

SPECIFICATION AND PERFORMANCE

| Series | 115U-A110 | File | 115U-A110-SPEC_1 | Date | 2025/03/06 |
|--------|-----------|------|------------------|------|------------|
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Scope:

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

Connector:

| P/N | Descriptions |
|-----------|---|
| 115U-A110 | Nano SIM Socket, 6 Pin, Tray-Push Pull, Lock, G/F, Reel |

Nano SIM tray:

| P/N | Descriptions |
|-----------|--|
| 115U-T007 | Card Tray for 115U-A101/A110, Nano SIM, PBT black, Bag, L16.25 |
| 115U-T008 | Card Tray for 115U-A101/A110, Nano SIM, PBT black, Bag, L18.25 |
| 115U-T017 | Card Tray for 115U-A110, Waterproof, Nano SIM, PBT black, bag. L=20.25 |

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 | Housing | LCP E130i, UL94-V0, black or equivalent |
| 2 | Contact | Copper alloy C7025 0.1t, 1u" min. Gold plating on contact area, 120u" min. matte-Tin plating on solder area, under plating 50u" min. Nickel over all |
| 3 | Slider | LCP E130i, UL94-V0, black |
| 4 | Shell | Stainless Steel SUS304, 0.10t, 50u" min. Nickel over all |

RATING

| | |
|-----------------------|----------------|
| Rated Voltage | 10V |
| Rated Current | 0.5A |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -40°C to +85°C |
| Durability | 500 cycles |



| ELECTRICAL | | |
|---------------------------------|--|---|
| Item | Requirement | Test Condition |
| Low Level Contact Resistance | Initial 50mΩ Max. After test 100mΩ Max. | Solder connectors to PCB and insert dummy card, measure by applying closed circuit current of 10mA maximum at open circuit voltage of 20mV (max). (Per EIA-364-23) |
| Dielectric Withstanding Voltage | No Broken | 500V AC (rms.) between two adjacent for 1 minute. (Trip current:1mA) (Per EIA-364-20) |
| Insulation Resistance | 1000MΩ Min. | Apply 500V DC between adjacent contacts, or contact and ground. (EIA-364-21) |
| Temperature Rise | 30°C max. | EIA-364-70 Mate connectors, measure the temperature rise at rated current after 0.5A/Power contact. The temperature rise above ambient shall not exceed 30°C the ambient condition is still air at 25°C. |

| MECHANICAL | | |
|----------------------|--|--|
| Item | Requirement | Test Condition |
| Contact Normal Force | 0.3N Min. per Pin | Take contact insert molding semi-finished products, no other parts, and solder on PCB, measure contact normal force at the speed rate of 25 mm/min. (use 0.6mm card thickness) |
| Durability | 500 cycles, Final Contact Normal Force 0.3N Min. | Use manual operation, Solder connectors to PCB, 400 to 600 cycles per hours (EIA364-09) |

| ENVIRONMENTAL | | |
|----------------------|--------------------------------|---|
| Item | Requirement | Test Condition |
| Vibration | Discontinuity < 1 ms | EN60721-3-5 Class 5M3 Random vibration Test (3.38Grms) 10~500Hz, 3.38Grms, 1hr/per axis Test PSD: 10~200HZ: 3m ² /S ³ , 200~500Hz, 1m ² /S ³ |
| Mechanical Shock | Discontinuity < 1 ms | EN60721-3-5 Class 5M3 Shock Test-Level II (100G/6ms) |
| Temperature Life | Contact resistance 100 mΩ Max. | 85±2°C Mated, series between samples, loading 5VDC/60mA, duration 96 hours (EIA-364-17, method B, condition 3) |



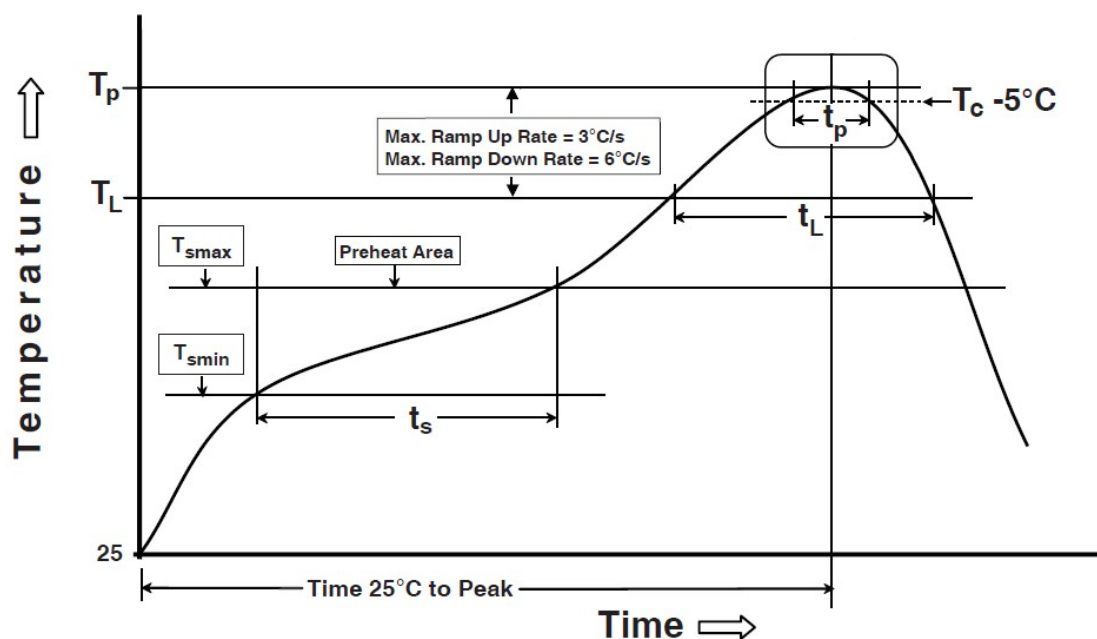
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|------------------|---|---|
| Thermal Shock | Max. Change from initial contact Resistance 40mΩ Max No physical damage to connector shall occur. | Temperature Range: -55 to 85°C No. of Cycles: 5 cycles for 30 minutes (EIA364-32) |
| Cold Resistance | Contact resistance 100 mΩ Max. | -40°C/96Hr (EIA-364-59) |
| Humidity | Meets ELECTRICAL requirements | Temperature : 70±2°C Relative humidity : 90~95% Duration : 96 hours |
| Salt Water Spray | No oxidation Contact resistance 100 mΩ Max. | Temperature : 35±2°C Salt water density : 5±1% Duration : 48 hours |

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 Solder temperature: 255±5°C Test time: 5±1 seconds, (Per EIA-364-71) |
| Resistance to soldering heat | No melting, cracks or functional damage allowed | 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 |



Reflow Profile



Preheating temperature: $150 \sim 200^\circ\text{C}$, 60~120 seconds

Liquidus temperature (T_L): 217°C , 60~150 seconds

Peak temperature: 260°C

Time within 5°C of peak temperature (T_c): 255°C , 30seconds