

ENGINEERING DEPT.

# **PRODUCT SPECIFICATION** For 1.27 mm (.050") Pin Header of

SPEC.NO.: SPCH035C

**REVISIONS** ECNT120128

or 1.27 mm (.050") Pin H System CH54

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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.: CH54 Series

## 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

## 5. MATERIALS

See attached drawings

#### 6. MATERIALS

(P.C. Board on which the Pin Header are installed), 0.8 mm (.031") ~ 1.6 mm (.063")



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



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System CH54

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# 7. ELECTRICAL PERFORMANCE:

|     | ITEM                      | TEST CONDITION  | REQUIREMENT               |
|-----|---------------------------|---|---------------------------|
| 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 m $\Omega$   |
| 7.3 | Dielectric strength       | When applied AC 600 V 1minute between adjacent terminal   | No change                 |
| 7.4 | Insulation resistance     | When applied DC 500 V between adjacent terminal or ground | More than 1000 M $\Omega$ |

## 8. MECHANICAL PERFORMANCE:

|     | ITEM                | TEST CONDITION   | REQUIREMENT        |
|-----|---------------------|--|--------------------|
| 8.1 | Pin retention force | Push pin from insulator base at speed<br>25± 3 mm per minute | More than 200 gram |

# 9. ENVIRONMENTAL PERFORMANCE:

|     | ITEM                         | TEST CONDITION   | REQUIREMENT  |
|-----|------------------------------|--|--|
| 9.1 | Solder ability               | Soldering time: $3 \pm 0.5$ second<br>Soldering pot: $245 \pm 5$ °C  | Minimum:<br>90% of immersed area   |
| 9.2 | Resistance to soldering heat | <b>DIP Type:</b><br>Soldering time: $5 \pm 0.5$ second<br>Soldering pot: $260 \pm 5$ °C<br><b>SMT Type :</b><br>Soldering time: 20 second Max.<br>Soldering pot: $250 \sim 260$ °C | No damage  |
| 9.3 | Heat aging                   | 105± 2°C, 96 hours   | No damage  |
| 9.4 | Humidity                     | $40\pm 2$ °C, 90-95% RH, 96 hours<br>measurement must be taken within 30 min.<br>after tested  | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial<br>Dielectric strength:<br>To pass para 7-3 |
| 9.5 | Temperature cycling          | One cycle consists of :<br>(1)-55 $^{+0}_{-3}$ °C , 30 min.<br>(2)Room temp. 10-15 min.<br>(3) $85^{+3}_{-0}$ °C , 30 min.<br>(4)Room temp. 10-15 min.                             | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial   |



**PRODUCT SPECIFICATION ENGINEERING DEPT.** SPEC.NO.: SPCH035C For 1.27 mm (.050") Pin Header of REVISIONS ECNT120128 PAGE: 3/3 System CH54 **ITEM TEST CONDITION** REQUIREMENT 9.6 Salt spray Temperature:  $35 \pm 3$  °C Appearance: No damage Contact resistance: Solution:  $5 \pm 1\%$ Less than twice of initial Spray time:  $48 \pm 4$  hours (Stamping before plated) Spray time:  $24 \pm 4$  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 °C ; + 215 °C intermittent (Vapor Phase Solder Reflow) for SMT type

11. Recommended IR Reflow Temperature Profile:

