Micro Products
Easy-On FFC/FPC Connectors and
SlimStack Board-to-Board Connectors
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<tr>
<th>Pitch (mm)</th>
<th>Orientation</th>
<th>Contact Position</th>
<th>Circuit Size</th>
<th>Series Number</th>
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www.molex.com/link/easyon.html
**Easy-On FFC/FPC Connectors Core Products**

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<thead>
<tr>
<th>Contact Position</th>
<th>Circuit Size</th>
<th>Series Number</th>
<th>Height (mm)</th>
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<th>0.50mm Pitch</th>
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<td>21634</td>
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**Application Examples**

- **Automotive infotainment**
- **Home appliances**
- **Medical devices**
- **POS terminals**
- **IoT devices**
- **Servers**
Easy-On FFC/FPC Connectors, 0.50mm Pitch, FBH1 Series
Product 503480

The Easy-On FFC/FPC Connectors, 0.50mm Pitch, FBH1 Series, with a low profile and user-friendly features, are ideal for consumer or commercial market applications of any design layout.

Features and Advantages

- **Back Flip actuator**: Eases cable insertion and allows for a high upward pull force.
- **Actuator rotation**: Rotates 94° for easy operation and cable access.
- **Low profile height of 1.00mm and width of 4.00mm**: Offers space savings.
- **Dual contact terminal**: Delivers secure connectivity.

Applications

**Consumer**
- POS terminals
- Game machines
- Digital still cameras
- Digital video cameras
- Car navigation systems
- Drones
- Consumer displays

**POS**

**Drone**

**Game Machine**
Easy-On FFC/FPC Connectors, 0.50mm Pitch, FBH1 Series
Product 503480

Specifications

REFERENCE INFORMATION
Packaging: Embossed Tape and reel
Use With: FFC/FPC
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-Halogen

ELECTRICAL
Voltage (max.): 50V
Current (max.): 0.5A per circuit
Contact Resistance (max.): 100 milliohms
Dielectric Withstanding Voltage: 200V AC
Insulation Resistance (min.): 50 Megaohms

MECHANICAL
FFC/FPC Thickness: 0.30mm
Durability (min.): 10 cycles

PHYSICAL
Housing: LCP, UL 94V-0, Natural
Actuator: PA, UL 94V-0, Black
Contact: Copper Alloy
Plating:
  - Contact Area — Gold
  - Solder Tail Area — Gold
  - Underplating — Nickel
Operating Temperature: -40 to +85°C

CIRCUIT SIZES
4, 5, 6, 8, 10, 12, 14, 16, 17, 18
20, 22, 24, 26, 30, 32, 36, 38, 40

Dimensions

Refer to molex.com for detail dimension

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Pitch</th>
<th>Orientation</th>
<th>Contact Position</th>
<th>Circuits</th>
<th>Operating Temperature</th>
<th>Plating</th>
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<tr>
<td>503480-**00</td>
<td>0.50mm</td>
<td>Right-Angle</td>
<td>Dual</td>
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Replace ** with circuit size

www.molex.com/link/easyon.html

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Order No. 987651-8371 Rev. 2
Easy-On FFC/FPC Connector, 0.50/1.00mm pitch, FD19 Series
Product 505110 / 200528

Versatile dual-contact FD19 Series FFC/FPC Connectors meet temperature requirements up to 125°C and come in a wide range of circuit sizes for maximum design flexibility across multiple markets and applications.

Features and Advantages

Dual contact
Delivers secure connectivity

Latch type FPC
Provides secure cable retention. Accepts cable with or without tabs

Nickel barrier
Eliminates the concern for solder and flux wicking

Low-Halogen material
Meets environmental considerations

Wide pick-and-place area
Provides vacuum space for SMT nozzle

Lock with clear, audible click
Ensures proper mating

wide frontage
Eases FFC/FPC insertion

Applications

Automotive
  Car navigation
  Instrument panels
  Car infotainment

Home Appliance
  Flat panel TVs
  Refrigerators
  Vacuuming machines

Industrial
  UAV (drone)
  Robotics

Consumer
  Game units
  VR/AR
  Printers

Car Infotainment
Home Appliance
UAV (Drone)
Easy-On FFC/FPC Connector, 0.50/1.00mm pitch, FD19 Series
Product 505110 / 200528

Specifications

REFERENCE INFORMATION
Packaging: Embossed tape and reel
Use with: FFC/FPC
Designed in: Millimeters
RoHS: Yes
Halogen free: Low-Halogen

ELECTRICAL
Voltage (max.): 50V
Current (max.): 0.5A per circuit
Contact Resistance (max.): 40 milliohms
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance (min.): 50 Megohms

PHYSICAL
Housing: LCP, UL 94V-0, Beige
Actuator: PA, UL 94V-0, Black
Plating:
   Contact Area — Gold
   Solder Tail Area — Gold
   Underplating — Nickel
Operating Temperature: -40 to +105°C or -40 to +125°C

CIRCUIT SIZE (0.50MM PITCH)
4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 64, 68, 70, 80

CIRCUIT SIZE (1.00MM PITCH)
4 to 30

Dimensions
Refer to molex.com for detail dimension

Ordering Information

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<th>Operating Temperature</th>
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<td>-40 to +105°C</td>
<td>Gold</td>
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<tr>
<td>505110-**91</td>
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<td></td>
<td></td>
<td>20 to 80</td>
<td>-40 to +105°C</td>
<td></td>
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<tr>
<td>505110-**97</td>
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<td></td>
<td>4 to 19</td>
<td>-40 to +125°C</td>
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<td>505110-**96</td>
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<td>200528-0**0</td>
<td>1.00</td>
<td>Right-Angle</td>
<td>Bottom</td>
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Replace with ** for Circuit size.

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The Easy-On FFC/FPC Connectors, 0.50/1.00mm Pitch, Slider Series, with their market proven ‘Slider’ locking mechanism and wide circuit options in top, bottom and vertical contact variations, offer design flexibility for FFC/FPC cable routing applications.

Features and Advantages

4 to 50 circuit sizes in top, bottom and vertical contact points
Offers design flexibility

- Gold- and Tin-plated contact points
- Prevent solder wicking during the SMT process

Applications

Industry
- IoT interconnection devices
- Smart speakers
- UAVs (Drones)
- FA robots
- Security cameras

Mobile
- POS terminals

Consumers
- Home appliances

Medical
- Patient monitoring
- MRI/CT machines
- Disposable inspection devices
Easy-On FFC/FPC Connectors, 0.50/1.00mm Pitch, Slider Series

Specifications

REFERENCE INFORMATION
Packaging: Embossed Tape and Reel
Use With: FFC/FPC
Designed In: Millimeters
RoHS: Yes

ELECTRICAL
Voltage (max.): 50V
Current (max.): 0.5A per circuit
Contact Resistance (max.): 20 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 50 Megohms

PHYSICAL
Housing: LCP, UL 94V-0
Actuator: PA, UL 94V-0
Contact: Copper Alloy
Plating:
Contact Area — Gold
Solder Tail Area — Gold
Underplating — Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating
Operating Temperature: -40 to +85°C

CIRCUIT SIZES
4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 50

Dimensions

Refer to molex.com for detail dimension

Ordering Information

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<th>Series No.</th>
<th>Pitch (mm)</th>
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<th>Circuits</th>
<th>Operating Temperature</th>
<th>Plating</th>
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<td>0.50</td>
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<td>4 to 20</td>
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<td>52745-**97</td>
<td>0.50</td>
<td>Right-Angle</td>
<td>Top</td>
<td>4 to 20</td>
<td>-40 to +85°C</td>
<td>Gold</td>
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<tr>
<td>52746-**33</td>
<td>0.50</td>
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<tr>
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<td>0.50</td>
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<td>Top</td>
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<tr>
<td>52437-**33</td>
<td>0.50</td>
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<td>52207-**33</td>
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<td>52610-**33</td>
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<td>52610-**72</td>
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<td>Vertical</td>
<td>5 to 30</td>
<td>-40 to +85°C</td>
<td>Gold</td>
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</table>

Replace ** with circuit size

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Order No. 987651-8732
Easy-On FFC/FPC Connector, 0.50mm pitch, V-Flip Series
Product 501951

Vertical Flip Connectors facilitate multiple SMT on PCB, and feature 4 to 70 circuit sizes, wide operating temperature of up to 125°C and a flip lock for secure locking

Features and Advantages

Secure cable retention
Withstands high vibration

Flip lock 45° rotation
Easy operation by operator

Actuator delivered in open condition
Quicker assembly process compared to closed actuators

Ni barrier
Avoids solder and flux wicking

Vertical FFC connector
Allows placement anywhere on the PCB, offering design flexibility

Wide pick-and-place area
Offers enough space for the SMT nozzle to hold the connector

Low-halogen material
Meets industry environmental requirements

Applications

Automotive
Car navigation
Car infotainment

Office Equipment
Printer

Consumer
Home appliances
Flat TVs

Industry
UAVs (drones)
IoT interconnection devices

Datacom
Servers

Medical
Patient-monitoring systems
**Easy-On FFC/FPC Connector, 0.50mm pitch, V-Flip Series**
*Product 501951*

**Specifications**

**REFERENCE INFORMATION**
- Packaging: Embossed Tape and Reel
- Use With: FFC/FPC
- Designed In: Millimeters
- RoHS: Yes
- Halogen Free: Low-Halogen

**ELECTRICAL**
- Voltage (max.): 50V
- Current (max.): 0.5A per circuit
- Contact Resistance (max.): 40 milliohms
- Dielectric Withstanding Voltage: 250V AC
- Insulation Resistance (min.): 50 Megohms

**MECHANICAL**
- FFC/FPC Thickness: 0.30mm
- Durability (max.): 20 cycles

**PHYSICAL**
- Housing: LCP, UL 94V-0, White
- Actuator: PA, UL 94V-0, Black
- Plating:
  - Contact Area — Gold
  - Solder Tail Area — Gold
  - Underplating — Nickel
- Operating Temperature: -40 to +85°C or -40 to +125°C

**Dimensions**

Refer to molex.com for detail dimension

**Ordering Information**

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Pitch (mm)</th>
<th>Orientation</th>
<th>Contact Position</th>
<th>Circuits</th>
<th>Operating Temperature</th>
<th>Plating</th>
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<td>Vertical</td>
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Replace ** with circuit size
## SlimStack Board-to-Board Connectors Core Products

<table>
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<th>Pitch (mm)</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
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www.molex.com/link/slimstack.html

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Order No. 987651-8281 14
SlimStack Board-to-Board Connectors Core Products

Application Examples

Patient monitoring systems
Network servers
Office equipment
Portable navigation
Wearable devices
Automation machines
SlimStack Board-to-Board Connectors, 0.35mm Pitch, SSB6 Standard Series

0.35mm pitch connectors deliver up to 3.0A power through protective metal covers and provide superior mating guidance and electrical contact assurance.

SSB6 Standard Series delivers design flexibility while meeting tight-packaging needs. As consumers continue to demand smaller devices, the need for microminiature designs grows. We can meet these low-profile needs with pitch sizes as small as 0.35mm, mated heights as low as 0.60mm and widths as narrow as 2.00mm.

Features and Advantages

- **Dual-Contact Design**
  Provides secure reliability

- **Wide Alignment Area**
  Provides easy and secure mating

- **Wide Pick-and-Place Area**
  Vacuum space for SMT nozzle

- **Low-Halogen**
  Best material selection for environmental considerations

Applications

**Mobile Devices**
- Smartphones
- Tablet PCs
- Wearable Devices
- Portable Audio
- Portable Navigation Equipment

**Medical Devices**
- Patient Monitoring
- Therapeutic and Surgical

Smartphone
Wearable Watch
Patient Monitoring
SlimStack Board-to-Board Connectors, 0.35mm Pitch, SSB6 Standard Series

Specifications

REFERENCE INFORMATION
Packaging: Embossed Tape on Reel
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-Halogen

ELECTRICAL
Voltage (max.): 50V
Current (max.): 0.3A per circuit
Contact Resistance (max.): 80 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megohms

MECHANICAL
Durability (max.): 30 cycles

PHYSICAL
Housing: LCP, UL 94V-0, Black
Contact: Copper Alloy
Plating:
Contact Area — Gold
Solder Tail Area — Gold
Underplating — Nickel
Operating Temperature: -40 to +85°C

Dimensions

* Refer to drawing for detail dimension

Receptacle

Plug

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
<th>Circuits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>504618-***12</td>
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<td>Plug</td>
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<td>2.00</td>
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</table>

**: Circuit Size

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www.molex.com/link/slimstack.html
**SlimStack Board-to-Board Connectors, 0.35mm Pitch, SSB RP Series**

0.35mm pitch connectors deliver up to 3.0A power through protective metal covers and provide superior mating guidance and electrical contact assurance.

SSB RP Series delivers design flexibility while meeting tight-packaging needs with mated height variation, 0.60mm to 1.00mm, without having to redesign the PCB layout. As consumers continue to demand smaller devices, the need for microminiature designs grows.

**Features and Advantages**

- **Dual-Contact Design**
  Provides secure reliability

- **Wide Alignment Area**
  Provides easy and secure mating

- **Metal Power Armor Nail Feature**
  Provides housing protection with up to 3.0A current

- **Double Contact Armor Nail**
  Provides reliable contact interface with flexible arm springs and two-point contact

Customer can select stack height without having to redesign the PCB layout.

<table>
<thead>
<tr>
<th>Lineup Combination</th>
<th>Mated Height (mm)</th>
<th>Receptacle</th>
<th>Plug</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
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**Applications**

**Mobile Devices**
- Smartphones
- Tablet PCs
- Wearable Devices
- Portable Audio
- Portable Navigation Equipment

**Medical Devices**
- Patient Monitoring
- Therapeutic and Surgical

![Smartphone](image1)
![Wearable Watch](image2)
![Patient Monitoring](image3)
**SlimStack Board-to-Board Connectors, 0.35mm Pitch, SSB RP Series**

**Specifications**

**REFERENCE INFORMATION**
Packaging: Embossed Tape on Reel  
Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Low-Halogen

**ELECTRICAL**
- Voltage (max.): 50V  
- Current (max.):  
  - Signal Contact: 0.3A per circuit  
  - Nail Contact: 3.0A per circuit  
- Contact Resistance (max.):  
  - Signal Contact: 80 milliohms  
  - Nail Contact: 30 milliohms  
- Dielectric Withstanding Voltage: 250V AC  
- Insulation Resistance (min.): 100 Megohms

**MECHANICAL**
- Durability (max.): 30 cycles

**PHYSICAL**
- Housing: LCP, UL94V-0, Black  
- Contact: Copper Alloy  
- Plating:  
  - Contact Area – Gold  
  - Solder Tail Area – Gold  
  - Underplating – Nickel  
- Operating Temperature: -40 to +85°C

**Dimensions**
* Refer to drawing for detail dimension

**Receptacle**

**Plug**

**Ordering Information**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
<th>Circuits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptacle</td>
<td>Plug</td>
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<td></td>
</tr>
<tr>
<td>505066-**22</td>
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<tr>
<td>505270-**12</td>
<td>505274-**12</td>
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<td>505417-**10</td>
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<td>6, 10, 16, 20, 24, 30, 34, 40, 54</td>
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</tbody>
</table>

**N:** Circuit Size

****: circuit size

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www.molex.com/link/slimstack.html
SlimStack Board-to-Board Connectors, 0.40mm Pitch and 0.80mm Pitch, Battery Series

Achieve up to 10.0A of power and electrical reliability in an ultra-compact design with SlimStack Hybrid Power Connectors, designed for battery and other power applications.

As consumers continue to demand smaller devices and bigger current value, the need for microminiature designs grows. Hybrid connectors deliver design flexibility while meeting tight-packaging needs.

Features and Advantages

Delivers up to 10.0A power
Meets the growing power needs of tight-packaging applications

Dual-contact design for both power and signal contacts
Assures contact reliability

Compact hybrid interface with power and signal contacts
Combines extra signal lines into power connector footprint for space savings

Features and Advantages

Delivers up to 6.0A
Receptacle 505004 Series

Delivers up to 9.0A
Receptacle 104249 Series

Delivers up to 10.0A
Receptacle 505473 Series

Wide Alignment Area
Provides easy and secure mating

Armor Nail
Prevents damage to the housing

Applications

Mobile Devices
Smartphones
Tablet PCs
Wearable Devices
Portable Audio
Portable Navigation Equipment

Medical Devices
Patient Monitoring
Therapeutic and Surgical

Smartphone
Wearable Watch
Patient Monitoring
### Specifications

#### REFERENCE INFORMATION
Packaging: Embossed Tape on Reel  
Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Low-Halogen

#### ELECTRICAL
- Voltage (max.): 50V  
- Current (max.):  
  - 505004/505006  
  - Signal Contact: 0.3A per circuit  
  - Power Contact: 3.0A per circuit  
  - 504249/104250  
  - Signal Contact: 0.3A per circuit  
  - Power Contact: 4.5A per circuit  
  - 505473/505476  
  - Signal Contact: 0.5A per circuit  
  - Power Contact: 5.0A per circuit

#### ELECTRICAL
- Contact Resistance (max.):  
  - 505004/505006  
  - Signal Contact: 80 milliohms  
  - Power Contact: 10 milliohms  
  - 104249/104250  
  - 10 milliohms  
  - 505473/505476  
  - Signal Contact: 60 milliohms  
  - Power Contact: 10 milliohms  
- Dielectric Withstanding Voltage: 250V AC  
- Insulation Resistance (min.): 100 Megohms

#### MECHANICAL
- Durability (max.): 10 cycles

#### PHYSICAL
- Housing: LCP, UL94V-0, Black  
- Contact: Copper Alloy  
- Plating:  
  - Contact Area – Gold  
  - Solder Tail Area – Gold  
  - Underplating – Nickel  
- Operating Temperature: -40 to +85˚C

### Dimensions
Refer to drawing for detail dimension

### Ordering Information

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</table>

*10.0A of current per circuit is applicable if the circuit was constructed by two power circuits via a PWB/FPC circuit. The same applies for the 6.0A and 9.0A versions.

*www.molex.com/link/slimstack.html*
SlimStack Board-to-Board Connectors, 0.40mm Pitch, HRF Series

SlimStack Board-to-Board 0.40mm-Pitch High Retention Force (HRF) Series Connectors offer high mating-retention force in a triple-lock low-profile design, making them ideal for rugged and compact applications.

Features and Advantages

- **High mating-retention**
  Provides superior mating reliability for applications subject to high vibration or rugged conditions.

- **Narrow width, low profile and small pitch**
  Yields space savings for mobile and compact applications.

- **Dual-contact terminal design**
  Provides secure electrical contact.

- **Triple contact design**
  Provides high retention force, offering superior contact reliability.

- **Low-halogen material**
  Meets environmental considerations.

- **Nickel-barrier plating**
  Prevents solder flux intrusion.

- **Audible click on mating**
  Indicates mating confirmation.

- **Contact Lock**
  (New Option)

- **Integral end solder tabs with friction-lock**
  Provide secure PCB as well as additional mating force retention.

- **Terminal Lock**
  (New Option)

- **Nail Lock**
  (New Option)

Applications

**Mobile Devices**

Smartphones
Tablet PCs
Digital cameras
Wearable devices
Portable audio devices
Navigation equipment

**Smartphone**

**Wearables**

**Portable Navigation**
SlimStack Board-to-Board Connectors, 0.40mm Pitch, HRF Series

Specifications

**REFERENCE INFORMATION**
Packaging: Embossed tape on reel
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-halogen

**ELECTRICAL**
Voltage (max.): 50V
Current (max.): 0.3A per circuit
Contact Resistance (max.): 80 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megohms

**MECHANICAL**
Durability (max.): 30 cycles

**PHYSICAL**
Housing: LCP, UL94V-0, Black
Contact: Copper Alloy
Plating:
Contact Area – Gold
Solder Tail Area – Gold
Underplating – Nickel
Operating Temperature: -40 to +85°C

Dimensions

* Refer to drawing for detail dimension

**ELECTRICAL**
Voltage (max.): 50V
Current (max.): 0.3A per circuit
Contact Resistance (max.): 80 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megohms

**MECHANICAL**
Durability (max.): 30 cycles

**PHYSICAL**
Housing: LCP, UL94V-0, Black
Contact: Copper Alloy
Plating:
Contact Area – Gold
Solder Tail Area – Gold
Underplating – Nickel
Operating Temperature: -40 to +85°C

Ordering Information

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<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
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<td>Receptacle</td>
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<td>503548-**22</td>
<td>503552-**22</td>
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**N**: Circuit Size

**Mated Height (mm)**

**0.40 x (N/2-1)+3.10mm**

**0.40mm (Pitch)**

**2.60mm**

**0.68mm**

**0.40mm (Pitch)**

**Underplating – Nickel**

**Operating Temperature: -40 to +85°C**

**www.molex.com/link/slimstack.html**

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Order No. 987650-5211 Rev. 1
**SlimStack Board-to-Board Connectors, 0.40mm Pitch, B8 Series**

0.40mm pitch, 0.80mm height, SlimStack B8 connectors with CleanPoint contact design have robust features that remove contaminants and prevent damage when subjected to harsh handling.

As future devices continue to increase in value and complexity, designers need to stabilize connections to avoid the need for costly rework and/or repair. Building reliability into connector designs for any devices is critical. In the production process of flex-to-board jumpers, flux or dust can sometimes settle on contacts and disrupt signal continuity. Molex’s B8 series includes a CleanPoint contact design with a beveled shape that can remove flux and other contaminants to provide a more stable electrical signal.

**Features and Advantages**

- **Top Housing Wall**
  Top housing wall (stopper) prevents the terminal from lifting up due to “zippering” or angled unmating.

- **Cover Nail**
  Cover nail protects the housing from damage during blind mating or angled unmating (zippering). Mating tests on the outer wall of Molex’s B8 connectors demonstrate no damage to housing with up to 50N of force and 0.80mm displacement.

- **SlimStack B8 CleanPoint Contact**
  Molex’s CleanPoint contact design provides superior electrical reliability and removes foreign materials such as flux.

- **Dual-Contact Design**
  A dual-contact design on Molex’s SlimStack B8 series absorbs drop-shock discontinuity to help guarantee that a stable signal is maintained even when the device is subjected to rough handling.

**Applications**

- **Mobile Devices**
  - Smartphones
  - Tablet PCs
  - Wearable Devices
  - Portable Audio
  - Portable Navigation Equipment

- **Smartphone**
- **Wearables**
- **Portable Navigation**
SlimStack Board-to-Board Connectors, 0.40mm Pitch, B8 Series

Specifications

REFERENCE INFORMATION
Packaging: Embossed Tape on Reel
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-Halogen

ELECTRICAL
Voltage (max.): 50V
Current (max.): 0.3A per circuit
Contact Resistance (max.): 80 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megohms

MECHANICAL
Durability (max.): 30 cycles

PHYSICAL
Housing: LCP, UL94V-0, Black
Contact: Copper Alloy
Plating:
  - Contact Area – Gold
  - Solder Tail Area – Gold
  - Underplating – Nickel
Operating Temperature: -40 to +85°C

Dimensions

* Refer to drawing for detail dimension

Receptacle

Plug

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
<th>Circuits</th>
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<tbody>
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<td>Receptacle</td>
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</tr>
</tbody>
</table>

**: Circuit Size

www.molex.com/link/slimstack.html

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SlimStack Board-to-Board Connectors, 0.40mm Pitch, J-Bend Series

SlimStack 0.40mm pitch high-speed board-to-board connectors offer a wide variety of circuit sizes and stack heights for space-saving and design flexibility in a diverse range of applications for consumer, datacom, home appliance, mobile and medical industries.

General market and any industry request for quick sample availability and wide variety of selection. 0.40mm pitch J-Bend series have circuit size from 10 to 100. In addition, stack heights for this series is from 1.50mm to 2.30mm with same foot pattern. Molex Micro Solution design provide any solution to solve any market requirement.

Features and Advantages

- **Contact terminal lock**
  Realizes high retention force

- **Audible click on mating**
  Provides contact assurance

- **Long wipe length**
  Delivers high contact reliability

- **In-house contact structure**
  Improved reliability against external shock. Protection from droplets of flux

J-Bend structure
Provides space saving

51338 J-Bend receptacle
55909 J-Bend plug

Applications

**Consumer**
- Game Machine
- Security

**Home Entertainment**
- DVC/DSC
- Flat Panel

**Smart Phones and Mobile Devices**
- Mobile
- Wearables
- POS

**Data/Computing**
- Tablet PC

**Data Center Solution**
- Network Server

**Medical**
- Patient monitors

**Wide range of circuit sizes (10 to 100) and height variations**
Offers design flexibility

- 1.50mm (Plug 55909/ Receptacle 51338)
- 1.80mm (Plug 55909/ Receptacle 500913)
- 2.00mm (Plug 501745/ Receptacle 51338)
- 2.30mm (Plug 501745/ Receptacle 500913)

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<thead>
<tr>
<th>LINE UP Combination</th>
<th>Receptacle</th>
<th>Plug</th>
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<tbody>
<tr>
<td><strong>Series Number</strong></td>
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<td>55909</td>
<td>501745</td>
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</table>

<table>
<thead>
<tr>
<th>Circuit</th>
<th>10 to 100</th>
<th>24 to 100</th>
<th>10 to 120</th>
<th>12 to 80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mated Height (mm)</td>
<td>1.50 to 2.00</td>
<td>1.80 to 2.30</td>
<td>1.50 to 1.80</td>
<td>2.00 to 2.30</td>
</tr>
</tbody>
</table>
**SlimStack Board-to-Board Connectors, 0.40mm Pitch, J-Bend Series**

### Specifications

**REFERENCE INFORMATION**
- Packaging: Embossed Tape on Reel
- Designed In: Millimeters
- RoHS: Yes
- Halogen: Low-Halogen

**ELECTRICAL**
- Voltage (max.): 50V
- Current (max.): 0.3A per circuit

**MECHANICAL**
- Pitch: 0.40mm
- Mated Height (mm): 1.50, 1.80, 2.00, 2.30
- Width: 3.40mm / 4.20mm
- Length (mm): 0.40*(N/2-1)+3.5
- Wipe Length: 0.45mm
- Structure Type: Vertical type
- Circuit Size: 10 to 100
- Durability (max.): 30 cycles

**PHYSICAL**
- LCP, UL94V-0, Black
- Contact: Copper Alloy
- Plating:
  - Contact Area – Selective Gold
  - Fitting Nail Area – Selective Gold
  - Underplating – Nickel
- Operating Temperature: -25 to +85°C

### Dimensions

#### 51338 Series

- Pitch x (N / 2 - 1) + 3.50 mm

#### 500913 Series

- Pitch x (N / 2 - 1) + 3.50 mm

#### 501745 Series

- Pitch x (N / 2 - 1) + 2.40 mm

#### 55909 Series

- Pitch x (N / 2 - 1) + 2.40 mm

N : Circuit Size

### Ordering Information

<table>
<thead>
<tr>
<th>Mated Height (mm)</th>
<th>Width (mm)</th>
<th>Series No.</th>
<th>Circuit Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Receptacle</td>
<td>Plug</td>
</tr>
<tr>
<td>1.50</td>
<td>3.40</td>
<td>51338</td>
<td>55909</td>
</tr>
<tr>
<td>1.80</td>
<td>4.20</td>
<td>500913</td>
<td>55909</td>
</tr>
<tr>
<td>2.00</td>
<td>3.40</td>
<td>51338</td>
<td>501745</td>
</tr>
<tr>
<td>2.30</td>
<td>4.20</td>
<td>500913</td>
<td>501745</td>
</tr>
</tbody>
</table>

Order No. 987651-8558 Rev. 1

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SlimStack Board-to-Board Connectors, 0.635mm Pitch Series

SlimStack Board-to-Board Connectors 0.635mm Pitch Series offers a wide variety of circuit sizes and various stack heights for space savings and design flexibility in a diverse range of applications.

0.635mm Pitch Series has circuit sizes from 20 to 240. In addition, stack heights for this series is from 6.00mm to 16.00mm with same footprint. Molex Micro Solution design provides solutions for any market requirement.

Features and Advantages

- Long Effective Mating Length
- Mating Guide Key
  - Accurate mating without right and left reversal
- Removes foreign matter

### Lineup Combination

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Receptacle</th>
<th>Plug</th>
</tr>
</thead>
<tbody>
<tr>
<td>52885</td>
<td>55991</td>
<td>53625</td>
</tr>
<tr>
<td>52901</td>
<td>55991</td>
<td>53625</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Mated Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 240</td>
<td>6.00 to 10.00</td>
</tr>
<tr>
<td>20 to 200</td>
<td>6.00</td>
</tr>
<tr>
<td>20 to 240</td>
<td>7.00</td>
</tr>
<tr>
<td>20 to 160</td>
<td>8.00</td>
</tr>
<tr>
<td>30 to 140</td>
<td>9.00</td>
</tr>
<tr>
<td>20 to 200</td>
<td>10.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Mated Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 200</td>
<td>12.00 to 16.00</td>
</tr>
<tr>
<td>20 to 200</td>
<td>12.00</td>
</tr>
<tr>
<td>20 to 200</td>
<td>13.00</td>
</tr>
<tr>
<td>20 to 160</td>
<td>14.00</td>
</tr>
<tr>
<td>30 to 140</td>
<td>15.00</td>
</tr>
<tr>
<td>20 to 200</td>
<td>16.00</td>
</tr>
</tbody>
</table>

### Applications

- **Automotive**
  - Car Radar
  - Car Infotainment
- **Datacom**
  - Servers
  - Office Equipment
- **Industry**
  - Automation Machines
- **Medical**
  - Patient Monitors
  - Ultrasound Monitors
- **Home Appliance**
  - Digital Electronics
- **Server**
  - Car Infotainment
- **Automation Machine**
SlimStack Board-to-Board Connectors, 0.635mm Pitch Series

Specifications

**REFERENCE INFORMATION**
Packaging: Embossed Tape with Cover on Reel
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low-Halogen
(52885/52901/55091 series only)

**ELECTRICAL**
Voltage (max.): 100V
Current (max.): 0.5A per circuit
Contact Resistance (max.): 40 to 70 milliohms (varied by each part)
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 1000 Megohms

**PHYSICAL**
Housing:
- Receptacle: LCP, UL-94V-0, White
- Plug: LCP, UL-94V-0, Brown or Black
Contact: Copper Alloy
Fitting Nail: Copper Alloy
Plating:
- Contact Area – Gold
- Solder Tail Area – Tin
- Underplating – Nickel
Operating Temperature: -55 to +105°C

**MECHANICAL**
Durability (max.): 50 cycles

Dimensions

* Refer to drawing for detail dimension

**Ordering Information**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
<th>Circuits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptacle</td>
<td>Plug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52885-**74</td>
<td>55091-**74</td>
<td>6.00</td>
<td>20 to 200</td>
</tr>
<tr>
<td></td>
<td>53625-**74</td>
<td>7.00</td>
<td>20 to 240</td>
</tr>
<tr>
<td></td>
<td>53647-**74</td>
<td>8.00</td>
<td>20 to 160</td>
</tr>
<tr>
<td></td>
<td>53649-**74</td>
<td>9.00</td>
<td>30 to 140</td>
</tr>
<tr>
<td></td>
<td>53627-**74</td>
<td>10.00</td>
<td>20 to 200</td>
</tr>
<tr>
<td>52901-**74</td>
<td>55091-**74</td>
<td>12.00</td>
<td>20 to 200</td>
</tr>
<tr>
<td></td>
<td>53625-**74</td>
<td>13.00</td>
<td>20 to 200</td>
</tr>
<tr>
<td></td>
<td>53647-**74</td>
<td>14.00</td>
<td>20 to 160</td>
</tr>
<tr>
<td></td>
<td>53649-**74</td>
<td>15.00</td>
<td>30 to 140</td>
</tr>
<tr>
<td></td>
<td>53627-**74</td>
<td>16.00</td>
<td>20 to 200</td>
</tr>
</tbody>
</table>

**: circuit size

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SlimStack B-to-B Connectors 0.80mm Pitch feature floating structure for user-friendliness of assembly process. The connectors have height variation and two kinds of mating directions for design flexibility. In addition, there are compatible receptacles to support many applications.

0.80mm Pitch Floating Series has a floating structure range of ±0.30mm. There are stack height variations from 5.50mm to 8.00mm with same footprint. Customers can select mating direction, and they also select floating or rigid type to meet their design. Molex Micro Solution design provides solutions to solve any market requirement.

Features and Advantages

Floating Structure
Reduces PWB gap. Facilitates assembly in the event of misalignment or blind joining

Mating Guide Key
Accurate mating without right and left reversal

Lineup Combination

<table>
<thead>
<tr>
<th>Floating Type</th>
<th>Receptacle</th>
<th>Plug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floating Type</td>
<td>52588</td>
<td>53307</td>
</tr>
<tr>
<td>Mated Height (mm)</td>
<td>5.50 to 8.00</td>
<td>5.50</td>
</tr>
<tr>
<td>Rigid Type</td>
<td>52465</td>
<td>53307</td>
</tr>
<tr>
<td>Mated Height (mm)</td>
<td>4.50 to 7.00</td>
<td>4.50</td>
</tr>
</tbody>
</table>

Applications

Automotive
- Car Infotainment

Consumer
- Smart Speakers
- Home Appliances

Datacom
- Servers
- Office Equipment

Industrial
- Automation Machines

Car Infotainment
Smart Speaker
Office Equipment
## Specifications

**REFERENCE INFORMATION**
- Packaging: Embossed Tape on Reel
- Designed In: Millimeters
- RoHS: Yes
- Halogen Free: No

**ELECTRICAL**
- Voltage (max.): 50V
- Current (max.): 0.5A per circuit
- Contact Resistance (max.):
  - 40 milliohms (mate with 52588 series)
  - 20 milliohms (mate with 52465 series)
- Dielectric Withstanding Voltage (min.): 500V AC
- Insulation Resistance (min.): 100 Megohms

**PHYSICAL**
- Housing: PA, UL-94V-0
- Contact: Copper Alloy
- Plating:
  - Contact Area – Refer to ordering information
  - Solder Tail Area – Refer to ordering information
- Underplating – Nickel
- Operating Temperature: -40 to +105°C

**MECHANICAL**
- Mating Force (max.): refer to product specification
- Un-mating Force (min.): refer to product specification
- Durability (max.): 30 cycles

## Dimensions

Refer to drawing for detail dimension

## Ordering Information

<table>
<thead>
<tr>
<th>Structure</th>
<th>Order No.</th>
<th>Mated Height (mm)</th>
<th>Mated Width (mm)</th>
<th>Orientation</th>
<th>Boss</th>
<th>Plating</th>
<th>Circuits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Receptacle Plug</td>
<td></td>
<td></td>
<td>Receptacle Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floating Type</td>
<td>52588-**75</td>
<td>53307-**71</td>
<td>5.50</td>
<td>7.00</td>
<td>7.20</td>
<td>Vertical</td>
<td>Without Boss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53364-**70</td>
<td>7.00</td>
<td>4.70</td>
<td>Vertical</td>
<td>Without Boss</td>
<td></td>
</tr>
<tr>
<td>Rigid Type</td>
<td>52465-**70</td>
<td>53364-**70</td>
<td>6.00</td>
<td>7.00</td>
<td>Vertical</td>
<td>With Boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>53308-**71</td>
<td>5.65</td>
<td>4.70</td>
<td>Right Angle</td>
<td>With Boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52465-**71</td>
<td>53307-**71</td>
<td>4.50</td>
<td>7.00</td>
<td>Vertical</td>
<td>Without Boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>53364-**71</td>
<td>6.00</td>
<td>7.00</td>
<td>Vertical</td>
<td>Without Boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>53353-**71</td>
<td>7.00</td>
<td>4.70</td>
<td>Right Angle</td>
<td>With Boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>53309-**70</td>
<td>5.65</td>
<td>4.70</td>
<td>Right Angle</td>
<td>Without Boss</td>
<td></td>
</tr>
</tbody>
</table>

****: circuit size

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Order No. 987651-8814