

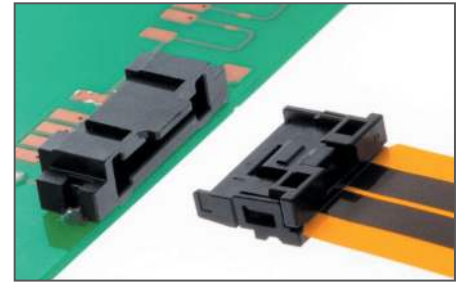
# Flexi-Latch™ 2.00mm Pitch Right Angle FPC-to-Board Connector System

**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

## 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



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

## 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

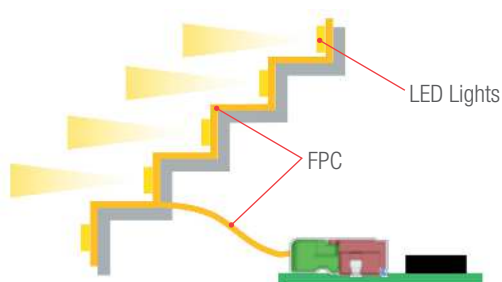
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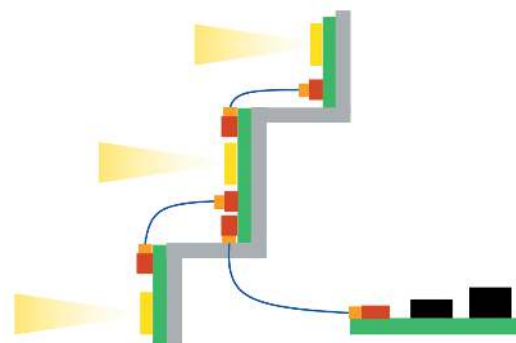
## Additional Product Features

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

Flexi-Latch™ FPC Approach



Wire-to-Board Approach

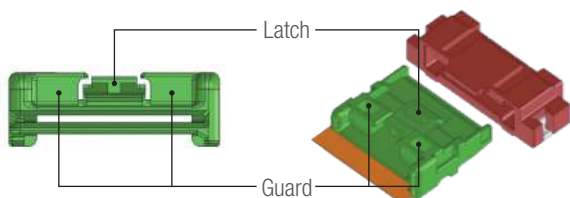


In applications such as automotive head-lights, the Flexi-Latch™ system provides space savings and reduced component costs versus wire-to-board connector systems

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

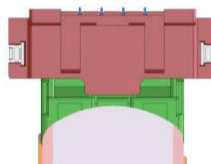
Before Mating

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

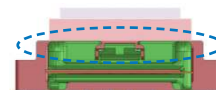


During Mating

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
<a href="#">505147-0290</a>	2	Right-Angle Connector
<a href="#">505147-0390</a>	3	Right-Angle Connector
<a href="#">505147-0490</a>	4	Right-Angle Connector
<a href="#">505148-0208</a>	2	Cable Plug Jacket
<a href="#">505148-0308</a>	3	Cable Plug Jacket
<a href="#">505148-0408</a>	4	Cable Plug Jacket

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