

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CI47 Series Connector System	SPEC.NO.: SPCI029C PAGE: 1/3
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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: CI47 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS:

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.4 mm (.016") ~ 0.6 mm (.024")
6.2 P.C. Board Layout: See attached drawings



REVIEWED : Alex APPROVED : David VERIFIED : Ellen .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1A 100V 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 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 500 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 300 gram
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.7 Kgf
8.5	Single contact insertion force	Measure force to insertion using 0.50 mm square pin at speed 25± 3 mm per minute	600 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	70 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 0.4 Kgf

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	Soldering time: 5 ± 0.5 second Soldering pot: $230 \pm 5^{\circ}\text{C}$	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Soldering time: 5 ± 0.5 second Soldering pot: $260 \pm 5^{\circ}\text{C}$	No damage
9.5	Heat aging	$85 \pm 2^{\circ}\text{C}$, 96 hours	No damage
9.6	Humidity	$40 \pm 2^{\circ}\text{C}$, 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} $^{\circ}\text{C}$, 30 min. (2)Room temp. 10-15 min. (3) 85^{+3}_{-0} $^{\circ}\text{C}$, 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.8	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ 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