

molex

**Enabling
Next-Generation
Vehicle Technology >**



Digital World Driving Miniaturization in Automotive >

Increasing electronic content with powertrain electrification and sophisticated advanced driver assist systems are driving vehicle technology. As a result extensive cabling and exponential number of new connections are all competing for space in dense car architectures. Molex miniaturized systems based on high-performance terminal connection systems help meet the needs for reduced package size, space consumption, weight and wire gauge.

Core Capabilities

- Partner in developing high-performance terminal connection systems
- Designing packaging solutions meeting cost and space requirements
- Development of embedded connector solutions with data/signal and high-speed to combine infotainment, diagnostic, charging and illumination needs into one connector



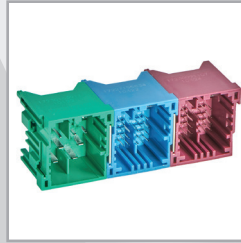
Digital World Driving Miniaturization in Automotive >

Miniaturized Automotive Connector Solutions

0.50mm Systems



[Mini50](#)

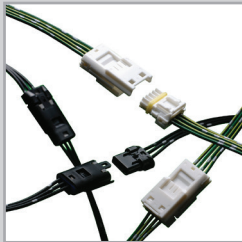


[StAK50](#)



[ConnTAK50](#)

Microminiature Systems



[Mizu Family](#)



[DuraClik](#)

0.64mm Systems



[H-DAC64](#)



[STAC64](#)

Advanced Micro Solutions >

In an increasingly complex world, there is demand for simpler, more user-friendly information management within the vehicle all while expecting new capabilities, including automated driving and the seamless integration of mobile devices. Molex advanced micro solutions enable these trends and are essential for connected vehicles, autonomous driving and in-vehicle infotainment.

Core Capabilities

- As a leading supplier of advanced micro connectors, Molex supports tier customers in the development of ADAS car cameras, radar and LiDAR.
- Molex portfolio of miniaturized connector solutions and high-speed networking cabling offer a variety of connectivity solutions supporting next-generation of digital cockpits and in-vehicle infotainment.
- Molex is addressing the increased demand for flexible and reliable micro connections that can be robotically assembled



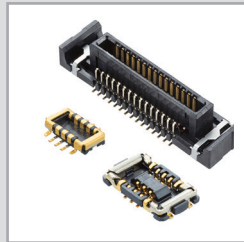
Advanced Micro Solutions >

Core Solutions



[Easy-On](#)
[FFC/FPC Connectors](#)

- [0.50mm Pitch FD19 Series](#)
- [1.00mm Pitch FD19 Series](#)



[SlimStack](#)
[Board-to-Board Connectors](#)

- [0.40mm Pitch - FSB3 Floating Series](#)
- [0.635mm Pitch - FSB5 Floating Series](#)
- [0.635mm Pitch - Rigid Series](#)



Fakra Camera Backshell

- [Camera I/O Bullet Connector](#)
- [Camera I/O Jack Connector](#)
- [Camera Backshell Rear Housing Assembly](#)

Solutions for Harsh Environment >

Whether for combustion-, hybrid- or electrical vehicles- all must endure harsh conditions, while maintaining durable connectivity. Molex has a proven legacy of providing design and manufacturing capabilities for robust and safe automotive-grade header solutions for electronic control units. Supported by advanced manufacturing technologies our design expertise is continuously evolving to integrate high-speed data into signal and power connectivity.

Core Capabilities

- Proven legacy of design and manufacturing capabilities
- Design expertise on robust and safe automotive-grade header solutions
- Advanced manufacturing technologies in stamped case, metal injection molding, press- fit and integrated modules
- Development of embedded connector solutions with data/signal and high-speed



Solutions for Harsh Environment >

Core Solutions



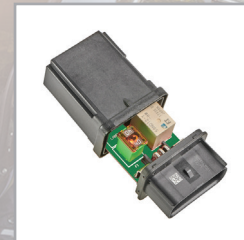
[MX150](#)



[CMC, CMX](#)



[MX123](#)



[Micro Power Distribution Box](#)



Enjoy a Quiet In-Cabin Experience >

Automakers go through a lot of testing to ensure their vehicles' respective cabins are hushed at all speeds from noise, vibration, and harshness. As vehicle technology changes, drivers and passengers expect a quiet in-cabin experience - free from road-based noise pollution. Molex has designed Road Noise Cancellation (RNC) Sensors, utilizing A2B technology paired with a sensing element that captures sound waves and enables a reduction of road-based noise.

Core Capabilities

- [Molex RNC Sensors](#) capture vibration energy from the suspension into the chassis
- Daisy-chained sensors, eliminating the need for heavier materials
- Fifty percent space savings with the Molex Sealed Mini50 Connector Interface
- A2B technology paired with a sensing element that captures sound waves high-speed



Connected Vehicle Solutions for Wired and Wireless Connectivity >

Explore how Molex enables intelligent information management to meet the needs of today and tomorrow by solving vehicle connectivity challenges through leveraging extensive expertise in communication technologies to deliver a seamless user connectivity experience.

Core Capabilities

- World leader of global Shark Fin Antenna market
- World leader of high-speed networking optical cables and connectors at high bandwidths up to 25 Gbps
- Leader in the development and future evolution of in-vehicle wireless charging systems illumination needs into one connector
- Molex power delivery systems are offering high-speed charging up to 60W, solving the challenges of the user by having their mobile devices exchanging high volumes of data
- Focused on developing new connectivity solutions for future technologies: 5G, Automotive Ethernet, Cellular- / Wifi6- / DSRC-V2X antenna systems, mmWave antennas, High Precision GNSS connectivity devices, signal transceiver



Connected Vehicle Solutions for Wired and Wireless Connectivity >



Vehicle Antennas

Single | Multi | Fusion

- AM/ FM, SDARS, HD, DAB (for perfect radio reception)
- GNSS (High Precision)
- Cellular (eCall/ LTE/ 4G/ 5G)
- WLAN/ BT
- V2X/ DSRC



Consumer Connectivity Devices

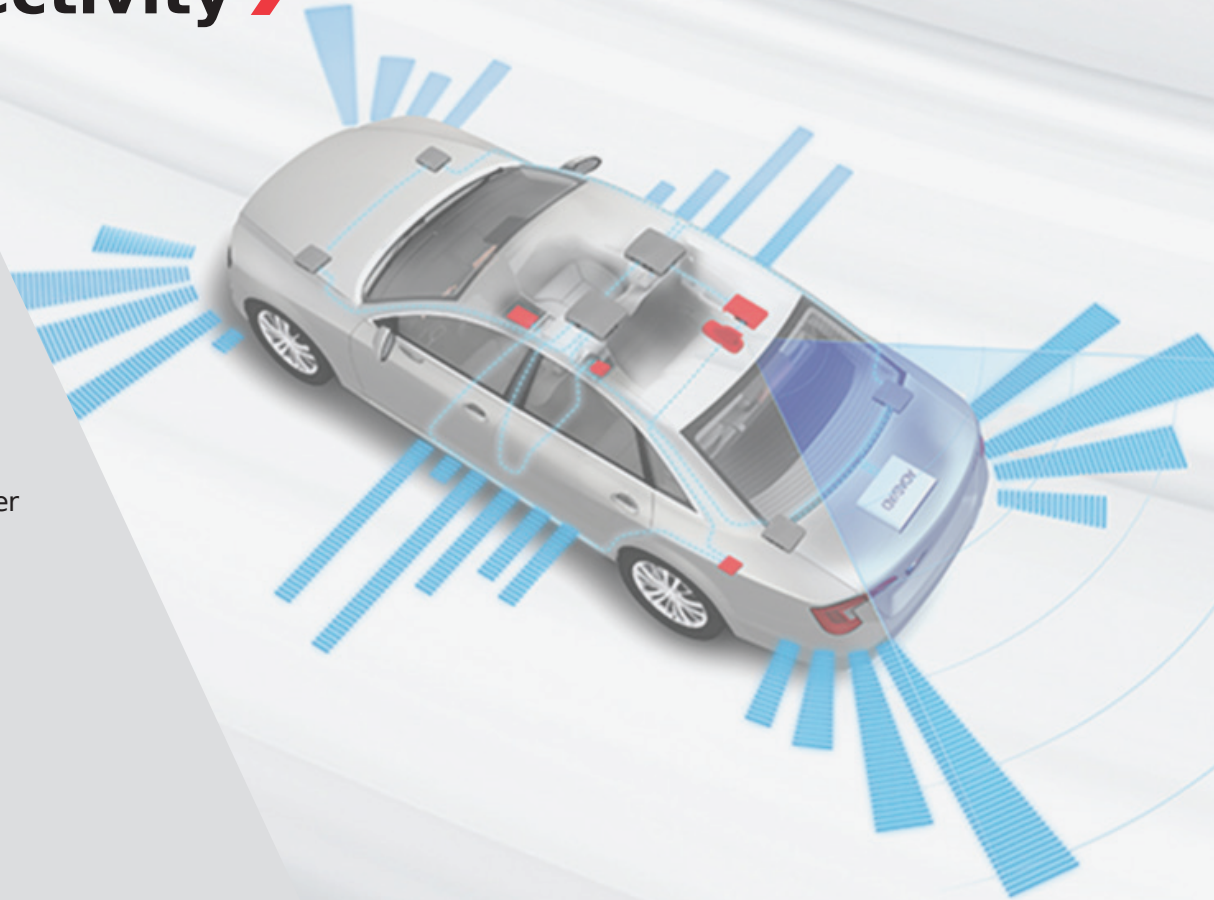
USB Hubs | Wireless Charging | Compenser

- Up to 60 W
- 5W
- 8W
- 15W



High-Speed Interconnect and Cables

HSAutolink | HFM | HSAutoGig



Technologies for Future Vehicle Architectures >

Wired and Wireless Technologies

- 5G
- Telematics Antenna Fusion
- Cellular- /Wifi6- / DSRC-V2X
- mmWave
- High Precision GNSS Connectivity
- Signal Transceiver

Supporting Standards Development

- IEEE 802.1
- IEEE 802.3
- Time Sensitive Network (TSN) – AVB

Board Chairs and Memberships

- 5GAA
- Automotive SerDes Alliance
- AutoTech Council
- eSync Alliance
- IEEE
- NAV Alliance
- And others





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As your automotive solutions provider, we develop and enable technology that meets ever-changing customer connectivity needs.

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