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| ENGINEERING | RELIABILITY TEST REPORT | SPEC.NO.: SPCH058A |
| DEPT. | CH09 Series Connector | PAGE: 1 / 4 |

TEST ITEM :1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

TEST EQUIPMENT :1.INSERTION & REMOVAL APPARATUS
2.ELECTRONIC MEASURING APPARATUS
3.ENVIRONMENTAL APPARATUS

SERIES NO. : CH09 SERIES

DATE OF TESTING : 2015/04/21

TEST DEPART : R & D

LOT Number:

CONTAIN :

TEST RESULT: ACCEPT REJECT



APPROVE BY: Eisley

CHECKED By: Eisley

TESTER BY: Sandy

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1.ELECTRICAL PERFORMANCE :

| | ITEM | TEST CONDITION | REQUIREMENT | TEST RESULT | |
|-----|---------------------------|---|-----------------------|-------------|--------------|
| 1-1 | Rated current and voltage | | 1A 250V AC (r.m.s) | | |
| 1-2 | Contact resistance | Dry circuit of DC 20 mV max. , 100 mA max | Less than 20 mΩ | Sample | 20 mΩ Max. |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| 1-3 | Dielectric strength | When applied AC 600V 1 minute between adjacent terminal | No breakdown | Sample | 1 minute |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| 1-4 | Insulation resistance | When applied DC 500 V between adjacent terminal or ground | More than 1000 MΩ | Sample | 1000 MΩ min. |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | | 5 | Pass |

2. MECHANICAL PERFORMANCE :

| | ITEM | TEST CONDITION | REQUIREMENT | TEST RESULT | |
|-----|---------------------|---|-------------------|-------------|--------------|
| 2-1 | Pin retention force | Push pin from insulator base at speed 25±3mm per minute | More than 200gram | Sample | 200gram min. |
| | | | | 1 | 1.440 Kgf |
| | | | | 2 | 1.597 Kgf |
| | | | | 3 | 1.417 Kgf |
| | | | | 4 | 1.394 Kgf |
| | | | | 5 | 1.512 Kgf |

3.ENVIRONMENTAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT | TEST RESULT | |
|-----|----------------|---|----------------------------------|-------------|-------|
| 3-1 | Solder ability | Soldering time:3±0.5 second Soldering pot: 245 ± 5°C | Minimum: 90% of immersed area | Sample | > 90% |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | | 5 | Pass |

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| | ITEM | TEST CONDITION | REQUIREMENT | TEST RESULT | |
|-----|------------------------------|---|---|-------------|------------------------|
| | | | | Sample | |
| 3-2 | Resistance to soldering heat | Soldering time: 5 ± 0.5 second Soldering pot: $260 \pm 5^{\circ}\text{C}$ | No damage | | No damage |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | | 5 | Pass |
| 3-3 | Heat aging | $105 \pm 2^{\circ}\text{C}$, 96 hours | Appearance: No damage | | No damage |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | | 5 | Pass |
| 3-4 | Humidity | $40 \pm 2^{\circ}\text{C}$, 90-95%RH, 96 hours measurement must be taken within 30 min. after tested | Appearance: No damage | | No damage |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | | 5 | Pass |
| | | | Contact resistance: Less than twice of initial | | $40\text{m}\Omega$ max |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| | | | | 4 | Pass |
| | | | Dielectric strength: To pass para 1-3 | | 600 V 1 minute |
| | | | | 1 | Pass |
| | | | | 2 | Pass |
| | | | | 3 | Pass |
| 4 | Pass | | | | |
| 5 | Pass | | | | |

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| ITEM | TEST CONDITION | REQUIREMENT | TEST RESULT | |
|------|--|---|-------------|-----------|
| 3-5 | Temperature cycling One cycle consists of: 1. -55^{+0}_{-3} °C, 30 min. 2. Room temp. 10-15 min. 3. 85^{+3}_{-0} °C, 30 min. 4. Room temp. 10-15 min. | Appearance: No damage | Sample | No damage |
| | | | 1 | Pass |
| | | | 2 | Pass |
| | | | 3 | Pass |
| | | | 4 | Pass |
| | | 5 | Pass | |
| | | Contact resistance: Less than twice of initial | Sample | 40mΩ max |
| | | | 1 | Pass |
| | | | 2 | Pass |
| | | | 3 | Pass |
| 4 | Pass | | | |
| 3-6 | Salt spray Temperature: 35 ± 3 °C Solution: 5 ± 1 % Spray time: 8 ± 4 hours Measurement must be taken after water rinse | Appearance: No damage | Sample | No damage |
| | | | 1 | Pass |
| | | | 2 | Pass |
| | | | 3 | Pass |
| | | | 4 | Pass |
| | | 5 | Pass | |
| | | Contact resistance: Less than twice of initial | Sample | 40mΩ max |
| | | | 1 | Pass |
| | | | 2 | Pass |
| | | | 3 | Pass |
| 4 | Pass | | | |
| 5 | Pass | | | |

4. AMBIENT TEMPERATURE RANGE : -40 to + 105°C