瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.	PRODUCT SPECIFICATION For IEEE 1394-1995 Connector, Plug & Receptacle	SPEC.NO.: SPCU003B PAGE: 1/3

1. SCOPE:
This specification covers performance, tests and quality requirements for IEEE 1394-1995 plug and receptacle connectors. These connectors are cable mounted plug and PC Board mounted receptacle connectors

2. APPLICABLE STANDARDS:
IEEE STD 1394-1995
ANSI/EIA 364
MIL - STD - 202 Methods for test of connectors for electronic equipment

3. APPLICABLE SERIES NO.: CU05 Series

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. ENGINEERING
DEC 19. 2001
ISSUED

REVIEWED 12/18/01 APPROVED : David 12/18/01 VERIFIED : 12/19/01

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1.5A 40V DC max.
7.2	Low-level contact resistance	ANSI/EIA 364-23A-85 Subject mated contacts assembled in housing to 20 mV max. Open circuit at 100 mA max.	30 mΩ max.
7.3	Contact resistance (Braid to Socket shell)	ANSI/EIA 364-06A-83 Initial from braid to socket shell at 100mA, 5V DC open circuit max.	50 mΩ max.
7.4	Dielectric strength	ANSI/EIA 364-20A-83 Test between adjacent contacts and contacts and shell (Unmated and Unmounted)	500V DC ± 50V DC
7.5	Insulation resistance	ANSI/EIA 364-21A-83 When applied 500V DC ± 50V DC between adjacent contacts and contacts and shell (Unmated and unmounted)	100 MΩ min.

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Power wires : 22 AWG (7x30) / Ø1.20 insulation (2 Singles) Signal twisted-pair wires : 28 AWG (7x36) / Ø1.00 insulation, Twist 40 / meter
8.2	Contact retain force in insulator	Retention speed 25±3 mm per minute from insulator	Plug: 1.0 Kgf min. Receptacle: 0.8 Kgf min.
8.3	Mating and Unmated forces	ANSI/EIA 364-13A-83 Measure force necessary to mate connector assemblies at auto rate of 25 mm per minute	Unmated force: 1.0 Kgf (9.8N) min. 4.0 Kgf (39.2N) max.
8.4	Cable axial pull test	Fix plug housing and apply a 10 Kgf (98N) load for 1 min. on cable axis.	No discontinuity on contacts or shield greater than 1μs under load. No jacket tears or visual exposure of shield. No jacket movement greater than 1.5mm at point of exit

	ITEM	TEST CONDITION	REQUIREMENT
8.5	Durability	ANSI/EIA 364-09B-91 Mate and unmated connector assemblies for 1500 cycles at auto rate of 500 cycles per hour	Appearance: No damage and shall meet per 6.2 , 6.3 & 7.3

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Vibration	ANSI/EIA 364-28A-83 Condition III	No discontinuities of 1μs or longer (Each contact)
9.2	Physical shock	ANSI/EIA 364-27A-83 Condition G	No discontinuities of 1μs or longer (Each contact)
9.3	Solderability	Soldering time: 5±0.5 second Soldering pot: 230±5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Soldering time: 5±0.5 second Soldering pot: 260±5°C	No damage
9.5	Temperature life	ANSI/EIA 364-17A-87 Condition 4 Method A Subject mated connectors to temperature life at 105°C for 250 hours	Appearance: No damage and shell meet per 6.2
9.6	Humidity	ANSI/EIA 364-31A-83 Method III test Condition A Subject mated connectors to 96 hours at 40°C with 90 to 95% RH	Appearance: No damage and shell meet per 6.4 & 6.5
9.7	Thermal shock	ANSI/EIA 364-32B-92 Test Condition I Subject mated connectors to 10 cycles between -55°C and 85°C	Appearance: No damage and shell meet per 6.4 & 6.5
9.8	Salt spray	Temperature: 35±3°C Solution: 5±1% Spray time: 48±4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -40°C to 85°C