



ENGINEERING DEPT.	PRODUCT SPECIFICATION For 2.54x2.54 mm (.100"x.100") Board to Board Connectors of System CH81	SPEC.NO.: SPCH086A
		PAGE: 1/4

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

2. APPLICABLE STANDARDS:

MIL - STD - 202	Methods for test of connectors for electronic equipment
EIA 364	Test methods for electrical connectors
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: CH81142H2MB

4. SHAPE,CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

0.8 mm (.031") ~ 1.6 mm (.063")



REVIEWED : Eisley APPROVED : Eisley VERIFIED : Sandy.

ENGINEERING DEPT.	PRODUCT SPECIFICATION For 2.54x2.54 mm (.100"x.100") Board to Board Connectors of System CH81	SPEC.NO.: SPCH086A
		PAGE: 2/4

7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 100V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 50 mV max. 100 mA max. (EIA 364-23)	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal (EIA 364-20)	No change
7.4	Insulation resistance	When applied DC 1000 V between adjacent terminal or ground (EIA 364-21)	More than 1000 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Pin retention force	Apply axial pull out force at 50 ± 3 mm/min on the assembly in the housing (EIA 364-29)	More than 0.8 Kgf (Per PIN)
8.2	Durability	Mate and Un-mate connector assemblies at maximum rate of 200 cycles per hour. Test Cycles: 300 cycles min (EIA 364-09)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Vibration	Subject mated connectors should be tested according to the condition listed below: Test condition: Random Frequency: 50~100~50 Hz PSD value: 3.13 Grms minimum Duration: 15 minutes/axis Times: Each of three mutually perpendicular Planes. (EIA 364-28 Condition V Test letter A)	Appearance: No damage No discontinuities of 1μs or longer duration. Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4

ENGINEERING DEPT.	PRODUCT SPECIFICATION For 2.54x2.54 mm (.100"x.100") Board to Board Connectors of System CH81	SPEC.NO.: SPCH086A
		PAGE: 3/4

	ITEM	TEST CONDITION	REQUIREMENT
9.2	Physical Shock	Subject mated connector should be test according to the condition listed below: Wave form: Half-sine Peak acceleration: 30G's Duration: 11 ms Times: 3 shocks in each direction applied along three mutually perpendicular planes, total 18 shocks. (EIA 364-27 Condition H)	Appearance: No damage No discontinuities of 1μs or longer duration. Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4
9.3	Humidity (Temperature Cycling)	Subject mated connector should be tested according to the condition listed below: Temperature: 25°C ~65°C Humidity: 90%~95% (R.H) Duration: 96 hours (EIA 364-31 Method III Test Condition A)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4
9.4	Thermal Shock	Subject mated connector should be tested according to the condition listed below: Low temperature: -55°C +0°C /-3°C High temperature: 85°C +3°C /-0°C Cycles: 5 Exposure time at temperature extremes: 30 minutes (EIA 364-32 Test Condition I)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4
9.5	Salt Spray	Subject mated and unmated connectors should be tested according to the condition listed below: Concentration: 5% ± 1% Temperature: 35± 1°C Humidity: 95%~98% (R.H) PH Value: 6.5~7.2 Duration 48 hours (EIA 364-26 Test Condition B)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4

ENGINEERING DEPT.	PRODUCT SPECIFICATION For 2.54x2.54 mm (.100"x.100") Board to Board Connectors of System CH81	SPEC.NO.: SPCH086A
		PAGE: 4/4

	ITEM	TEST CONDITION	REQUIREMENT
9.6	Temperature Life	Subject mated connector should be tested according to the condition listed below: Temperature: 85°C +2°C/-0°C Duration 96 hours (EIA 364-17 Test Condition 3 Method A)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4
9.7	Low temperature	Subject mated connector should be tested according to the condition listed below: Temperature: -40°C +0°C/-2°C Humidity: 90%~95% (R.H) Duration 96 hours (EIA 364-59 Test Condition 3 Method A)	Appearance: No damage Contact resistance: 20 mΩ Max. Dielectric strength: To pass para 7-3 Insulation resistance: To pass para 7-4
9.8	Resistance to soldering heat	Soldering time: 5~10 sec Soldering pot: 230 ± 5°C (EIA 364-56 Procedure 3 Test Condition C)	No damage
9.9	Solder ability	Subject unmated connectors should be tested according to the condition listed below: Steam Aging Temperature: 90°C ~96°C Steam Aging Duration 8 hours ± 5 min Soldering pot: 230 ± 5°C Soldering time: 4~5 sec (EIA 364-52 Category 3)	Minimum: 90% of immersed area

10. OPERATING TEMPERATURE : -40°C to + 105°C