



瀚荃股份有限公司  
CviLux Corporation

## RELIABILITY TEST REPORT

TESTITEM :1.ELECTRICAL  
2.MECHANICAL  
3.ENVIRONMENTAL

SERIES NO. : CB50 Series

TEST EQUIPMENT : 1.INSERTION & REMOVAL APPARATUS  
2.ELECTRONIC MEASURING APPARATUS  
3.ENVIRONMENTAL APPARATUS

DATE OF TESTING : 6/ 30 / 06”

TEST DEPART : QA

TESTER :Scott.Lien

CONTAINT : ATTACHED

SPEC.NO.: SPCB006B

REVIEWED : Jackal APPROVED : Rita VERIFIED :Scott.Lien



1.ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Contact resistance	Dry circuit of DC 20 mV max.,100 mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	6.37 mΩ
				2	6.87 mΩ
				3	6.92 mΩ
				4	6.57 mΩ
				5	5.96 mΩ
1-2	Dielectric strength	When applied AC 600 V 1 minute between adjacent terminal	No Change	Sample	600 V 1 minute
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ	Sample	1000 MΩ min.
				1	75*10 <sup>5</sup> MΩ
				2	80*10 <sup>5</sup> MΩ
				3	90*10 <sup>5</sup> MΩ
				4	85*10 <sup>5</sup> MΩ
				5	70*10 <sup>5</sup> MΩ

2. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 200 gram	Sample	200 gram min.
				1	386 gram
				2	414 gram
				3	390 gram
				4	314 gram
				5	401 gram
2-2	Single contact insertion force	Measure force to insertion using 0.40 mm square pin at speed 25±3 mm per minute	100 gram max	Sample	100 gram max.
				1	65 gram
				2	62 gram
				3	77 gram
				4	75 gram
				5	73 gram
2-3	Single contact withdrawal force	Measure force to withdrawal using 0.40 mm square pin at speed 25±3 mm per minute	15 gram min	Sample	15 gram min.
				1	34 gram
				2	32 gram
				3	38 gram
				4	33 gram
				5	29 gram

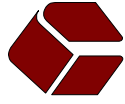
2-4	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.22 mΩ
				2	6.92 mΩ
				3	6.53 mΩ
				4	6.28 mΩ
				5	6.77 mΩ

### 3.ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	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.	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-2	Solder ability	Soldering time: 5±0.5 sec. Soldering pot:240±5	Minimum: 90% of immersed area	Sample	90% of Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-3	Resistance to soldering heat	Refer recommended IR temperature profile	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-4	Heat aging	105±2 , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-5	Humidity	40±2 , 90-95%RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

			Contact resistance: less than twice of initial	Sample	< twice of initial
				1	6.22 mΩ
				2	6.93 mΩ
				3	6.33 mΩ
				4	6.41 mΩ
				5	6.69 mΩ
			To pass para 1-2	Sample	No change
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-6	Temperature cycling	One cycle consists of: 1. -55 <sup>+0</sup> <sub>-3</sub> , 30 min 2. Room temp. 10-15 min 3. 85 <sup>+3</sup> <sub>-0</sub> , 30 min 4. Room temp. 10-15 min	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.23 mΩ
				2	6.92 mΩ
				3	6.29 mΩ
				4	6.12 mΩ
				5	6.66 mΩ
3-7	Salt spray	Temperature:35±3°C Solution:5±1% Spray time:48±4 hours Measurement must be taken after water rinse	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.18 mΩ
				2	6.85 mΩ
				3	6.29 mΩ
				4	7.09 mΩ
				5	6.71 mΩ

4. AMBIENT TEMPERATURE RANGE: -55~+125 °C



5. Recommended IR Reflow Temperature Profile:

