

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CI11 Series Connector System	SPEC.NO.: SPCI035E PAGE: 1/5
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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: CI11 Dual Row Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.6 mm (.024") ~ 1.2 mm (.047"),1.6mm(.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : Alex APPROVED : David VERIFIED : Clark .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1.0A AC (r.m.s.)/DC (AWG#28) 50V AC (r.m.s.)/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.(JIS C5402 5.4)	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal(JIS C5402 5.2/MIL-STD 202 method 302 Cond. B)	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground (JIS C5402 5.2/MIL-STD 202 method 301)	More than 100 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#28~#32
8.2	Terminal crimp Tensile strength	When crimped AWG#28 size wire When crimped AWG#30 size wire When crimped AWG#32 size wire	More than 1.3 Kgf More than 0.8 Kgf More than 0.6 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 500 gram
8.4	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 700 gram
8.5	Single contact insertion force	Measure force to insertion using pin of header at speed 25± 3 mm per minute	Less than 200 gram
8.6	Single contact withdrawal force	Measure force to withdrawal using pin of header at speed 25± 3 mm per minute	More than 50 gram
8.7	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
8.8	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.50 Kgf

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9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current (UL 498)	30°C max.
9.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions (MIL-STD-202,method 201A)	Appearance: No damage Discontinuity: 1 micro second max.
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	SMT Type Tin-Lead Process: Refer Reflow temperature profile(11.1) Soldering time: 10 second Max. Soldering pot: 230 ± 5 °C SMT Type Lead-Free Process: Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(11.2)	No damage
9.5	Heat aging	85 ± 2°C , 96 hours(JIS C0021/MIL-STD-202,method 108A,condition A)	No damage Contact resistance: Less than twice of initial
9.6	Humidity	60 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested (JIS C0020/MIL-STD-202, method 103 B, condition B)	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass Para 7-4
9.7	Temperature cycling	Five cycle consists of : (1)-25 ⁺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

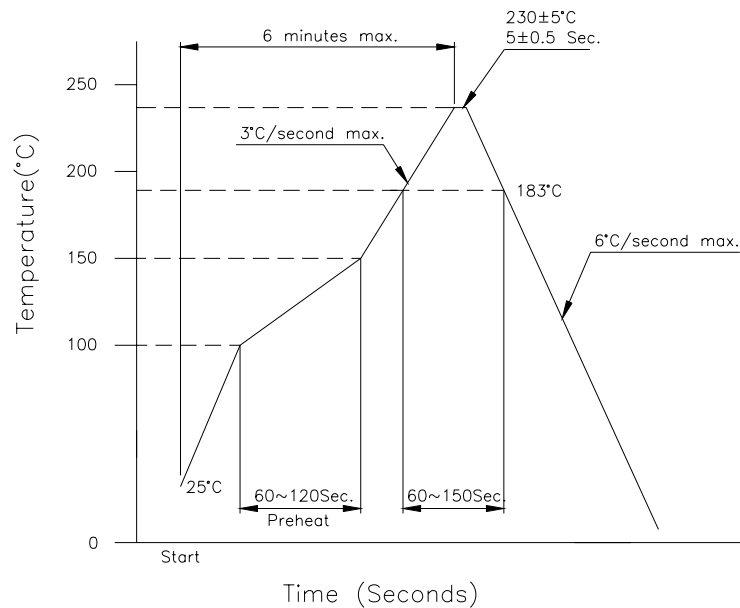
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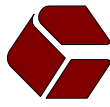
9.8	Salt spray	Temperature: $35 \pm 2^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours Measurement must be taken after water rinse(JIS C5028/MIL-STD-202, method 101 D, condition B)	Appearance: No damage Contact resistance: Less than twice of initial
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10. AMBIENT TEMPERATURE RANGE: -25 to $+85^{\circ}\text{C}$

11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste





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11.2 Using Lead-Free Solder Paste

