

ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.: SPCD015B
DEPT.	For Solder Cup Combination High Power D-Sub Connector	PAGE: 1 / 3

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

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.: 5W1, 3W3, 7W2, 5W5, 8W8, 9W4, 11W1, 13W3, 13W6, 17W5, 17W2, 21W1, 21W4, 24W7, 25W3, 27W2, 36W4, 43W2, 3W3C, C3W3, C5W5, C7W2, C8W8, and CHPT Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. SOLDER CUP AND CRIMP TYPE HIGH POWER CONTACT RECOMMENDED WIRE SIZE:

AWG #12~#14 for 20 Amps ; AWG # 8~#10 for 40 Amps



REVIEWED : Alex APPROVED : David VERIFIED : Rita



ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.: SPCD015B
DEPT.	For Solder Cup Combination High Power D-Sub Connector	PAGE: 2 / 3

7. ELECTRICAL PERFORMANCE:

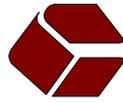
	ITEM	TEST CONDITION	REQUIREMENT
7.1	Signal contact rated current and voltage		3A 250V AC (r.m.s.)
7.2	Signal contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 10 mΩ
7.3	Dielectric strength (Sea Level)	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 5000 MΩ
7.5	High power contact current rating		20 Amps or 40 Amps
7.6	High power contact resistance	Dry circuit of DC 20mV max., 100 mA max.	Less than 2.7 mΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 4.5 Kgf
8.2	Signal contact insertion force	Measure force to insertion using Ø 1.04 mm test pin at speed 25± 3 mm per minute	340 gram max. Per contact
8.3	Signal contact withdrawal force	Measure force to withdrawal using Ø 0.99 mm test pin at speed 25± 3 mm per minute	28 gram min. Per contact
8.4	High power contact insertion force	Measure force to insertion using plug terminal at speed 25± 3 mm per minute	1.2 Kgf max. Per contact
8.5	High power contact withdrawal force	Measure force to withdrawal using plug terminal at speed 25± 3 mm per minute	0.2 Kgf min. Per contact
8.6	Mating and unmating force	Speed 25± 3 mm per minute	17.0 Kgf max.
8.7	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: 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.



ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.: SPCD015B
DEPT.	For Solder Cup Combination High Power D-Sub Connector	PAGE: 3 / 3

	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	Heat aging	$125 \pm 2^{\circ}\text{C}$, 96 hours	No damage
9.5	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
9.6	Temperature cycling	One cycle consists of : (1) $-55 \begin{smallmatrix} +0 \\ -3 \end{smallmatrix}^{\circ}\text{C}$, 30 min. (2)Room temp. 10-15 min. (3) $85 \begin{smallmatrix} +3 \\ -0 \end{smallmatrix}^{\circ}\text{C}$, 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.7	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: -55 to $+125^{\circ}$