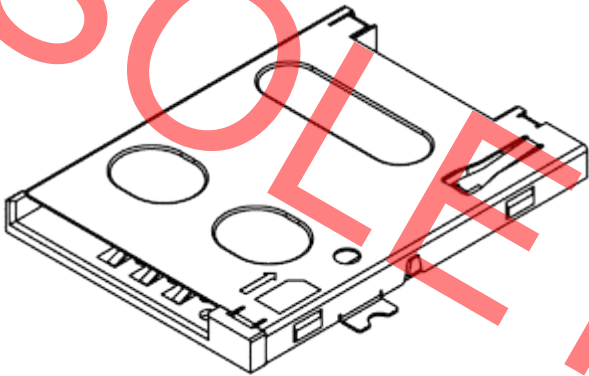


PRODUCT SPECIFICATION

Part Number	SIM4050			Rev	A		Date	11/06/09
Product Description	SIM Card Connector, Push Push Type, 6Pin, SMT with Card Detect, 2.2mm Profile.						Page	1
Doc Number	SIM4050	Prepared	BW	Checked	PN	Approved	DR	



PRODUCT SPECIFICATION

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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the SIM Card connector SIM4050 (Push Push Type, 6-Pin, SMT, 2.2mm Profile).

2.0 PRODUCT NAME AND PART NUMBER.

SIM Card Connector, 6 Pin, Push Push Type: SIM4050.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

Current rating 0.5 Amp DC

Voltage rating 5 Volts AC (RMS) Max.

Operating Temperature Range -55°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

Temperature 15°C ~ +35°C

Relative Humidity 45% ~ 75% R.H.

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	Measure and record contact resistance of mated connector using test current of 10mA max and 20 mV open circuit voltage in accordance with EIA-364-23A.	80 mΩ max
Insulation Resistance	Apply 500Volts DC between adjacent contacts of mated connectors for one minute in accordance with EIA-364-21C.	500 MΩ minimum
Dielectric Strength	Mate connectors and apply 250 V AC for 1 minute between adjacent terminal or ground, in accordance with EIA-364-20B.	No creeping discharge or flash over. Current leakage: 0.5 A max.

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Contact Force	Using a push-push gauge, perform insertion and removal at a speed of 25 ± 3 mm/min.	13.8 N max.
Durability	The connector should be mated and unmated for 5000 cycles at a rate of 10 cycles/ minute in accordance with EIA-RS-364-09A.	No evidence of physical damage. Contact Resistance $\leq 100\text{m}\Omega$ at end of test . Insulation resistance $\leq 1000\text{m}\Omega$ 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. 100mA Max. Applied. In accordance with EIA-364-28.	No evidence of physical damage Contact Resistance $\leq 100\text{m}\Omega$ Current discontinuity $\leq 0.1 \mu\text{s}$ at end of test
Mechanical Shock	Apply DC and 1mA to all contacts and subject the part to a 294 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-364-27B.	No evidence of physical damage Contact Resistance $\leq 100\text{m}\Omega$ Current discontinuity $\leq 0.1 \mu\text{s}$ at end of test.

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6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	Mate Connector and perform the following thermal cycle :- -55+/-3°C for 30 minutes. +5°C to +35°C for 5 minutes. +85+/-2°C for 30 minutes. +5°C to +35°C for 5 minutes. Repeat for 5 cycles in accordance with EIA-364-32C.	No evidence of physical damage, discharge, flashes or corrosion in contact areas. Contact Resistance $\leq 100 \text{ m}\Omega$ Insulation Resistance $\geq 1000 \text{ M}\Omega$
Humidity Test	Mate connector and expose to temperature of $40 \pm 2^\circ\text{C}$ with 95% RH for 96 hours then place in ambient temperature for 1 to 2 hrs. In accordance with EIA-RS-364-31A.	
Salt Water Spray	Subject mated connectors to $35 \pm 2^\circ\text{C}$ and $5 \pm 1\%$ salt condition for 48 hours. Test in accordance with EIA-RS-364-26B.	
Temperature Life (High)	Subject mated connectors to $85^\circ\text{C} \pm 2^\circ\text{C}$ for 250 hours in accordance with EIA-364-17B.	
Solderability	Dip solders tails into molten solder, held at a temperature of $245 \pm 5^\circ\text{C}$ 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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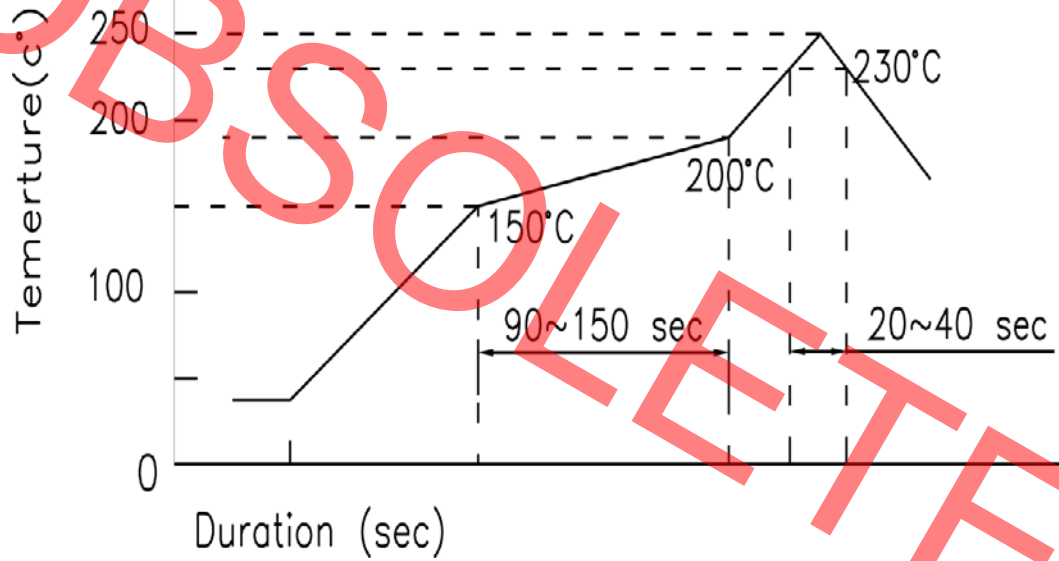


Fig. 1. Recommended Reflow Temp. Profile

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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Item	Group						
	A	B	C	D	E	F	G
Examination of Product	1,7	1,10	1,5	1,5	1,3	1,3	1,3
Contact Resistance	3,6	2,7	2,7	2,4	2,4		
Insulation Resistance		3,8	3,8				
Dielectric Strength		4,9	4,9				
Contact Force	2,5						
Durability	4						
Vibration		5					
Mechanical shock		6					
Thermal Shock			5				
Humidity			6				
Salt Water Spray				3			
Temperature Life					3		
Solderability						2	
Resistance to Reflow Soldering Heat.							2
Sample QTY.	5	5	5	5	5	5	5
The Number of Group is Test Sequence (Drop Test Sample QTY 1							

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,F &G 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.