



**EXTreme Ten50Power™**  
**High-Current Connector**  
**5.50 (DC) or 7.50mm (AC)**  
**(.217 or .295") Pitch Power**  
**2.54 by 2.54mm**  
**(.100 by .100") Pitch Signal**

**46436 Right-Angle Receptacle**  
**46562 Vertical Receptacle**  
**46437 Plug**



A) Right-Angle Receptacle (Series 46436), B) Vertical Receptacle (Series 46562), C) Plug (Series 46437)

- Low-profile design: 10.00mm (.394") height enhances system airflow and provides 260.0A per linear inch
- Robust, high-current contact blades in DC and AC spacing options provide design flexibility
- Multiple mating levels available on power and signal contacts enhance hot-plug applications
- Modular assembly can be arranged in any configuration and added to make larger circuit sizes
- Right-angle and vertical mounting available for either coplanar or perpendicular applications
- Wire-to-Board option available that is capable of wire applications and hybrid wire and solder designs
- Custom configurable for design flexibility including:
  - Power Circuits (blades): DC = 1 to 10, AC = 1 to 6
  - Guides: Top and side
  - Board Pegs: Optional
  - Signal Circuits: 6 to 36

**SPECIFICATIONS**

**Reference Information**

Packaging: Tray  
 UL File No.: Pending  
 CSA File No.:  
 LR-19980\_A\_Class 6233-81  
 CSA tested to UL-1977 and  
 CSA C22.2 No. 182.3-M1987  
 TUV: Pending  
 Designed In: Millimeters

**Electrical**

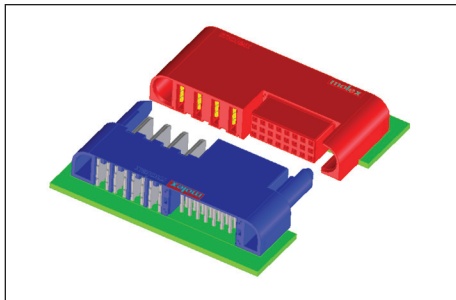
Voltage:  
 Power – 600V max.  
 Signal – 250V max.  
 Current:  
 Power – 60.0A max.  
 Signal – 2.5A max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 5000 Megohms min.  
 Current interruptions rating:  
 Power – 50.0A @ 60V  
 Signal – 1.0 @ 28V

**Mechanical**

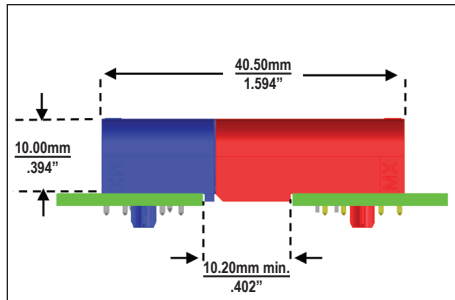
Pitch:  
 Power – 5.50mm (DC) or 7.50mm (AC) (.217 or .295")  
 Signal – 2.54 by 2.45mm (.100 by .100")  
 Mating Force (max. per circuit):  
 Power Contacts –  
 with Vertical Receptacle – 764g (1.684 lb) max.  
 with Right-Angle Receptacle – 460g (1.014 lb) max.  
 Signal Contacts – 75g (.165 lb)  
 Un-mating Force (min. per circuit):  
 Power Contacts –  
 with Vertical Receptacle – 340g (.749 lb) max.  
 with Right-Angle Receptacle – 235g (.518 lb) max.  
 Signal Contacts – 30g (.066 lb)  
 Durability: 100 cycles

**Physical**

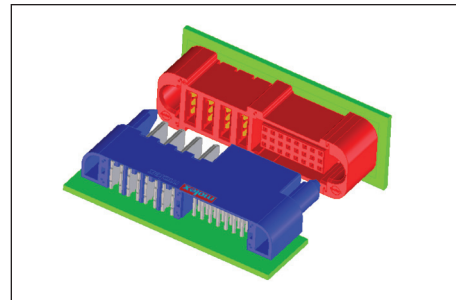
Housing: 30% glass filled LCP  
 Contact:  
 Power Contacts – Copper (Cu) Alloy  
 Signal Contacts – Copper (Cu) Alloy  
 Plating:  
 Contact Area – Select Gold (Au)  
 Solder Tail Area – Tin (Sn)  
 Underplating – Nickel (Ni)  
 PCB Thickness: 1.57 to 3.81mm (.062 to .150")  
 Flammability Rating: 94V-0  
 RoHS compliant



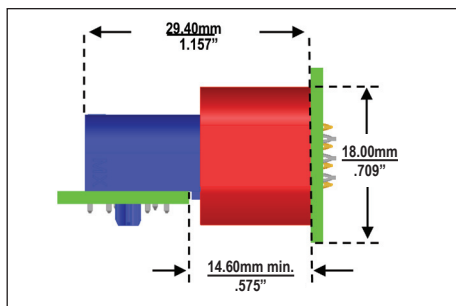
Right-Angle Receptacle Board-to-Board Application



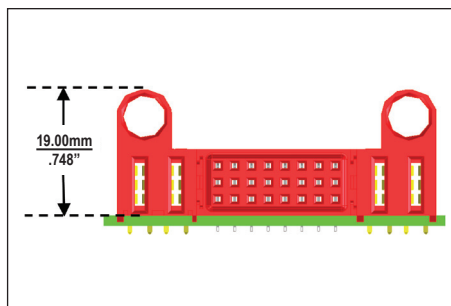
Coplanar Board-to-Board Dimensions



Vertical Receptacle Board-to-Board Application

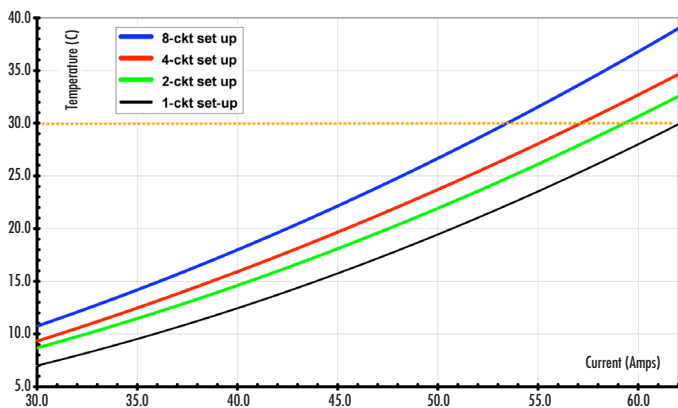


Right-Angle Board-to-Board Dimensions

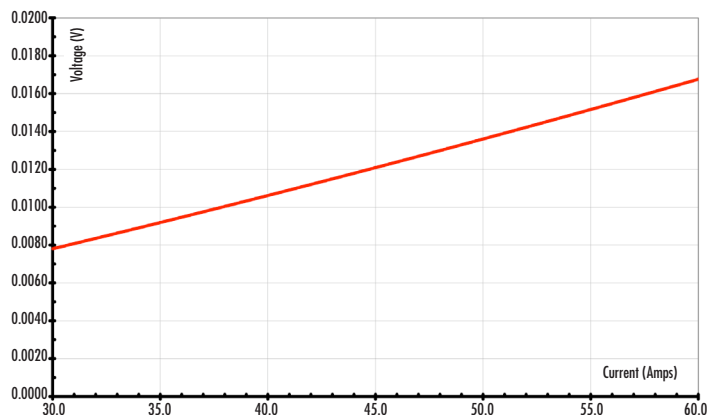


Optional Top Guides on Power Modules  
reduces the overall length by 13.60mm (.535 inches)

Temperature Rise vs. Current per EIA-364-70



V-drop (max) v. Current per EIA-364-70



## FEATURES AND SPECIFICATIONS



# EXTreme Ten50Power™ High-Current Connector 5.50 (DC) or 7.50mm (AC) (.217 or .295") Pitch Power 2.54 by 2.54mm (.100 by .100") Pitch Signal

*High-current power and signal connector provides up to 260.0A per inch of current in a low-profile housing*

EXTreme Ten50Power is a modular high-current power and signal connector system in a coplanar and right-angle board-to-board orientation. Designed as a higher-current and lower profile power interconnect than existing products, Molex's EXTreme Ten50Power connector provides maximum current-to-space ratio packaged in a low-profile 10.00mm (.394") tall housing design that enhances system airflow within the power system.

Available in 1 through 10 power blade modules and 6 through 36 signal modules along with either end-mount

or top-mount guidance, the EXTreme Ten50Power modules can be configured to accommodate most any design application. Robust, high-current contact blades in DC (5.50mm) and AC (7.50mm) spacing options provide design flexibility. Power blades are rated up to 60.0A per blade, providing up to 260.0A per linear inch of board real estate. Both the plug and receptacle utilize reliable, proven Molex power and signal contact designs. For additional information on Molex's EXTreme Power product offering, please visit: [www.molex.com/link/ext-power.html](http://www.molex.com/link/ext-power.html).

**46436 Right-Angle Receptacle**  
**46562 Vertical Receptacle**  
**46437 Plug**

## APPLICATIONS

- Power supplies
- Servers, routers, storage and industrial controllers
- Coplanar board-to-board power applications
- 1 and 2 Rack Unit (RU) modular enclosures
- Chassis-based systems



## ORDERING INFORMATION

Order No.	Module	Orientation	No. of Power Circuits	No. of Signal Circuits
46437-1011	Plug	Right-Angle	4	24
46562-1011	Receptacle	Vertical		
46437-1010	Plug	Right-Angle		
46436-1010	Receptacle	Right-Angle		

[www.molex.com/link/ten50.html](http://www.molex.com/link/ten50.html)

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