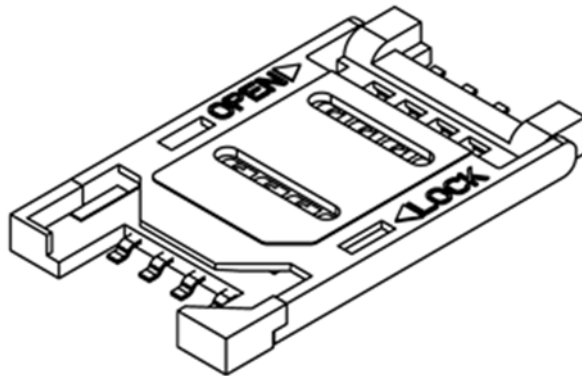


# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
|----------------------------|---|-----------------|-----------|----------------|-----------|-----------------|-----------|
| <b>Part Number</b>         | SIM5060   | <b>Rev</b>      | B1        | <b>Date</b>    | 18/06/21  |                 |           |
| <b>Product Description</b> | SIM Card Connector, Hinged Type, 6 or 8 Pin, SMT, 2.6mm Profile |                 |           | <b>Page</b>    | 1         |                 |           |
| <b>Doc Number</b>          | SIM5060   | <b>Prepared</b> | <b>CC</b> | <b>Checked</b> | <b>VJ</b> | <b>Approved</b> | <b>PH</b> |



# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
|----------------------------|---|-----------------|-----------|----------------|-----------|-----------------|-----------|
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## 1.0 SCOPE.

This specification covers performance, tests and quality requirements for the SIM Card Connector SIM 5060 (Hinged Type, 6 or 8 Pin, SMT, 2.6mm Profile).

## 2.0 PRODUCT NAME AND PART NUMBER.

SIM Card Connector, 6 or 8 Pin, Receiver Type: SIM5060.

## 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  
 Storage Humidity..... Relative Humidity: ≤80%

## 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. |

# PRODUCT 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.<br><br>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<br><br>Contact Resistance $\leq 100\text{m}\Omega$ at end of test<br>Current discontinuity $\leq 1 \mu\text{s}$ |
| Mechanical Shock | Subject the part to a 490 m/s <sup>2</sup> 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<br><br>Contact Resistance $\leq 100\text{m}\Omega$ at end of test<br>Current discontinuity $\leq 1 \mu\text{s}$ |

# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
|----------------------------|---|-----------------|-----------|----------------|-----------|-----------------|-----------|
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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 :-<br>-55±3°C for 30 minutes,<br>+85±2°C for 30 minutes,<br>Transit time will no longer than 3 minutes<br>Repeat for 5 cycles in accordance with EIA-364-32F. | No evidence of physical damage,<br>Contact Resistance<br>≅ 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,<br>Contact Resistance ≅ 100 mΩ<br>Insulation resistance ≥1000 MΩ<br>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,<br>Contact Resistance ≅ 100 mΩ<br>Insulation resistance ≥1000 MΩ<br>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,<br>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.  |

# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
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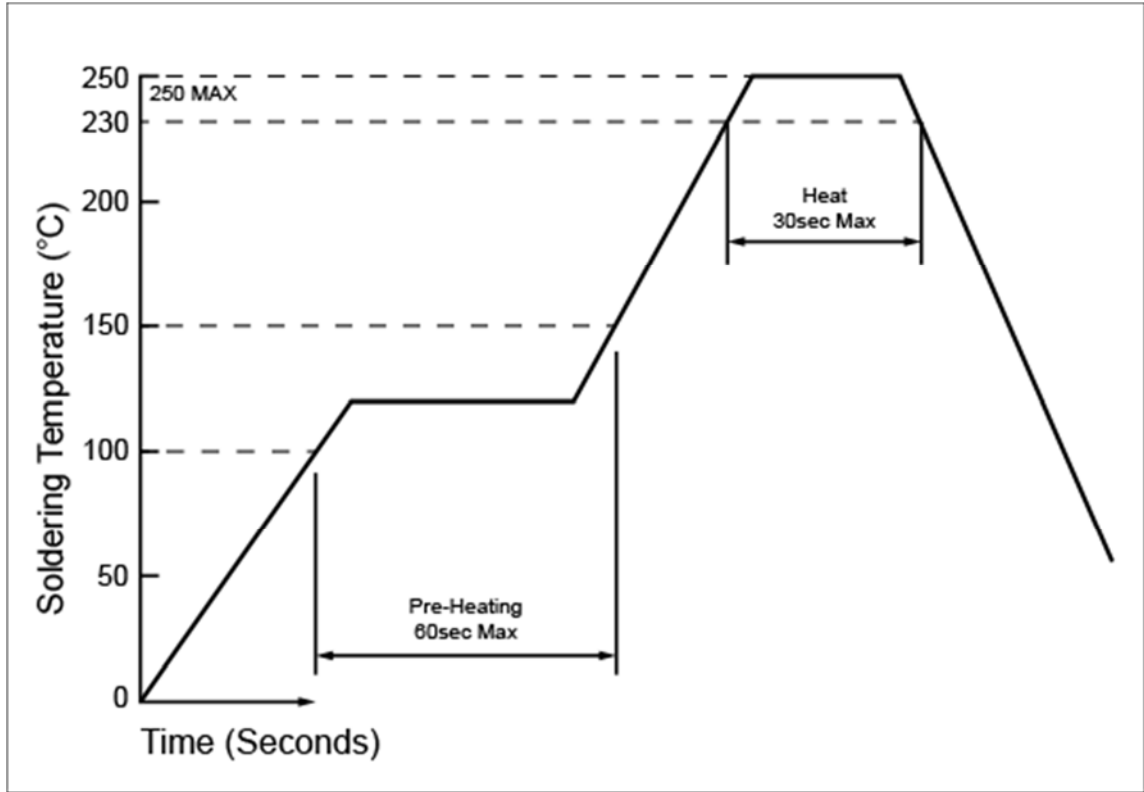


Fig. 1. Recommended Reflow Temp. Profile

# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
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## 7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

| Test Item                            | Group |     |     |     |     |     |     |     |     |     |     |     |
|--------------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                      | A     | B   | C   | D   | E   | F   | G   | H   | I   | J   | K   | L   |
| Examination of Product               | 1,5   | 1,5 | 1,5 | 1,9 | 1,5 | 1,9 | 1,6 | 1,3 | 1,3 | 1,7 | 1,3 | 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 Soldering Heat. |       |     |     |     |     |     |     |     |     |     | 2   |     |
| Sample QTY.                          | 5     | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   |

# PRODUCT SPECIFICATION

|                            |   |                 |           |                |           |                 |           |
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| Revision | Information  | Page   | Release Date |
|----------|--|--------|--------------|
| A        | Specification Released                                       | -      | 13/09/13     |
| B        | Added Storage Humidity under 4.0 RATINGS.                    | 2      | 14/12/16     |
| C        | Remove note 'Optional Locating Peg' from product description | 1 to 7 | 18/06/21     |