

ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.:	SPCH027B
DEPT.	For 2.54 mm (.100") Pin Header of System CH81	PAGE:	1/4

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

MIL - STD - 1344 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.: CH81 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), 1.6 mm (.063")



REVIEWED: <u>Alex</u> APPROVED: <u>David</u> VERIFIED: <u>Jim</u>.



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 mΩ
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	More than 0.8 Kgf
		25± 3 mm per minute	

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	Temperature cycling	One cycle consists of: (1)-55 $^{+0}_{-3}$ °C, 30 min. (2)Room temp. 10-15 min. (3) 85 - 0 °C, 30 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.5	Humidity	(4)Room temp. 10-15 min. 40± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
9.6	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:

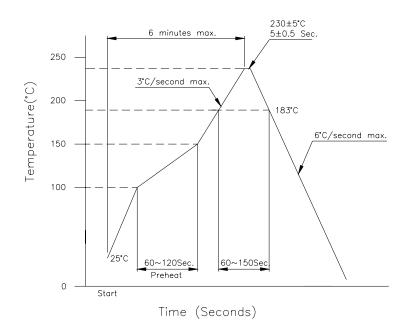
-40 to +105 °C; +215 °C intermittent (Vapor Phase Solder Reflow) for SMT type



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11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



11.2 Using Lead-Free Solder Paste

