The 0.25mm Pitch FPC Connector family features a range of sizes and styles to accommodate other PCB components and add space savings.

**Features and Benefits**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact design</td>
<td>Overall space savings for tight packaging applications</td>
</tr>
<tr>
<td>Spring feature on odd and even contacts</td>
<td>Higher contact and cable retention reliability, and protection to FPC cable pads</td>
</tr>
<tr>
<td>Actuator-to-housing friction lock</td>
<td>Increased mating retention and an audible “click” when mating</td>
</tr>
<tr>
<td>Space underneath FPC (503320 only)</td>
<td>Provides customers more PCB space to place components</td>
</tr>
<tr>
<td>Solder tabs under housing and footprint compatible</td>
<td>Space savings, and enables three different connector heights with same footprint design</td>
</tr>
<tr>
<td>Extended actuator design (except 502078-**10)</td>
<td>Easier handling, especially for larger circuit sizes</td>
</tr>
<tr>
<td>Zero Insertion Force (ZIF) contact design</td>
<td>Smooth cable insertion and extraction</td>
</tr>
</tbody>
</table>

**Applications**

**Consumer**
- Smart Phone / Mobile Phone
- Tablet PC
- Digital Still Camera / Video Camera
- Wearable Device
- Medical Device
- Fingerprint / Voice Recognition
- Portable Navigation Equipment
- Portable Game
- Notebook PC
- UAV / Drone

**Smart phones**

**Portable Medical Devices**

**Drone**
0.25mm Pitch FPC Connectors
Right Angle, SMT, ZIF

Specifications

REFERENCE INFORMATION
Packaging: Embossed Tape
Use With: 0.20mm thick FFC/FPC
Designed In: Millimeters
RoHS: Yes
Low-Halogen Status: Low-Harogen

ELECTRICAL
Voltage (max.): 50V
Current (max.): 502078, 503300 - 0.2A
Contact Resistance:
502078, 503320 - 0.3A
80 milliohms max. (Odd terminal)
50 milliohms max. (Even terminal)
503300
80 milliohms max. (Odd terminal)
60 milliohms max. (Even terminal)
Dielectric Withstanding Voltage: 150V AC
Insulation Resistance: 50 Megohm min.

MECHANICAL
Durability (min.): 10 mating cycles

PHYSICAL
Housing/Actuator
502078:**10: Thermoplastic resin
502078:**60/62, 503320, 503300: LCP
Contact
502078:**60/62, 503320: Copper Alloy
502078:**10, 503300: Phosphor Bronze
Plating:
Contact Area — Gold
Solder Tail Area — Gold
Underplating — Nickel
Nail — Tin
Operating Temperature
502078: -20 to +85°C
503320, 503300: -40 to +85°C

Additional Product Features

Locking and Space Saving Features for 502078 and 503320

Actuator-to-housing friction lock provides secure cable retention

(Features apply to both 502078 and 503320)

Product Features of 503300

1) Moving terminals provide superior contact and actuator reliability
2) Full ZIF design

Unique moving-terminal design provides secure FPC retention. Even if the FPC moves, contacts follow to provide secure electrical reliability. A robust actuator is designed to prevent drop-off.

FPC insertion depth and contact position are the same as Molex’s other 0.25mm bottom-contact FPC series (502078 and 503320). Although the 503300 series is a top contact type, full ZIF functionality provides smooth cable insertion with nominally thick FPC.

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
<th>Circuit Sizes</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Quantity (pieces/reel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>502078:**10</td>
<td>1.00mm Height, Bottom Contact, Short Actuator</td>
<td>17, 21, 25, 33, 39, 51</td>
<td>1.00</td>
<td>2.75</td>
<td>3,000</td>
</tr>
<tr>
<td>502078:**60</td>
<td>1.00mm Height, Bottom Contact, Long Actuator</td>
<td>13, 17, 21, 25, 33, 37, 39, 51, 53, 61</td>
<td>1.00</td>
<td>2.98</td>
<td>3,000</td>
</tr>
<tr>
<td>503320**62</td>
<td>1.62mm Height, Bottom Contact</td>
<td>25, 37, 41</td>
<td>1.65</td>
<td>2.98</td>
<td>3,000</td>
</tr>
<tr>
<td>503300**10</td>
<td>1.20mm Height, Top Contact</td>
<td>21, 29, 31, 37, 41, 43, 53</td>
<td>1.20</td>
<td>3.20</td>
<td>3,000</td>
</tr>
</tbody>
</table>