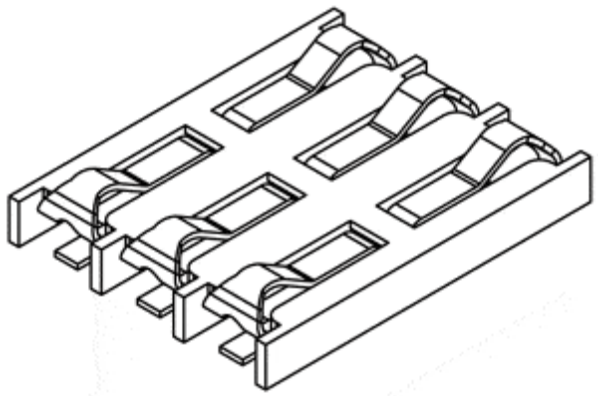
PRODUCT SPECIFICATION

Part Number	SIM1050		**Rev**	A		**Date**	11/06/09
Product Description	SIM Card Connector, Contact Type, 6Pin, SMT, 1.2, 1.5, 1.8 & 2.2mm Profiles.					**Page**	1
Doc Number	SIM1050	**Prepared**	**BW**	**Checked**	**PN**	**Approved**	**DR**



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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the SIM Card Connector SIM1050 (Contact Type, 6-Pin, SMT, 1.2, 1.5, 1.8, 2.2mm Profiles).

2.0 PRODUCT NAME AND PART NUMBER.

SIM Card Connector, 6 Pin, Contact Type: SIM1050.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

Current rating …… 1.0 Amp DC

Voltage rating …… 250 Volts AC (rms.) Max.

Operating Temperature Range …… -55°C to +105°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.

6.1 Electrical Performance.

Item	Test Condition	Requirement
Contact Resistance	Measure and record contact resistance of mated connector using test current of 100mA max and 20 mV open circuit voltage in accordance with MIL-STD-202F Method 302.	20mΩ Max Initial 50 mΩ Max after test.
Insulation Resistance	Apply 250 Volts DC between adjacent contacts of mated connectors for one minute in accordance with. MIL-STD-202F Method 302.	100 MΩ minimum
Dielectric Strength	Mate connectors and apply 100 V AC for 1 minute between adjacent terminal or ground, in accordance with MIL-STD-202F Method 301.	No creeping discharge or flash over. Current leakage: 0.5 A max.

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Contact Force	Apply axial pull out force on the connector assembled in the housing at a speed: 25±3 mm/minute.	50gf /pin Min.
Durability	The connector should be mated and unmated for 5000 cycles over a distance of 0.6 mm in accordance with MIL-STD-1344A.	No evidence of physical damage. Contact Resistance ≦50mΩ at end of test .
Vibration	Subject mated connectors 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. In accordance with MIL-STD-1344A.	No evidence of physical damage Contact Resistance ≦50mΩ Current discontinuity≦ 10 μs at end of test
Mechanical Shock	Apply 5V DC and 100mA to all contacts and subject the part to a 490 m/s2 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 ≦50mΩ Current discontinuity≦ 10 μs at end of test .

6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	Mate Connector and perform the following thermal cycle :- -40+/-3℃ for 30 minutes. +85+/-2℃ for 30 minutes. Repeat for 32 cycles in accordance with. MIL-STD-202F Method 213B.	No evidence of physical damage, discharge, flashes or corrosion in contact areas. Contact Resistance ≦ 50 mΩ Insulation Resistance ≧ 1000 MΩ
Humidity Test	Mate connector and expose to temperature of 40±2℃ with 95% RH for 96 hours then place in ambient temperature for 1 to 2 hrs. In accordance with MIL-STD-202F Method 106E..	
Salt Water Spray	Subject mated connectors to 35±2℃ and 5±1% salt condition for 48hours. Test in accordance with MTL-STD-1344A, Method 1001.1, Condition B.	
Temperature Life (High)	Subject mated connectors to 85°C ±2°C for 96 hours in accordance with MTL-STD-202F, Method 108A	
Temperature Life (Low)	Subject mated connectors -40°C ±3°C for 96 hours in accordance with MTL-STD-202F, Method 108A.	
Solderability	Dip solders tails into molten solder, held at a temperature of 235±5°C for 5±0.5 second, in accordance with EA-364-52.	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 temperature profile shown in fig 1.0	No evidence of physical damage or abnormalities adversely affecting performance.

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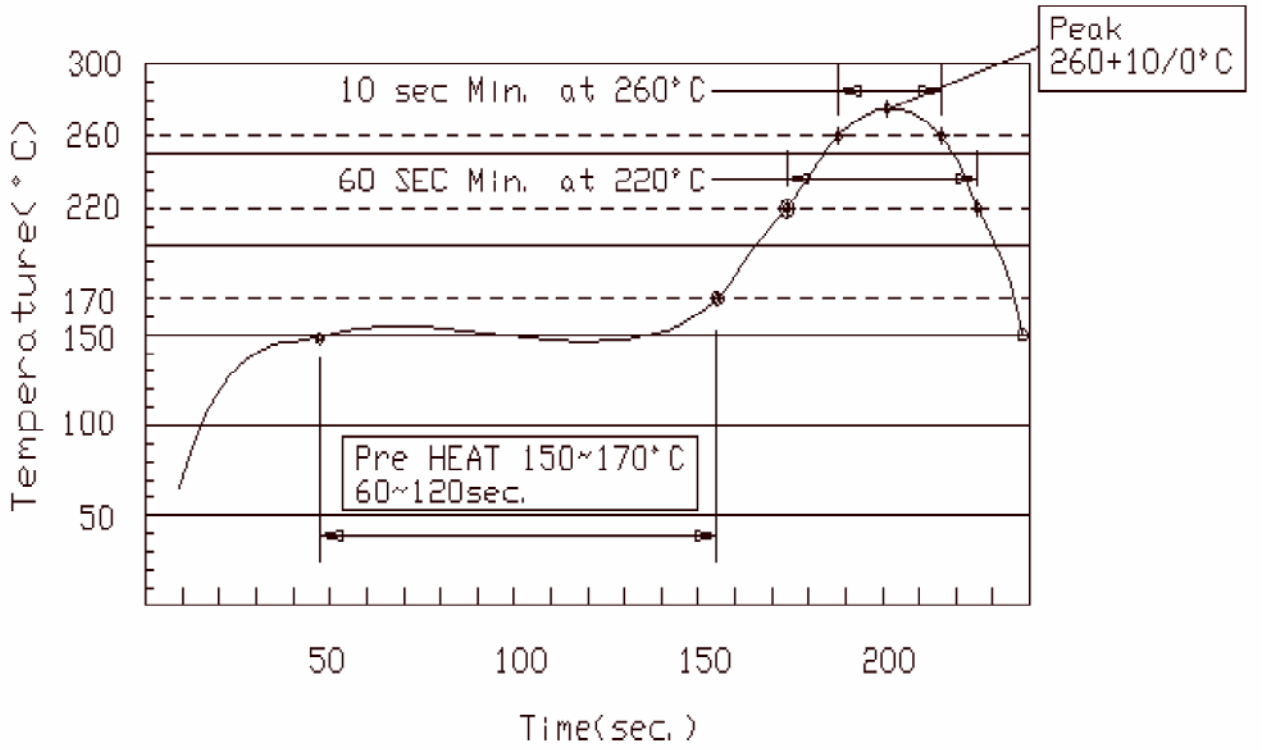
Fig. 1. Recommended Reflow Temp. Profile



7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Item	Group						
	A	B	C	D	E	F	G
Examination of Product	1,7	1,9	1,9	1,5	1,5	1,3	1,3
Contact Resistance	3,6	2,6	2,6	2,4	2,4		
Insulation Resistance		3,7	3,7				
Dielectric Withstanding Voltage		4,8	4,8				
Contact Force							1
Durability	4						
Vibration							
Mechanical Shock							
Humidity		5					
Thermal Shock			5				
Salt Water Spray				3			
Temperature Life					3		
Solderability						2	
Hot air reflow or IR reflow for SMD curing process							2

Notes:
Numbers indicate sequence in which tests are performed.
Precondition samples with 10 cycle's durability.
SAMPLE SELECTION
Samples shall be prepared in accordance with applicable manufactures' instructions and shall be randomly selected from current production. Test groups A,B,C,D,E and F shall consist of a minimum of five connectors. A minimum of 30 contacts shall be selected and identified. Unless otherwise specified, these contacts shall be used for all measurements.

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