| ENGINEERING | NGINEERING PRODUCT SPECIFICATION              |       | SPCH020B |
|-------------|---|-------|----------|
| DEPT.       | For 2.00 mm (.079") Pin Header of System CH71 | 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

3. APPLICABLE SERIES NO.: CH71 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 mm (.031") ~ 1.6 mm (.063")



| REVIEWED: | Alex    | APPROVED: | David | <b>VERIFIED:</b> | Sun       |  |
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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 mΩ                  |
| 7.3 | Dielectric strength       | When applied AC 1000 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 | Soldering time: $5 \pm 0.5$ second                                    | No damage                                       |
|     | heat                    | Soldering pot: 260 ± 5°C  |   |
|     |                         | Tin-Lead Process for SMT Type:  |   |
|     |                         | Refer Reflow temperature profile(11.1)                                |   |
|     |                         | Lead-Free Process for SMT Type:                                       |   |
|     |                         | Refer Reflow temperature profile(11.2)                                |   |
| 9.3 | Heat aging              | 105± 2°C, 96 hours  | No damage                                       |
| 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                                |



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|     | ITEM                | TEST CONDITION   | REQUIREMENT  |
|-----|---------------------|--|--|
| 9.5 | Temperature cycling | One cycle consists of:  (1)-55 +0 °C, 30 min.  (2)Room temp. 10-15 min.  (3) 85 +3 °C, 30 min.  (4)Room temp. 10-15 min. | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |
| 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<br>Contact resistance:<br>Less than twice of initial |

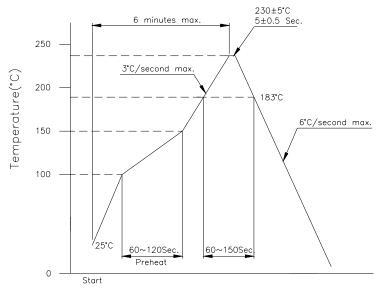
#### 10. AMBIENT TEMPERATURE RANGE:

-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



Time (Seconds)

#### 11.2 Using Lead-Free Solder Paste

