

# ENGINEERING

# **PRODUCT SPECIFICATION** For CI62 Series of 10.0-8.0mm Pitch

SPEC.NO.: SPCI016F

DEPT.

Wire to Board Connector

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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 equipme	
MIL - STD - 1344	Test methods for electrical connectors	

- 3. APPLICABLE SERIES NO.: CI62 Series
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD6.1 Thickness: 1.6 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		7A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 m $\Omega$
7.3	Dielectric strength	When applied AC 1500 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 $\Omega$

#### 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#18~#22
8.2	Terminal crimp Tensile	When crimped AWG#18 size wire	More than 9.0 Kgf
strength	strength	When crimped AWG#20 size wire	More than 7.0 Kgf
		When crimped AWG#22 size wire	More than 5.0 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 800 gram
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 3.0 Kgf
8.5	Single contact insertion force	Measure force to insertion using 2.36 mm round pin at speed 25± 3 mm per minute	2.5 Kgf max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 2.36 mm round pin at speed 25± 3 mm per minute	500 gram 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	More than 1.5 Kgf
		25± 3 mm per minute	

## 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.



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	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Tin-Lead Process:	Minimum:
		Soldering time: $5 \pm 0.5$ second	90% of immersed area
		Soldering pot: $230 \pm 5 \circ C$	
9.4	Resistance to soldering	Tin-Lead Process:	No damage
	heat	Soldering time: $5 \pm 0.5$ second	
		Soldering pot: 240 ± 5°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 : (1)-55 $^{+0}_{-3}$ °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
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

## 11. MATING FORCE AND UNMATING FORCE:

		Unit: Kgf
No. of Circuits	Mating Force ( Initial max. )	Unmating Force ( Initial min. )
2	5.0	1.4
3	7.0	1.8
4	8.8	2.3
5	10.7	2.6
6	12.6	3.0