molex

SLIMSTACK FLOATING BOARD-TO-BOARD CONNECTORS



OVERVIEW OF SLIMSTACK FLOATING BOARD-TO-BOARD CONNECTORS

Introducing SlimStack Board-to-Board FSB and 0.635mm-pitch Floating Connectors, which feature a large floating range to facilitate assembly. These connectors are ideal for a wide range of applications in the automotive, industrial and consumer markets.

Featuring a large floating range to facilitate assembly

0.635mm-pitch Floating Series



FLOATING RANGE

Advantages of the floating function:

- Keeps solder from cracking by absorbing shock from misalignment during PCB repair
- Enables a secure connection of multiple board-to-board connectors on one PCB

SlimStack 0.635mm-Pitch Floating Connectors have a ±0.70mm floating range in the X and Y axes.



IMPROVED ASSEMBLY

- Easy assembly with secure mating
- Reduced impact of shock and vibration
- Better reliability under challenging environmental conditions

The floating range facilitates proper connections in the event of misalignment or blind mating. Better reliability under challenging environmental conditions

COST EFFECTIVE

A generous floating range facilitates blind mating and board-to-board connections, eliminating the need for high-cost flexible printed circuits to connect PCBs.

As a result, the SlimStack Floating Boardto-Board Connectors deliver both design flexibility and lower component costs. SlimStack Floating Board-to-Board Connectors deliver both design flexibility and lower component costs



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SPACE SAVINGS

Modern advanced intelligence applications (e.g. ADAS, industrial automation) continue to shrink in size, therefore creating the need for a more compact connector. The SlimStack FSB series is one of the smallest in the board-to-board floating connector market.

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HIGH OPERATING TEMPERATURES

Increasing product densities and performance needs demand high operating temperatures. Having the ability to withstand higher operating temperatures allow SlimStack Floating series to be used in high-performance products.

Molex's SlimStack Board-to-Board FSB and 0.635-Pitch Floating Connectors can operate at up to 125°C.

FSB Series and 0.635mm-Pitch Floating Series can operate at up to 125°C



MARKETS AND APPLICATIONS







In-Vehicle Infotainment





Gaming





Server Storage





Automation Machine



ADAS Applications



Security Camera



Base Station



Vision Sensor

SLIMSTACK 0.635MM-PITCH FLOATING CONNECTORS



Floating type Receptacle 209168 Series

With cap (packaging style)



SLIMSTACK 0.635MM-PITCH FLOATING CONNECTORS

Features and Benefits

Key Features

1) Wide Floating Range

2 High Operating Temperatures



Variable Stack Height

Benefits

1

Easy Assembly The wide floating range makes automatic assembly or blind mating easier and supports mass production.



Design Flexibility

Variable stack heights within the same PCB layout on the plug side and high operating temperatures offers much-needed design flexibility.







Rigid type Receptacle H6-10 <u>52885</u>



Rigid type Receptacle H12-16 52901

SLIMSTACK 0.635MM-PITCH FLOATING CONNECTORS

Specifications

Pitch	0.635mm	Voltage (max.)	100V
Height	12.00 to 16.00mm	Current Per Pin (max.)	0.5A
Width	10.10mm	Data Rate ^{*1}	6.2 Gbps
Length*2	TP + 2.85mm	Floating Range	±0.70mm
Circuit Size	40, 60, 80	Plating	Gold
Durability	50 Cycles	Operating Temperature	-40 to +125°C

Circuit Availability

Circuit	H12	H13	H14	H15	H16
40	•	•	•	•	•
60	•	•	•	•	•
80	•	•	•	•	•

*1 Please refer to Guide for Hardware Interface Standard on Molex.com

*² TP = (circuit/2-1) x pitch

SLIMSTACK FSB SERIES

Series





SLIMSTACK FSB SERIES

Features and Benefits

Key Features

Floating Structure

Space Saving 2)

Variable Stack Heights 3

Benefits



One of the Smallest,

Best-in-Class Floating Connectors The FSB5 connector has a 5.00mm mating height and a 3.80mm width. The FSB3 series has a 3.00mm mating height and a 3.20mm width. These are some of the smallest floating connectors in the industry, mitigating space constraints.

Large Floating Range ໌2 `

Large floating ranges (±0.30mm for FSB3 and ± 0.50 mm for FSB5) make automated assembly and blind mating easier while supporting mass production.





force makes assembly and operations easy



SLIMSTACK FSB SERIES

Specifications

Pitch	0.40mm	Voltage (max.)	
Height	3.00/5.00mm	Current Per Pin (max.)	
Width	3.20/3.80mm	Data Rate ^{*1}	
Length*2	TP + 5.40mm	Floating Range	
Circuit Size	20 to 60	Plating	
Durability	30 Cycles	Operating Temperature	

1 Please refer to Guide for Hardware Interface Standard on Molex.com $^{2}$ TP = (circuit/2-1) x pitch

Voltage (max.)	40V
Current Per Pin (max.)	0.3A
Data Rate ^{*1}	6 Gbps
Floating Range	±0.30/0.50mm
Plating	Gold
Operating Temperature	-40 to +125°C

Circuit Availability

Circuit	FSB3	FSB5
20	•	•
30	•	•
40	•	•
50	•	•
60	•	•



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