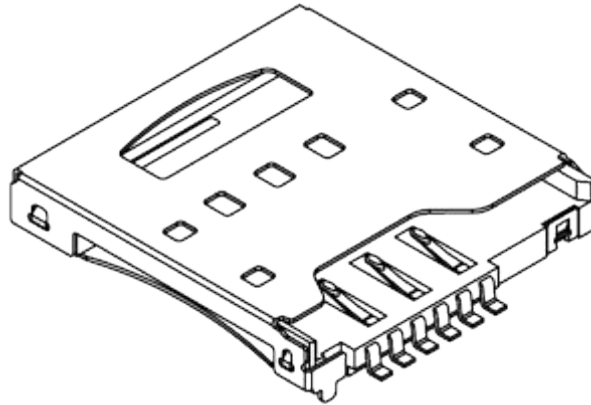


PRODUCT SPECIFICATION

| | | | | | | | |
|----------------------------|--|-----------------|-----------|----------------|-----------|-----------------|-----------|
| Part Number | MES3050 | Rev | A | Date | 11/06/09 | | |
| Product Description | T-Flash Memory Card, Push-Push + SIM Card (6-Pin), Push-Pull (2-in-1 Combo Connector). | | | Page | 1 | | |
| Doc Number | MES3050 | Prepared | BW | Checked | PN | Approved | DR |



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PRODUCT SPECIFICATION

| | | | | | |
|----------------------------|--|-----------------|-----------|-----------------|-----------|
| Part Number | MES3050 | Rev | A | Date | 11/06/09 |
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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the 2-in-1 Combo Connector MES3050 (T-Flash Push-Push + SIM 6-Pin Push-Pull).

2.0 PRODUCT NAME AND PART NUMBER.

T-Flash Memory Card Connector, Push-Push plus SIM Card Push - Pull Type: MES3050.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

- 4.1 Current rating 0.5A DC (per pin)
- 4.2 Voltage rating 100 Volts AC(RMS)
- 4.3 Operating Temperature Range -30°C TO +80°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 in ambient 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 | 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. | 40 mΩ Initial Less than 100 mΩ at end of test |
| Insulation Resistance | Apply 250Volts DC between adjacent contacts of mated connectors for one minute in accordance with EIA-364-21A. | Greater than 1000 MΩ |
| Dielectric Strength | Mate connectors and apply 500 V AC for 1 minute between adjacent terminal ground in accordance with EIA-364-20A. | No creeping discharge or flash over. Current leakage less than 0.5 mA |

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 with 0.6mm travel in accordance with EIA-RS-364-09A. | No evidence of physical damage. Contact Resistance ≤ 100mΩ 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. Test to be conducted on 3 mutually perpendicular planes for 2hrs each with 10mA applied and in accordance EIA-364-28A. | No electrical discontinuity greater than 10 μ sec. shall occur. No damage to product. Contact Resistance ≤ 100mΩ at end of test . |
| Mechanical Shock | Apply 5V DC and 100mA to all contacts and subject the part to a 490 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-364-27. | No electrical discontinuity greater than 10 μ sec. shall occur. No damage to product. Contact Resistance ≤ 100mΩ at end of test . |

PRODUCT SPECIFICATION

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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 Less than 100mΩ at end of test. Insulation Resistance greater than 100MΩ at end of test. |
| Humidity Test | Mate connector and expose to temperature of 40±2°C with 95% RH for 96 hours then place in ambient temperature for 1 to 2 hrs. In accordance with EIA-364-31A. | |
| Salt Water Spray | Subject mated connectors to 35±2°C and 5±1% salt condition for 48hours. Test in accordance with EIA-364-26A. | |
| Temperature Life | Subject product to 85 ± 2°C for 96 hours continuously. | |
| Solderability | Dip solders tails into molten solder, held at a temperature of 235±5°C, for 10±0.5 seconds in accordance with EIA-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. |

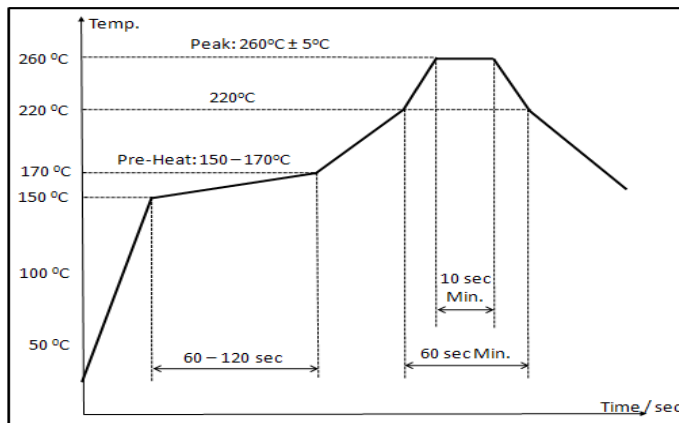


Fig.1. Recommended Reflow Temp. Profile

PRODUCT SPECIFICATION

| | | | | | |
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| | | Approved | DR | | |

7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

| Test Group | Test Group (a) | | | | | | | | |
|--------------------------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | A | B | C | D | E | F | G | H | I |
| Examination of Product | 1,5 | 1,5 | 1,5 | 1,8 | 1,7 | 1,6 | 1,4 | 1,3 | 1,3 |
| Contact Resistance | 2,4 | 2,4 | 2,4 | 2,6 | 2,6 | 2,5 | | | |
| Insulation Resistance | | | | 3,5 | | | | | |
| Dielectric Withstanding Voltage | | | | 7 | | | | | |
| Contact Force | | | | | 3,5 | | | | |
| Durability | | | | | 4 | | | | |
| Vibration | | | | | | 3 | | | |
| Mechanical Shock | | | | | | 4 | | | |
| Thermal Shock | 3 | | | | | | | | |
| Humidity | | | | 4 | | | | | |
| Salt Spray | | 3 | | | | | | | |
| Temperature Life | | | 3 | | | | | | |
| Solderability | | | | | | | | 2 | |
| Resistance to Reflow Soldering Heat. | | | | | | | 2 | | |
| Sample Quantity | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

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