### FULL SIZE CARD CONNECTORS

<table>
<thead>
<tr>
<th>Series</th>
<th>Applications</th>
<th>PCI*</th>
<th>EMV</th>
<th>Insertion force</th>
<th>Overload</th>
<th>Card guide</th>
<th>Sealed switch</th>
<th>Operating life</th>
<th>Contact plating</th>
<th>Number of contacts</th>
<th>Contact type</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM01</td>
<td>Consumer</td>
<td>PCI ready</td>
<td>•</td>
<td>10N max</td>
<td>150N</td>
<td>•</td>
<td>•</td>
<td>10,000 to 30,000 cycles</td>
<td>gold</td>
<td>8</td>
<td>friction</td>
<td>7</td>
</tr>
<tr>
<td>CCM01</td>
<td>Professional</td>
<td>PCI/Pci ready</td>
<td>•</td>
<td>40N max</td>
<td>250N</td>
<td>•</td>
<td>•</td>
<td>100,000 to 500,000 cycles**</td>
<td>inlay</td>
<td>8</td>
<td>friction</td>
<td>10</td>
</tr>
<tr>
<td>CCM02</td>
<td>Professional</td>
<td>PCI/Pci ready</td>
<td>•</td>
<td>40N max</td>
<td>180N</td>
<td>•</td>
<td>•</td>
<td>500,000 cycles</td>
<td>inlay</td>
<td>8</td>
<td>friction</td>
<td>12</td>
</tr>
<tr>
<td>CCM04</td>
<td>Consumer/Professional</td>
<td>PCI ready</td>
<td>•</td>
<td>10N max</td>
<td>40N</td>
<td>•</td>
<td>•</td>
<td>&gt;50,000 cycles</td>
<td>gold</td>
<td>6 or 8</td>
<td>friction/vandal proof</td>
<td>19</td>
</tr>
</tbody>
</table>

** PCI ready: specific features are designed into the connector in order to ease the integration of security devices around and below the connector.

** PCI: specific additional accessories are integrated on the connector in order to avoid access to the data contacts and to detect any connection attempt.

** 500,000 cycles available Q4 2011

### SIM / SAM CARD CONNECTORS

<table>
<thead>
<tr>
<th>Series</th>
<th>Applications</th>
<th>Cover</th>
<th>Operating life</th>
<th>Sealed switch</th>
<th>Contact plating</th>
<th>Card end travel switch</th>
<th>Number of contacts</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM03</td>
<td>Consumer/Professional</td>
<td>hinged / fixed</td>
<td>10,000 to 50,000 cycles</td>
<td>•</td>
<td>inlay / gold</td>
<td>with / without</td>
<td>6 or 8</td>
<td>28</td>
</tr>
<tr>
<td>CCM03</td>
<td>Consumer/Professional</td>
<td>fixed</td>
<td>10,000 to 50,000 cycles</td>
<td>•</td>
<td>inlay</td>
<td>with / without</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>CCM04</td>
<td>Consumer/Professional</td>
<td>hinged / fixed</td>
<td>30,000 cycles</td>
<td>•</td>
<td>inlay / gold</td>
<td>without</td>
<td>6 or 8</td>
<td>43</td>
</tr>
</tbody>
</table>

* PCI
Features
• Card detection switch
• Compatible with lead free THT soldering
• Chamfered opening in the card entry slot improves the card guidance

Typical Applications
• Consumer
• Set-top box
• Pay TV

Mechanical
Number of Contacts 8
Mechanical life See table
Card insertion force 1 N min / 10 N max
Card extraction force See table
Contact force 0.2N / 0.50 N max

Packaging
Tray 30 parts / Cartons 300 parts

Soldering
Compatible with lead free THT soldering process

Contact Electrical Data
Insulation resistance 1,000 MΩ min
Resistance 100 mΩ max
Current rating 10 μA min / 1 A max
Dielectric strength 750 Vrms min

Switch Electrical Data
Card detection switch Normally closed
Contact resistance 100 mΩ max
Dielectric strength 250 Vrms min
Current rating 1 mA min / 10 mA max
Maximum power 0.2 VA

Environmental Data
Operating temperature -20°C to +70°C
Damp heat IEC 512 test number 11c (10 days)
Salt mist IEC 512 test number 11f (96 hours)
RoHS compliant

Designation Termination Contact Plating Height (mm) Operating Life Operating Temperature Card Insertion Force
--- --- --- --- --- --- ---
CCM01-6202MLFT THT gold 6.75 10,000 cycles -20°C/+70°C 10N
CCM01-6101LFT THT gold 3.9 30,000 cycles -20°C/+70°C 10N

Dimensions are shown in mm
Specifications and dimensions subject to change
www.ck-components.com
CCM01 Series

CCM01-6202M LFT

Dimensions shown in mm
Specifications and dimensions subject to change

Designation & Date-Code area
(Year-Day range in the year)

RECOMMENDED PC BOARD LAYOUT
(Component side)

Plastic outline

Soldering areas for metallic clips (ø 5, 6)
Contact location according to ISO/IEC 7816-2
CCM01 Series

Features

- Operating life up to 500,000 cycles
- 40N card insertion force
- EMV
- PCI ready
- Card detection sealed switch

Mechanical

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Contacts</td>
<td>8</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Up to 500,000 cycles</td>
</tr>
<tr>
<td>Card insertion force</td>
<td>40N max.</td>
</tr>
<tr>
<td>Card extraction force</td>
<td>1 N min / 10 N max</td>
</tr>
<tr>
<td>Contact force</td>
<td>0,2N / 0,50 N max</td>
</tr>
<tr>
<td>Card detection switch</td>
<td>0,8 N max for actuation (end travel switch actuation force actuates when card is 0,9mm from card stop)</td>
</tr>
<tr>
<td>Vibration Frequency</td>
<td>10 to 500 Hz. Acceleration 50m/s²</td>
</tr>
<tr>
<td>Max elect. discontinuity</td>
<td>1µs</td>
</tr>
<tr>
<td>Shock</td>
<td>Peak value 500 m/s² – Duration 11 ms</td>
</tr>
<tr>
<td></td>
<td>3 shocks in each direction of each axis</td>
</tr>
</tbody>
</table>

Packaging

Tray 30 parts / Cartons 300 parts
Reel 200 parts / Cartons 1,000 parts

Soldering

Compatible with lead free SMT reflow soldering process

Contact Electrical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation resistance</td>
<td>1,000 MΩ min</td>
</tr>
<tr>
<td>Resistance</td>
<td>100 mΩ max</td>
</tr>
<tr>
<td>Current rating</td>
<td>10 µA min / 1 A max</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>750 Vrms min</td>
</tr>
</tbody>
</table>

Switch Electrical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card detection switch</td>
<td>Normally open</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>100 mΩ max</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>250 Vrms min</td>
</tr>
<tr>
<td>Current rating</td>
<td>1 mA min / 10 mA max</td>
</tr>
<tr>
<td>Maximum power</td>
<td>0.2 VA</td>
</tr>
</tbody>
</table>

Environmental Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Damp heat</td>
<td>IEC 512 test number 11c (10 days)</td>
</tr>
<tr>
<td>Salt mist</td>
<td>IEC 512 test number 11f (96 hours)</td>
</tr>
<tr>
<td>Card detection switch</td>
<td>Sealed against dust</td>
</tr>
<tr>
<td>RoHS compliant</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Designation</th>
<th>Termination</th>
<th>Operating Life</th>
<th>Card Insertion Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM01-2027LFT</td>
<td>SMT</td>
<td>100,000 cycles</td>
<td>40N</td>
</tr>
<tr>
<td>CCM01-2327LFT</td>
<td>SMT</td>
<td>500,000 cycles *</td>
<td>40N</td>
</tr>
</tbody>
</table>

* CCM01-2327: 500,000 cycles available Q4 2011
CCM02 Series

**Features**
- Operating life 500,000 cycles
- Insertion force 40N
- EMV
- PCI & PCI ready
- Card detection sealed switch

**Mechanical**
- Number of Contacts: 8
- Mechanical life: 500,000 cycles min
- Card insertion force: 10N to 40N
- Card extraction force: 1N min / 10N max
- Contact force: 0,2N / 0,50N max
- Card detection switch: 0,8 N max for actuation (end travel switch actuation force actuates when card is 0,9mm from card stop)
- 1,8 N max for complete depression
- Vibration Frequency: 10 to 500 Hz. Acceleration 50m/s^2
- Max elect. discontinuity: 1µs
- Shock: Peak value 500 m/s^2 – Duration 11 ms
  - 3 shocks in each direction of each axis

**Contact Electrical Data**
- Insulation resistance: 1,000 MΩ min
- Resistance: 100 mΩ max
- Current rating: 10 µA min / 1 A max
- Dielectric strength: 750 Vrms min

**Switch Electrical Data**
- Card detection switch: Normally open
- Contact resistance: 100 mΩ max
- Dielectric strength: 250 Vrms min
- Current rating: 1 mA min / 10 mA max
- Maximum power: 0.2 VA

**Environmental Data**
- Operating temperature: -40°C to +85°C
- Damp heat: IEC 512 test number 11c (10 days)
- Salt mist: IEC 512 test number 11f (96 hours)
- Card detection switch: Sealed against dust
- RoHS compliant

**Packaging**
- Tray 30 parts / Cartons 300 parts
- Reel 120 parts

**Soldering**
- Compatible with lead free reflow soldering process
- For version with security cover, please contact Customer Service for soldering recommendations.

**PCI Features**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Termination</th>
<th>Contact Type</th>
<th>I/O Protect</th>
<th>Security Cover</th>
<th>Total Height (mm)</th>
<th>Dimension</th>
<th>PCB version</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM02-2503LFT</td>
<td>THT</td>
<td>landing</td>
<td></td>
<td></td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 clips</td>
</tr>
<tr>
<td>CCM02-2504LFT</td>
<td>SMT</td>
<td>landing</td>
<td></td>
<td></td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 clips</td>
</tr>
<tr>
<td>CCM02-F503LFT</td>
<td>THT</td>
<td>friction</td>
<td></td>
<td></td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 clips</td>
</tr>
<tr>
<td>CCM02-F504LFT</td>
<td>SMT</td>
<td>friction</td>
<td></td>
<td></td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 clips</td>
</tr>
<tr>
<td>CCM02-F796LFT</td>
<td>SMT</td>
<td>friction</td>
<td></td>
<td></td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 metal pegs</td>
</tr>
<tr>
<td>CCM02 F794LFT</td>
<td>SMT</td>
<td>friction</td>
<td>Yes</td>
<td>Yes</td>
<td>6,25</td>
<td>38,5 X 55,6</td>
<td>4 metal pegs</td>
</tr>
<tr>
<td>CCM02-F844LFT</td>
<td>SMT</td>
<td>friction</td>
<td>Yes</td>
<td>Yes</td>
<td>6,6</td>
<td>40,5 X 58</td>
<td>4 metal pegs</td>
</tr>
</tbody>
</table>
PCI: I/O Protect

**Definition**
Special accessory in order to avoid and detect frontal access to data contact. It is electrically connected to the PCB through spring finger contacts.

**Process**
It must be in open position during the reflow soldering of the connector and has to be locked in closed position after soldering.

**I/O Protect locking tool**
C&K is proposing a manual tool to lock the I/O protect accessory after soldering.
Ordering code: C-CM02-E50

PCI: Security Cover

**Definition**
It is a multilayer cover placed over the connector to avoid and detect data contact access, especially from the top. It is connected to the PCB through 6 SMT terminals that are soldered at the same time as the other smart card terminals.

**Process**
Please contact your Sales Representative for advice and recommendations about soldering this version.
CCM02 Series

CCM02-2503 LFT / CCM02-F503 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
CCM02 Series

CCM02-2504 LFT / CCM02-F504 LFT

Specifications and dimensions subject to change

Dimensions are shown in mm

Specifications and dimensions subject to change

www.ck-components.com
CCM02 Series

CCM02-F844a LFT / CCM02-F844b LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
**Features**
- ID1 full size card acceptance
- Card detection sealed switch
- Compatible with pick and place and lead free soldering

**Typical Applications**
- Transaction
- POS
- Identification

---

**Mechanical**

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>6 or 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical life</td>
<td>50,000 cycles</td>
</tr>
<tr>
<td>Card insertion force</td>
<td>10N max</td>
</tr>
<tr>
<td>Card extraction force</td>
<td>1N min / 10N max</td>
</tr>
<tr>
<td>Contact force</td>
<td>0,4N to 0,7N</td>
</tr>
<tr>
<td>Card detection switch</td>
<td>0,8 N max for actuation (end travel switch actuation force actuates when card is 0,9mm from card stop) / 1,8 N max for complete depression</td>
</tr>
<tr>
<td>Vibration Frequency</td>
<td>10 to 500 Hz. Acceleration 50m/s²</td>
</tr>
<tr>
<td>Shock</td>
<td>Peak value 500 m/s² - Duration 11 ms</td>
</tr>
<tr>
<td>Max elect. discontinuity</td>
<td>1μs</td>
</tr>
</tbody>
</table>

**Contact Electrical Data**

- Insulation resistance: 1000 MΩ min
- Contact resistance max: 100 mΩ max
- Switching current: 10 μA min / 1 A max
- Dielectric strength: 750 Vrms min

**Switch Electrical Data**

- Card detection switch: Normally open
- Rc card detection switch: 100 mΩ max
- Dielectric strength: 250 Vrms min
- Switch current rating: 1 mA min / 10 mA max
- Maximum switch power: 0.2 VA

**Environmental Data**

- Operating temperature: -40°C to +85°C
- Salt mist: IEC 512 test number 11f (96 hours)
- Damp heat: IEC 512 test number 11c (10 days)
- Card detection switch: Sealed against dust
- RoHS compliant

**Soldering Process**

Compatible with lead free SMT reflow soldering process

---

**Packaging**

See table below

---

**Designation**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Housing Type</th>
<th># of Contacts</th>
<th>Contact Force</th>
<th>Total Height (mm)</th>
<th>Total Dim. (mm)</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM04-5427LFT</td>
<td>standard</td>
<td>8</td>
<td>0,4N to 0,7N</td>
<td>2,65</td>
<td>18,75 X 25</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5436LFT</td>
<td>standard</td>
<td>8</td>
<td>0,4N to 0,7N</td>
<td>0,90</td>
<td>18,75 X 26,9</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5468LFT</td>
<td>stand-off</td>
<td>8</td>
<td>0,4N to 0,7N</td>
<td>3,5</td>
<td>18,75 X 24</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5454LFT</td>
<td>standard</td>
<td>8</td>
<td>0,4N to 0,7N</td>
<td>0,90</td>
<td>18,75 X 26,9</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5455LFT</td>
<td>standard</td>
<td>8</td>
<td>0,4N to 0,7N</td>
<td>0,90</td>
<td>18,75 X 26,9</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5452LFT</td>
<td>stand-off</td>
<td>6</td>
<td>0,4N to 0,7N</td>
<td>4,25</td>
<td>18,75 X 24</td>
<td>reels of 1,000 pcs</td>
</tr>
<tr>
<td>CCM04-5202LFT</td>
<td>standard</td>
<td>8</td>
<td>0,35N to 0,65N</td>
<td>2,32</td>
<td>16,1 X 26,5</td>
<td>reels of 1,000 pcs</td>
</tr>
</tbody>
</table>
CCM04 Series

CCM04-5455 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change
www.ck-components.com
Dimensions are shown in mm
Specifications and dimensions subject to change
www.ck-components.com

CCM04 Series

CCM04-5202 LFT

Contact location according to ISO/IEC 7816-2

RECOMMENDED PC BOARD LAYOUT
(Component side)

Pad
Switch contact
foot area 1.5 x 1
Paint dots

Pick and place area
ø 2SW
SW
C2
C3
C4
C6
C7
C8
C1 C5

First Angle Projection

Dimensions are shown in mm
Specifications and dimensions subject to change
www.ck-components.com

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CCM03 Series

Features
- SIM/SAM card acceptance
- Hinged and fixed covers
- Compatible with pick and place and lead free soldering

Typical Applications
- Handheld products
- Identification
- POS
- Automotive

Mechanical
Number of Contacts 6 or 8
Mechanical life, hinged cover 10,000 cycles min
Mechanical life, fixed cover 50,000 cycles
Card insertion force Hinged cover: 1N max
Fixed cover: 3N max
Card extraction force Hinged cover: 1N max
Fixed cover: 0.80N min / 3N max
Contact force 0.25N min / 0.50N max
Slide locking force 2N min / 6N max
Vibration Frequency 10 Hz to 500 Hz, Acceleration 50m/s²
Max electrical discontinuity 1µs
Shock Peak value 500 m/s², Duration 11 ms

Switch Electrical Data
Card detection switch Normally open
Contact resistance 100 mΩ max
Dielectric strength 250 Vrms min
Current rating 1 mA min / 10 mA max
Maximum power 0.2 VA

Environment Data
Operating temperature -40°C to +85°C
Damp heat IEC 512 test number 11c (10 days)
Salt mist IEC 512 test number 11f (96 hours)
RoHS compliant

Soldering Process
Compatible with lead free SMT soldering process

Contact Electrical Data
Insulation resistance 1,000 MΩ min
Resistance 100 mΩ max
Current rating 10 µA min / 1 A max
Dielectric strength 750 Vrms min

Switch Electrical Data
Card detection switch Normally open
Contact resistance 100 mΩ max
Dielectric strength 250 Vrms min
Current rating 1 mA min / 10 mA max
Maximum power 0.2 VA

Features
- SIM/SAM card acceptance
- Hinged and fixed covers
- Compatible with pick and place and lead free soldering

Typical Applications
- Handheld products
- Identification
- POS
- Automotive

Mechanical
Number of Contacts 6 or 8
Mechanical life, hinged cover 10,000 cycles min
Mechanical life, fixed cover 50,000 cycles
Card insertion force Hinged cover: 1N max
Fixed cover: 3N max
Card extraction force Hinged cover: 1N max
Fixed cover: 0.80N min / 3N max
Contact force 0.25N min / 0.50N max
Slide locking force 2N min / 6N max
Vibration Frequency 10 Hz to 500 Hz, Acceleration 50m/s²
Max electrical discontinuity 1µs
Shock Peak value 500 m/s², Duration 11 ms

Switch Electrical Data
Card detection switch Normally open
Contact resistance 100 mΩ max
Dielectric strength 250 Vrms min
Current rating 1 mA min / 10 mA max
Maximum power 0.2 VA

Environment Data
Operating temperature -40°C to +85°C
Damp heat IEC 512 test number 11c (10 days)
Salt mist IEC 512 test number 11f (96 hours)
RoHS compliant

Soldering Process
Compatible with lead free SMT soldering process

Contact Electrical Data
Insulation resistance 1,000 MΩ min
Resistance 100 mΩ max
Current rating 10 µA min / 1 A max
Dielectric strength 750 Vrms min

Designation Contact Plating Cover # of Contacts PCB Version Card Presence Switch Operating Life Total Height (mm) Dim. (mm) Packaging
CCM03-3001LFT inlay hinged 6 without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3002LFT inlay hinged 6 2 plastic pegs without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3003LFT inlay hinged 8 without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3004LFT inlay hinged 8 2 plastic pegs without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3009LFT gold hinged 6 without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3010LFT gold hinged 6 2 plastic pegs without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3011LFT gold hinged 8 without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3012LFT gold hinged 8 2 plastic pegs without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3031LFT gold hinged 6 with 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3013LFT gold hinged 6 Large soldering pads* without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3519LFT gold hinged 6 White cover without 10,000 2.5 17.2 x 29.65 reels of 1,000 pcs
CCM03-3504LFT gold fixed 8 without 50,000 2.85 17.2 x 25.5 reels of 1,000 pcs
CCM03-3505LFT gold fixed 6 without 50,000 2.85 17.2 x 25.5 reels of 1,000 pcs
CCM03-3535LFT inlay fixed 6 without 50,000 2.85 17.2 x 25.5 reels of 1,000 pcs
CCM03-3754LFT inlay fixed 6 with 10,000 3.5 16.5 x 18.05 reels of 1,000 pcs
CCM03-3760LFT inlay fixed 6 without 10,000 3.45 16.5 x 15.85 reels of 1,000 pcs
CCM03-3764LFT inlay none 6 with 10,000 2.9 16.5 x 15.85 reels of 1,000 pcs

* Can go through reflow upside down
CCM03 Series

CCM03-3001 LFT / CCM03-3009 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
CCM03 Series

CCM03-3004 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
CCM03 Series

CCM03-3012 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change
www.ck-components.com
CCM03 Series

CCM03-3512 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change
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CCM03 Series

CCM03-3519 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

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CCM03 Series

CCM03-3754 LFT

RECOMMENDED PC BOARD LAYOUT
(Component side)

Contact location according to
ENV1375-1 & GSM11-11

Plastic outline
Contact foot area
0.8 x 0.7

Pad

Switch contact foot area
0.8 x 1

First Angle
Projection

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
CCM03 Series

CCM03-3764 LFT

Dimensions are shown in mm
Specifications and dimensions subject to change

www.ck-components.com
**CCM04 Series**

**Features**
- SIM and SAM card acceptance
- Compatible with pick and place and lead free soldering

**Typical Applications**
- Mobile
- POS
- Identification
- GPS

**Mechanical**
- Number of contacts: 6 or 8
- Mechanical life: 30,000 cycles
- Card insertion force: 10N max
- Card extraction force: 1N min / 10N max
- Contact force: 0.35N min to 0.65N
- Vibration Frequency: 10 to 500 Hz. Acceleration 50m/s²
  - Duration 6 hours - amplitude 0.35mm
- Shock: Peak value 500 m/s² - Duration 11 ms
  - 3 shocks in each direction of each axis
- Max elect. discontinuity: 1µs

**Contact Electrical Data**
- Insulation resistance: 1000 MΩ min
- Contact resistance max: 100 mΩ max
- Switching current: 10 µA min / 1 A max
- Dielectric strength: 750 Vrms min

**Environmental Data**
- Operating temperature: -40°C to +85°C
- Salt mist: IEC 512 test number 11f (96 hours)
- Damp heat: IEC 512 test number 11c (10 days)
- RoHS compliant

**Packaging**
- See table below

**Soldering Process**
- Compatible with lead free SMT soldering process

---

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<th># of Contacts</th>
<th>Contact Plating</th>
<th>PCB Version</th>
<th>Height (mm)</th>
<th>Dim. (mm)</th>
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<td>SMT OUT</td>
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<td>11.95 X 14.25</td>
<td>reels of 1,900 pcs</td>
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<td>SMT OUT</td>
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CCM04 Series

CCM04-5120 LFS

Dimensions are shown in mm
Specifications and dimensions subject to change

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CCM04-4118 LFS

**dimensions shown in mm**

**specifications and dimensions subject to change**

www.ck-components.com

**SIM/SAM**

**CCM04 Series**

**RECOMMENDED PCB BOARD LAYOUT**

(Component side)

- Plastic outline
- Contact foot area: 0.8 x 0.7
- Pad
- Contact location according to ISO 7816-2 & ENV 1375-1 & GSM11-11

**DETAIL A**

Scale 10

Voice Note: How to read the diagram and the recommended PCB board layout.
CCM04 Series

CCM04-5137 LFS

Dimensions are shown in mm
Specifications and dimensions subject to change
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RECOMMENDED PC BOARD LAYOUT (Component side)

Contact location according to ISO 7816-2 & ENV 1375-1 & GSM11-11

Contact foot area 0.6 x 0.7

Pick and place area ø 3.3

Date Code area

Plastic outline

Pad

Detailed drawing

Scale 10

SEE DETAIL A

Mated condition 3.81

0.25 ± 0.05 x 45°

0.7 ± 0.3 A

0.1 ± 0.05

10.45 ± 0.2

10.2 ± 0.05

2.54 × 2.54

2.54 ± 0.05

0.75

C5

C6

C7

C1

C2

C3

C4

Contact location according to ISO 7816-2 & ENV 1375-1 & GSM11-11

First Angle Projection

Dimensions are shown in mm
Specifications and dimensions subject to change
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CCM04 Series

CCM04-4151 LFS

Dimensions are shown in mm
Specifications and dimensions subject to change

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## Drawing Index

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