



瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

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

SERIES NO. : CF25 SERIES (Spot Plating)

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

DATE OF TESTING : 12/08/2011”

TEST DEPART : R&D TESTER : Sun.Kuo

CONTENT : ATTACHED

REVIEWED : David APPROVED : David VERIFIED : Sun .

1. ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	
1-1	Dielectric strength	For 0.5mm Pitch When applied AC 150V 1 minute between adjacent terminal	No Damage	Sample	150 V 1 minute
				1	OK
				2	OK
				3	OK
				4	OK
				5	OK
1-2	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ	Sample	500 MΩ min.
				1	20x10 ⁴
				2	20x10 ⁴
				3	20x10 ⁴
				4	20x10 ⁴
				5	20x10 ⁴
1-3	Contact Resistance	Dry circuit of DC 20mV max.,100mA max.	50 mΩ Max. Initial	Sample	50 mΩ Max.
				1	9.61 mΩ
				2	8.66 mΩ
				3	9.26 mΩ
				4	9.11 mΩ
				5	10.92 mΩ

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	
2-1	Single contact retaining force in insulator	Retention speed 25±3 mm per minute form housing	More than 0.2 Kgf.	Sample	0.2 Kgf min.
				1	1.05
				2	1.13
				3	1.22
				4	1.03
				5	1.09



ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
			Sample	
2-2 FFC / FPC withdrawal force (Reference data)	Measure force to withdrawal using 0.30mm Thickness FPC/FFC at speed 25±3 mm per minute	(0.07 x no. of Contacts) Kgf min. For 0.5 pitch 6pin	Sample	0.42Kgf min.
			1	1.41 Kgf
			2	1.65 Kgf
			3	1.28 Kgf
			4	1.35 Kgf
		5	1.47 Kgf	
		(0.07 x no. of Contacts) Kgf min. For 0.5 pitch 65pin	Sample	4.55Kgf min.
			1	5.58 Kgf
			2	6.23 Kgf
			3	5.21 Kgf
4	6.71 Kgf			
5	5.51 Kgf			
2-3 Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	
			1	10.33 mΩ
			2	9.88 mΩ
			3	10.36 mΩ
			4	10.41 mΩ
			5	11.52 mΩ

3.ENVIRONMENTAL PERFORMANCE:

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
			Sample	
3-1 Vibration	1.5mm 10-55-10 HZ/minute each 2 hours for X,Y and Z directions	Appearance: No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
		5	OK	
		Discontinuity: 1 micro second max	Sample	
			1	OK
			2	OK
			3	OK
4	OK			
5	OK			
3-2 Heat aging	85± 2°C, 96 hours	No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
			5	OK



ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
			Sample	
3-3 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	
			1	11.53 mΩ
			2	11.86 mΩ
			3	13.05 mΩ
			4	10.20 mΩ
			5	11.30 mΩ
3-4 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	
			1	12.37 mΩ
			2	12.11 mΩ
			3	11.89 mΩ
			4	12.13 mΩ
3-5 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	
			1	OK
			2	OK
			3	OK
			4	OK
			5	OK
		Contact resistance: Less than twice of initial	Sample	
			1	13.37 mΩ
			2	12.77 mΩ
			3	12.89 mΩ
			4	11.86 mΩ
5	13.89 mΩ			