The robust HSAutoLink™ II sealed system delivers data rates up to 5 Gbps, supporting high-speed media protocols including USB3.0, to meet increasing bandwidth requirements for advanced in-vehicle infotainment, telematics and camera devices.

A dominating trend in automotive electronics is the proliferation of in-vehicle cameras for intelligent driver assistant systems. For example, lane-departure warning, collision avoidance and parking-assist all make use of up to six cameras positioned at various locations on the vehicle. Together with a move from analog technology to digital, higher resolution and 24-bit colour imagery, these are increasing the bandwidth requirements for automotive and commercial vehicles.

The next generation HSAutoLink™ II Interconnect System addresses these evolving requirements by providing a robust, sealed and cost-competitive system of shielded cable assemblies and mating headers with data rates up to 5 Gbps. Available in 6 and 12 circuits, the system supports high-speed communication technologies, including LVDS, USB2.0, USB3.0 and DisplayPort for rugged applications in the transportation industry.

Instrumental in the introduction of high-speed connection systems in the automotive industry, Molex designed the first generation HSAutoLink™ system with a USCAR-30 interface. Molex also has extensive expertise in high-speed data transmission in markets outside transportation, including telecommunications and consumer electronics. For further information visit: http://www.molex.com/link/hsautolink2.html

Features and Benefits

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>System uses proven Molex LFH™ (Low Force Helix) terminal interface</td>
<td>Promotes high differential-signal bandwidth, extended cycle life and</td>
</tr>
<tr>
<td>designed for high pin-count signal applications requiring high</td>
<td>stable contact resistance</td>
</tr>
<tr>
<td>reliability and high-speed signaling performance</td>
<td></td>
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<tr>
<td>Flexible, expandable product family with data rates up to 5 Gbps.</td>
<td>Allows for combined links</td>
</tr>
<tr>
<td>Available in 6 and 12 circuits</td>
<td>Supports multiple protocols in the same connector (USB 2.0, USB 3.0,</td>
</tr>
<tr>
<td>Plugs designed with fully protected shield case. Rear (soldering) side</td>
<td>LVDS, Ethernet AVB, HDMI, DVI, DisplayPort* etc.)</td>
</tr>
<tr>
<td>of right-angle header features closed shield</td>
<td>Provides robustness and guarantees signal integrity</td>
</tr>
<tr>
<td>Connectors feature fully protected perimeter seals and wire seals</td>
<td>Delivers high EMI protection</td>
</tr>
<tr>
<td>Compatible with shielded twisted-pair (STP) or jacketed unshielded</td>
<td>Ensures system is rated to IP67 &amp; IP69K for use in harsh environments</td>
</tr>
<tr>
<td>twisted pair (JUTP) cable construction</td>
<td>and wet locations</td>
</tr>
<tr>
<td>Compact, low-profile system</td>
<td>Cost-competitive solution for high-speed differential signaling</td>
</tr>
<tr>
<td>Headers manufactured from high-temperature plastic material</td>
<td>applications</td>
</tr>
<tr>
<td></td>
<td>Provides construction flexibility</td>
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<tr>
<td></td>
<td>Optimizes device-side space savings to meet future needs for increasing</td>
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<tr>
<td></td>
<td>high-speed communication links</td>
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<tr>
<td></td>
<td>Compatible with lead-free through-hole reflow process (Pin-in-Paste) or</td>
</tr>
<tr>
<td></td>
<td>lead-free selective wave soldering process; meets Jedec 260°C peak</td>
</tr>
<tr>
<td></td>
<td>temperature</td>
</tr>
</tbody>
</table>

Sealed Headers
- 34858 Vertical, 12-Circuit
- 34857 Right-Angle, 12-Circuit
- 34898 Right-Angle, 6-Circuit

Sealed Cable Assemblies
- In-line Connector
- Plug in 6 and 12 Circuit

Molex designed the first generation HSAutoLink™ system with a USCAR-30 interface. Molex also has extensive expertise in high-speed data transmission in markets outside transportation, including telecommunications and consumer electronics. For further information visit: http://www.molex.com/link/hsautolink2.html
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

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

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

Sealed Headers

Performance of system is defined down to the shielded cores

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

Ordering Information

Sealed Headers

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Orientation</th>
<th>Polarization*</th>
<th>Attribute</th>
<th>Circuit size</th>
</tr>
</thead>
<tbody>
<tr>
<td>34858-0506</td>
<td>Straight</td>
<td>A (Black)</td>
<td>Sealed</td>
<td>12</td>
</tr>
<tr>
<td>34857-0506</td>
<td>Right-Angle</td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

*Contact PM for details of alternative mechanical keyways

Sealed Cable Assemblies

<table>
<thead>
<tr>
<th>Series</th>
<th>Circuit sizes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom Only</td>
<td>6 / 12</td>
<td>Contact Molex with requirements</td>
</tr>
</tbody>
</table>

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

www.molex.com/link/hsautolink2.html