瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

TESTITEM: 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO.: CF06 SERIES

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

DATE OF TESTING: 1/10/2012

TEST DEPART: R&D TESTER: Hank Wang

CONTAINT: ATTACHED

CVILUX CORP
2012.05.28
ISSUED

REVIEWED : David APPROVED : Eisley VERIFIED : Hank .

1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Rated current and voltage		0.5A 50V AC/DC	Sample	0.5A 50V AC/DC
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-2	Contact resistance	Dry circuit of DC 20mV max.,100mA max.,100mA., Wire resistance shell be removed from the measured value	Less than 20 mΩ	Sample	20 mΩ max
				1	8.06 mΩ
				2	8..77 mΩ
				3	8..26 mΩ
				4	8.25 mΩ
				5	8.21 mΩ
1-3	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal	No breakdown	Sample	500 V 1 minute
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 100 MΩ	Sample	100 MΩ min.
				1	10×10^4 MΩ
				2	10×10^4 MΩ
				3	10×10^4 MΩ
				4	10×10^4 MΩ
				5	10×10^4 MΩ

2. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Contact retaining force in insulator	Push pin from insulator base at speed 25±3mm per minute	More than 0.40 Kgf	Sample	> 0.40 Kgf
				1	0.612 kgf
				2	0.595 kgf
				3	0.623 kgf
				4	0.578 kgf
				5	0.568 kgf
2-2	FFC / FPC withdrawal force (Reference data)	Speed 25±3 mm per minute	4P More than 0.20 Kgf	Sample	Mating (Max)
				1	0.212 Kgf
				2	0.224 Kgf
				3	0.213 Kgf
				4	0.228 Kgf
				5	0.210 Kgf

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-2	FFC / FPC withdrawal force (Reference data)	Speed 25±3 mm per minute	15P More than 0.50 Kgf	Sample	Mating (Max)
				1	0.778 Kgf
				2	0.684 Kgf
				3	0.692 Kgf
				4	0.713 Kgf
				5	0.752 Kgf
2-8	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initia
				1	8.13 mΩ
				2	8.56 mΩ
				3	8.28 mΩ
				4	8.02 mΩ
				5	8.51 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 Discontinuity: 1 micro second max.	Sample	No damage
				Sample	1 micro second max.
3-3	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
3-4	Resistance to soldering heat	Max. Infrared Reflow Soldering temperature & time : 230 ℃ for 60 sec 260 ℃ for 10 sec	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-5	Heat aging	85 ±2℃ , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-6	Humidity	-40 ±3℃, 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	8.89 mΩ
				2	8.97 mΩ
				3	8.84 mΩ
				4	8.94 mΩ
				5	9.01 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} ℃, 30 min. 2. Room temp. 10-15 min. 3. 105^{+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	8.88 mΩ
				2	8.87 mΩ
				3	8.94 mΩ
				4	9.02 mΩ
				5	8.88 mΩ
3-8	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	9.12 mΩ
				2	9.10 mΩ
				3	9.22 mΩ
				4	9.07 mΩ
				5	9.03 mΩ

11.AMBIENT TEMPERATURE RANGE：-20 to + 80℃