Home Appliance Market Landscape

Is your design ready to meet the challenges of today’s home appliance trends?

SITUATION

Safety concerns, connected home trends and market globalization are some of the forces affecting today’s home appliance industry. More now than ever, designs need to keep up with cutting-edge technology to meet consumers’ expectations while also meeting safety regulations that vary across the global marketplace.

TREND 1: Importance of Home Appliance Safety

Between 2006 and 2008 in the U.S., major appliances caused over 150,000 residential fires annually, resulting in $547 million in property damage, 3,670 injuries and 150 fatalities, according to the Consumer Product Safety Commission.

- Human error caused about half of these fires, but problems with the appliances caused the other half. Recalls are costly and can have a lasting negative impact on brand reputation.

TREND 2: Growing Demand for Connected Appliances

Smart appliances simplify tasks, such as synchronizing cooking times between the microwave and oven and inventorying the refrigerator to generate a digital shopping list—all from the convenience of a smartphone.

- Concurrently, appliances have become more complex. The more components there are in appliances, the greater the risk of a failure.

- The risk rises as more appliance components are manufactured and sourced globally.

TREND 3: Space-Constrained Profiles Require Flexibility

Leading appliance manufacturers serve global markets. Increased consumer power in developing regions also drives demand for new paradigms in appliance design.

- The global supply chain poses challenges due to differing safety and testing requirements. A circuit board, for example, may require three different SKUs for the same part, depending on the region in which it will operate. That translates into higher inventory.

- As more OEMs move to a global platform, they prefer connectors that meet all safety and environmental requirements across regions.
A Connector Portfolio That Addresses the Design Challenges of Today’s Home Appliance Market

Molex connector portfolio delivers innovative connectivity solutions needed for safe, reliable and innovative home appliance designs.

**WHAT’S TRENDING**

**SOLUTION:** An Extensive Glow-Wire/UL-94 Connector Portfolio

- Molex Glow-Wire-Capable Connectors meet safety and environmental requirements mandated by the home appliance industry.
- Numerous Molex wire-to-wire and wire-to-board connector housings are available in both UL 94 and Glow-Wire-compatible materials.
- Many of these connectors deliver design flexibility with a range of styles, configurations and premium features.

**SOLUTION:** Delivering Reliable, Cutting-Edge Connectors

- Molex is a leading one-source supplier of cutting-edge interconnect products for the connected home.
- Our team of experts focuses on the design, development and distribution of innovative connectivity solutions for smart home appliance technology.

**SOLUTION:** Global Presence and Innovative Connectors That Meet Multiple Standards

- Having a global manufacturing and engineering presence, Molex leverages its knowledge of local markets to speed up time to market.
- Molex offers dozens of products that are composed of a resin that makes them both Glow-Wire and UL 94-V0 compliant.
  - Manufacturers can reduce materials and simplify their procurement process and inventory by using one component for products lines that will be sold around the world.

## Molex Glow-wire Power Connectors Portfolio

<table>
<thead>
<tr>
<th>Pitch</th>
<th>Current (max.)</th>
<th>Wire Size</th>
<th>Operating Temperatures</th>
<th>Available Configurations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nano-Fit</td>
<td>2.50mm</td>
<td>8.50A</td>
<td>20-26 AWG</td>
<td>W-to-B, W-to-W</td>
</tr>
<tr>
<td>Mini-Lock</td>
<td>2.50mm</td>
<td>3.50A</td>
<td>20-28 AWG</td>
<td>W-to-B, W-to-W</td>
</tr>
<tr>
<td>Ditto</td>
<td>3.00mm</td>
<td>8.0A</td>
<td>20-26 AWG</td>
<td>W-to-W</td>
</tr>
<tr>
<td>Micro-Fit+</td>
<td>3.00mm</td>
<td>12.5A</td>
<td>16-30 AWG</td>
<td>W-to-B</td>
</tr>
<tr>
<td>Ultra-Fit</td>
<td>3.50mm</td>
<td>14.0A</td>
<td>16-22 AWG</td>
<td>W-to-B, W-to-W</td>
</tr>
<tr>
<td>L1NK 396</td>
<td>2.50 and 3.96mm</td>
<td>11.0A</td>
<td>18-20 AWG</td>
<td>W-to-B</td>
</tr>
<tr>
<td>Mini-Fit Sigma</td>
<td>4.20mm</td>
<td>13.0A</td>
<td>16-24 AWG</td>
<td>W-to-B</td>
</tr>
<tr>
<td>Mega-Fit</td>
<td>5.70mm</td>
<td>25.0A</td>
<td>12-16 AWG</td>
<td>W-to-B, W-to-W</td>
</tr>
<tr>
<td>VersaBlade</td>
<td>8.70mm</td>
<td>15.0A</td>
<td>18-24 AWG</td>
<td>W-to-W</td>
</tr>
</tbody>
</table>

- **Tin:** -40°C to 105°C
- **Gold:** -40°C to 115°C

- **Ultra-Fit:**
  - Tin: -40°C to 105°C
  - Gold: -40°C to 120°C

- **L1NK 396:**
  - Tin: -40°C to 105°C
  - GWIT: -40°C to 110°C

- **VersaBlade:**
  - PBT: -40°C to 120°C

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