

# HSAutoLink™ II Interconnect System

**molex**®

**The robust HSAutoLink™ II Interconnect System delivers data rates up to 5 Gbps, supporting high-speed media protocols including USB 3.0, to meet increasing bandwidth requirements for advanced in-vehicle infotainment, telematics and camera devices**



Sealed Headers in 6 and 12 Circuit

## Features and Benefits

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 5 Gbps. Available in 6 and 12 circuits

Allows for combined links. Supports multiple protocols in the same connector (USB 2.0, USB 3.0, LVDS, Ethernet AVB, HDMI, DVI, DisplayPort\* etc.)

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 for use in harsh environments and wet locations

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

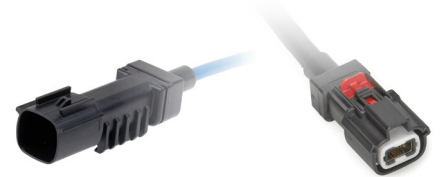
Cost-competitive solution for high-speed differential signaling applications. Provides construction flexibility

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

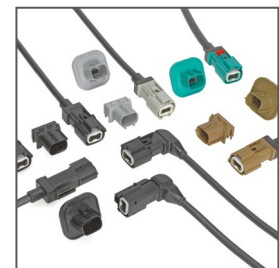
Compatible with lead-free through hole reflow process (Pin-in-Paste) or lead-free selective wave soldering process; meets Jedec 260°C peak temperature



In-line Connector

Plug

Sealed Cable Assemblies in 6 and 12 Circuit



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 etc.

Diagnostics or data up-loading for flashing ECU's

Camera-to-controller / Controller-to-display connections



Infotainment



Rear View Cameras and Navigation Systems



Camera-to-Controller / Controller-to-Display Connections in Commercial Vehicles

\*DisplayPort is a trademark of Video Electronics Standards Association (VESA)

# HSAutoLink™ II Interconnect System



## Specifications

### REFERENCE INFORMATION

Packaging: Trays (headers)  
Loose (cable assemblies)  
Mates With: Cable assemblies:  
111149, 111188, 100008 series  
Designed In: Millimeters  
RoHS: Yes  
Halogen Free: No  
Glow Wire Compliant: 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

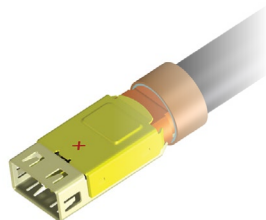
Insertion Force to PCB: 20N max.  
Mating Force: 75N max.  
Unmating Force: 75N max.  
Durability (min.):  
Connector: 25 cycles  
Terminal system: 5,000 cycles

### 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

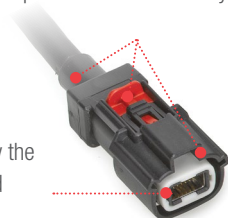
### Shielded Core Connectors



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
<a href="#">34858-0506</a>	Straight	A (Black)	Sealed	12
<a href="#">34857-0506</a>	Right-Angle			
<a href="#">34898-0503</a>				6

### Unsealed Connectors

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

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

[www.molex.com/link/hsautolink2.html](http://www.molex.com/link/hsautolink2.html)