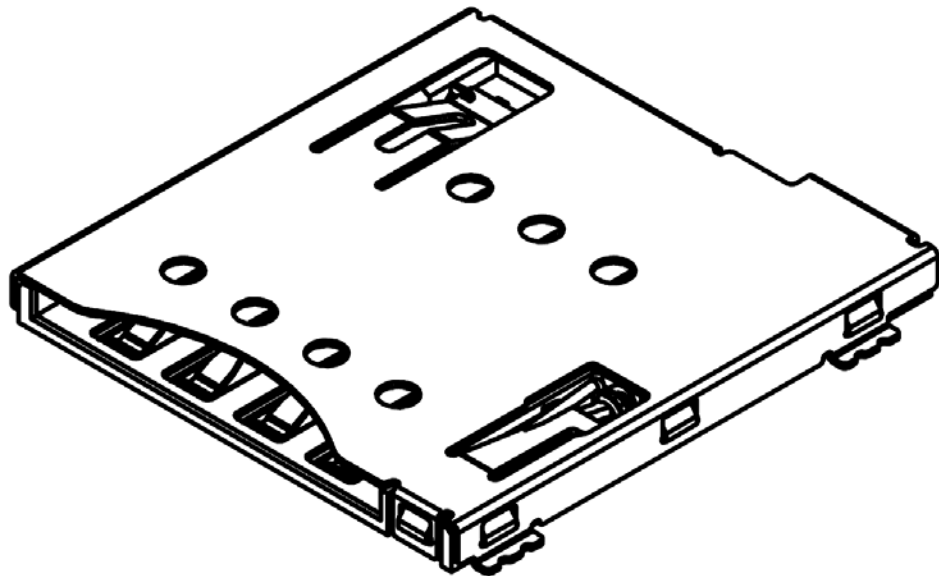


PRODUCT SPECIFICATION

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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the Micro SIM Card Connector SIM 7100 (Push-Push Type, 6 or 8 Pin, SMT, 1.5mm Profile).

2.0 PRODUCT NAME AND PART NUMBER.

Micro SIM Card Connector, 6 or 8 Pin, Push-Push Type: SIM7100.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

Current rating 1.0 Amp Max.
 Voltage rating 50 Volts DC Max.
 Operating Temperature Range -40°C to +85°C
 Storage Temperature -40°C to +85°C

5.0 TEST AND MEASUREMENT CONDITIONS.

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Paragraph 6.0. All tests are performed at ambient environmental conditions unless otherwise specified.

6.0 PERFORMANCE.

Item	Test Condition	Requirement
Examination of Product	Visual, dimensional and functional inspection as per quality plan.	Product shall meet requirements of product drawing and specification.

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6.1 Electrical Performance.

Item	Test Condition	Requirement
Contact Resistance	Mate connector, measure and record contact resistance using test a current of 10mA max and 20mV open circuit voltage, in accordance with IEC 60512-2-1.	Signal: 100 mΩ Max. Switch: 300 mΩ Max
Insulation Resistance	Apply 500Volts DC between adjacent contacts of unmated connector for one minute, in accordance with IEC 60512-3-1.	1000 MΩ minimum
Dielectric Strength	Unmated connector with 500 VAC for 1 minute between adjacent contacts, in accordance with IEC 60512-3-1.	No creeping discharge or flash over.

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Durability	The SIM card should be mated and unmated for 1500 cycles at a rate of 500 cycles/ hour.	No evidence of physical damage. Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max at end of test
Vibration(Random)	Frequency: 10 -100 Hz ,0.0132g ² /Hz ; 100 - 500Hz, -3dB/Oct. Applied for 1 hour in each 3 mutually perpendicular axes In accordance with IEC60068-2-64Fh.	No evidence of physical damage Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max at end of test Current discontinuity ≤ 1 μs
Mechanical Shock	Pulse shape=half sine Peak acceleration =50G Duration of pulse=11ms Apply 3 shocks in each direction along the 3 mutually perpendicular axes (18 shocks). In accordance with IEC60068-2-27Ea.	No evidence of physical damage Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max at end of test Current discontinuity ≤ 1 μs

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6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	<p>The card shall be mated and exposed to the following condition for 25 cycle at $T_a = -40^\circ\text{C}$ for 0.5 hours; change of temp=25°C maximum 5min; then $T_b = +85^\circ\text{C}$ for 0.5 hours; cool to ambient.</p> <p style="text-align: center;">In accordance with IEC60068-2-14.</p>	<p>No evidence of physical damage, Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max</p>
Humidity Test	<p>The card shall be mated and exposed to temperature of $40 \pm 2^\circ\text{C}$ with 90-95% RH for 500 hours then place in ambient temperature for 1 to 2 hrs.</p> <p style="text-align: center;">In accordance with IEC60068-2-3.</p>	<p>No evidence of physical damage, Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max</p> <p>Insulation resistance ≥ 1000 MΩ Dielectric: No creeping discharge or flash over.</p>
Salt mist	<p>$5 \pm 1\%$ salt concentration 24 hours $35 \pm 2^\circ\text{C}$.</p> <p style="text-align: center;">In accordance with IEC60068-2-11.</p>	<p>No rust on contact area Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max</p>
Temperature Life (High)	<p>$85 \pm 2^\circ\text{C}$ for 96 hours. Recovery time 1-2 hours under ambient conditions.</p> <p style="text-align: center;">In accordance with IEC60068-2-2Bb.</p>	<p>No evidence of physical damage, Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max</p>
Temperature Life (Low)	<p>$-40 \pm 3^\circ\text{C}$ for 96 hours. Recovery time 1-2 hours under ambient conditions.</p> <p style="text-align: center;">In accordance with IEC60068-2-1Ab</p>	<p>No evidence of physical damage, Contact Resistance Signal: 100 mΩ Max. Switch: 300 mΩ Max</p>
Temperature Rise	<p>Apply test current of loaded rating and measure the temperature rise of contact when rated current is passed.</p> <p style="text-align: center;">In accordance with EIA-364-70 Method 1.</p>	<p>30$^\circ\text{C}$ Max.</p>
Solderability	<p>Dip solders tails into molten solder up to a depth of 0.5mm, held at a temperature of $250 \pm 5^\circ\text{C}$ for 3 ± 0.5 second.</p>	<p>95% of immersed area must show no voids of pin holes.</p>
Resistance to Reflow Soldering Heat.	<p>Mount connector, place in reflow oven and expose to the temperature profile with peak temperature of 250°C for 15seconds. See Fig. 1.</p>	<p>No evidence of physical damage or abnormalities adversely affecting performance</p>

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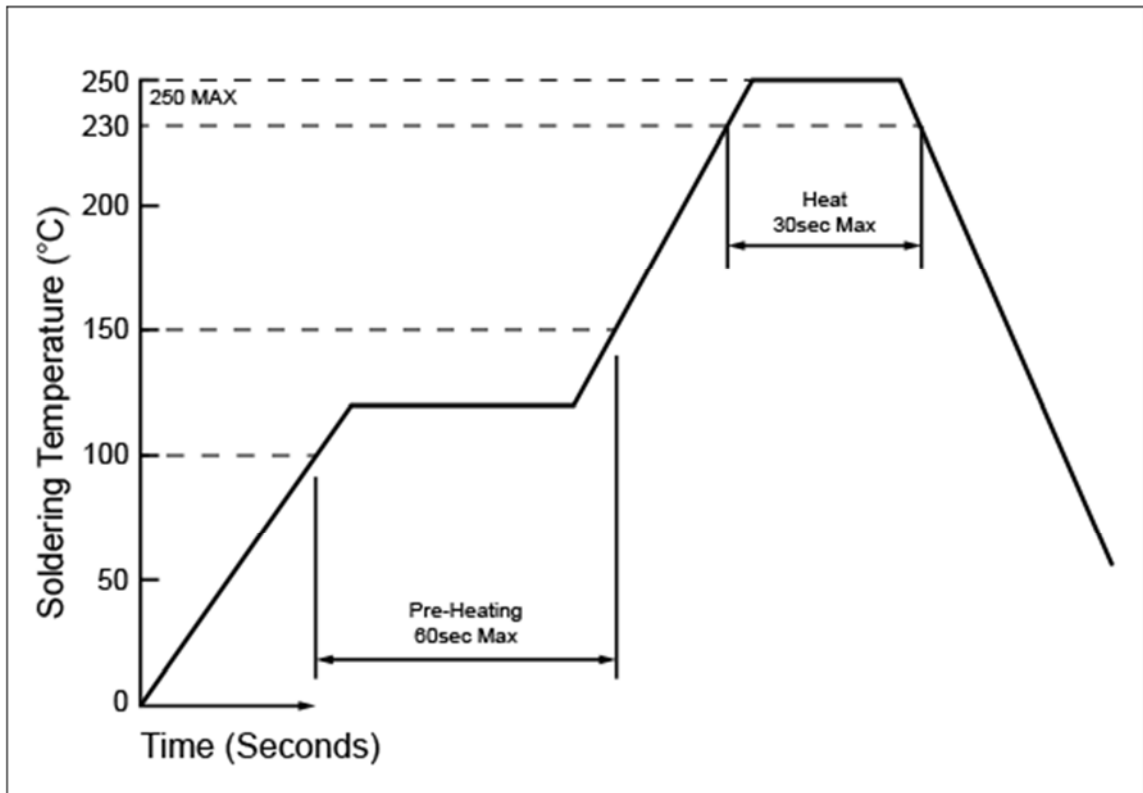


Fig. 1. Recommended Reflow Temp. Profile

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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Item	Group									
	A	B	C	D	E	F	G	H	I	J
Examination of Product	1,5	1,5	1,5	1,5	1,9	1,6	1,3	1,3	1,9	1,3
Contact Resistance	2,4	2,4	2,4	2,4	2,6	2,5			2,6	
Insulation Resistance					3,7				3,7	
Dielectric Withstanding					4,8				4,8	
Durability					5					
Vibration(random)						3				
Mechanical Shock						4				
Thermal Shock	3									
Humidity									5	
Salt mist		3								
Temperature Life (High)				3						
Temperature Life (Low)			3							
Temperature Rise								2		
Solderability							2			
Resistance to Reflow Soldering Heat.										2
Sample QTY.	5	5	5	5	5	5	5	5	5	5

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Revision details

Revision	Information	Page	Release Date
A	Specification Released	-	05/09/2014
B	Update the 3D image on the cover page	1	18/04/2018
C	Update the 3D image on the cover page	1	17/12/2019