

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CP48 Series Power Connector	SPEC.NO.: SPCP102A
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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.: CP48 SERIES

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIAL

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

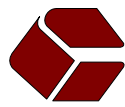
6.2 P.C. Board Layout: See attached drawings



APPROVE BY: Eisley

CHECKED By: Eisley

TESTER BY: Hank



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated voltage(max.)		600V AC (r.m.s.)
	Rated Current(max.) and Applicable Wire	AWG#22 wire gage for UL10516	5.0A
7.2	Contact resistance	Dry circuit of DC 20mV max. , 100mA max., Wire resistance shall be removed from the measured value.	Less than 10 mΩ
7.3	Contact Resistance Of Wire Termination (Low Level)	Terminate the applicable wire to the terminal and measure wire using a voltage of 20 mV and a current of 100 mA.	Less than 2 mΩ
7.4	Dielectric strength	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.5	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#22
8.2	Terminal crimp strength	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 1.81 Kgf
8.4	Terminal Retention force	Retention speed 25± 3 mm per minute from housing	More than 3.63 Kgf
8.5	Normal Face	Apply a perpendicular force.	0.748 Kgf Min.
8.6	Durability	Connector shall be subjected to 25 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial
8.7	Mating and Unmating force	Speed 25± 3 mm per minute	Mating: 5.0 Kgf Max. Unmating: 1.0 Kgf Min.

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.



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	ITEM	TEST CONDITION	REQUIREMENT
9.2	Shock	490m/S ² (50G) , 3 strokes in each X.Y.Z. axes.	Appearance: No damage Discontinuity: 1 micro second max.
9.3	Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	Contact resistance: Less than 10 mΩ Discontinuity: 1 micro second max.
9.4	Temperature cycling	5 cycle consists of (1)-40 +0/-3 °C , 30 min. (2)Room temp. 10-15 min. (3) 105 +3/-0 °C , 30 min. (4)Room temp. 10-15 min. The measurement is held after being left indoor for 3 hours	Appearance: No damage Contact resistance: Less than twice of initial
9.5	Heat aging	105± 2°C, 96 hours	Appearance: No damage Contact resistance: Less than twice of initial
9.6	Humidity (Steady State)	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 Insulation resistance: More than 1000 MΩ
9.7	Humidity (Cyclic)	Mate connectors: cycle per EIA-364-31: 24 cycles at temperature 25 ± 3°C at 80 ± 5% relative humidity and 65 ± 3°C at 50 ± 5% relative humidity; dwell time of 1.0 hour; ramp time of 0.5 hours. (Note: Remove surface moisture and air dry for 1 hour prior to measurements.)	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3 Insulation resistance: More than 1000 MΩ



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	ITEM	TEST CONDITION	REQUIREMENT
9.8	Cold Resistance	-40± 3°C, 96 hours	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -40 to + 105°C(Include temperature rising by energized current)

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