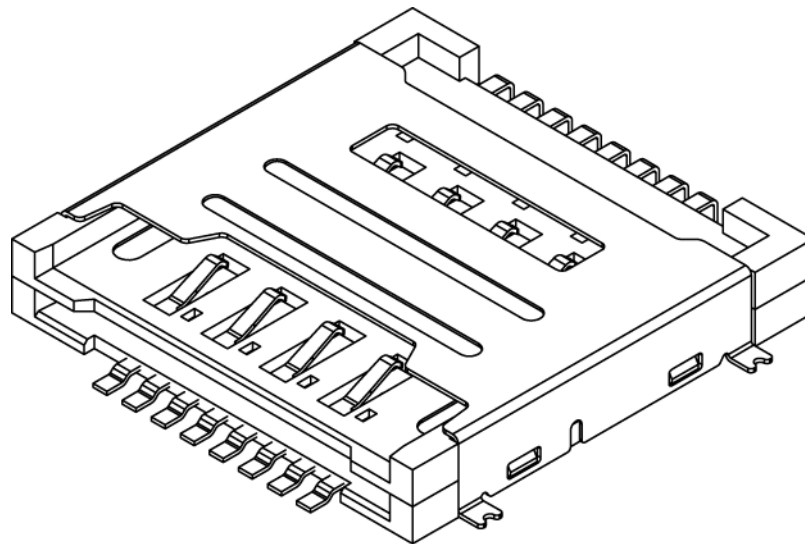


# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10		
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	1		
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>	<b>Approved</b>	<b>DR</b>



# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	2
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>
				<b>Approved</b>	<b>DR</b>

## 1.0 SCOPE.

This specification covers performance, tests and quality requirements for the Dual SIM Card Connector SIM6050 (Retainer Type, 8-Pin, SMT, 3.0mm Profile).

## 2.0 PRODUCT NAME AND PART NUMBER.

Dual SIM Card Connector, 8 Pin Retainer Type: SIM6050.

## 3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

## 4.0 RATINGS.

Current rating ..... 0.5 A AC RMS

Voltage rating ..... 30 V AC RMS

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.

# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	3
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>
				<b>Approved</b>	<b>DR</b>

## 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	30 mΩ maximum
Insulation Resistance	Measurement shall be performed after 60 second from voltage application 500VDC between the contact and in accordance with EIA-364-23	1000 MΩ minimum
Dielectric Withstanding Voltage	1,000 Vac (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)	0.5 +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/s <sup>2</sup> {2G} Frequency : 10-55-10Hz shall be traversed in 1 minute and in accordance with EIA-364-28.	Appearance: no damage <1 ms discontinuity 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/s <sup>2</sup> {50G} Duration: 11ms and in accordance with EIA-364-27.	Appearance: no damage <1ms discontinuity 40 mΩ Maximum

# PRODUCT SPECIFICATION

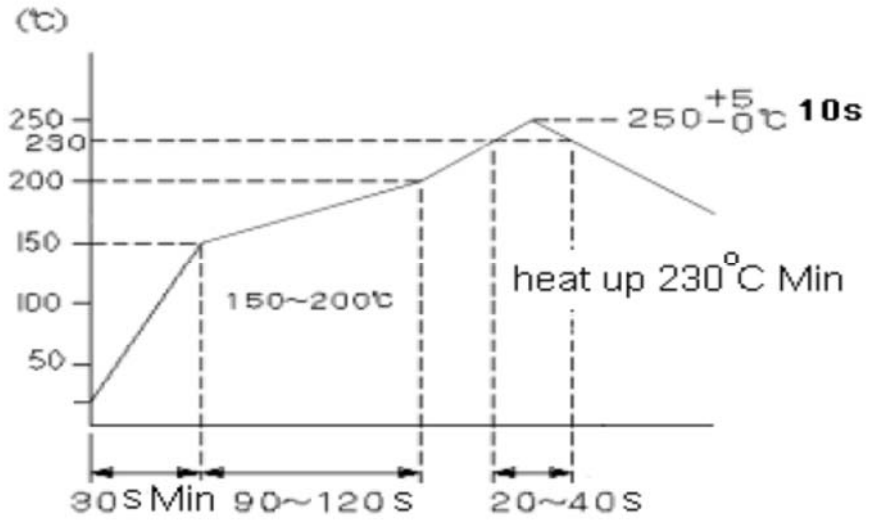
<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	4
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>
				<b>Approved</b>	<b>DR</b>

## 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) $-40\pm 3$ for 30 minutes. b) $+85\pm 2$ 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 $\leq 40$ m $\Omega$ maximum
High Relative Humidity Exposure	The card shall be mated and exposed to the condition of $+60\pm 2$ @ 90~95% Humidity for 96 hours. Recovery time 1~2 hours and in accordance with EIA-364-31	
Salt Water Spray	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 : $5\pm 1\%$ Spray time : 48 hours Temperature : $35\pm 2^\circ\text{C}$ In accordance with EIA-362-26 condition A	
High Temperature Exposure	The card shall be mated and exposed to the condition of $+85\pm 2$ for 96 hours, less than 25% relative	
Low Temperature Exposure	The card shall be mated and exposed to the condition of $-40\pm 3$ 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	
Solderability	Dip solders tails into molten solder, held at a temperature of $250\pm 5^\circ\text{C}$ up to 0.5mm from the tip of the tails for $3\pm 0.5$ 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)	$300^\circ\text{C} \cdot T < 350^\circ\text{C}$ for 3s at least, 2 times	No evidence of physical damage

# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	5
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>
				<b>Approved</b>	<b>DR</b>



**Fig.1 Recommended Reflow Profile – 1 Cycle**

# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10		
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	6		
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>	<b>Approved</b>	<b>DR</b>

## 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

# PRODUCT SPECIFICATION

<b>Part Number</b>	SIM6050	<b>Rev</b>	B	<b>Date</b>	28/05/10		
<b>Product Description</b>	Dual SIM Card Connector, Retainer Type, 8-Pin, SMT, 3.0mm Profile			<b>Page</b>	7		
<b>Doc Number</b>	SIM6050	<b>Prepared</b>	<b>SA</b>	<b>Checked</b>	<b>PN</b>	<b>Approved</b>	<b>DR</b>

Revision details :-

Revision	Information	Page	Release Date
A	Specification Released	-	28/05/10
B	Graph label Was 'Thermal Shock Profile' Now 'Recommended Reflow Profile'	5	06/09/10