# molex

# BOARD-TO-BOARD CONNECTORS

The Market Leader



# OF DESIGNING WITH LEADING-EDGE TECHNOLOGY

No other board-to-board solution brings designers more features and benefits than Molex Board-to-Board Connectors. Our signal, power and RF connectors are ideal for compact applications in consumer, mobile, automotive, industrial and medical applications. A wide variety of low-profile, narrow-width options are available in various mated heights and circuit sizes.

Board-to-board solutions designed for smaller, high-performing devices



# FEATURES AND ADVANTAGES

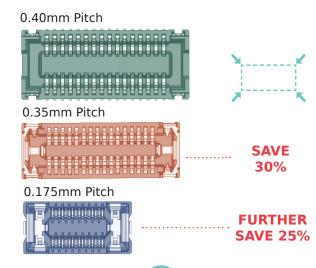
Make your design **miniaturized**, **robust** and **reliable** 

- Miniaturized connectivity
- Shielded, electromagnetic compatibility, signal integrity
- Floating connections
- Anti-vibration
- Dual contact
- Wide alignment guides
- Damage resistant

Pitch size	Mating height	Max. Current	Speeds
0.175 – 0.635mm	0.50 – 16.00mm	6.0 to 18.0A	60 Gbps / 30 GH

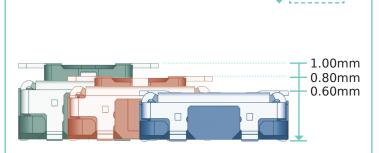


### **SPACE SAVINGS**





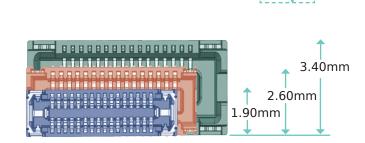
Molex's latest quad-row board-to-board connectors offer 36% in SMT footprint area space saving over ACB6+



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#### **Mating Height - Design Flexibility**

Molex's board-to-board product line offers a wide range of mating heights, providing flexibility for designers to mitigate application space constraints.



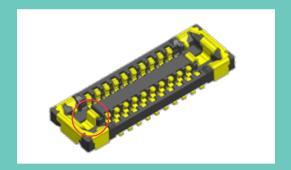


#### Width - Space Savings

Molex ACB6+ board-to-board connectors offer an ultra-low width of 1.90mm.

Molex also offers several 2.00mm options with additional feature subsets.

## **MAXIMUM ROBUSTNESS**





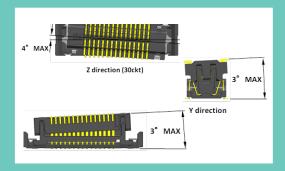
#### **Armor Nail Design**

Offers side wall to protect housing from micro cracking

Additional retention force features

Power options for some designs

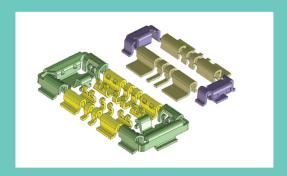
Alignment features





#### **Mating Alignment**

Allows for the plug contact interface to float within a protective spring design that absorbs the shock and vibration of the application.

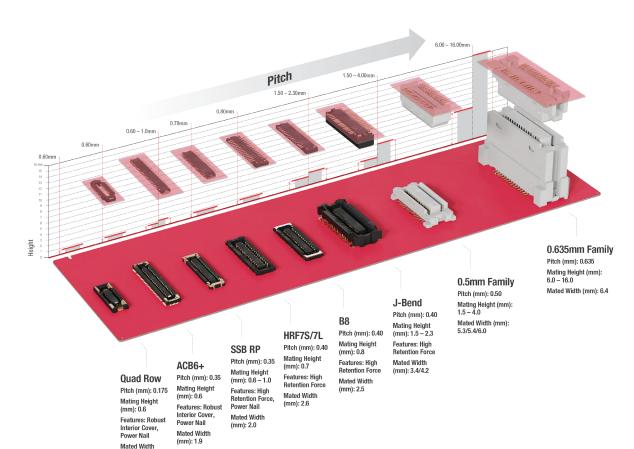




#### **Anti-Peel Terminals**

Bottom-inserted receptacle terminals and overmold plug terminals prevent terminals from becoming dislodged or peeling off from the housing.

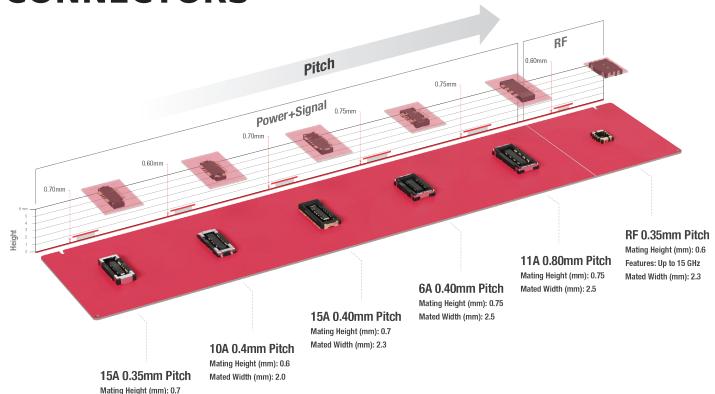
### **SLIMSTACK BOARD-TO-BOARD SIGNAL CONNECTORS**



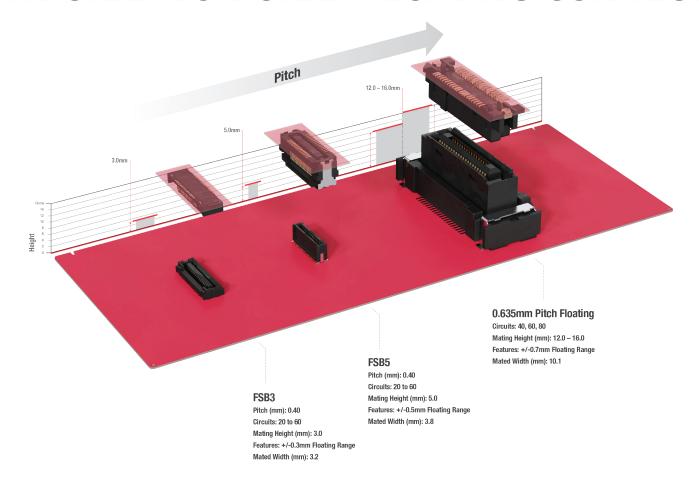
(mm): 2.0

SLIMSTACK BOARD-TO-BOARD POWER + SIGNAL AND RF CONNECTORS

Mated Width (mm): 2.0



## **SLIMSTACK BOARD-TO-BOARD FLOATING CONNECTORS**





# SIGNAL CONNECTORS WITH VARIOUS FEATURES, MATED HEIGHTS AND CIRCUIT SIZES

Pitch	0.175mm	0.35mm	0.35mm	0.40mm	0.40mm	0.40mm	0.40mm	0.40mm	0.50mm	0.635mm	0.635mm
Mating Height	0.60mm	0.60mm	0.60 - 1.00mm	0.70mm	0.80mm	1.50 - 2.30mm	3.00mm	5.00mm	1.50 - 4.00mm	6.00 - 16.00mm	12.00 - 16.00mm
Width	2.00mm	1.90mm	2.00mm	2.60mm	2.50mm	3.40/4.20mm	3.20mm	3.80mm	5.30/5.40 6.00mm	6.40mm	10.10mm
Length (total pitch +x)	TP + 4.01mm	TP + 2.8mm	TP + 2.85mm	TP + 3.10/ 2.60mm	TP + 2.80mm	TP + 3.50mm	TP + 5.40mm	TP + 5.40mm	TP + 3.10/ 4.30/4.40mm	TP + 8.51mm	TP + 12.495mm
Туре	Robust Interior Cover, Power Nail	Robust Interior Cover, Power Nail	High Retention Force, Power Nail	High Retention Force	High Retention Force	High Retention Force	Floating	Floating	Rigid	Rigid	Floating
Name	Quad Row	ACB6+	SSB RP	HRF7S/7L	В8	J-Bend	FSB3	FSB5	0.50mm Family	0.635mm Family	0.635mm Family
Weblink			Product Search	Product Search	Product Search	Product Search	Product Search	Product Search	Product Search	Product Search	Product Search

# SIGNAL + POWER CONNECTORS IN ULTRA SMALL PROFILE

Pitch	0.35mm	0.40mm	0.40mm	0.40mm	0.80mm	
Mating Height	0.70mm	0.60mm	0.70mm	0.75mm	0.75mm	
Width	2.00mm	2.00mm	2.30mm	2.50mm	2.50mm	
Length	4.50mm	4.80/5.20mm	5.00mm	4.20mm	5.20mm	
Max. Current	15.0A	10.0A	15.0A	6.0A	11.0A	
Name	GCB7	Battery Series	New GCB7	Battery Series	Battery Series	
Weblink	<u>Product Search</u>	<u>Product Search</u>		<u>Product Search</u>	<u>Product Search</u>	

# RF CONNECTORS FOR HIGH-SPEED TRANSMISSION

Pitch	0.35mm
Mating Height	0.60mm
Width	2.30mm
Length	3.04mm
Max. Frequency	Up to 15 GHz
Name	5G15

## **OUR VISION FOR BOARD-TO-BOARD**

	2021		2022			2023		
Miniaturization	0. He	30mm Pitch ight 0.60mm	0.30mm Pitch Height 0.50mm	Single Row 1.20mm Width			Narrow 1.50mm Width	
5G High-Band High-Speed		13.5Ghz 0.35P / 0.6I	н	0.50mm Pitch PCle Gen4 16 Gbps Floating	30 Ghz Low Profile	0.5	0mm Pitch PCle Gen4 16 Gbps Floating	
Robust and Rugged Auto-Grade	3.00mm Height 6 Gbps	0.3 Hei	35mm Pitch ght 0.50mm	Waterproof IPX7	0.60mm Pitch R/A Floating	4.00+6.00+8.00mm Height 6Gbps	1.00mm Anti High Voltage Floating	
Power				GCB6 18A 0.35P / 0.60H				

Products shown are concepts and not in production at this time. Last Updated as at April 2021

# **FURTHER INFORMATION**



SlimStack Board-to-Board Connectors

