瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

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

PART NO. : CF16 SERIES DIP UPSIDE/DOWNSIDE CONNECTORS

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

DATE OF TESTING :04/03/06”

TEST DEPART :QA TESTER :Scott.Lien

CONTAINT : ATTACHED

REVIEWED : Jackal APPROVED : Rita VERIFIED : Scott .

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 30 mΩ	Sample	30 mΩ max
				1	13.54 mΩ
				2	13.77 mΩ
				3	13.66 mΩ
				4	13.57 mΩ
				5	13.88 mΩ
1-2	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal	No change	Sample	500 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	55×10^5 MΩ
				2	50×10^5 MΩ
				3	55×10^5 MΩ
				4	45×10^5 MΩ
				5	50×10^5 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 0.3Kgf	Sample	0.3 Kgf min.
				1	0.468 Kgf
				2	0.496 Kgf
				3	0.479 Kgf
				4	0.503 Kgf
				5	0.518 Kgf
2-2	FPC/FFC withdrawal force(Reference data)	Measure force to withdrawal using 0.30mm thickness FPC/FFC at speed 25± 3 mm per minute	50 × No. of Circuits gram min.	Sample	(04P) 0.20Kgf min.
				1	0.485 Kgf
				2	0.532 Kgf
				3	0.529 Kgf
				4	0.509 Kgf
				5	0.479 Kgf
				Sample	(18P) 0.90Kgf min.
				1	1.245 Kgf
				2	1.279 Kgf
				3	1.301 Kgf
				4	1.297 Kgf
				5	1.236 Kgf

				Sample	(32P) 1.6Kgf min.
				1	1.85 Kgf
				2	1.92 Kgf
				3	1.90 Kgf
				4	2.07 Kgf
				5	2.12 Kgf
2-3	Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	13.62 mΩ
				2	13.59 mΩ
				3	13.83 mΩ
				4	13.79 mΩ
				5	13.92 mΩ

3.ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Temperature rise	Then carried the rated current	30 ℃ max	Sample	30 ℃ max.
3-2	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.
3-3	Solder ability	Soldering time: 5 ±0.5 sec. Soldering pot:230 ±5℃	Minimum: 90% of immersed area	Sample	90% of Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-4	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
3-5	Heat aging	105 ±2℃ , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

3-6	Humidity	40 ±2°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	13.92 mΩ
				2	13.86 mΩ
				3	13.74 mΩ
				4	13.82 mΩ
				5	13.90 mΩ
			Dielectric strength: To pass para 1-2	Sample	Pass para 1-2
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-7	Temperature cycling	One cycle consists of: 1. -55^{+0}_{-3} °C, 30 min 2. Room temp. 10-15 min 3. 85^{+3}_{-0}°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	13.72 mΩ
				2	13.85 mΩ
				3	13.74 mΩ
				4	13.93 mΩ
				5	13.69 mΩ
3-8	Salt spray	Temperature:35±3°C Solution:5±1% Spray time:48±4hours 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	13.78 mΩ
				2	13.89 mΩ
				3	13.70 mΩ
				4	13.69 mΩ
				5	13.75 mΩ