

HSAutoLink II Interconnect System



The robust HSAutoLink II Interconnect System delivers data rates up to 6 Gbps, supporting high-speed media protocols including USB 3.1 (5 Gb/s data rate), to meet increasing bandwidth requirements for advanced in-vehicle infotainment, telematics and camera devices



Sealed Headers with 6 and 12 Circuits

Features and Advantages

System uses proven Molex LFH (low force helix) terminal interface designed for high pin-count signal applications requiring high reliability and high-speed signaling performance

Promotes high differential-signal bandwidth, extended cycle life and stable contact resistance

Flexible, expandable product family with data rates up to 6 Gbps. Available in 6 and 12 circuits

Allows for combined links. Supports multiple protocols in the same connector (USB 2.0, 3.1 [5 Gbps data rate], LVDS data speed up to 6 Gbps [3 GHz] per lane, Ethernet, HDMI, DVI, DisplayPort)

Plugs designed with fully protected shield case. Rear (soldering) side of right-angle header features closed shield

Provides robustness and guarantees signal integrity. Delivers high EMI protection

Connectors feature fully protected perimeter seals and wire seals

Ensures system is rated to IP67 and IP69K possible with customization for use in harsh environments and wet locations

Compatible with shielded twisted pair (STP) or jacketed unshielded twisted pair (JUTP) cable construction

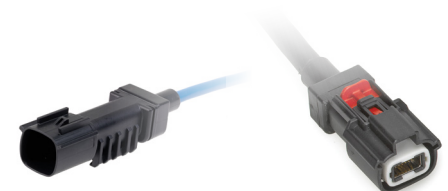
Cost-competitive solution for high-speed differential signaling applications. Provides construction flexibility

Compact, low-profile system

Optimizes device-side space savings to meet future needs for increasing high-speed communication links

Headers manufactured from high-temperature plastic material

Compatible with lead-free through-hole reflow process (Pin-in-Paste) or lead-free selective wave soldering process; meets JEDEC 260°C peak temperature



In-line Connector

Plug

Sealed Cable Assemblies with 6- and 12-Circuit HSAutoLink II Connectors

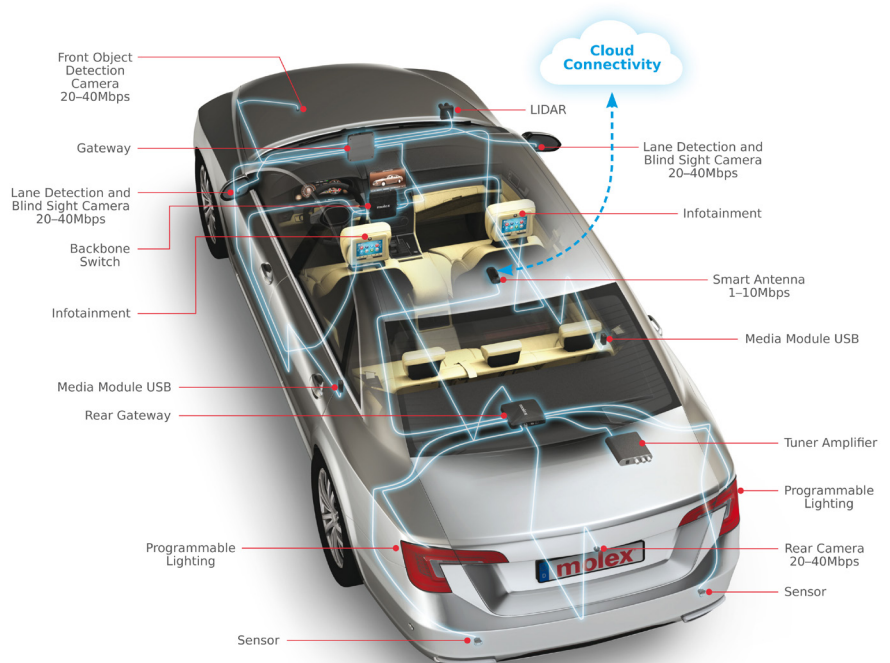


HSAutoLink II Sealed Interconnect System

Applications

Automotive & Commercial Vehicles

- Infotainment
- Telematics devices
- Navigation systems
- Connected vehicle services
- Advanced driver assistance system (ADAS)
 - Multiple cameras for around-vehicle-view monitoring, lane departure, pedestrian warning, night vision, loading/unloading operations
- Diagnostics or data uploading for flashing ECUs
- Camera-to-controller / controller-to-display connections



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Specifications

REFERENCE INFORMATION

Packaging: Trays (headers)
Loose (cable assemblies)
Mates With: Cable assemblies
Designed In: Millimeters
RoHS: Yes
Halogen Free: No
Glow Wire Capable: N/A

ELECTRICAL

Voltage (max.): 36V
Current (max.): 1.5A (higher current rating achievable, contact PM for additional technical information)
Contact Resistance: 20 milliohms
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

MECHANICAL

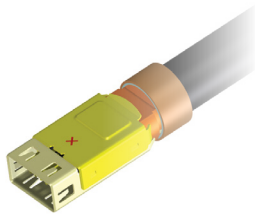
Insertion Force to PCB: 20N max.
Mating Force: 75N max.
Unmating Force: 75N max.
Durability (min.):
Connector—25 cycles
Terminal System—5,000 cycles

PHYSICAL

Housing: High-temperature plastic material
Contact: High-performance copper alloy
Plating:
Contact Area - 0.4µm min. Gold (Au)
Solder Tail Area - 2.5µm min. Tin (Sn)
Underplating - 1.25µm min. overall
PCB Thickness: 1.6mm nominal
Operating Temperature: -40 to +105°C

Additional Product Features

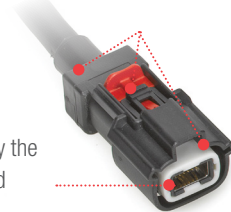
Shielded Core Connectors



Performance of system is defined down to the shielded cores

Sealing

Plugs feature fully protected perimeter seals and robust matte seal design for the cables.
Optional CPA functionality



Shield Case

Fully protected by the plastic shroud

Custom Flange Options on Headers



Example of vertical, 12-circuit header, series 34858, where outer flange is customized with a groove to receive a silicon sealing joint

Closed Shield



Closed shield on rear (soldering) side of right-angle, board-mount header guarantees signal integrity and delivers high EMI protection

Cable Exits



Plugs can be offered with alternative cable exits to meet customer application needs

Ordering Information

Sealed Connectors

Order No.	Orientation	Polarization	Attribute	Circuit size
34858-0506	Straight	A (Black)	Sealed	12
34857-0506	Right-Angle			
34898-0503				6

Unsealed Connectors

Series No.	Orientation	Polarization	Sealed	Circuit Size
34861	Right-Angle	A (Black)	No	12
34862	Vertical			
160063	Right-Angle			
160064	Vertical			6

Series	Circuit sizes	Contact Molex with requirements
Custom Only	6 / 12	

www.molex.com/link/hsal2.html

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