Molex ChipSIM connectors and cardholders are designed for data transfer when used with removable SIM cards and remote equipment utilizing GSM, GPRS, SMS and MMS technology.

ChipSIM connectors and cardholders are part of the SIM (Subscriber Identification Module) product offering from Molex. The ChipSIM connectors and cardholders are designed to be used in conjunction with a removable SIM card for use in GSM based systems.

Global System for Mobile (GSM) communications is a globally accepted standard for digital-cellular communications, transmitting both mobile voice and data services. The 6-circuit ChipSIM connectors and cardholders are used in remote equipment, supporting GSM, GPRS, SMS and MMS technology. Molex ChipSIM products comply with the GSM 11.11 Version 5.3.0: July 1999 specification.

Molex offers standard and custom designs for the connector and cardholder. The 6-circuit ChipSIM connector (series 91228) can be supplied with an active- or passive-latch mechanism, location tabs and various button designs and colors. The cardholder (series 91236) fascia can be modified to suit customer requirements. Custom connector / PCB assemblies are available to shorten a customer’s assembly process. For additional information visit: www.molex.com/link/chipsim.html

**FEATURES AND BENEFITS**

- Gold-plated interface
- Last-mate/first-break switch
- Lead-in on terminals
- Push-button eject mechanism
- LCP material used on housing
- Locking-feature button must be pressed to release active latch/cardholder
- Side-action spring on cardholder

- Ensures high-durability
- Alerts system that card is being entered / removed and protects data on card
- No risk of stubbing when card is entered
- Gives easy access to cardholder and SIM card and allows to insert/withdraw card without exposing expensive/sensitive electronic components to potential damage
- RoHs compatible
- Prevents cardholder from backing out of the connector, either in error or due to vibration
- Polarization of the SIM card in the cardholder

**MARKETS AND APPLICATIONS**

- Automotive
  - Audio, navigation, infotainment
  - Car LCD panel
- Consumer
  - Point-of-sale terminals
  - Smart meters
- Data/Communications
  - Global positioning system (GPS)
  - Surveillance cameras
- Industrial Automation
  - Security cameras
- Medical
  - Equipment consols/testing
  - Medical front panels
**ADDITIONAL PRODUCT FEATURES**

PCB Assemblies
- Molex also offers connector/PCB assemblies. This removes elements of the customer’s process by having Molex solder the ChipSIM Connector to the required PCB. Molex can also add other connectors if required.

**SPECIFICATIONS**

**Reference Information**
- Packaging: Embossed tape on reel
- UL File No.: E29179
- Designed In: Millimeters
- RoHS: Yes

**Electrical**
- Voltage (max.): 50V DC
- Current (max.): 0.5A per contact
- Contact Resistance: <50 mOhms
- Dielectric Withstanding Voltage: 1000V AC
- Insulation Resistance: 1000 MOhms min.

**Mechanical**
- Contact Retention to Housing: 2.9N min.
- Mating Force: 4.9N max.
- Push Button Force: 20N max.
-Durability: 5,000 mating cycles

**Physical**
- Housing: Liquid Crystal Polymer (LCP)
- Contact: Phosphor Bronze
- Plating: 0.1um Gold over Palladium Nickel in contact area, 2.5um Tin on SMT Tails
- Storage temperature range: -40 to +90°C
- Operating Temperature: -40 to +85°C

## 91228 6-CIRCUIT CONNECTOR FEATURES AND BENEFITS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead-in on terminals</td>
<td>No risk of stubbing when card is entered</td>
</tr>
<tr>
<td>Gold plated interface</td>
<td>High durability (5000 cycles)</td>
</tr>
<tr>
<td>Push button eject mechanism</td>
<td>Easy access to cardholder and card</td>
</tr>
<tr>
<td></td>
<td>Allows to insert/withdraw card without exposing expensive/sensitive electronic components to potential damage</td>
</tr>
</tbody>
</table>

## 91236 CARDHOLDER 6-CIRCUIT FEATURES AND BENEFITS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIM card polarisation feature</td>
<td>Ensures proper orientation of SIM card in holder</td>
</tr>
<tr>
<td>Fascia</td>
<td>Can be modified as required</td>
</tr>
<tr>
<td>Spring</td>
<td>Holds card in place. Also used as polarisation for the card. Side action</td>
</tr>
<tr>
<td>Hole</td>
<td>Ease of card removal</td>
</tr>
<tr>
<td>Active latch</td>
<td>Stops cardholder from backing out of the connector, either in error or due to vibration. Button must be pressed to release active latch/cardholder</td>
</tr>
</tbody>
</table>

## ChipSIM Connectors and Cardholders

| 91228 | ChipSIM Connectors |
| 91236 | ChipSIM Cardholders |
## ORDERING INFORMATION

### Connectors

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Description</th>
<th>Pegs</th>
<th>Button</th>
<th>Minimum Order Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>91228-3001</td>
<td>2.54mm Pitch, 6-Circuit ChipSIM Connector</td>
<td>No</td>
<td>Yellow</td>
<td>800</td>
</tr>
<tr>
<td>91228-3005</td>
<td></td>
<td></td>
<td>Natural</td>
<td></td>
</tr>
<tr>
<td>91228-3002</td>
<td></td>
<td>Yes</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>91228-3006</td>
<td></td>
<td></td>
<td>Black (Extended length)</td>
<td></td>
</tr>
<tr>
<td>91228-3007</td>
<td></td>
<td></td>
<td>Blue</td>
<td></td>
</tr>
</tbody>
</table>

### Cardholders

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Description</th>
<th>Minimum Order Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>91236-0001</td>
<td>Straight Fascia</td>
<td>1500</td>
</tr>
<tr>
<td>91236-0002</td>
<td>Angled Fascia</td>
<td></td>
</tr>
</tbody>
</table>