

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CI56 Series of 7.5-5.0mm Pitch Wire to Board Connector	SPEC.NO.: SPCI046B PAGE: 1/4
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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

3. APPLICABLE SERIES NO.: CI56 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : Alex APPROVED : David VERIFIED : Eager .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		6A 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 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 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#18~#24
8.2	Terminal crimp Tensile strength	When crimped AWG#18 size wire When crimped AWG#20 size wire When crimped AWG#22 size wire When crimped AWG#24 size wire	More than 9.0 Kgf More than 7.0 Kgf More than 5.0 Kgf More than 3.0 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 700 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 1.14 mm square pin at speed 25± 3 mm per minute	1.5 KgF max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 1.14 mm square pin at speed 25± 3 mm per minute	150 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 25± 3 mm per minute	More than 2.5 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	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
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

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11. Mating&Unmating Force

PIN NO.	Mating (Max.)	Unmating (Min.)
2	4.4Kgf	0.6Kgf
3	5.6Kgf	0.9Kgf
4	6.8Kgf	1.2Kgf
5	8.0Kgf	1.5Kgf
6	9.2Kgf	1.8Kgf
7	10.4Kgf	2.1Kgf
8	11.6Kgf	2.4Kgf
9	12.8Kgf	2.7Kgf
10	14.0Kgf	3.0Kgf