



瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

TEST ITEM : 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO. : 0.8mm Board to Board CBRD series

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

DATE OF TESTING : 3/27/09'

TEST DEPART : R&D

TESTER : Kevin.Wu

CONTAIN : ATTACHED

REVIEWED : Alex APPROVED : David VERIFIED : Kevin

1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
				Sample		
1-1	Low-signal Level Contact resistance	Mate connectors, measure by dry circuit, 20 mV Max., 10 mA Max.	40 mΩ Max. Change allowed	Sample	40 mΩ max.	
				1	30.7	
				2	30.5	
				3	30.3	
				4	30.4	
				5	30.5	
				6	30.4	
1-2	Insulation resistance	Unmate connector, apply DV 500 V between adjacent terminals.	1000 MΩ Min.	Sample	1000 MΩ min.	
					Male	Female
				1	7.5x10 ⁶	7.5x10 ⁶
				2	7.5x10 ⁶	7.5x10 ⁶
				3	7.6x10 ⁶	7.5x10 ⁶
				4	7.5x10 ⁶	7.5x10 ⁶
1-3	Dielectric Withstanding Voltage	Test between adjacent contacts of Unmated connectors.	250 V AC Min. at sea level for 1 minute, No discharge, flashover Or breakdown. Current leakage: 1mA Max.	Sample	Male	Female
				1	OK	OK
				2	OK	OK
				3	OK	OK
				4	OK	OK
				5	OK	OK

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
				Sample	mΩ	
2-1	Durability	The sample should be mounted in the tester and fully mated and unmated the number of cycles specified at the rate of 25±3mm/min.	30 cycles.	Sample	mΩ	
				1	34.2	
				2	33.8	
				3	34.1	
				4	34.3	
				5	33.9	
				6	33.9	

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT
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2-2	Mating and Unmating Force (Reference)	Speed 25±3 mm per minute	Mating force (0.05x no. of Contacts kgf max.) Unmating force (0.02x no. of Contacts kgf Min.)	12 PIN H=4.0	Mating	Unmating
				1	0.930	1.011
				2	0.922	0.826
				3	0.943	1.161
				4	0.981	1.140
				5	0.940	1.110
				12 PIN H=5.0	Mating	Unmating
				1	0.910	1.122
				2	0.879	0.930
				3	0.801	0.981
				4	0.912	1.092
				5	0.902	1.029
				12 PIN H=8.0	Mating	Unmating
				1	0.859	0.666
				2	0.915	1.145
3	0.981	1.044				
4	0.917	1.019				
5	0.889	0.882				
2-3	Terminal/Housing Retention forc	Apply axial pull out force at the speed rate Of 25± 3 mm/min. On the terminal assembled in the housing.	0.4 kgf Min.	Sample	Male	Female
				1	0.494	0.692
				2	0.492	0.722
				3	0.502	1.077
				4	0.481	0.755
				5	0.735	1.059
				6	0.644	0.737

ITEM		TEST CONDITION	REQUIREMENT	TEST RESULT		
3-1	Resistance to Reflow soldering heat	Pre Heat : 150°C Max, 90sec Min. Heat : 200°C Min., 30sec Min. Peak Temp. : 260°C±5°C, 10sec	No damage	Sample	No damage	
					Male	Female
				1	OK	OK
				2	OK	OK
				3	OK	OK
				4	OK	OK
3-2	Humidity- Temperature cycling	Mated Connector 25~65°C, 90-95% RH, 10 Cycles Reefer to Method IV.	No damage	Sample	No damage	
					Male	Female
				1	OK	OK
				2	OK	OK
				3	OK	OK
				4	OK	OK
			Contact resistance: Less than twice of initial	Sample	mΩ	
				1	34.1	
				2	34.5	
				3	34.4	
				4	33.8	
				5	34.2	
3-3	Salt Spray	Subject mated/unmated connectors to 5% salt-solution concentration, 35°C for 48 hours.	No damage	Sample	No damage	
				1	OK	
				2	OK	
				3	OK	
				4	OK	
			Contact resistance: Less than twice of initial	Sample	mΩ	
				1	36.5	
				2	36.8	
				3	36.7	
				4	36.4	
				5	36.7	
3-4	Solder ability	Subject the test area of contacts into the flux for 5- 10 sec. And then into solder bath, Temperature at 245 ± 5°C, for 4 – 5 second	Minimum: 95% of solder coverage.	Sample	95%↑	
				1	OK	
				2	OK	
				3	OK	
				4	OK	
5	OK					