瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.	PRODUCT SPECIFICATION For Mini USB Receptacle Connector	SPEC.NO.: SPCU005F PAGE: 1/5

1. SCOPE:
   This specification covers performance, tests and quality requirements for Universal Serial Bus (USB) plug and receptacle connectors. These connectors are cable mounted plug and PC Board mounted receptacle connectors

2. APPLICABLE STANDARDS:
   EIA 364
   MIL - STD - 202 Methods for test of connectors for electronic equipment

3. APPLICABLE SERIES NO.: CU04

4. SHAPE, CONSTRUCTION AND DIMENSIONS
   See attached drawings

5. MATERIALS
   See attached drawings

6. ACCOMMODATED P.C.BOARD
   6.1 Thickness: 1.6 mm (.063″)
   6.2 P.C. Board Layout: See attached drawings

CVILUX CORP.
2006.04.19
ISSUED

REVIEWED : Alex APPROVED : David VERIFIED : Eisley .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1A 30V AC (r.m.s.)
7.2	Contact resistance	EIA 364 - 23 Subject mated contacts assembled in housing to 20 mV max. open circuit at 100 mA max.	50 mΩ max.
7.3	Dielectric strength	EIA 364 - 20 Test between adjacent contacts of mated and unmated connector assemblies	100 VAC at sea level
7.4	Insulation resistance	EIA 364 - 21 Test between adjacent contacts of mated and unmated connector assemblies	100 MΩ min.
7.5	Capacitance	EIA 364 - 30 Test between adjacent circuits of unmated connectors at 1 KHz	2 pF max.

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION		REQUIREMENT
8.1	Contact retain force in insulator	Retention speed 25± 3 mm per minute from insulator		Plug: 0.5 Kgf min. Receptacle: 0.3 Kgf min.
8.2	Mating force	EIA 364 - 13 Measure force necessary to mate corresponding connector assemblies at maximum rate of 12.5 mm per minute		3.57 Kgf (35N) max.
8.3	Unmating force	EIA 364 - 13 Measure force necessary to unmate corresponding connector assemblies at maximum rate of 12.5 mm per minute		0.30 Kgf (3N) min.
8.4	Durability	EIA 364 - 09 Mate and unmate up to 5000 cycles repeatedly at maximum rate of 200 cycles per hour.	Mating Force	1~5000 Cycles 35N (3.57kgf)maximum
			Un-Mating Force	1~5000 Cycle 3N(0.30kgf) minimum

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9. ENVIRONMENTAL PERFORMANCE:

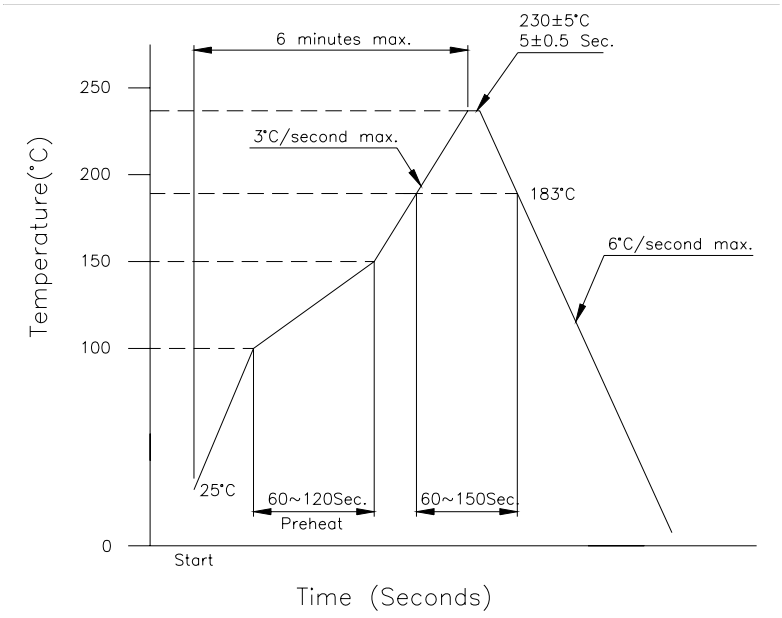
	ITEM	TEST CONDITION		REQUIREMENT
9.1	Vibration	EIA 364 - 28 Mate connectors and subject to the following vibration conditions (refer to 6 clause), for a period of 15 minutes in each of 3 mutually perpendicular axes, passing DC 100mA during the test.	Appearance	No Damage
			Contact Resistance	50 milliohms maximum
			Discontinuity	1.0 microsecond maximum
9.2	Shock	EIA 364 - 27 Mate connectors and subject to the following shock conditions. 3 shocks shall be applied along 3 mutually perpendicular axes, passing DC 100mA current during the test.(Total of 18 shocks) Test pulse: Half Sine Peak value: 294m/s(30G) Duration: 11ms	Appearance	No damage
			Contact Resistance	50 milliohms maximum
			Discontinuity	1.0 microsecond maximum
9.3	Solder ability	Tin-Lead Process Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C Lead-Free Process Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C		Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Tin-Lead Process Refer Reflow temperature profile(11.1) Lead-Free Process Refer Reflow temperature profile(11.2)		No damage
9.5	Salt spray	Concentration: 5±1% Spray time: 48±4hours Ambient temperature: 35±2℃ (JIS C5028/MIL-STD-202 Method 101)		Appearance: By visual linspection without noticeable rust. Contact resistance: 100 milliohms maximum

	ITEM	TEST CONDITION		REQUIREMENT
9.6	Humidity	EIA 364 - 31 Method III Mate connectors and expose to humidity in 7 cycles at 7 clause. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
			Contact Resistance	50 milliohms maximum
			Dielectric Strength	Must meet 7-3
			Insulation Resistance	Must meet 7-4

10. AMBIENT TEMPERATURE RANGE: -40°C to 60°C storage; 0°C to 40°C operating

11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



11.2 Using Lead-Free Solder Paste