



瀚荃股份有限公司  
CviLux Corporation

## RELIABILITY TEST REPORT

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

SERIES NO. : CJ31 Series

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

DATE OF TESTING : 12/10/06”

TEST DEPART : QC

TESTER : Scott.Lien

CONTAIN : ATTACHED

SPEC.NO:SPCJ042A

REVIEWED : Jackal APPROVED : Rita VERIFIED : Scott.Lien

1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	
1-1	Contact resistance	Dry circuit of DC 20 mV max.,100 mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	11.54 mΩ
				2	11.66 mΩ
				3	11.50 mΩ
				4	11.62 mΩ
				5	11.51 mΩ
1-2	Dielectric strength	When applied AC 1000 V 1 minute between adjacent terminal	No change	Sample	1000 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 500 MΩ	Sample	500 MΩ min.
				1	∞
				2	∞
				3	∞
				4	∞
				5	∞

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	
2-1	Mating force	Measure force to mate sample at speed 25±3 mm per minute with plug latch depressed	2.27 kgf (5   b) max.	Sample	2.27 kgf max.
				1	1.55 kgf
				2	1.62 kgf
				3	1.57 kgf
				4	1.53 kgf
				5	1.72 kgf
2-2	Retention force (Between the jack and plug)	Retention speed 25±3 mm per minute from jack	7.7 kgf (17   b) min.	Sample	7.7 kgf min.
				1	12.83 kgf
				2	12.69 kgf
				3	12.74 kgf
				4	12.59 kgf
				5	12.81 kgf
2-3	Durability	Connector shall be subjected to 300 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	11.83 mΩ
				2	11.70 mΩ
				3	11.77 mΩ
				4	11.69 mΩ
				5	11.80 mΩ

3. ENVIRONMENTAL PERFORMANCE:

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
			Sample	Result
3-1	Vibration 1.5 mm 10-55-10 HZ/minute each 2.hours for X, Y and Z directions	Appearance: No damage	Sample	No damage
		Discontinuity: 1 micro second max.	Sample	1 micro second max
3-2	Solder ability Soldering time: 5 ±0.5 sec. Soldering pot:230 ±5°C	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°C	Appearance: No damage	Sample	No damage
			1	Pass
			2	Pass
			3	Pass
			4	Pass
			5	Pass
3-4	Heat aging 105 ±2°C , 96 hours	Appearance: No damage	Sample	No damage
			1	Pass
			2	Pass
			3	Pass
			4	Pass
			5	Pass

ITEM		TEST CONDITION	REQUIREMENT	TEST RESULT	
3-5	Humidity	40 $\pm 2^{\circ}\text{C}$ , 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	11.64 m $\Omega$
				2	11.73 m $\Omega$
				3	11.69 m $\Omega$
				4	11.85 m $\Omega$
			Dielectric strength: To pass Para 1-2	Sample	Pass para 1-2
				1	Pass
				2	Pass
				3	Pass
4	Pass				
5	Pass				
3-6	Temperature cycling	One cycle consists of: 1. $-55_{-3}^{+0}\text{C}$ , 30 min 2. Room temp. 10-15 min 3. $85_{+3}^{+0}\text{C}$ , 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	11.72 m $\Omega$
				2	11.89 m $\Omega$
				3	11.63 m $\Omega$
4	12.05 m $\Omega$				
5	11.96 m $\Omega$				
3-7	Salt spray	Temperature: $35\pm 3^{\circ}\text{C}$ Solution: $5\pm 1\%$ Spray time: $48\pm 4$ 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	12.22 m $\Omega$
				2	12.17 m $\Omega$
				3	12.09 m $\Omega$
4	12.16 m $\Omega$				
5	12.12 m $\Omega$				

4.AMBIEMT TEMPOERATURE RANGE : -40 to + 105°C