



瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

TESTITEM : 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO. : 0.5mm Board to Board CBRB series

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

DATE OF TESTING : 9/2/04

TEST DEPART : R&D

TESTER : Casey.Lin

CONTAIN : ATTACHED



REVIEWED : Alex APPROVED : David VERIFIED : Casey.



1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
1-1	Contact resistance	Dry circuit of DC 20mV max.,10mA max.	Less than 50 mΩ	Sample	50 mΩ max.	
				1	35.7	
				2	35.5	
				3	35.3	
				4	35.4	
				5	35.5	
				6	35.9	
1-2	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal	No Change	Sample	500 V 1 minute	
					Male	Female
				1	OK	OK
				2	OK	OK
				3	OK	OK
				4	OK	OK
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ	Sample	500 MΩ min.	
					Male	Female
				1	7.5×10^6	7.5×10^6
				2	7.5×10^6	7.5×10^6
				3	7.5×10^6	7.5×10^6
				4	7.5×10^6	7.5×10^6
				5	8.0×10^6	7.5×10^6

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 100 gram	Sample	Male	Female
				1	317	344
				2	320	322
				3	388	344
				4	307	388
				5	334	351
				6	332	327
2-2	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	mΩ	
				1	40.4	
				2	40.6	
				3	40.8	
				4	40.1	
				5	40.5	
				6	40.2	



	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
2-3	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.)	60 PIN H=2.5	Mating	Unmating
				1	1.55	1.43
				2	1.56	1.43
				3	1.57	1.42
				4	1.58	1.43
				5	1.56	1.44
				60 PIN H=3.0	Mating	Unmating
				1	1.99	2.01
				2	1.92	2.03
				3	1.98	2.02
				4	1.98	2.03
				5	1.96	2.04
				60 PIN H=3.5	Mating	Unmating
				1	2.01	2.03
				2	2.00	2.02
				3	2.01	2.00
				4	2.00	2.00
				5	2.02	2.02
				60 PIN H=4.0	Mating	Unmating
				1	2.01	2.03
				2	2.00	2.05
				3	2.02	2.03
				4	2.01	2.02
				5	2.01	2.03
				60 PIN H=4.5	Mating	Unmating
				1	2.05	2.06
				2	2.06	2.02
				3	2.07	2.02
				4	2.08	2.01
				5	2.06	2.03
				60 PIN H=5.0	Mating	Unmating
				1	2.03	2.02
				2	2.04	2.03
				3	2.02	2.05
				4	2.01	2.06
				5	2.06	2.04



3.ENVIRONMENTAL PERFORMANCE:

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
3-1	Solderability Soldering time: 5±0.5°second Soldering Pot: 230±5°C	90% of immersed area	Sample	90%↑	
				Male	Female
			1	OK	OK
			2	OK	OK
			3	OK	OK
			4	OK	OK
3-2	Resistance to soldering heat Soldering time: 5±0.5° second Soldering Pot: 260±5°C	No damage	Sample	No damage	
				Male	Female
			1	OK	OK
			2	OK	OK
			3	OK	OK
			4	OK	OK
3-3	Heat aging 85± 2°C, 96 hours	Appearance: No damage Contact resistance: Less than twice of initial	Sample	mΩ	
			1	41.7	
			2	41.5	
			3	41.4	
			4	41.5	
			5	41.3	
3-4	Humidity 40± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Contact resistance: Less than twice of initial	Sample	mΩ	
			1	44.2	
			2	44.6	
			3	44.1	
			4	44.5	
			5	44.2	
		Dielectric strength: To pass para 1-2	Sample	500V 1 minute	
			1	OK	
			2	OK	
			3	OK	
			4	OK	
			5	OK	
3-5	Temperature cycling One cycle consists of : (1) -55 ⁺⁰ ₋₃ °C , 30 min. (2) Room temp. 10-15 min. (3) 105 ⁺³ ₋₀ °C , 30 min. (4) Room temp. 10-15 min.	Appearance : No damage	Sample		
			1	OK	
			2	OK	
			3	OK	
			4	OK	
			5	OK	
		Contact resistance: Less than twice of initial	Sample	mΩ	
			1	41.5	
			2	41.9	
			3	41.8	
			4	41.9	
			5	41.4	