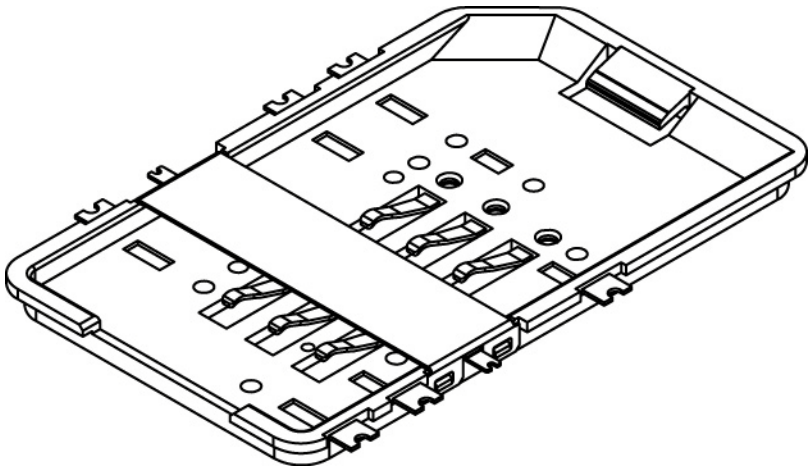
PRODUCT SPECIFICATION

Part Number	SIM3050		**Rev**	A		**Date**	01/07/10
Product Description	Slim SIM Card Connector, Retainer Type, 6-Pin, SMT, 0.5mm Profile					**Page**	1
Doc Number	SIM3050	**Prepared**	**SA**	**Checked**	**PN**	**Approved**	**DR**



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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the Slim SIM Card Connector SIM3050 (Retainer Type, 6-Pin, SMT, 0.5mm Profile).

2.0 PRODUCT NAME AND PART NUMBER.

Slim SIM Card Connector, 6 Pin Retainer Type: SIM3050.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

Current rating ……. 0.5 Amp AC/DC

Voltage rating …… 30 Volts AC (RMS) Max.

Operating Temperature Range …… -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 under the following 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.

6.1 Electrical Performance.

Item	Test Condition	Requirement
Contact Resistance	Mate connectors: apply a maximum voltage of 20mV and a current of 10mA and in accordance with EIA-364-23.	100 mΩ maximum
Insulation Resistance	Measurement shall be performed after 60 second from voltage application 500VDC between the contact and in accordance with EIA-364-21.	100 MΩ minimum
Dielectric Withstanding Voltage	200 V AC (RMS) for 1 minute, 50Hz. Voltage application as above indicated and in accordance with EIA-364-20.	No voltage breakdown

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Contact Normal Force	Measure contact normal force: terminal contact point (0.10mm over the housing face)	0.4 +0.2/-0.25 N/pin
Retention Force	After reflow, Pull out the terminal in un-mating direction.	3 N Min
Durability	Insertion and withdrawal are repeated 5000 cycles with card at the speed rate of 400~600 cycles/hour. Exchange new card every 4000 cycles. The specified measurement shall be performed the following cycles and in accordance with EIA-364-09.	Appearance: no damage Contact Resistance: Initial: 30 mΩ Maximum After test: 40 mΩ Maximum
Vibration	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/s2 {2G} Frequency: 10-55-10Hz shall be traversed in 1 minute and in accordance with EIA-364-28.	Appearance: No damage <1 μs discontinuity Contact Resitance: 40 mΩ Maximum
Mechanical Shock	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/s2{50G} Duration: 11ms and in accordance with EIA-364-27.	Appearance: No damage <1 μs discontinuity Contact Resitance: 40 mΩ Maximum

6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	The card shall be mated and exposed to the following condition for 25 cycles. 1 cycle: a) -40±3 for 30 minutes. b) +85±2 for 30 minutes Transit time shall be within 3 minutes, Recovery time 1~2 hours and in accordance with EIA-364-32.	No evidence of physical damage, discharge, flashes or corrosion in contact areas. Contact Resistance ≦ 40 mΩ maximum
High Relative Humidity Exposure	The card shall be mated and exposed to the condition of +60±2 @ 90~95% Humidity for 96 hours. Recovery time 1~2 hours and in accordance with EIA-364-31.	
Salt Spray Test	The card shall be mated and exposed to the following salt mist conditions. At the completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution: Concentration: 51% Spray time: 48 hours Temperature: 35 2°C and in accordance with EIA-364-26 Condition A	
High Temperature Exposure	The card shall be mated and exposed to the condition of +85±2 for 96 hours, less than 25% relative	
Low Temperature Exposure	The card shall be mated and exposed to the condition of -40±3 for 96 hours. Recovery time 1~2 hours and in accordance with EIA-364-59	
Temperature Rise	Mate card and measure the temperature rise of contact, when rated current is passed and in accordance with EIA-364-70 – Method 1.	30°C Max
Solderability	Dip solders tails into molten solder, held at a temperature of 250±5°C up to 0.5mm from the tip of the tails for 3±0.5 second.	Contact solder Pad shall have a Min. 95% solder coverage
Resistance to Reflow Soldering Heat.	Mount connector, place in reflow oven and expose to the temperature profile shown in fig 1.0	No damage After 3 times of reflow
Hand Soldering Temperature Resistance (rework)	300°C for 3s, 2 times	No evidence of physical damage

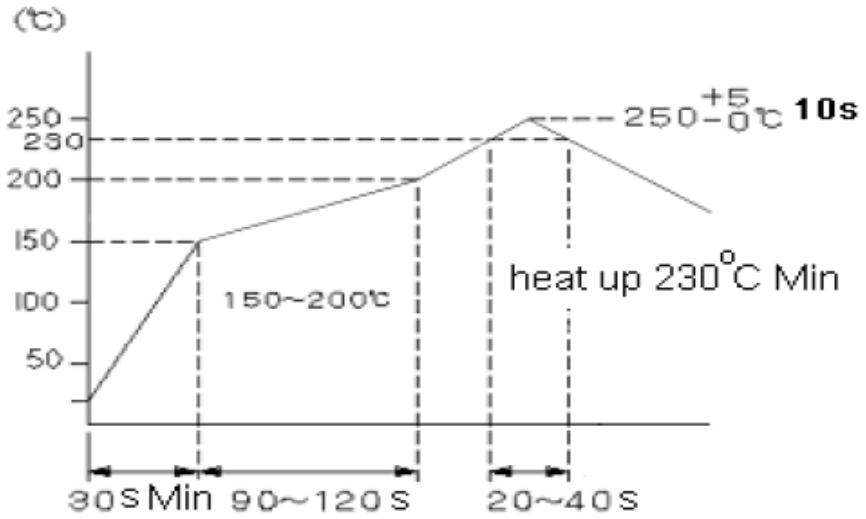

Fig.1 Thermal Shock Profile – 1 Cycle

7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE.

Test Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Contact Resistance	2,7	2,4,6	2,6,8	2,4,6	2,4				
Insulation Resistance	3,8		3,9						
Dielectric Withstanding Voltage	4,9		4,10						
Temperature Rise						1			
Normal Force at SIM Contact Point	5,10								
Durability	6								
Vibration				3					
Mechanical Shock				5					
High Relative Humidity Exposure			7						
Low Temperature Exposure		3							
High Temperature Exposure		5							
Thermal Shock			5						
Salt Spray Test					3				
Solderability							1		
Retention Force								1	
Resistance to Soldering Reflow Heat	1	1	1	1	1				
Hand Soldering Temperature Resistance									1

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