

ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.:	SPCI041A
DEPT.	For CI04 Series Connector System	PAGE:	1/3

#### 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:

Methods for test of connectors for electronic equipment

MIL - STD - 202 MIL - STD - 1344 Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CI04 Series

# 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

#### 5. MATERIALS

See attached drawings

#### 6. ACCOMMODATED P.C.BOARD

6.1 Thickness:  $0.8 \text{ mm} (.031'') \sim 1.6 \text{ mm} (.063'')$ 6.2 P.C. Board Layout: See attached drawings



REVIEWED: <u>Alex</u> APPROVED: <u>David</u> VERIFIED: <u>Sandy</u>.



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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 $20 \text{ m}\Omega$
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 $1000  \text{M}\Omega$

## 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#26~#30
8.2	Terminal crimp Tensile	When crimped AWG#26 size wire	More than 2.0 Kgf
	strength	When crimped AWG#28 size wire	More than 1.3 Kgf
		When crimped AWG#30 size wire	More than 0.8 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into	Less than 600 gram
		housing	
8.4	Contact retaining force in	Retention speed 25± 3 mm per minute from	More than 1.2 Kgf
	insulator	housing	
8.5	Single contact insertion	Measure force to insertion using 0.50 mm	500 gram max.
	force	square pin at speed 25± 3 mm per minute	
8.6	Single contact	Measure force to withdrawal using 0.50 mm	100 gram min.
	withdrawal force	square pin at speed 25± 3 mm per minute	
8.7	Durability	Connector shall be subjected to 100 cycles of	Contact resistance:
		insertion and withdrawal	Less than twice of initial

## 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	Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C	No damage
9.5	Heat aging	85 ± 2°C, 96 hours	No damage



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	ITEM	TEST CONDITION	REQUIREMENT
9.6	Humidity	$40 \pm 2$ °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 - 3 °C, 30 min. (2)Room temp. 10-15 min. (3) 85 +3 °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 + 85°C