

SPECIFICATION AND PERFORMANCE

Series	115V-Spec	File	115V-Spec	Date	2019/08/13
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Scope:

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

P/N	Descriptions
115V-AD00	Nano SIM Socket, Hinge Type, 6Pin 10u" Reel

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 S475, UL94V0, black
2	Contact	Copper alloy C5210, 0.15t, Gold plating on contact area (see P/N description), Gold flash on solder area, under plating 50u" Min. Nickel
3	Cover	Stainless Steel SUS304, 0.20t
4	Ground	Stainless Steel SUS304, 0.20t, Gold flash on solder area, under plating 50u" Min. Nickel

RATING

Rated Voltage	10V
Rated Current	0.5A
Operating Temperature	-40°C to +105°C
Storage Temperature	-40°C to +105°C
Durability	100 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 into shell, 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)

MECHANICAL

Item	Requirement	Test Condition
Contact Normal Force	0.3N Min./Pin	Solder connectors to PCB, unlock the shell and open it to full level, measure contact normal force at the speed rate of 1 mm /min.
Terminal Durability	5000 cycles, Final Contact Normal Force 0.3N min.	Solder connectors to PCB, insert the card into the shell and close the shell, press the shell to 5000 times, press rate 10 times/min. max.
Open & Lock Force	1.5N~20N with card	Solder connectors to PCB, parallel to push on the shell surface for open & lock
Open & Lock Durability	100 Cycles, Final Lock Force: 1.5N Min. with card	Solder connectors to PCB, insert the card into the shell and close the shell. Operate loop of shell, 1)unlock 2) open it to full level 3)close it 4) press and lock

ENVIRONMENTAL

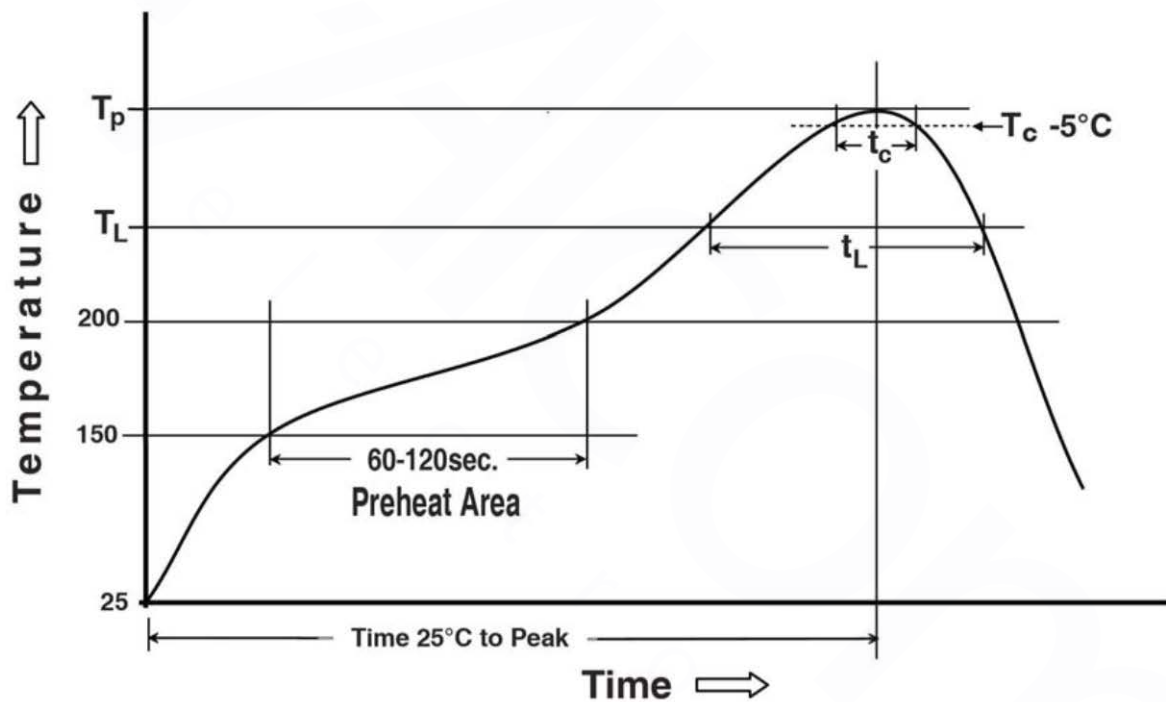
Item	Requirement	Test Condition
Vibration	Discontinuity < 1 ms	EN60721-3-5 Class 5M3 Random vibration Test (3.38Grms) 10~500Hz, 3.38Grms, 1hr/per axis Test PSD: 10~200HZ: 3m ² /S ³ , 200~500Hz, 1m ² /S ³ or EIA-364-28, Condition II
Shock	Discontinuity < 1 ms	EN60721-3-5 Class 5M3 Shock Test-Level II (100G/6ms) or EIA-364-27, Condition C
Temperature Life	Contact resistance 100 mΩ Max.	105±2°C Test procedure method B: with electrical load for connectors, duration 96 hours (EIA-364-17, method B, condition 4)
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	The termination should be 95% covered with

	must show no voids, pin holes	new continuous solder coating Solder temperature: $255 \pm 5^\circ\text{C}$ Test time: 5 ± 1 seconds, (Per EIA-364-71)
Resistance to soldering heat	No melting, cracks or functional damage allowed	Preheating temperature: $150 \sim 200^\circ\text{C}$, 60~120 seconds Liquidus temperature (TL): 217°C , 60~150 seconds Peak temperature: 260°C Time within 5°C of peak temperature (T_c): 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

Test group & sequence:

NO.	TEST ITEM	TEST GROUP & SEQUENCE								
		A	B	C	D	E	F	G	H	I
1	Examination of Product	1,3,9	1,3,7	1,3,7	1,3,7	1,3,7	1,3,7	1,3,9	1,3	1,3
2	Low Level Contact Resistance	4,8		4,6	4,6	4,6	4,6			
3	Dielectric Withstanding Voltage							4,7		
4	Insulation Resistance							5,8		
5	Contact Normal Force	5,7								
6	Terminal Durability	6								
7	Cover Open & Lock Force		4,6							
8	Cover Open & Lock Durability		5							
9	Vibration			5						
10	Mechanical Shock				5					
11	Temperature Life					5				
12	Cold Resistance						5			
13	Humidity							6		
14	Salt Water Spray								2	
15	Solder Ability									2
16	Reflow Soldering Heat Resistance	2	2	2	2	2	2	2		
	Quantities of Samples	4	4	4	4	4	4	4	4	4