

ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.: SPCB012C
DEPT.	For CBRB Series 0.5mm Board to Board 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
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES No. : CBRB Series

4. SHAPE,CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.8 mm (.031") ~ 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : Alex APPROVED : David VERIFIED : Jim .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		0.5A 50V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. 10 mA max.	Less than 50 mΩ
7.3	Dielectric strength	When applied AC 500V 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	Contact retaining force in insulator	Retention speed 25± 3 mm per minute form housing	More than 100 gram
8.2	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial
8.3	Mating force	Speed 25± 3 mm per minute	0.07 x no.of Contacts kgf max.
8.4	Unmating force	Speed 25± 3 mm per minute	0.02 x no.of Contacts kgf min.

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	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.
9.2	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.3	Resistance to soldering heat	Lead-Free Process: Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(11.1)	No damage

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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Heat aging	105± 2°C, 96 hours	No damage
9.5	Humidity	60±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
9.6	Temperature cycling	One cycle consists of : (1) -55 $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ °C , 30 min. (2) Room temp. 10-15 min. (3) 105 $\begin{smallmatrix} +3 \\ -0 \end{smallmatrix}$ °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± 2°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:

-40 ~ +105°C ; + 215°C intermittent (Vapor Phase Solder Reflow) for SMT type

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

