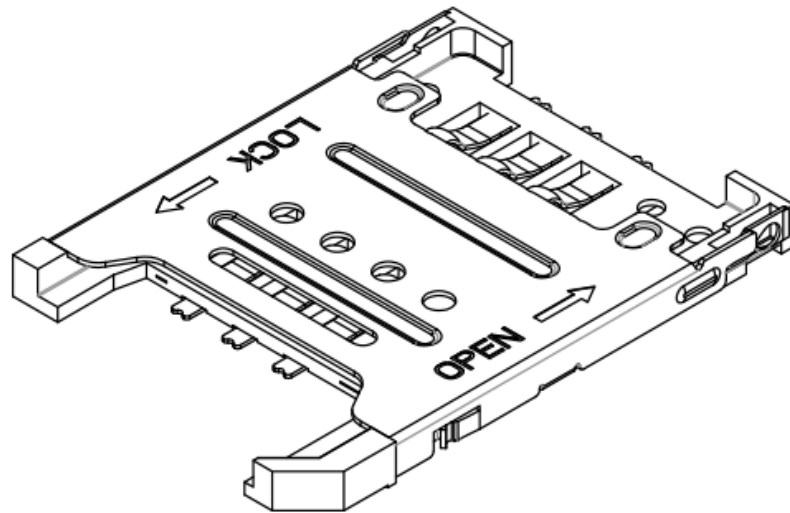


PRODUCT SPECIFICATION

Part Number	SIM5051	Rev	A	Date	27/10/14		
Product Description	SIM Card Connector, Hinged Type, 6 Pin, SMT, 1.85mm Profile.				Page	1	
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PRODUCT SPECIFICATION

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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the SIM Card Connector SIM 5051 (Hinged Type, 6 Pin, SMT, 1.85mm Profile).

2.0 PRODUCT NAME AND PART NUMBER.

SIM Card Connector, 6 Pin, Receiver Type: SIM5051.

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	Insert SIM card into connector, measure and record contact resistance using test a current of 10mA max and 20mV open circuit voltage in accordance with EIA-364-23A.	100 mΩ Max after test.
Insulation Resistance	Apply 500Volts DC between adjacent contacts of mated SIM card and connector for one minute in accordance with EIA-364-21C.	1000 MΩ minimum / 500 VDC
Dielectric Strength	Insert SIM card into connector and apply 500 VAC for 1 minute between adjacent terminal or ground, in accordance with EIA-364-20A.	No creeping discharge or flash over.

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Durability	The SIM card should be mated and unmated for 5,000 cycles at a rate of 1800 cycles/ hour in accordance with EIA-364-09.	No evidence of physical damage. Contact Resistance $\leq 100\text{m}\Omega$ at end of test
Vibration	Insert SIM card into connector and expose to 10 to 55 to 10 Hz frequency span over 1 minute at a 1.52mm amplitude for a total of 15 minutes. Test to be conducted on 3 mutually perpendicular planes. 100mA Max. Applied. In accordance with EIA-364-28.	No evidence of physical damage Contact Resistance $\leq 100\text{m}\Omega$ at end of test Current discontinuity $\leq 1 \mu\text{s}$
Mechanical Shock	Subject the part to a 490 m/s ² half sine wave acceleration for 11 ms. Three shocks to be applied in each of the X, Y and Z planes and in both directions. A total of 18 shocks and in accordance with EIA-364-27.	No evidence of physical damage Contact Resistance $\leq 100\text{m}\Omega$ at end of test Current discontinuity $\leq 1 \mu\text{s}$

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6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	Insert SIM card into connector and perform the following thermal cycle :- -55±3°C for 30 minutes, +85±2°C for 30 minutes, Transit time will no longer than 3 minutes Repeat for 5 cycles in accordance with EIA-364-32F.	No evidence of physical damage, Contact Resistance ≤ 100 mΩ
Humidity Test	Insert SIM card into connector and expose to temperature of 60±2°C with 90-95% RH for 96 hours then place in ambient temperature for 1 to 2 hrs. In accordance with EIA-364-31.	No evidence of physical damage, Contact Resistance ≤ 100 mΩ Insulation resistance ≥ 1000 MΩ Dielectric: No creeping discharge or flash over.
Salt Water Spray	Insert SIM card into connector and expose to 35±2°C and 5±1% NaCl (salt condition) for 48hours. Test in accordance with EIA-364-26A.	No rust on contact area
Temperature Life (High)	Insert SIM card into connector and expose to 85±2°C for 96 hours. Recovery time 1-2 hours.	No evidence of physical damage, Contact Resistance ≤ 100 mΩ Insulation resistance ≥ 1000 MΩ Dielectric: No creeping discharge or flash over.
Temperature Life (Low)	Insert SIM card into connector and expose to to -40±3°C for 96 hours. Recovery time 1-2 hours. EIA-364-59A	No evidence of physical damage, Contact Resistance ≤ 100 mΩ
Temperature Rise	Insert SIM card into connector and measure the temperature rise of contact when rated current is passed. In accordance with EIA-364-70 Method 1.	30°C Max.
Solderability	Dip solders tails into molten solder up to a depth of 0.5mm, held at a temperature of 260±5°C for 3±0.5 second.	95% of immersed area must show no voids of pin holes.
Resistance to Reflow Soldering Heat.	Mount connector, place in reflow oven and expose to the a temperature profile with peak temperature of 250°C for 15seconds. See Fig. 1.	No evidence of physical damage or abnormalities adversely affecting performance after 2 cycles.

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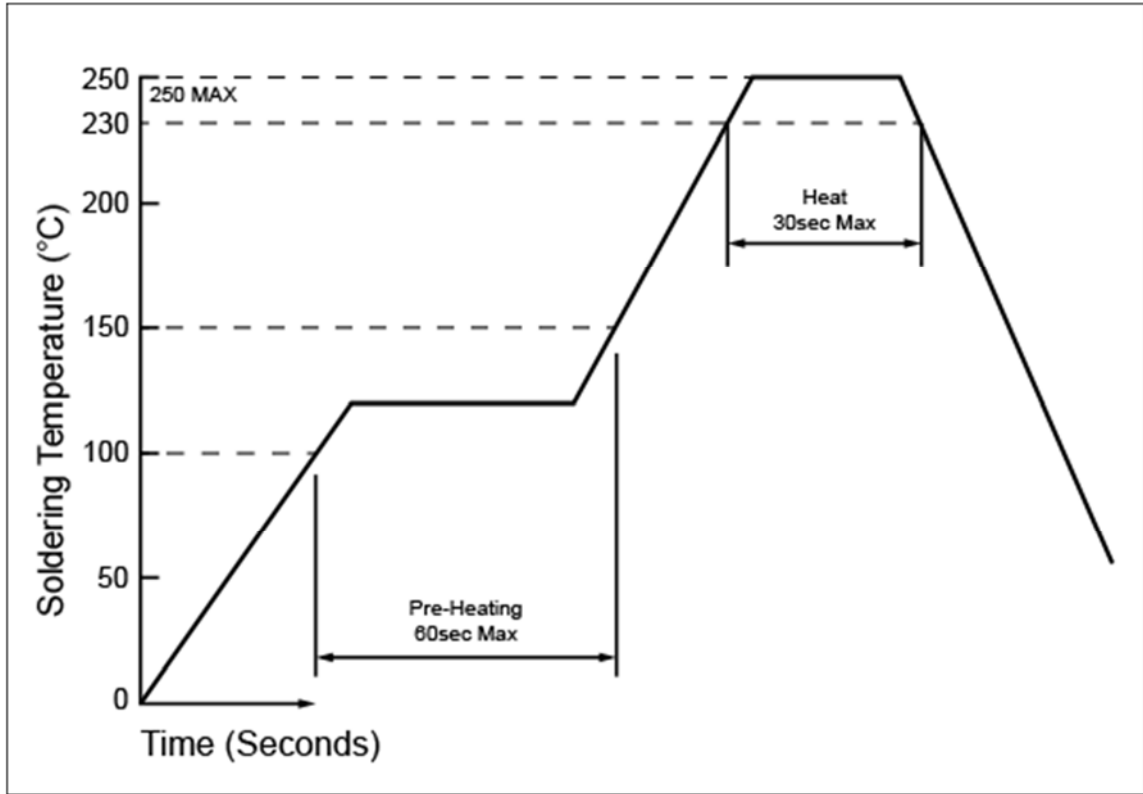


Fig. 1. Recommended Reflow Temp. Profile

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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

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

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