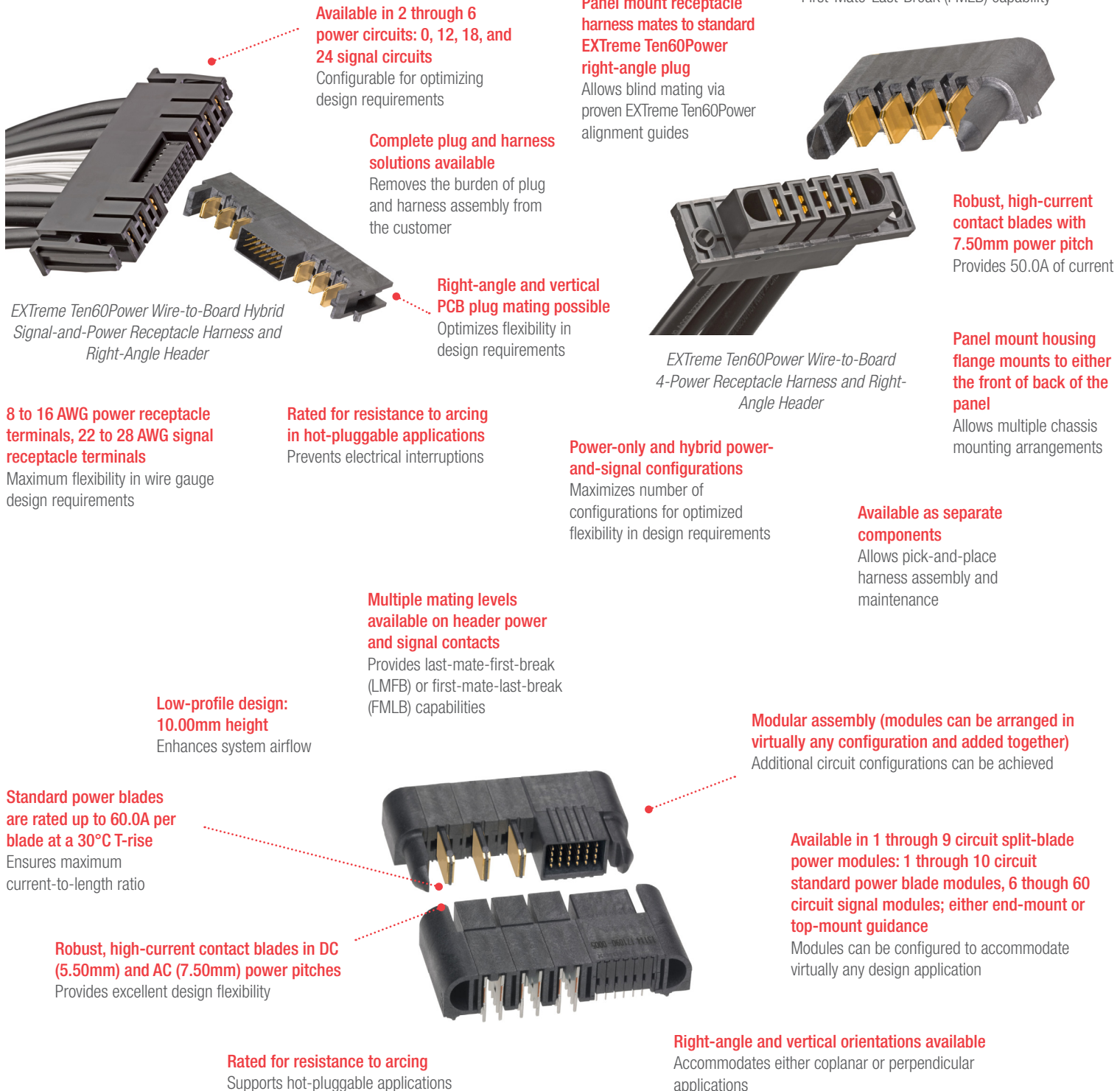


# EXTreme Ten60Power Hybrid Power-and-Signal Connectors and Harness Solutions

**molex**

Designed for board-to-board, wire-to-board, and panel-to-board applications that require high current density, low power loss, and design flexibility, EXTreme Ten60Power Hybrid Power-and-Signal Connectors and Harness Solutions provide up to 260A per linear inch, faster response times, and are easily configured for individual design requirements

## Features and Benefits



**Available in 2 through 6 power circuits: 0, 12, 18, and 24 signal circuits**  
Configurable for optimizing design requirements

**Panel mount receptacle harness mates to standard EXTreme Ten60Power right-angle plug**  
Allows blind mating via proven EXTreme Ten60Power alignment guides

**Multiple mating levels available on plug power and signal contacts**  
Provides Last-Mate-First-Break (LMFB) or First-Mate-Last-Break (FMLB) capability

**Complete plug and harness solutions available**  
Removes the burden of plug and harness assembly from the customer

**Robust, high-current contact blades with 7.50mm power pitch**  
Provides 50.0A of current

**Right-angle and vertical PCB plug mating possible**  
Optimizes flexibility in design requirements

**EXTreme Ten60Power Wire-to-Board Hybrid Signal-and-Power Receptacle Harness and Right-Angle Header**

**8 to 16 AWG power receptacle terminals, 22 to 28 AWG signal receptacle terminals**  
Maximum flexibility in wire gauge design requirements

**Rated for resistance to arcing in hot-pluggable applications**  
Prevents electrical interruptions

**Power-only and hybrid power-and-signal configurations**  
Maximizes number of configurations for optimized flexibility in design requirements

**Panel mount housing flange mounts to either the front or back of the panel**  
Allows multiple chassis mounting arrangements

**Available as separate components**  
Allows pick-and-place harness assembly and maintenance

**Multiple mating levels available on header power and signal contacts**  
Provides last-mate-first-break (LMFB) or first-mate-last-break (FMLB) capabilities

**Low-profile design: 10.00mm height**  
Enhances system airflow

**Standard power blades are rated up to 60.0A per blade at a 30°C T-rise**  
Ensures maximum current-to-length ratio

**Robust, high-current contact blades in DC (5.50mm) and AC (7.50mm) power pitches**  
Provides excellent design flexibility

**Modular assembly (modules can be arranged in virtually any configuration and added together)**  
Additional circuit configurations can be achieved

**Available in 1 through 9 circuit split-blade power modules; 1 through 10 circuit standard power blade modules; 6 through 60 circuit signal modules; either end-mount or top-mount guidance**  
Modules can be configured to accommodate virtually any design application

**Right-angle and vertical orientations available**  
Accommodates either coplanar or perpendicular applications

**Rated for resistance to arcing**  
Supports hot-pluggable applications

**EXTreme Ten60Power Wire-to-Board 4-Power Receptacle Harness and Right-Angle Header**

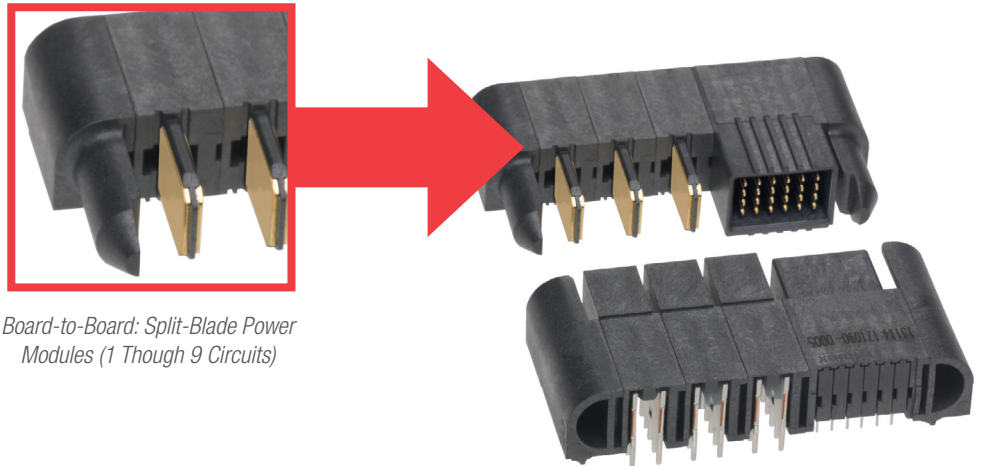
# EXTreme Ten60Power Hybrid Power-and-Signal Connectors and Harness Solutions

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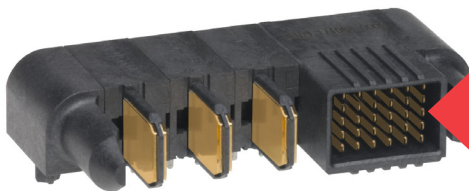
## Features and Benefits

**Isolated split mated contacts with dielectric LCP plastic (each split-blade terminal carries a 30.0A current rating at 30°C T-rise**

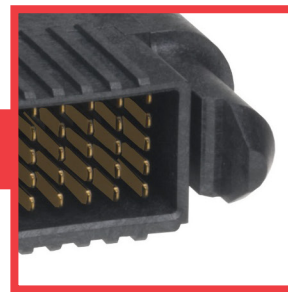
Shortens the distance between energized power contacts resulting in faster response times, lower overall impedance, and capacitance benefits. Increases power contact granularity if the customer does not need the standard, full 60.0A current rating for all power contacts



*Board-to-Board: Split-Blade Power Modules (1 Though 9 Circuits)*



**Through-hole versions available in right-angle plug and receptacles; press-fit versions available in right-angle plug and receptacles and vertical receptacles**  
Provides excellent design flexibility



*Board-to-Board: 3- and 5-Row Signal Modules*

**3-Row (2.54 by 2.54mm pitch) and 5-row signal modules available (2.00 by 1.65 pitch)**

Provides design flexibility. 5-row version saves over 10.00mm space when using a 25-signal module versus the 3-row version with 24-signal modules. For use in more critical space-constrained applications

## Applications

### Datacommunication Equipment

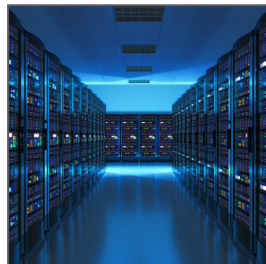
- High-End Servers
- Rack Servers

### Telecommunication Equipment

- Hubs
- Cellular Base Stations
- Switches
- Routers

### Consumer Electronics

- Appliances
- Entertainment Systems
- HVAC



Server



Cellular Base Station

# EXTreme Ten60Power Hybrid Power-and-Signal Connectors and Harness Solutions



## Specifications

### REFERENCE INFORMATION

Reference Information  
 Packaging: Tray  
 UL File No.: E29719  
 CSA File No.: LR-19980\_A\_Class 6233-81 CSA  
 tested to UL-1977 and CSA C22.2 No. 182.3-M1987  
 TUV: R 72081037  
 Designed In: Millimeters

### ELECTRICAL

Voltage (max.): Power — 600V  
 Signal — 250V  
 Current (max.):  
 Power:  
 Board-to-Board — 60.0A  
 Wire-to-Board — 50.0A  
 Panel-to-Board — 50.0A  
 Signal — 2.5A  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance (min.): 5000 Megohms

### MECHANICAL

Pitch:  
 Original 3-Row Connectors:  
 Power — 5.50mm (DC) or 7.50mm (AC)  
 Signal — 2.54 by 2.45mm  
 High-Density Signal 5-Row Connectors:  
 Power — 5.50mm (DC) or 7.50mm (AC)  
 Signal — 2.00 by 1.65mm  
 Mating Force (max. per circuit):  
 Power Contacts:  
 Vertical Receptacle — 764g  
 Right-Angle Receptacle — 460g  
 Signal Contacts — 75g  
 Un-mating Force (min. per circuit):  
 Power Contacts:  
 Vertical Receptacle — 340g  
 Right-Angle Receptacle — 235g  
 Signal Contacts — 30g  
 Durability: 200 cycles

### PHYSICAL

Housing: 30% glass filled LCP or PBT  
 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)  
 Flammability Rating: 94V-0  
 RoHS Compliant: Yes  
 Operating Temperature: -40 to +105°C

## Ordering Information

Series No.	Component	Orientation	Interface	Power Blade Style	Function	
<a href="#">172452</a>	Plug	Right Angle	Wire-to-Board Harness	Standard	Power Only	
<a href="#">172453</a>					Hybrid	
<a href="#">172457</a>			Panel-to-Board Harness		Power Only	
<a href="#">172458</a>				Board-to-Board	Hybrid	
<a href="#">46437</a>			Receptacle			Vertical
<a href="#">171088</a>				Split Blade		
<a href="#">172509</a>	Panel-to-Board Harness	Hybrid				
<a href="#">172510</a>		Power Only				
<a href="#">172511</a>	Board-to-Board	Right Angle		Split Blade	Hybrid	
<a href="#">172512</a>			Standard			
<a href="#">46562</a>		Standard	Split Blade			
<a href="#">171089</a>				Split Blade		
<a href="#">46436</a>	Standard	Standard	---			
<a href="#">171090</a>	Split Blade	---	---	Signal Only		
<a href="#">46708</a>	TPA Retainer	---	---	---	---	
<a href="#">46709</a>	Signal Wafer				Signal Only	
<a href="#">44262</a>	Power Terminal				Power Only	
TBD*	Signal Terminal				Signal Only	

[www.molex.com/link/ten60.html](http://www.molex.com/link/ten60.html)

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