立威科技股份有限公司 Attend Technology Inc.
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# SPECIFICATION AND PERFORMANCE

| Series | 115U series | File | 115U_Spec_2 | Date | 2021/1/27 |
|---|---|---|---|---|---|

## Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of below:

| P/N | DESCRIPTION |
|---|---|
| 115U-A000 | 6P Nano SIM Socket, Push-Pull Type, 1.3H, 10u" Gold Plating |

## Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

## RoHS:

All material in according with the RoHS environment related substances list controlled.

| MATERIALS | | |
|---|---|---|
| **NO.** | **PART NAME** | **DESCRIPTION** |
| 1 | INSULATOR | LCP UL94V-0, Black |
| 2 | CONTACT | Phosphor Bronze, contact area gold plating, solder tails gold flash, all under plating 50u" nickel. |
| 3 | SHELL | Stainless Steel, solder pad gold plating, under 30u" nickel plating over all |
| | | |

| RATING | |
|---|---|
| Rated Voltage | 30V AC |
| Rated Current | 1A Max. per pin |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -40°C to +85°C |
| Durability | 5000 cycles |
| | |

| ELECTRICAL | | |
|---|---|---|
| **Item** | **Requirement** | **Test Condition** |
| Contact Resistance | Initial: 100 mΩ Max.<br>After test: 40 mΩ Max change. | Measured between plug solder tails and receptacle solder tails.<br>(EIA-364-23) |
| Insulation Resistance | Initial: 1000 MΩ Min.<br>At 100V DC | Test between center contact and outer shell of unmated samples of one minute.<br>(EIA-364-21) |

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| | | |
|---|---|---|
| Dielectric Withstanding Voltage | 500V AC(RMS) for one minute | Test between center contact and outer shell of one minute. (EIA-364-20) |

| MECHANICAL | | |
|---|---|---|
| **Item** | **Requirement** | **Test Condition** |
| Durability | 1. Contact Resistance: 40mΩ (Max.) change.<br>2. No damage. | Mate connectors up to 5000 cycles at a maximum rate of 400 to 600 cycles per hour prior to environmental test. (EIA-364-09) |
| Vibration | Finish<br>1. No electrical discontinuity more than 1μs.<br>2. No damage.<br>3. Contact Resistance: 40mΩ (Max.) change. | Mate card and subjected to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, with passing DC 1mA during the test.<br>Amplitude: 1.52mm P-P or 19.6m/s^2{2G}<br>Frequency: 10-55-10Hz<br>Shall be traversed in 1 minute.<br>(EIA-364-28) |
| Mechanical Shock | Finish<br>1. No electrical discontinuity more than 1μs.<br>2. No damage.<br>3. Contact Resistance: 40mΩ (Max.) change. | Mate card and subjected to the following shock conditions.<br>3 mutually perpendicular axis, passing DC 1mA current during the test. (Total of 18 shocks)<br>Test pulse: Half Sine<br>Peak value: 490m/s^2{50G}<br>Duration: 11ms<br>(EIA-364-27) |

| ENVIRONMENTAL | | |
|---|---|---|
| **Item** | **Requirement** | **Test Condition** |
| High Temperature Life | 1. Contact Resistance: 40mΩ (Max.) change.<br>2. Insulation Resistance: 100MΩ (Min.) | Temperature: 85±2°C<br>Test time: 48 hours<br>(JIS C0025) |
| Cold Resistance | 1. Contact Resistance: 40mΩ (Max.) change.<br>2. Insulation Resistance: 100MΩ (Min.) | Temperature: -30±2°C<br>Test time:48 hours<br>(EIA-364-31A) |
| Humidity | 1. Contact Resistance: 40mΩ (Max.) change.<br>2. Insulation Resistance: 100MΩ (Min.) | There shall be no any excessive corrosion on the every part of connector.<br>Temperature: 40±2°C<br>Humidity: 90~95%RH<br>Test time: 120 hours<br>(EIA-364-31A) |
| Salt Spray | Finish | 5±1% salt solutions, at 35±2° |

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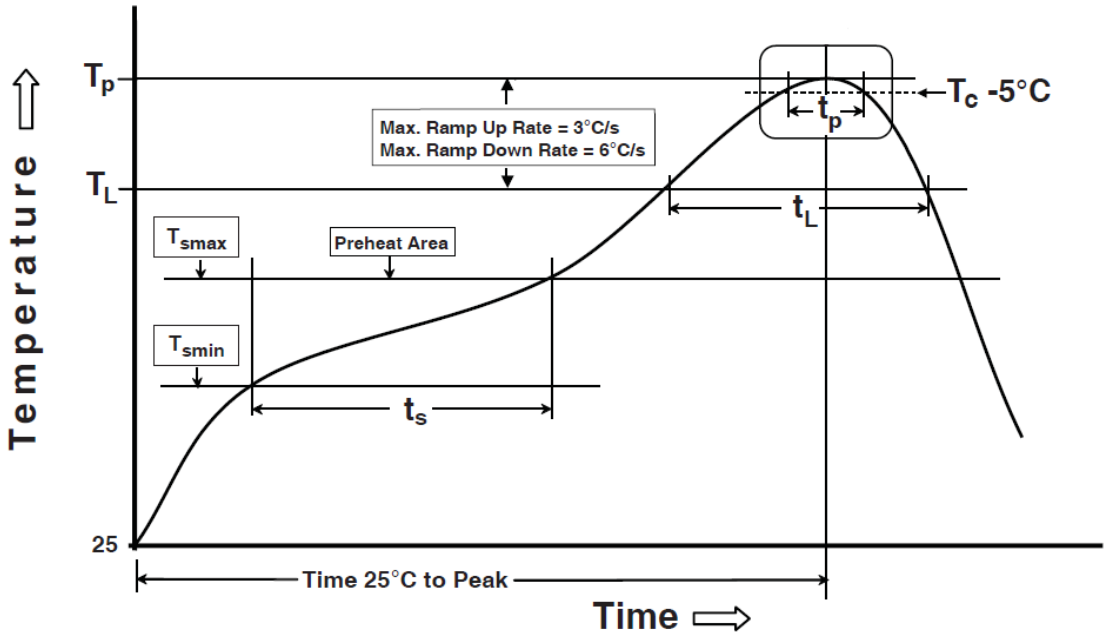
| | | |
|---|---|---|
| | 1. Contact Resistance: 40mΩ (Max.) change.<br>2. No damage | duration 24 hours.<br>Connectors detached<br>(EIA-364-26A) |
| | | |

## SOLDER ABILITY

| Item | Requirement | Test Condition |
|---|---|---|
| Solder-ability | 95% of immersed area must show no voids, pin holes. | The termination should be 95% covered with new continuous solder coating.<br>Solder temperature: 245±5°C<br>Test time: 3±0.5 seconds<br>(EIA-364-71) |
| Resistance to Soldering Heat | No melting, cracks or functional damage allowed. | When exposed to the following re-flow soldering condition, there shell be no any excessive thermal damage on the every part of connector. |

## Reflow Profile




Preheating temperature: 150 ~ 200°C, 60~120 seconds
Liquidus temperature (TL): 217°C, 60~150 seconds
Peak temperature: 260°C
Time within 5 °C of peak temperature (Tc): 255°C, 30seconds

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Test Sequence:

| | Test Group | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Test Item | A | B | C | D | E | F | G | H | I |
| Contact Resistance | 1,4 | 1,3 | 1,3 | 1,3 | 1,4 | 1,4 | | 1,3 | |
| Insulation Resistance | | | | | 2,5 | 2,5 | | | |
| Dielectric Withstanding Voltage | 2 | | | | | | | | |
| Durability | 3 | | | | | | | | |
| Vibration | | 2 | | | | | | | |
| Mechanical Shock | | | 2 | | | | | | |
| High temperature | | | | 2 | | | | | |
| Cold Resistance | | | | | 3 | | | | |
| Humidity | | | | | | 3 | | 3 | |
| Solder ability | | | | | | | 1 | | |
| Salt spray | | | | | | | | 2 | |
| Resistance to Soldering Heat | | | | | | | | | 1 |
| Sample Quantity | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |