

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

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. 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 1. No electrical discontinuity more than 1μs. 2. No damage. 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. Amplitude: 1.52mm P-P or 19.6m/s ² { 2G} Frequency: 10-55-10Hz Shall be traversed in 1 minute. (EIA-364-28)
Mechanical Shock	Finish 1. No electrical discontinuity more than 1μs. 2. No damage. 3. Contact Resistance: 40mΩ (Max.) change.	Mate card and subjected to the following shock conditions. 3 mutually perpendicular axis, passing DC 1mA current during the test. (Total of 18 shocks) Test pulse: Half Sine Peak value: 490m/s ² { 50G} Duration: 11ms (EIA-364-27)

ENVIRONMENTAL

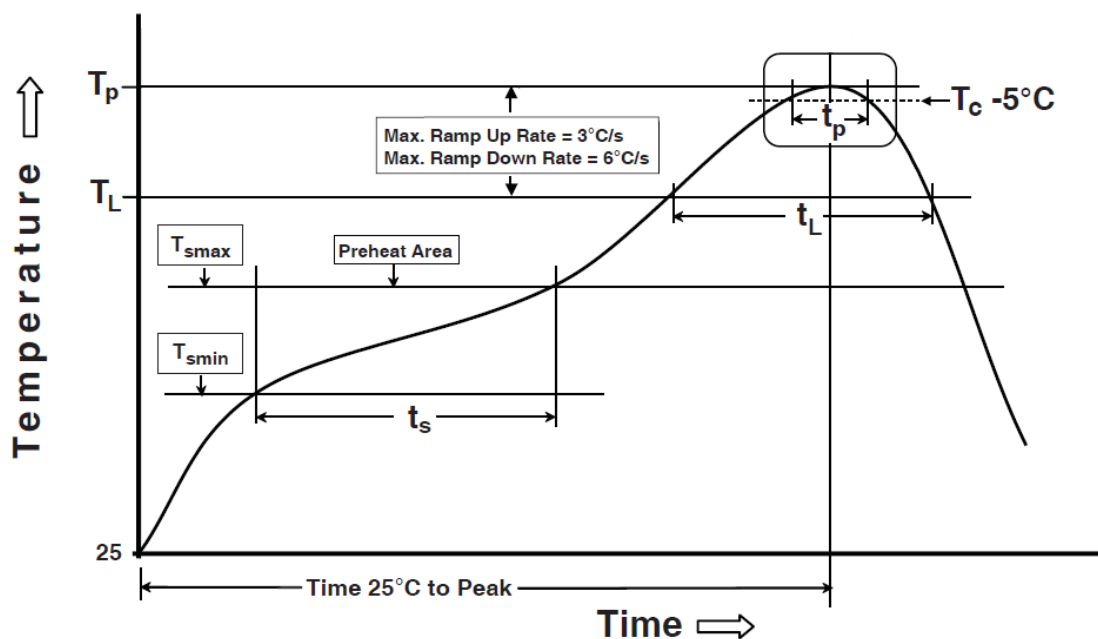
Item	Requirement	Test Condition
High Temperature Life	1. Contact Resistance: 40mΩ (Max.) change. 2. Insulation Resistance: 100MΩ (Min.)	Temperature: 85±2°C Test time: 48 hours (JIS C0025)
Cold Resistance	1. Contact Resistance: 40mΩ (Max.) change. 2. Insulation Resistance: 100MΩ (Min.)	Temperature: -30±2°C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

	1. Contact Resistance: 40mΩ (Max.) change. 2. No damage	duration 24 hours. Connectors detached (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. Solder temperature: 245±5°C Test time: 3±0.5 seconds (EIA-364-71)
Resistance to Soldering Heat	No melting, cracks or functional damage allowed.	When exposed to the following reflow soldering condition, there shall be no any excessive thermal damage on the every part of connector.

Reflow Profile



Preheating temperature: 150 ~ 200°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

Test Sequence:

Test Item	Test Group								
	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