ENGINEERING DEPT.

PRODUCT SPECIFICATION

SPEC.NO.: SPCH019D

REVISIONS:ECNT122186

For 2.00 mm (.079") Pin Header of System CH21

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1. SCOPE:

This specification contains the test requirement of subject pin headers 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

JIS - C - 5402 Methods for test of connectors for electronic equipment

UL 94 Test for flammability of plastic materials for parts in devices and

appliance

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.: CH21 SERIES

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

(P.C. Board on which the Pin Header are installed), $0.8 \text{ mm} (.031'') \sim 1.6 \text{ mm} (.063'')$



REVIEWED: <u>Eisley</u> APPROVED: <u>Eisley</u> VERIFIED: <u>Sun</u>.



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		1A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max	Less than $20 \text{ m}\Omega$
7.3	Dielectric strength	When applied AC 1500 V 1minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than $1000 \text{ M}\Omega$

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.8 Kgf

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Solder ability	Tin-Lead Process:	Minimum:
		Soldering time: 5 ± 0.5 second	90% of immersed area
		Soldering pot: 230 ± 5°C	
		Lead-Free Process:	
		Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	
9.2	Resistance to soldering	DIP Type Tin-Lead Process:	No damage
	heat	Soldering time: 5 ± 0.5 second	
		Soldering pot: 240 ± 5°C	
		DIP Type Lead-Free Process:	
		Soldering time: 5 ± 0.5 second	
		Soldering pot: 260 ± 5°C	
		SMT Type Tin-Lead Process:	
		Refer Reflow temperature profile(11.1)	
		Soldering time: 10 second Max.	
		Soldering pot: 230 ± 5 °C	
		SMT Type Lead-Free Process:	
		Soldering time: 20 second Max.	
		Soldering pot: 250~260°C	



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	Refer Reflow temperature profile(11.2)	

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Heat aging	105± 2°C, 96 hours	No damage
9.4	9.4 Humidity 40± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min.		Appearance: No damage Contact resistance:
		after tested	Less than twice of initial Dielectric strength:
			To pass para 7-3
9.5	Temperature cycling	One cycle consists of:	Appearance: No damage Contact resistance:
		(1)-55 $^{+0}_{-3}$ °C, 30 min.	Less than twice of initial
		(2)Room temp. 10-15 min.	Less than twice of initial
		(3) 85^{+3}_{-0} °C, 30 min.	
		(4)Room temp. 10-15 min.	
9.6	Salt spray	Temperature: 35 ± 3 °C	Appearance: No damage
		Solution: 5 ± 1%	Contact resistance:
		Spray time: 48 ± 4 hours	Less than twice of initial
		(Stamping before plated)	
		Spray time: 24 ± 4 hours	
		(Stamping after plated)	
		Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed.	
		The specimens shall be suspended from the top using waxed twine, string or nylon thread.	
		The test only define the plating area, without plating area (as copper cross section) will not be defined.	
		(EIA 364-26B / MIL-STD-202 Method 101)	

10. AMBIENT TEMPERATURE RANGE:

-40 to $+\ 105\,^{\circ}\text{C}$; $+\ 215\,^{\circ}\text{C}$ intermittent (Vapor Phase Solder Reflow) for SMT type

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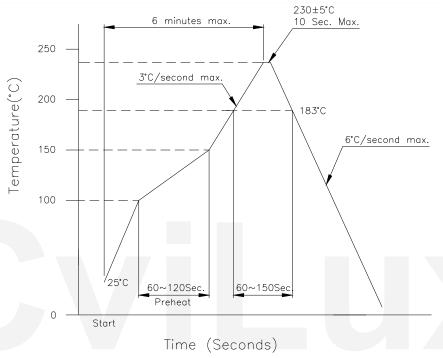
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11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



11.2 Using Lead-Free Solder Paste

