



瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

TESTITEM :1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO. : CB01 Series

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

DATE OF TESTING : 1/ 12 / 06”

TEST DEPART : QA

TESTER Scott.Lien:

CONTAINT : ATTACHED

SPEC. NO. : SPCB001F

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	13.85 mΩ
				2	14.52 mΩ
				3	15.01 mΩ
				4	14.20 mΩ
				5	15.63 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	100*10 ⁵ MΩ
				2	100*10 ⁵ MΩ
				3	100*10 ⁵ MΩ
				4	90*10 ⁵ MΩ
				5	100*10 ⁵ 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 300 gram	Sample	300 gram min.
				1	987 gram
				2	1019 gram
				3	969 gram
				4	991 gram
				5	1112 gram
2-2	Single contact insertion force	Measure force to insertion using 0.46 mm square pin at speed 25±3 mm per minute	200 gram max	Sample	200 gram max.
				1	60 gram
				2	58 gram
				3	64 gram
				4	69 gram
				5	77 gram
2-3	Single contact withdrawal force	Measure force to withdrawal using 0.46 mm square pin at speed 25±3 mm per minute	15 gram min	Sample	15 gram min.
				1	23 gram
				2	22 gram
				3	24 gram
				4	28 gram
				5	30 gram

2-4	Durability	Connector shall be subjected to 50 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	13.91 mΩ
				2	14.56 mΩ
				3	15.06 mΩ
				4	14.32 mΩ
				5	15.54 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:245 ± 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	Soldering time: 5 ± 0.5 sec. Soldering pot:260 ± 5	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	14.92 mΩ
				2	14.57 mΩ
				3	15.04 mΩ
				4	14.21 mΩ
				5	15.67 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 ⁺⁰ ₋₃ , 30 min 2. Room temp. 10-15 min 3. 85 ⁺³ ₀ , 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	13.92 mΩ
				2	14.55 mΩ
				3	15.03 mΩ
				4	14.22 mΩ
				5	15.64 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	13.99 mΩ
				2	14.56 mΩ
				3	15.08 mΩ
				4	14.25 mΩ
				5	15.65 mΩ

4. AMBIENT TEMPERATURE RANGE

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