



瀚荃股份有限公司  
CviLux Corporation

## RELIABILITY TEST REPORT

TESTITEM: 1.ELECTRICAL  
2.MECHANICAL  
3.ENVIRONMENTAL

SERIES NO.: CU02 SERIES

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

DATE OF TESTING: 1 / 24 / 2007

TEST DEPART: R&D

TESTER: Sun

CONTAIN: ATTACHED

REVIEWED: Alex APPROVED: David VERIFIED: Sun

**1.ELECTRICAL PERFORMANCE :**

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	
1-1	Rated current and voltage		1A 30V AC (r.m.s.)	Sample	1A 30V AC
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-2	Contact resistance	EIA 364 - 23 Subject mated contacts assembled in housing to 20 mV max. open circuit at 100 mA max.	Less than 30 mΩ	Sample	30 mΩ max.
				1	14.3 mΩ
				2	14.4 mΩ
				3	14.1 mΩ
				4	14.3 mΩ
				5	14.2 mΩ
1-3	Dielectric strength	EIA 364 - 20 Test between adjacent contacts of mated and unmated connector assemblies	750 VAC at sea level	Sample	No change
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-4	Insulation resistance	EIA 364 - 20 Test between adjacent contacts of mated and unmated connector assemblies	More than 1000 MΩ	Sample	1000 MΩ min.
				1	∞
				2	∞
				3	∞
				4	∞
				5	∞

**2. MECHANICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				sample	
2-1	Contact retain force in insulator	Retention speed 25± 3 mm per minute from insulator	Receptacle: 0.8 Kgf min.	sample	0.8 kgf min.
				1	1.576
				2	1.482
				3	1.534
				4	1.596
				5	1.525
2-2	Mating force	EIA 364 - 13 Measure force necessary to mate connector assemblies at maximum rate of 12.5 mm per minute	3.57 Kgf (35N) max.	sample	< 3.57 Kgf
				1	2.4kgf
				2	1.8 kgf
				3	2.3 kgf
				4	2.0 kgf
				5	2.1 kgf

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-3	Unmating force	EIA 364 - 13 Measure force necessary to unmate connector assemblies at maximum rate of 12.5 mm per minute	1.02 Kgf (10N) min.	Sample	> 1.02 Kgf
				1	1.56 kgf
				2	1.47 kgf
				3	1.78 kgf
				4	1.68 kgf
				5	1.78 kgf
2-4	Durability	EIA 364 - 09 Mate and unmate connector assemblies for 1500 cycles at maximum rate of 200 cycles per hour.	Appearance: No change	Sample	No change
				1	pass
				2	pass
				3	pass
				4	pass
				5	pass
			Contact resistance To pass para 1-2	Sample	Pass para 1-2
				1	14.10 mΩ
				2	14.08 mΩ
				3	14.10 mΩ
				4	14.20 mΩ
			Unmating force To pass para 2-3	Sample	To pass para 2-3
				1	1.43 Kgf
				2	1.30 Kgf
				3	1.32 Kgf
4	1.40 Kgf				
5	1.52 Kgf				

### 3. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Solder ability	Soldering time: 5± 0.5 second Soldering pot: 230± 5°C	Minimum: 90% of immersed area	Sample	Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-2	Resistance to soldering heat	Soldering time: 3±0.5 sec. Soldering pot: 245±5°C	No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
				Sample	TEST RESULT
3.3	Temperature life	EIA 364 – 17 Test Condition 2 Method A Subject mated connectors to temperature Life at 85°C for 250 hours Precondition samples with 10 cycles curability	Appearance No Damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			Contact resistance: To pass para 1-2	Sample	To pass para 1-2
				1	14.20 mΩ
				2	14.10 mΩ
				3	14.15 mΩ
				4	14.00 mΩ
3-4	Humidity	EIA 364-31 Method II Test Condition A Subject mated connectors to 96 hours at 40°C with 90 to 95% RH	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			Dielectric strength To pass para 1-3	Sample	To pass para 1-3
				1	∞
				2	∞
				3	∞
				4	∞
3-5	Salt spray	Concentration: 5±1% Spray time: 48±4hours Ambient temperature: 35±2°C (JIS C5028/MIL-STD-202 Method 101)	Appearance: No damage	Sample	No damage
				1	pass
				2	pass
				3	pass
				4	pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	14.12 mΩ
				2	14.10 mΩ
				3	14.14 mΩ
				4	14.18 mΩ
				5	14.11 mΩ