

ENGINEERI	NG DEPT.
REVISIONS	ECN11185

PRODUCT SPECIFICATION For CI01 Series Dual Row Connector System

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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
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part
	design standards

- 3. APPLICABLE SERIES NO: CI01 Dual Row Series (Latch Type)
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD6.1 Thickness: 0.8 mm (.031") ~ 1.6 mm (.063")6.2 P.C. Board Layout: See attached drawings



REVIEWED : <u>David</u> APPROVED : <u>Eisley</u> VERIFIED : <u>Karen</u>.



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC/DC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 m Ω
7.3	Dielectric strength	When applied AC 500 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 M Ω

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#22~#28
8.2	Terminal crimp Tensile	When crimped AWG#22 size wire	More than 5.0 Kgf
	strength	When crimped AWG#24 size wire	More than 3.0 Kgf
		When crimped AWG#26 size wire	More than 2.0 Kgf
		When crimped AWG#28 size wire	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 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	400 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	More than 1.0 Kgf
		25± 3 mm per minute	
8.9	Locking force(Ref.)	While withdrawing plug & receptacle without terminal at speed 25± 3 mm per minute	More than 6.0 Kgf



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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	Solder ability	Tin-Lead Process:	Minimum:
		Soldering time: 5 ± 0.5 second	90% of immersed area
		Soldering pot: $230 \pm 5^{\circ}C$	
		Lead-Free Process:	
		Soldering time: 3 ± 0.5 second	
		Soldering pot: 245 ± 5°C	
9.4 Res	Resistance to soldering	Tin-Lead Process:	No damage
	heat	Soldering time: 5 ± 0.5 second	
		Soldering pot: $240 \pm 5^{\circ}C$	
		Lead-Free Process	
		Soldering time: 5 ± 0.5 second	
		Soldering pot: $260 \pm 5^{\circ}C$	
9.5	Heat aging	85 ± 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 :	Appearance: No damage
		(1)-55 $^{+0}_{-3}$ °C , 30 min.	Contact resistance:
		(2)Room temp. 10-15 min.	Less than twice of initial
		(3) 85^{+3}_{-0} °C , 30 min.	
		(4)Room temp. 10-15 min.	
9.8	Salt spray	Temperature: 35 ± 3 °C	Appearance: No damage
		Solution: $5 \pm 1\%$	Contact resistance:
		Spray time: 48 ± 4 hours	Less than twice of initial
		Measurement must be taken after water rinse	