

RELIABILITY TEST REPORT

TESTITEM: 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO.: CI08 SERIES

Header: Cvilux: CI0810M2HR0-NH

Housing/Terminal: Aces: 88301

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

DATE OF TESTING: 2/10/2011

TEST DEPART: R&D

TESTER: Hank Wang

CONTAIN: ATTACHED



REVIEWED : David APPROVED : Eisley VERIFIED : Hank .

1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	TEST RESULT
1-1	Rated current and voltage		3.0A (AWG#26) 200V AC/DC	Sample	3.0A (AWG#26) 200V 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 shall be removed from the measured value	Less than 25 mΩ	Sample	25 mΩ max
				1	8.78 mΩ
				2	8.80 mΩ
				3	8.63 mΩ
				4	8.59 mΩ
				5	8.79 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 1000 MΩ	Sample	1000 MΩ min.
				1	15×10 ⁵ MΩ
				2	15×10 ⁵ MΩ
				3	15×10 ⁵ MΩ
				4	15×10 ⁵ MΩ
				5	15×10 ⁵ MΩ

2. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT		
				sample	Mating (Max)	Unmating (Min)
2-1	Mating & Un-mating forc	Insert and withdraw connector at speed of 25 ± 3 mm per minute	Mating: 3.5 Kgf max Unmating: 0.6 Kgf min	sample	Mating (Max)	Unmating (Min)
				1	2.47	1.84
				2	2.49	1.77
				3	2.50	1.88
				4	2.44	1.81
				5	2.33	1.90

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-2	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.5 Kgf	Sample	> 0.5 Kgf
				1	3.96 kgf
				2	4.02 kgf
				3	3.80 kgf
				4	3.91 kgf
2-3	Durability	Connector shall be subjected to 60 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	8.81 mΩ
				2	8.93 mΩ
				3	8.72 mΩ
				4	8.31 mΩ
				5	8.95 mΩ

3.ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Temperature rise	Then carried the rated current	30 °C max.	Sample	30 °C 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°C	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 °C for 60 sec 260 °C 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°C , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-6	Humidity	40 ±3°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

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
			Sample	
3-6 Humidity	-40 ±3°C, 90-95%RH, 96 hours measurement must be taken within 30 min. after tested	Contact resistance: Less than twice of initial	Sample	< twice of initial
			1	8.95 mΩ
			2	9.08 mΩ
			3	8.84 mΩ
			4	8.98 mΩ
		5	9.05 mΩ	
		Dielectric strength: To pass para 1-2	Sample	Pass para 1-2
			1	Pass
			2	Pass
			3	Pass
5	Pass			
3-7 Temperature cycling	One cycle consists of: 1. -40 ⁺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	8.76 mΩ
			2	8.89 mΩ
			3	8.80 mΩ
5	8.87 mΩ			
3-8 Salt spray	Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: Gold flash: 8 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	9.09 mΩ
			3	8.89 mΩ
5	9.17 mΩ			

4.AMBIENT TEMPERATURE RANGE : -40 to + 85°C