

Designed to meet the backlighting needs of LED TVs and room lighting applications, Molex's new Flexi-Mate™ family of connectors is the first of its kind on the market to provide a full range of both board-to-board and wire-to-board solutions

Molex's Flexi-Mate design was chosen above other designs because it met the needs for flexibility and space savings. The Flexi-Mate system includes board-to-board connectors that are used to snap together small panels containing LED lights. The system also includes a wire-to-board option to connect the LED boards to the main power board; a terminating connector is also available that is used as a type of shorting device to complete an open-loop signal.

The system is flexible in the sense that it provides designers several different interconnect options. The 3.00mm (.118") mated height also meets the needs of TV and room lighting units that continue to strive for thinner designs.

Other key features of the Flexi-Mate family include a dual-contact terminal design for secure electrical contact, space-saving positive side locks for wire-to-board connections, and guide features that help facilitate mating and protect terminals during mating and unmating.

Flexi-Mate™ 3.70mm (.146") Pitch Board-to-Board and Wire-to-Board Connector System, Two Circuits

503471 PCB Receptacle

503469 PCB Plug

503474 Terminator Receptacle

503473 Crimp Housing

503485 Crimp Terminal

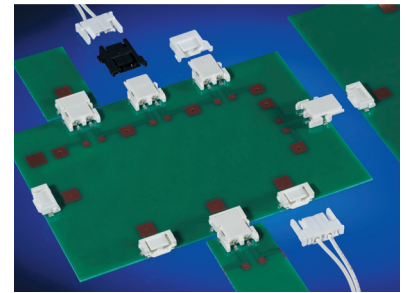
FEATURES AND BENEFITS

Features

- Board-to-board, wire-to-board and terminator options
- Positive side latches on crimp housing
- Dual-contact wire-to-board and board-to-board terminal design
- Mating guide features on PCB connectors
- Shrouded contacts

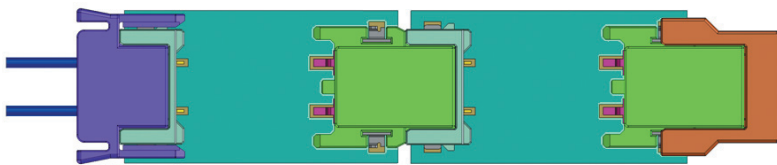
Benefits

- Meets needs of LED TVs and lighting equipment that use interconnecting LED panels
- Space savings and easy mating/unmating
- Ensures reliable electrical contact
- Help facilitate mating and provide smooth insertion
- Protects contact area



Flexi-Mate™ 3.70mm pitch, Board-to-Board and Wire-to-Board System

ADDITIONAL PRODUCT FEATURES



503473-0200/
503471-0200

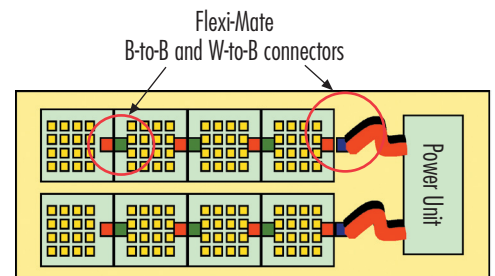
Wire-to-Board

503469-0200/
503471-0200

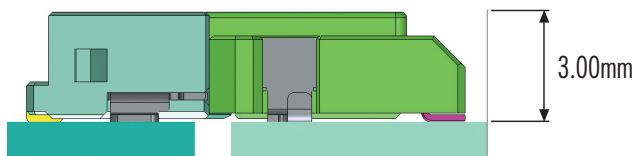
Board-to-Board

503469-0200/
503474-0200

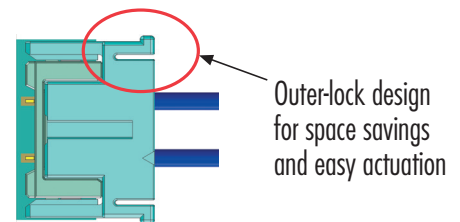
Terminator Receptacle



LED application example



Low-profile design



Outer-lock design for space savings and easy actuation

SPECIFICATIONS

Reference Information

- Packaging: Header (Embossed tape); Housing (Bag); Terminal (Reel)
- Designed In: mm
- RoHS: Yes
- Halogen Free: Contact regional Product Manager
- Glow Wire Compliant: No

Electrical

- Voltage (max.): 500V
- Current (max.): 2.0A max.
- Contact Resistance: 40 milliohms max.
- Dielectric Withstanding Voltage: 1500V AC
- Insulation Resistance: 1,000 Megohms min.

Mechanical

- Durability (min.):
503471/503469: 15 cycles
503471/503473: 15 cycles
503469/503474: 5 cycles

Physical

- Housing: 503471/503469 (Glass-filled Polyamide), White
503474/503473 (Polyester), White
- Flammability: UL 94V-0
- Contact: Phosphor Bronze
- Plating:
Contact Area – Tin
Solder Tail Area – Tin
Underplating – Nickel
- Operating Temperature: -40 to +85 °C

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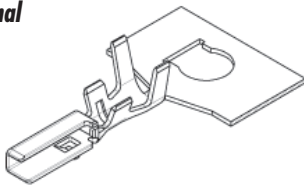
MARKETS AND APPLICATIONS

- LED TVs
- LED 3D TVs
- Edge-lit LED BLU TVs
- LCD panels
- Track lighting for rooms
- Any application requiring space savings in width dimension area



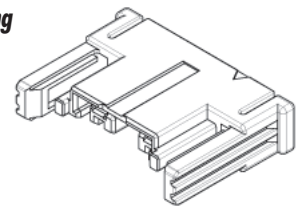
ORDERING INFORMATION

Crimp Terminal



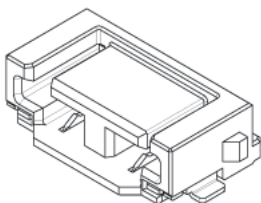
Order No.	Plating	Wire Gauge	Insulation Diameter
503485-0000	Tin	AWG #26-28	0.93-1.14mm (.037-.045")

Crimp Housing



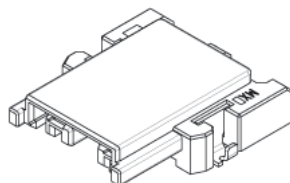
Order No.	Circuit Size
503473-0200	2

Right Angle PCB Receptacle



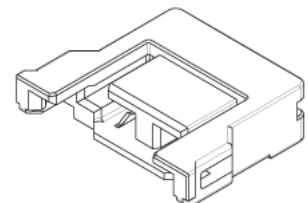
Order No.	Circuit Size
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Right Angle PCB Plug



Order No.	Circuit Size
503469-0200	2

Terminator Receptacle



Order No.	Circuit Size
503474-0200	2