Kgf (0.98 N) 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	1.0 Kgf (9.8N) Min.
8.9	Locking force (Ref.)	While withdrawing plug & receptacle without terminal at speed 25±3mm per minute	2~4 Pin 2.0 Kgf.(19.6N) Min. 5~16 Pin 5.0 Kgf (49.0N) Min.



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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	<b>Tin-Lead Process:</b> Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C <b>Lead-Free Process:</b> Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	<b>DIP Type Tin-Lead Process:</b> Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C <b>DIP Type Lead-Free Process</b> Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C <b>SMT Type Lead-Free Process:</b> Soldering time: 20 second Max. Soldering pot: 250~260°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 area 7-3
9.7	Temperature cycling	One cycle consists of : (1)-25 <sup>+0</sup> / <sub>-3</sub> °C , 30 min. (2)Room temp. 10-15 min. (3) 105 <sup>+3</sup> / <sub>-0</sub> °C , 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial

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	ITEM	TEST CONDITION	REQUIREMENT
9.8	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: $48 \pm 4$ hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE:  $-25$  to  $+105^{\circ}\text{C}$

11. Recommended IR Reflow Temperature Profile:

