

# ZN Stack 0.50mm-Pitch Floating Board-to-Board Connectors >

ZN Stack Floating Connectors revolutionize vehicle electronics design to meet increasing demands for data processing, power distribution and system reliability. These automotive-validated, high-speed connectors support up to 32 Gbps data rates within a compact footprint and ensure seamless integration, offering design flexibility and robust high-current power terminal options. Delivering reliable, high-performance connectivity in harsh automotive environments, ZN Stack connectors provide cutting-edge solutions for automotive applications including zonal architecture, advanced driver assistance systems (ADASs) and high-speed computing.

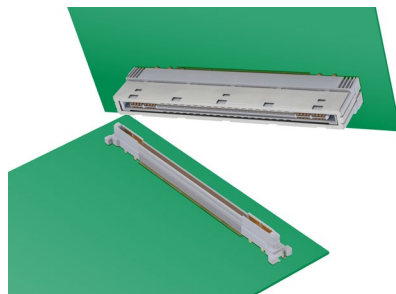
## ADVANTAGES AND FEATURES

### Provides automotive-validated connectivity up to Gen 5 in a compact footprint

Floating terminals are optimized for high-speed performance and are packaged in automotive-grade housing.

### Delivers design flexibility

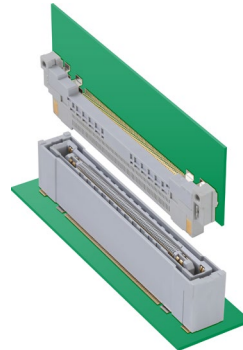
Stack heights range from 10.00 to 30.00mm, with circuit sizes from 60 to 200.



*Vertical/Stacking Version*

### Has excellent floating capability to overcome challenges in harsh conditions

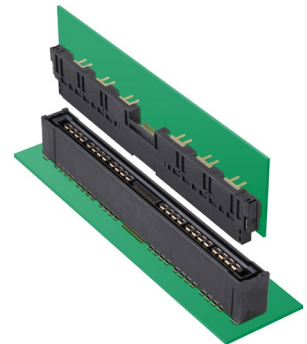
These connectors help ensure the highest reliable terminal connections throughout various levels of mechanical shock and other automotive conditions for best-in-class signal propagation, essential for mission-critical applications.



*Right-Angle (High-Speed and Power) Versions*

### Offers up to 40.0A of two-way power-current transfer

There are high-current power terminal options for each connector size and form factor.



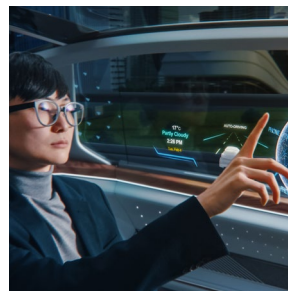
## MARKETS AND APPLICATIONS

### Automotive/Commercial Vehicles

- ADAS applications
- Zonal/high-speed computing systems
- Software-defined vehicles
- Advanced driver and passenger infotainment systems
- Advanced high-speed communication gateways

### Industrial

- High-shock/high-vibration environments



*ADAS Applications*



*Factory Robotic Arm in Motion*

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## SPECIFICATIONS AND SUPPORTING INFORMATION

Features	Items	Specifications		
		High Speed Right Angle	High Current Right Angle	High Speed Vertical (Stacking)
Environmental	Focus automotive standard	LV-214	LV-214	USCAR-2
	Operating Temperature	-40 to +125°C	-40 to +125°C	-40 to +125°C
Mechanical	Floating (X, Y and Z)	+/-0.80mm in X and Y +/-0.60mm in Z (by wipe)	+/-0.80mm in X and Y +/-0.60mm in Z (by wipe)	+/-1.00mm in X and Y +/-0.60mm in Z (by wipe)
	Alignment	+/- 1.30mm	+/- 1.30mm	+/- 1.30mm
Electrical	Rated voltage/current (per pin)	Signal pin: 50V/0.3A Power pin: 200V/5.0A	Signal pin: 50V/0.3A Power pin: 200V/15.0A	Signal pin: 50V/0.5A Power pin: 50V/10.0A
	High Speed transmission	16 Gbps	N/A	32 Gbps
	Focus SI protocol	PCIe Gen 4	N/A	PCIe Gen 5
Configuration	Pitch	0.50mm (signal)	0.50mm (signal)	0.50mm (signal)
	Circuit size	Signal: 60 to 150 pin	24 pin	Signal: 60 to 200 pin
	Stacking height	N/A	N/A	10.00 to 30.00mm
Power pin option 1	Total current capacity for power(ground) pin	Total 40.0A 20.0A(+) into 4 power pin 20.0A(-) into 4 ground pin	Total 120.0A 60.0A(+) into 4 power pin 60.0A(-) into 4 ground pin	4 power pin type: total 40.0A 20.0A(+) into 2 power pin 20.0A(-) into 2 power pin
Power pin option 2		N/A	N/A	8 power pin type: total 80.0A 40.0A(+) into 4 power pin 40.0A(-) into 4 power pin