Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владикавказ (8672)28-90-48 Волоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калига (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Коломна (4966)23-41-49 Кострома (4942)77-07-48 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Курск (4712)77-13-04 Кургки (4742)52-20-81 Россия +7(495)268-04-70

Магнитогорск (3519)55-03-13 Москаа (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Ноябрьск (3496)41-32-12 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16

Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Саранск (8342)22-96-24 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Сургут (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97 Тверь (4822)63-31-35 Киргизия +996(312)96-26-47 Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Улан-Удэ (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Чебоксары (852)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (4112)23-90-97 Ярославль (4852)69-52-93

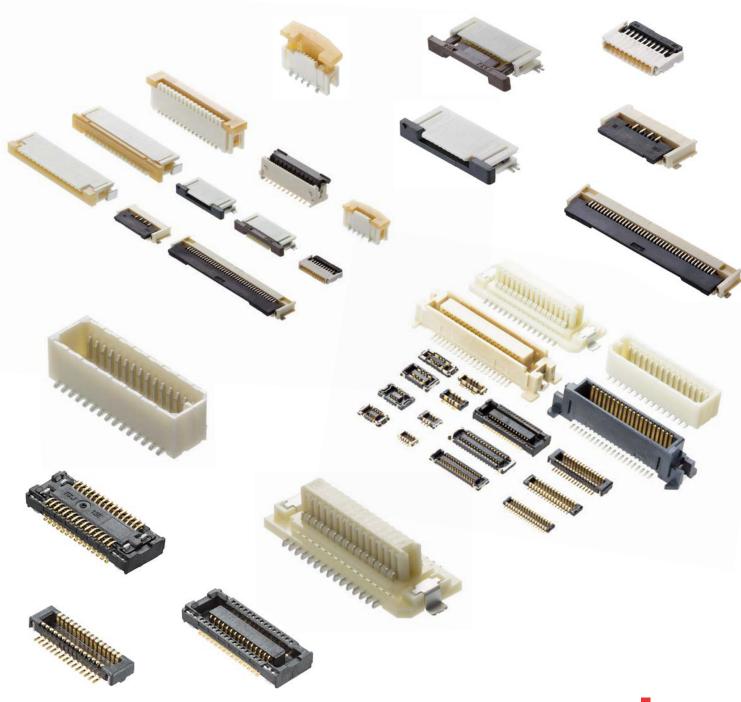
#### https://molex.nt-rt.ru/ || mxd@nt-rt.ru

Петрозаводск (8142)55-98-37 Псков (8112)59-10-37

Казахстан +7(7172)727-132

Пермь (342)205-81-47

# Micro Products Easy-On FFC/FPC Connectors and SlimStack Board-to-Board Connectors > Reference Guide





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## **SlimStack Board-to-Board Connectors Core Products**

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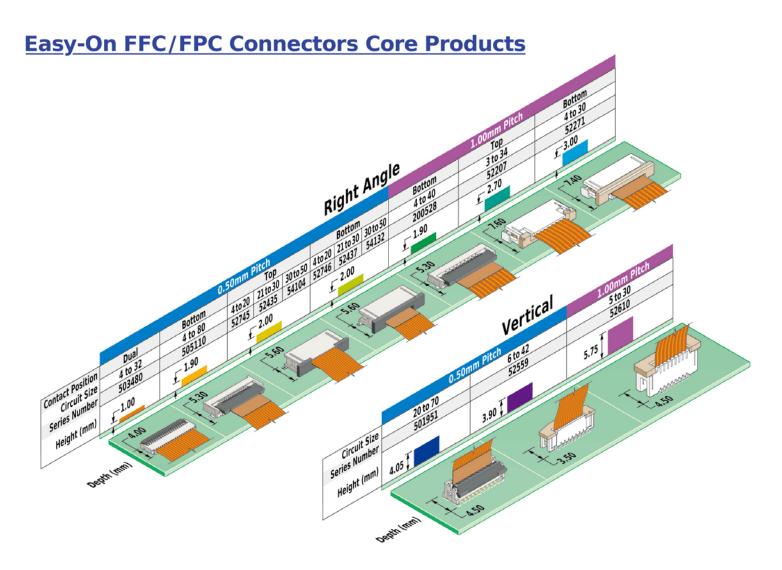






## **Easy-On FFC/FPC Connectors Core Products**

Pitch (mm)	Orientation	Contact Position	Circuit Size	Series Number	Image
		Dual	4 to 32	503480	Tillian .
		Bottom	4 to 80	505110	
	Right Angle		4 to 20	52745	
		Тор	21 to 30	52435	
0.50			30 to 50	54104	
0.50			4 to 20	52746	
		Bottom	21 to 30	52437	
			30 to 50	54132	
			20 to 70	501951	
	Ver	tical	6 to 42	52559	The same of the sa
		Bottom	4 to 30	200528	- Carrier
1.00	Right Angle	Тор	3 to 34	52207	
		Bottom	4 to 30	52271	
	Vertical		5 to 30	52610	The state of the s



#### **Application Examples**



Automotive infotainment\*



Home appliances



Medical devices



POS terminals



IoT devices



Servers

<sup>\*</sup>For select products only

## 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

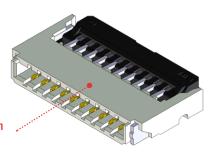


503480-\*\*00

#### **Features and Advantages**

#### **Back Flip actuator**

Eases cable insertion and allows for a high upward pull force

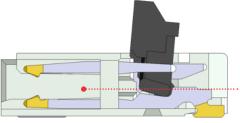


**Actuator rotation** 

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

molex

**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

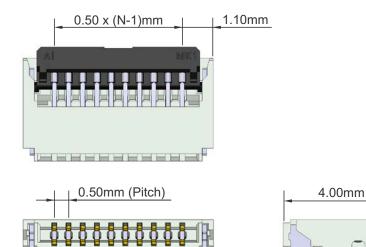
Contact Area — Gold Solder Tail Area — Gold Underplating — Nickel

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

N = Circuit size



#### **Ordering Information**

Series No.	Pitch Orientation		Contact Position Circuits		Operating Temperature	Plating
503480-**00	0.50mm	Right-Angle	Dual	4 to 40	-40 to +85°C	Gold

Replace \*\* with circuit size

## Easy-On FFC/FPC Connector, 0.50/1.00mm pitch, FD19 Series

molex

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

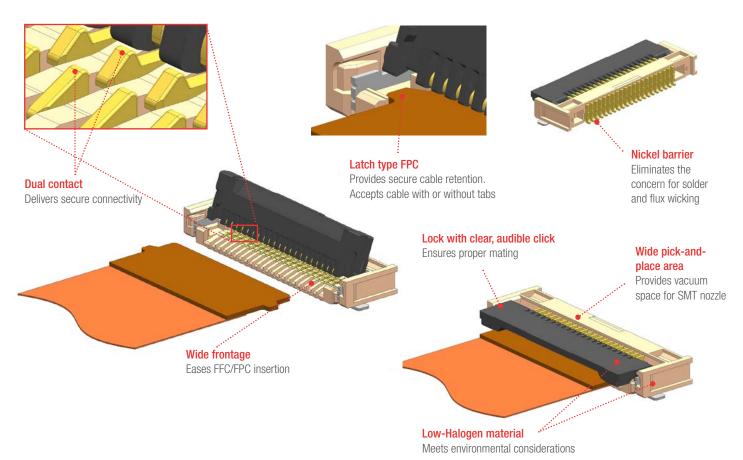




505110-\*\*\*\* (0.50mm pitch)

200528-\*\*\*\* (1.00mm pitch)

#### **Features and Advantages**



#### **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

#### **MECHANICAL**

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

#### **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

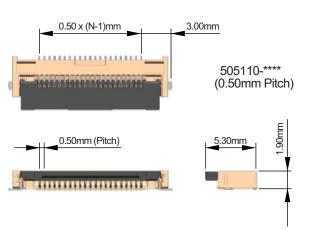
#### CIRCUIT SIZE (0.50MM PITCH)

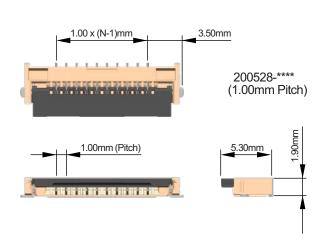
4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 64, 68, 70, 80

#### CIRCUIT SIZE (1.00MM PITCH)

4 to 30

N = Circuit size





#### **Ordering Information**

Series No.	Pitch (mm)	Orientation	Contact Position	Circuits	Operating Temperature	Plating														
505110-**92		Right-Angle		4 to 19	-40 to +105°C															
505110-**91	0.50																	20 to 80	-40 to +105°C	
505110-**97	505110-**97 505110-**96 200528-0**0 200528-0**1		D-#	4 to 19	-40 to +125°C	Cold														
505110-**96			Right-Angle	Bottom	20 to 80	-40 to +125°C	Gold													
200528-0**0				4 to 30	-40 to +105°C															
200528-0**1				4 to 30	-40 to +125°C															

Replace with \*\* for Circuit size.

## Easy-On FFC/FPC Connectors, 0.50/1.00mm Pitch, Slider Series

## molex

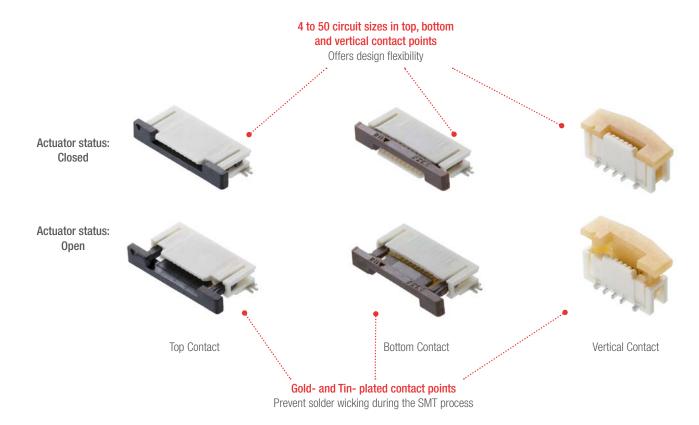
The Easy-On FFC/FPC Connectors, 0.50/1.00mm Pitch, Slider Series, with their market proven 'Slider' locking mechanism and wide circuit options in top, bottom and vertical contact variations, offer design flexibility for FFC/FPC cable routing applications



Right-Angle

Vertical

#### **Features and Advantages**



#### **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



POS terminal



Medical



IoT device

## 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

Contact: Copper Alloy Plating:

**MECHANICAL** 

**PHYSICAL** 

FFC/FPC Thickness: 0.30mm

Durability (max.): 20 cycles

Contact Area — Gold Solder Tail Area — Gold

Housing: LCP, UL 94V-0

Actuator: PA, UL 94V-0

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

#### **Ordering Information**

Series No.	Pitch (mm)	Orientation	Contact Position	Circuits	Operating Temperature	Plating
52745-**33	0.50	Right-Angle	Тор	4 to 20	-40 to +85°C	New Tin
52745-**97	0.50	Right-Angle	Тор	4 to 20	-40 to +85°C	Gold
52746-**33	0.50	Right-Angle	Bottom	4 to 20	-40 to +85°C	New Tin
52746-**71	0.50	Right-Angle	Bottom	4 to 20	-40 to +85°C	Gold
52435-**33	0.50	Right-Angle	Тор	21 to 30	-40 to +85°C	New Tin
52435-**71	0.50	Right-Angle	Тор	21 to 30	-40 to +85°C	Gold
52437-**33	0.50	Right-Angle	Bottom	21 to 30	-40 to +85°C	New Tin
52437-**71	0.50	Right-Angle	Bottom	21 to 30	-40 to +85°C	Gold
54104-**33	0.50	Right-Angle	Тор	30 to 50	-40 to +85°C	New Tin
54104-**31	0.50	Right-Angle	Тор	30 to 50	-40 to +85°C	Gold
54132-**33	0.50	Right-Angle	Bottom	30 to 50	-40 to +85°C	New Tin
54132-**62	0.50	Right-Angle	Bottom	30 to 50	-40 to +85°C	Gold
52559-**34	0.50	Vertical	Vertical	6 to 42	-40 to +85°C	New Tin
52559-**52	0.50	Vertical	Vertical	6 to 42	-40 to +85°C	Gold
52207-**33	1.00	Right-Angle	Тор	3 to 34	-40 to +85°C	New Tin
52207-**60	1.00	Right-Angle	Тор	3 to 34	-40 to +85°C	Gold
52271-**79	1.00	Right-Angle	Bottom	4 to 30	-40 to +85°C	New Tin
52271-**69	1.00	Right-Angle	Bottom	4 to 30	-40 to +85°C	Gold
52610-**33	1.00	Vertical	Vertical	5 to 30	-40 to +85°C	New Tin
52610-**72	1.00	Vertical	Vertical	5 to 30	-40 to +85°C	Gold

Replace \*\* with circuit size

## Easy-On FFC/FPC Connector, 0.50mm pitch, V-Flip Series

Product 501951

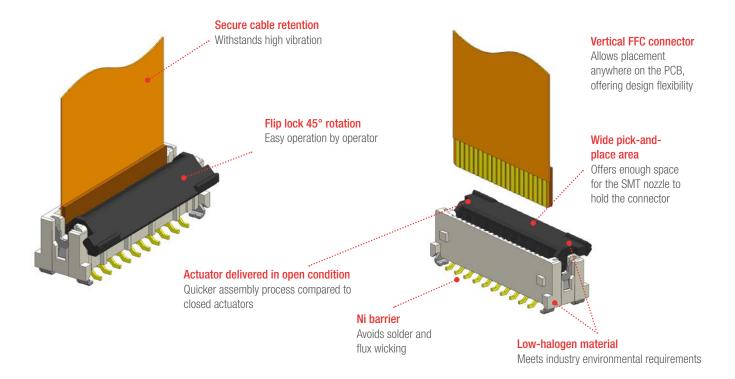
Vertical Flip Connectors facilitate multiple SMT on PCB, and feature 4 to 70 circuit sizes, wide operating temperature of up to 125°C and a flip lock for secure locking

### Features and Advantages





501951-\*\*\*\*



#### **Applications**

#### Office Equipment

Printer

#### Consumer

Home appliances

Flat TVs

#### Industry

UAVs (drones)

IoT interconnection devices

#### Datacom

Servers

#### Medical

Patient-monitoring systems



Office Equipment



Servers

## Easy-On FFC/FPC Connector, 0.50mm pitch, V-Flip Series

molex

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

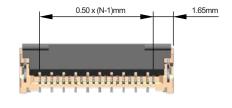
Operating Temperature: -40 to +85°C or

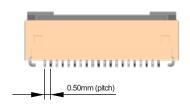
-40 to +125°C

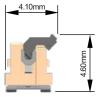
4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 70

#### CIRCUIT SIZE

N = Circuit size







#### **Ordering Information**

Series No.	Pitch (mm)	Orientation	Contact Position	Circuits	Operating Temperature	Plating
501951-**30	0.50	Vertical	Vertical	4 to 70	-40 to +85°C	Gold
501951-**50	0.50	Vertical	Vertical	4 to 70	-40 to +125°C	Gold

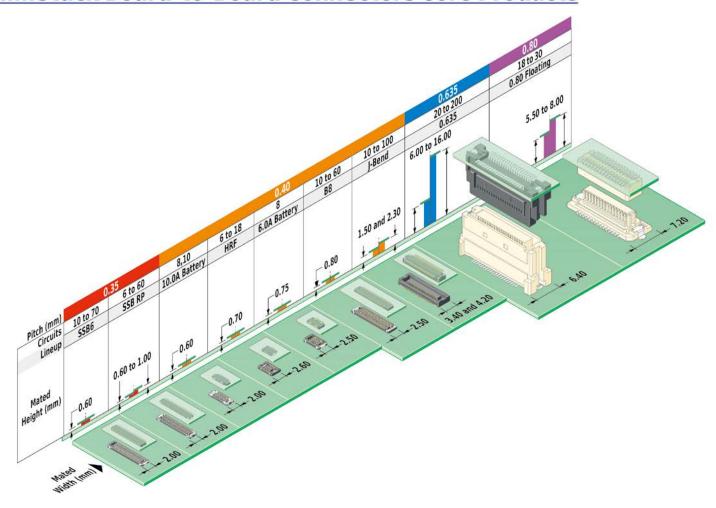
Replace \*\* with circuit size

## **SlimStack Board-to-Board Connectors Core Products**

<b>5</b> 11.1.4	Mated Height	Mated Width	o: "		Series I	Number		
Pitch (mm)	(mm)	(mm)	Circuits	Lineup	Receptacle	Plug	Image	
	0.60	2.00	10 to 70	SSB6	504618	504622		
	0.60				505066	505070		
0.35	0.70				505270	303070	<b>A</b>	
	0.80	2.00	6 to 60	SSB RP	300210	505274		
	0.90				505413			
	1.00					505417	*POWER SUPPLY	
	0.60	2.00	8, 10	10.0A Battery	505473	505476	*POWER SUPPLY	
	0.70	2.60	6 to 18	HRF	503548	503552	<b>*</b>	
0.40	0.75	2.50	8	6.0A Battery	505004	505006	*POWER SUPPLY	
0.40	0.00	0.50	40.4.00	В8	503772	503776		
	0.80	2.50	10 to 60		505550	505551		
	1.50	3.40	10 to 100		51338	55909		
	1.80	4.20			500913			
	2.00	3.40		J-Bend	51338	501745		
	2.30	4.20	12 to 80		500913			
	6.00					55091		
	7.00					53625		
	8.00				52885	53647		
	9.00					53649	All Mar	
0.635	10.00	6.40	20 to 200	0.635		53627		
0.000	12.00	0.40	20 10 200	0.000		55091		
	13.00					53625		
	14.00				52901	53647		
	15.00					53649		
	16.00					53627		
	5.50					53307		
0.80	7.00	7.20	18 to 30	0.80 Floating	52588	53364		
	8.00					53353		



### **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

## molex

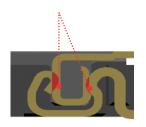
0.35mm pitch connectors deliver up to 3.0A power through protective metal covers and provide superior mating guidance and electrical contact assurance.

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**



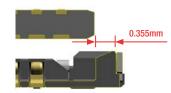
Provides secure reliability

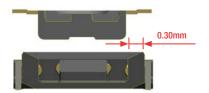


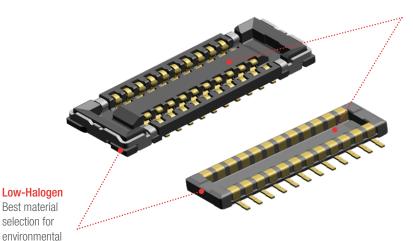
considerations

#### Wide Alignment Area

Provides easy and secure mating







#### Wide Pick-and-Place Area

Vacuum space for SMT nozzle

#### **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

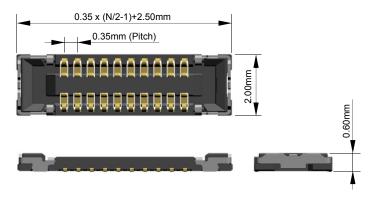
Operating Temperature: -40 to +85°C

#### **Dimensions**

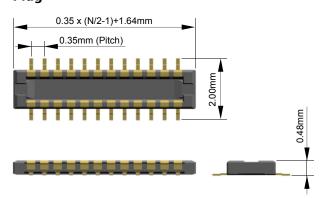
\* Refer to drawing for detail dimension

N: Circuit Size

#### Receptacle



#### Plug



Order No.		Mated Height (mm) Mated Width (mm)		Circuits		
Receptacle	Plug	Mateu Height (IIIII)	Mateu Wiutii (IIIII)	Circuits		
504618-**12	504622-**12	0.60	2.00	10, 20, 24, 30, 34, 40, 50, 64, 70		

<sup>\*\*:</sup> Circuit Size

### SlimStack Board-to-Board Connectors, 0.35mm Pitch, SSB RP Series

## molex

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

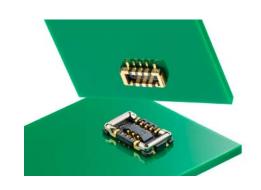
SSB RP Series delivers design flexibility while meeting tight-packaging needs with mated height variation, 0.60mm to 1.00mm, without having to redesign the PCB layout. As consumers continue to demand smaller devices, the need for microminiature designs grows.

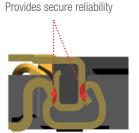
#### **Features and Advantages**

**Dual-Contact Design** 



Provides easy and secure mating

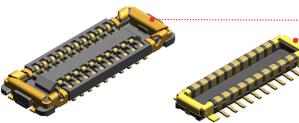


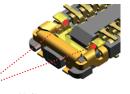




#### **Metal Power Armor Nail Feature**

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.

Lineup Combination								
Mated Height (mm)	Plug							
0.60	505066	505070						
0.70	505070	303070						
0.80	505270	505074						
0.90	E05.410	505274						
1.00	505413	505417						

#### **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, SSB RP Series



N: Circuit Size

#### **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

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:

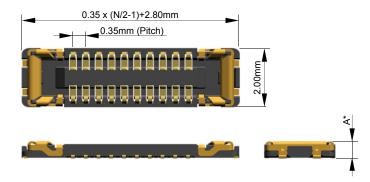
Contact Area — Gold Solder Tail Area — Gold Underplating — Nickel

Operating Temperature: -40 to +85°C

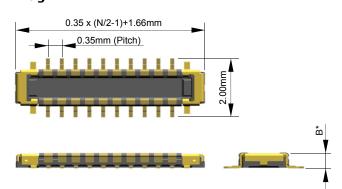
#### **Dimensions**

\* Refer to drawing for detail dimension

#### Receptacle



#### Plug



Order No.		Mated Height (www)	Matad Width (www)	Circuits		
Receptacle	Plug	Mated Height (mm)	Mated Width (mm)	Gircuns		
505066-**22	E0E070 **00	0.60		6, 8, 10, 12, 14, 16, 20, 22, 24, 30, 34, 40, 42, 48, 50, 54		
E0E070 **10	505070-**22	505070-***22	0.70		6, 10, 16, 20, 22, 24, 30, 34, 40, 54	
505270-**12	505274-**12	0.80	0.80	2.00	2.00	6, 10, 16, 20, 24, 30, 34, 40, 54
E0E410 **10		0.90		6, 30, 34, 40		
505413-**10	505417-**10	1.00		6, 30, 34, 40, 60		

<sup>\*\*:</sup> circuit size

## SlimStack Board-to-Board Connectors, 0.40mm Pitch and 0.80mm Pitch, Battery Series

## molex

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

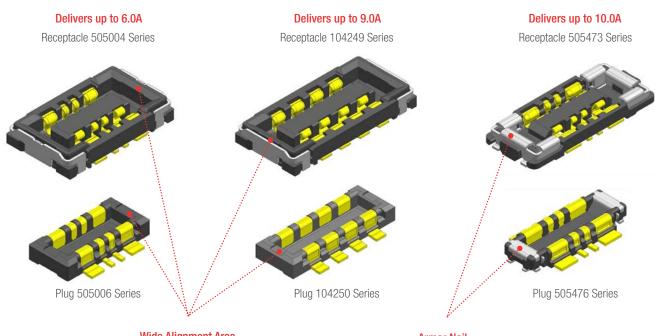
Meets the growing power needs of tight-packaging applications

#### 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



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

## SlimStack Board-to-Board Connectors, 0.40mm Pitch and 0.80mm Pitch, Battery Series



#### **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

104249/104250

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

Order No.		Mated Height (mm) Mated Width (mm		Circuits	Metal Armor Housing	Compant	
Receptacle	Plug	Mated Height (mm)	Mated Width (mm)	Circuits	Cover	Current	
505473-0810	505476-0810		0.00	2.00	8 (4 power; 4 signal)		10.00*
505473-1010	505476-1010	0.60	2.00	10 (4 power; 6 signal)	Yes	10.0A*	
505004-0812	505006-0812	0.75			8 (4 power; 4 signal)		6.0A*
104249-0810	104250-0820		2.50	8 (power or signal)	No	9.0A*	

<sup>\*10.0</sup>A 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.

## SlimStack Board-to-Board Connectors, 0.40mm Pitch, HRF Series

## molex

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

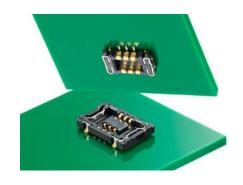
#### **Features and Advantages**

#### **High mating-retention**

Provides superior mating reliability for applications subject to high vibration or rugged conditions

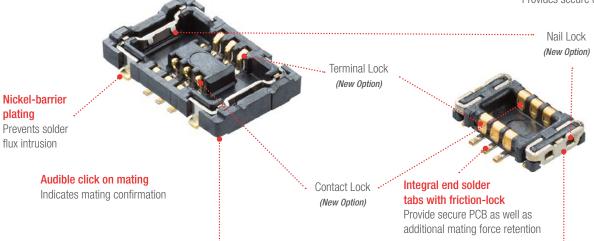
## Narrow width, low profile and small pitch

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

#### **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

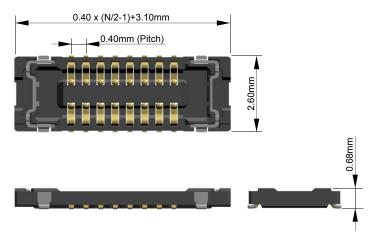
Operating Temperature: -40 to +85°C

#### **Dimensions**

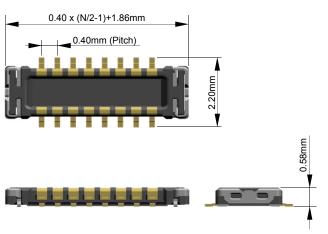
\* Refer to drawing for detail dimension

N: Circuit Size

#### Receptacle



#### Plug



	Order No.  Receptacle Plug		Mated Height (mm) Mated Width (mm)		Circuita	
			Mated Height (mm)	mated width (mm)	Circuits	
	503548-**22	503552-**22	0.70	2.60	6, 10, 12, 14, 16, 18	

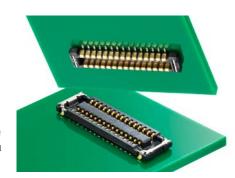
<sup>\*\*:</sup> Circuit Size

### SlimStack Board-to-Board Connectors, 0.40mm Pitch, B8 Series

## molex

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.

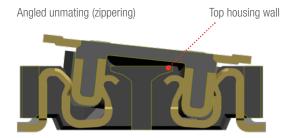
As future devices continue to increase in value and complexity, designers need to stabilize connections to avoid the need for costly rework and/or repair. Building reliability into connector designs for any devices is critical. In the production process of flex-to-board jumpers, flux or dust can sometimes 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**

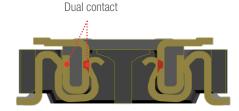
#### **Top Housing Wall**

Top housing wall (stopper) prevents the terminal from lifting up due to "zippering" or angled unmating



#### **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

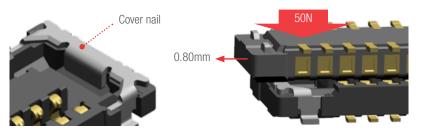


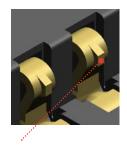
#### **Cover Nail**

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





CleanPoint contact

#### **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

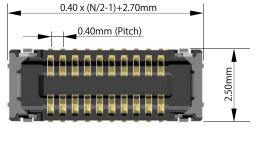
Operating Temperature: -40 to +85°C

#### **Dimensions**

\* Refer to drawing for detail dimension

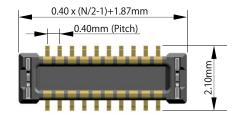
N: Circuit Size

#### Receptacle





#### Plug





Order No.		Mated Height (mm) Mated Width (mm)		Circuits	
Receptacle	Plug	Mateu Height (IIIII)	Mateu Width (IIIII)	Greats	
505550-**20	505551-**20	0.80	2.50	10, 16, 20, 24, 30, 34, 40, 50	

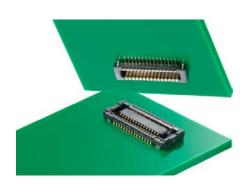
<sup>\*\*:</sup> Circuit Size

### SlimStack Board-to-Board Connectors, 0.40mm Pitch, **J-Bend Seriés**

molex

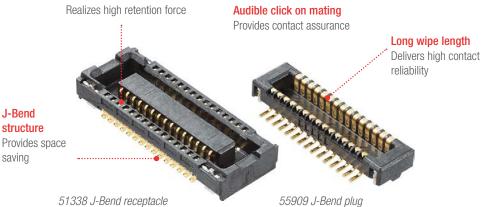
SlimStack 0.40mm pitch high-speed board-to-board connectors offer a wide variety of circuit sizes and stack heights for space-saving and design flexibility in a diverse range of applications for consumer, datacom, home appliance, mobile and medical industries.

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.



SlimStack 0.40mm Pitch J-Bend Connectors

#### Features and Advantages



#### In-house contact structure

Improved reliability against external shock. Protection from droplets of flux



#### **Applications**

#### Consumer

J-Bend structure

saving

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)

LINE UP Combination									
	Recep	otacle	Plug						
	51338	500913	55909	501745					
Series Number	The state of the s		Town the second						
Circuit	10 to 100	24 to 100	10 to 120	12 to 80					
Mated Height (mm)	1.50 to 2.00	1.80 to 2.30	1.50 to 1.80	2.00 to 2.30					



Medical Gaming Machine





Tablet PC Network Server

## 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

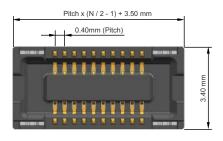
Contact Area - Selective Gold Fitting Nail Area - Selective Gold

Underplating - Nickel

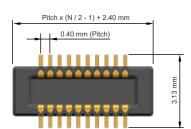
Operating Temperature: -25 to +85°C

#### **Dimensions**

#### 51338 Series



#### 55909 Series



N: Circuit Size

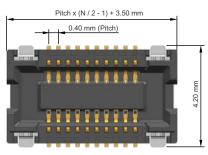






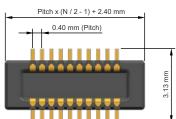


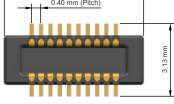
#### 500913 Series





#### 501745 Series













Mated Height	Width	Serie	Civanit Ci-a		
(mm)	(mm)	Receptacle	Plug	- Circuit Size	
1.50	3.40	51338	55909	10 to 100	
1.80	4.20	500913	55909	24 to 100	
2.00	3.40	51338	501745	12 to 80	
2.30	4.20	500913	501745	40 to 70	

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

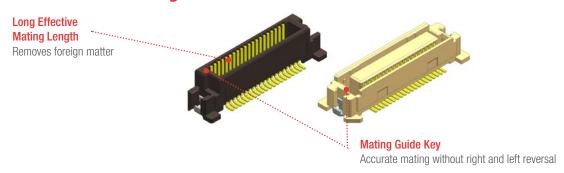


SlimStack Board-to-Board Connectors 0.635mm Pitch Series offers a wide variety of circuit sizes and various stack heights for space savings and design flexibility in a diverse range of applications.

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**



	Lineup Combination									
	Receptacle		Plug							
	52885	55091	53625	53647	53649	53627				
Series No.										
Circuits	20 to 240	20 to 200	20 to 240	20 to 160	30 to 140	20 to 200				
Mated Height (mm)	(mm) 6.00 to 10.00 6.00		7.00 8.00		9.00	10.00				
	Receptacle			Plug						
	52901	55091	53625	53647	53649	53627				
Series No.										
Circuits	20 to 200	20 to 200	20 to 200	20 to 160	30 to 140	20 to 200				
Mated Height (mm)	12.00 to 16.00	12.00	13.00	14.00	15.00	16.00				

#### **Applications**

Automotive	Medical				
Car Radar	Patient Monitors				
Car Infotainment	Ultrasound Monitors				
Datacom	Home Appliance				
Servers	Digital Electronics				
Office Equipment					
lands of the s					

Industry

Automation Machines



Car Infotainment



Servers



**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

#### **MECHANICAL**

Durability (max.): 50 cycles

#### **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

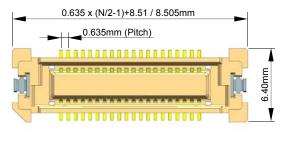
Operating Temperature: -55 to +105°C

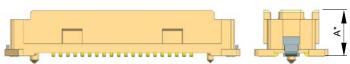
N: Circuit Size

#### **Dimensions**

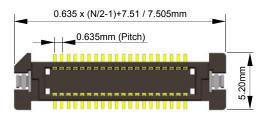
\* Refer to drawing for detail dimension

#### Receptacle





#### Plug







Orde	er No.	Mated Height (mm)	Motod Width (mm)	Circuits	
Receptacle	Receptacle Plug		Mated Width (mm)	Gircuits	
	55091-**74	6.00		20 to 200	
	53625-**74	7.00		20 to 240	
52885-**74	53647-**74	8.00		20 to 160	
	53649-**74	9.00		30 to 140	
	53627-**74	10.00	0.40	20 to 200	
	55091-**74	12.00	6.40	20 to 200	
	53625-**74	13.00		20 to 200	
52901-**74	53647-**74	14.00		20 to 160	
	53649-**74	15.00		30 to 140	
	53627-**74	16.00		20 to 200	

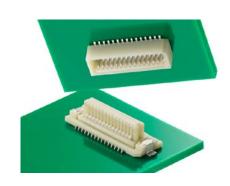
<sup>\*\*:</sup> circuit size

## SlimStack Board-to-Board Connectors, 0.80mm Pitch, Floating Series

## molex

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.

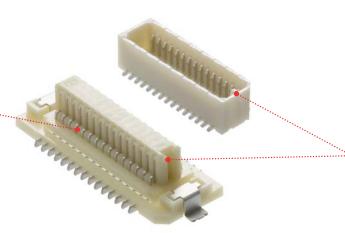
0.80mm Pitch Floating Series has a floating structure range of  $\pm 0.30$ mm. There are stack height variations from 5.50mm to 8.00mm with same footprint. Customers can select mating direction, and they also select floating or rigid type to meet their design. Molex Micro Solution design provides solutions 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									
	Receptacle Plug									
	52588	53307	53364	53353	53309					
Floating Type	The state of the s	NESSON.								
Mated Height (mm)	Mated Height (mm) 5.50 to 8.00		7.00	8.00	6.65					
	Receptacle		Pli	ug						
	52465	53307	53364	53353	53309					
Rigid Type		880888								
Mated Height (mm)	4.50 to 7.00	4.50	6.00	7.00	5.65					

#### **Applications**

#### Automotive

Car Infotainment

#### Consumer

Smart Speakers

Home Appliances

#### Datacom

Servers

Office Equipment



Automation Machines



Car Infotainment



Smart Speaker



Office Equipment

### SlimStack Board-to-Board Connectors, 0.80mm Pitch, Floating Series



#### **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

#### **MECHANICAL**

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

#### 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

#### **Dimensions**

Refer to drawing for detail dimension

#### **Ordering Information**

<b>0</b>	Orde	r No.	Mated	Mated		Boss			O	
Structure	Receptacle	Plug	Height (mm)	Width (mm)	Orientation -	Receptacle	Plug	Plating	Circuits	
		53307-**71	5.50				Without Boss			
		53364-**70	7.00	7.20	Vartical		With Boss			
Floating Type	52588-**75	53364-**71	7.00	7.20	Vertical		Without Boss	Tin	10.00.00	
Floating Type		53353-**71	8.00			Without Boss	Without Boss		18, 20, 30	
		53309-**70	C CE	4.70	Right Angle	V	Without Boss			
		53309-**71	6.65	4.70			With Boss			
	52465-**70	53364-**70	6.00	7.20	Vertical	With Boss	With David		10, 12, 20, 28, 30, 36, 40	
		53309-**71	5.65	4.70	Right Angle		With Boss		20, 24, 26, 28, 30, 40	
		53307-**71	4.50					Τ'	10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 36, 40	
Rigid Type	E040E **71	53364-**71	6.00	7.20	Vertical		Tin	18, 20, 30, 36		
	52465-**71	53353-**71	7.00			Without Boss	Without Boss		10, 16, 18, 20, 28, 30, 40	
		53309-**70	5.65	4.70	Dight Angl-				10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36, 40	
	52465-**62	53309-**62	5.65	4.70	Right Angle			Gold	20, 30, 32	

<sup>\*\*:</sup> circuit size

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Россия +7(495)268-04-70

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Киргизия +996(312)96-26-47

Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Улан-Удэ (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (4112)23-90-97 Ярославль (4852)69-52-93