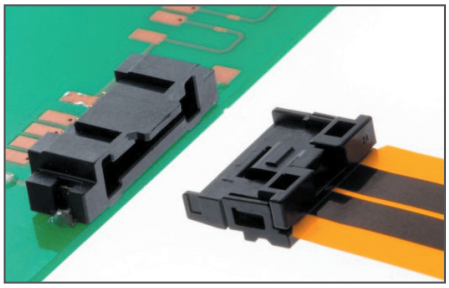
# Flexi-Latch™ 2.00mm Pitch Right Angle FPC-to-Board Connector System

molex®

**Flexi-Latch™ connectors provide secure mating assurance along with space and cost savings versus wire-to-board systems for rugged applications such as automotive lighting or industrial controls**



Flexi-Latch™ FPC-to-Board Connectors
505147 (left): Right-Angle PCB Connector;
505148 (right): Cable Plug Jacket

## Features and Benefits

| | |
|---|---|
| Cable retention force of 20N | Provides secure mating retention force that meets automotive shock and vibration requirements |
| Positive inertia lock | Prevents partial cable insertion for secure mating |
| Audible click when mated | Offers additional mating assurance |
| Multiple polarizing keys | Prevent against incorrect cable insertion |
| -40 to 125 degrees operating temperature range | Meets automotive requirements |
| FPC retention tabs | Position cable for proper mating and prevent cable drop-out during assembly |

## Markets and Applications

**Home Appliances**
- LCD TVs

**Industrial**
- Gaming/Pachinko Machines
- Medical equipment
- Lighting

**Automotive & Transportation**
- Lighting
- Comfort and Infotainment
- Factory Automation equipment



Game Machines



Robots



Car Headlights



Car Audio

## Specification

*REFERENCE INFORMATION*
Packaging:
- Terminals: Reel; Housings: Bags; SMT PCB Receptacles: Embossed Tape

Designed In: Millimeters
RoHS: Compliant
Halogen Free: Yes
Glow Wire Compatible: No

*ELECTRICAL*
Voltage (max.): 50V AC/DC
Current (max.): 1.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC for 1 minute
Insulation Resistance: 50 Megohm min.

*MECHANICAL*
Durability (min.): 25 cycles
FPC Retention Force: 20N min.

*PHYSICAL*
Material:
Connector Housing: LCP, UL 94V-0, Black
Plug Jacket Housing: PBT, UL 94V-0 Black
Terminal: Copper Alloy
Plating:
- Contact Area — Gold
- Solder Tail Area — Tin
- Underplating — Nickel

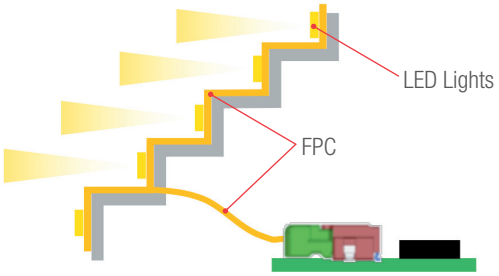
Operating Temperature: -40 to +125°C

# Flexi-Latch™ 2.00mm Pitch Right Angle FPC-to-Board Connector System

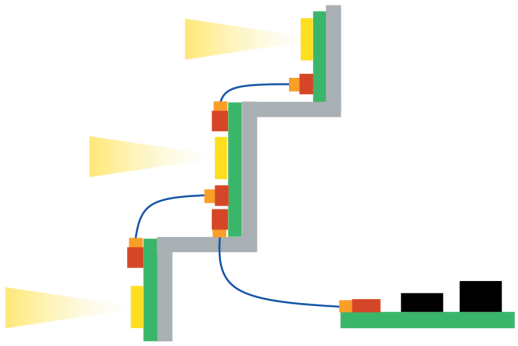
## Additional Product Features

### Space and Cost Savings Versus Wire-to-Board

**Flexi-Latch™ FPC Approach**




**Wire-to-Board Approach**

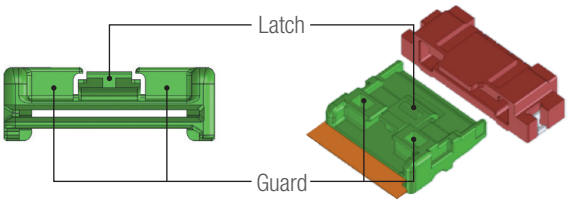


In applications such as automotive head-lights,
the Flexi-Latch™ system provides space savings and reduced component costs versus wire-to-board connector systems

### Clear Click Feeling for Secure Mating
### (20N of Cable Retention Force That Meets Automotive Shock and Vibration Requirements)

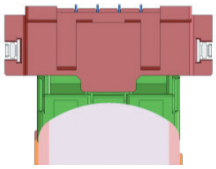
**Before Mating**

The height of the latch is lower than the guard, which contributes to the click feeling.

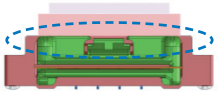



**During Mating**

There is a clear click feeling when fully mated



The operator's finger does not push down on the latch—like in many outer-lock designs—which allows for a better click feeling.



## Ordering Information

| Series No. | Circuit Size | Description |
|---|---|---|
| 505147-0290 | 2 | Right-Angle Connector |
| 505147-0390 | 3 | Right-Angle Connector |
| 505147-0490 | 4 | Right-Angle Connector |
| 505148-0208 | 2 | Cable Plug Jacket |
| 505148-0308 | 3 | Cable Plug Jacket |
| 505148-0408 | 4 | Cable Plug Jacket |

**www.molex.com/link/flexilatch.html**

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