

## INTRODUCTION



## 0.25mm (.010") Pitch Easy-On™ FPC Connectors Right Angle, SMT Bottom Contact, ZIF

Molex's latest 0.25mm pitch FPC connector includes a higher housing design to allow components to be placed under the FPC, which provides design flexibility and additional PCB space savings versus competitive versions that allow little or no space under the FPC.

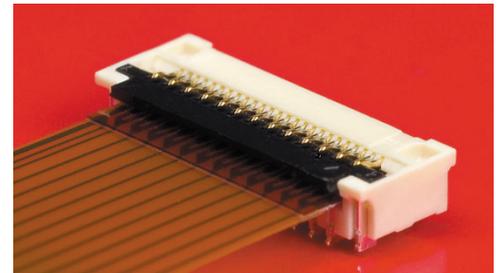
The new 503320 version of Molex's 0.25mm pitch FPC connectors includes many of the same basic design features as the 502078 series, along with a taller housing that provides additional space savings by allowing components such as small resistors, capacitors—and even other connectors—to be placed under the FPC. This provides design flexibility for tight packaging applications.

Common features of both the 503320 and 502078 0.25mm pitch connectors include a full ZIF design that provides easier cable insertion and prevents cable damage, a unique spring feature on even and odd terminals that maintains consistent electrical contact as terminals flex, and similar FPC layout and tolerances as 0.30mm pitch cable.

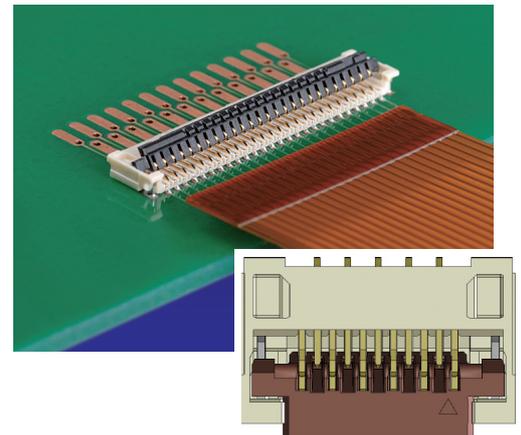
### Specifications:

- Current: (502078): 0.2A  
(503320): 0.3A
- Voltage: 50V
- Contact Plating: Gold
- Contact Resistance:
  - Odd terminals: 80 milliohms max.
  - Even terminals: 50 milliohms max.
- Insulation Resistance: 50 Megohms min.
- Dielectric Strength: 150V AC
- Halogen Free status: Contact Molex for details on level of halogen free

**502078 1.00mm Height**  
**503320 1.65mm Height**



503320 version has space underneath FPC to mount components



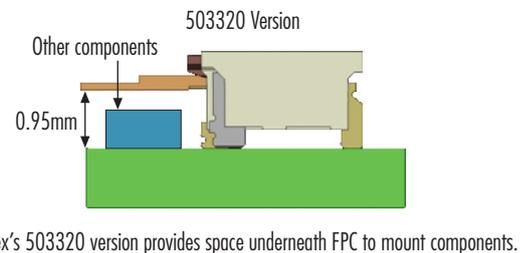
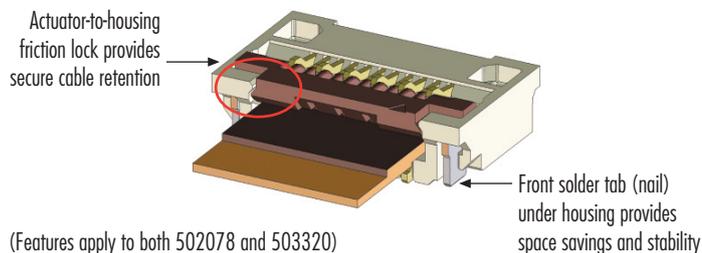
0.25mm pitch SMT FPC connector (502078 Series) with short actuator (photo) and extended actuator (inset)

### Features

### Benefits

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Space underneath FPC (503320 only)</li> </ul>   | <ul style="list-style-type: none"> <li>• Provides customers more PCB space to place components</li> </ul>                                 |
| <ul style="list-style-type: none"> <li>• Extended actuator design (503320 and 502078-60)</li> </ul>                              | <ul style="list-style-type: none"> <li>• Easier handling, especially for larger circuit sizes</li> </ul>                                  |
| <ul style="list-style-type: none"> <li>• Compact design</li> </ul>   | <ul style="list-style-type: none"> <li>• Overall space savings for tight packaging applications</li> </ul>                                |
| <ul style="list-style-type: none"> <li>• Spring feature on odd and even contacts</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Higher contact and cable retention reliability, and protection to FPC cable pads</li> </ul>      |
| <ul style="list-style-type: none"> <li>• Actuator-to-housing friction lock</li> </ul>  | <ul style="list-style-type: none"> <li>• Increased mating retention and an audible "click" when mating</li> </ul>                         |
| <ul style="list-style-type: none"> <li>• 503320 and 502078 have solder tab under housing and are footprint compatible</li> </ul> | <ul style="list-style-type: none"> <li>• Space savings, and enables two different connector heights with same footprint design</li> </ul> |

## LOCKING AND SPACE SAVING FEATURES



## MARKETS AND APPLICATIONS

- Mobile phone
- Portable audio players
- Digital still cameras
- Digital video cameras
- Portable games
- Car navigation
- Personal navigators (PND)



**ORDERING INFORMATION**

**0.25mm (.010") Pitch  
Easy-On™ FPC Connectors  
Right Angle, SMT  
Bottom Contact, ZIF**

**502078 1.00mm Height  
503320 1.65mm Height**

Order No.	Circuits	Height	Width
502078-1710	17	1.00mm (.039")	2.75mm (.108")
502078-2110	21		
502078-2510	25		
502078-3310	33		
502078-3910	39		
502078-3960	39		
502078-6160	61	1.65mm (.065")	2.98mm (.117")
503320-2560	25		
503320-3760	37		
503320-4160	41		

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