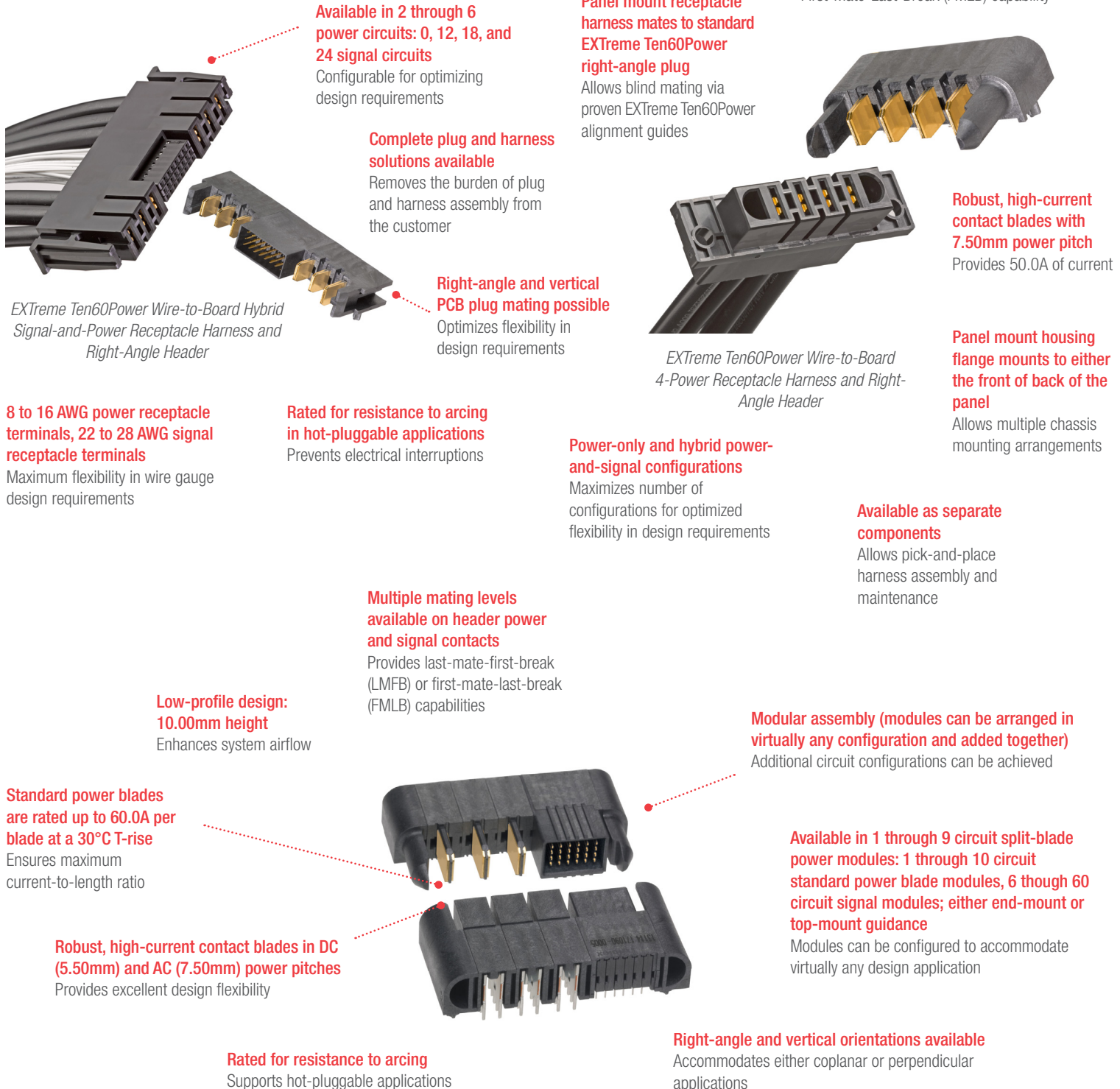


EXTreme Ten60Power Hybrid Power-and-Signal Connectors and Harness Solutions

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

Rated for resistance to arcing
Supports hot-pluggable applications

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

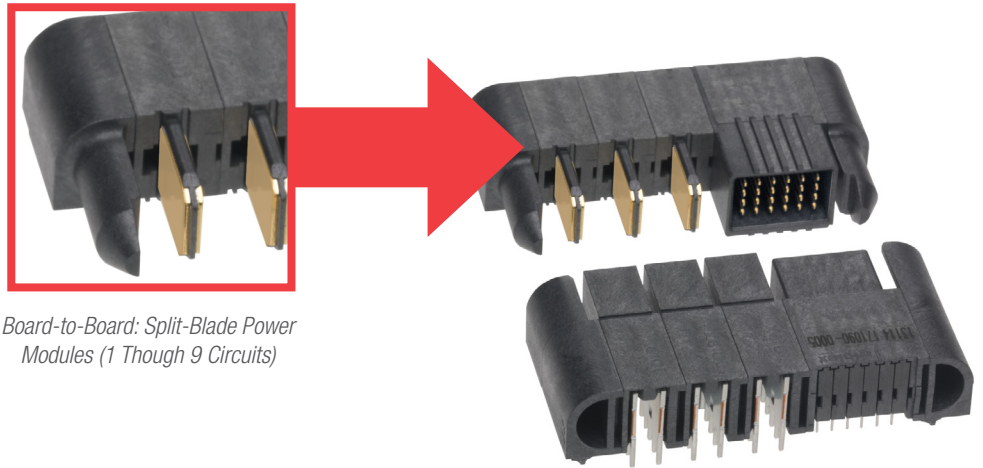
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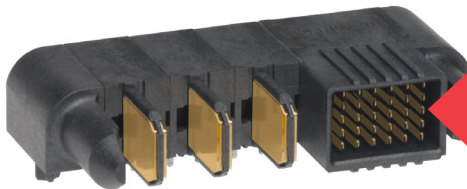
Features and Benefits

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

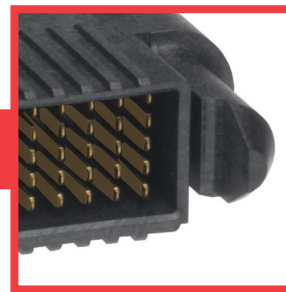
Shortens the distance between energized power contacts resulting in faster response times, lower overall impedance, and capacitance benefits. Increases power contact granularity if the customer does not need the standard, full 60.0A current rating for all power contacts



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

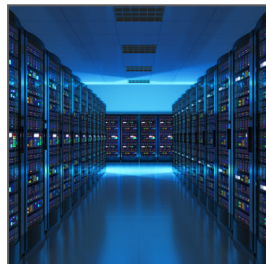
- High-End Servers
- Rack Servers

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	
172452	Plug	Right Angle	Wire-to-Board Harness	Standard	Power Only	
172453					Hybrid	
172457			Panel-to-Board Harness		Power Only	
172458				Board-to-Board	Hybrid	
46437			Receptacle			Vertical
171088				Split Blade		
172509	Panel-to-Board Harness	Hybrid				
172510		Power Only				
172511	Board-to-Board	Right Angle		Standard	Hybrid	
172512			Split Blade			
46562			Standard			
171089	TPA Retainer	---	---	---	---	
46436					Signal Only	
171090					Power Only	
46708					Signal Only	
46709	Power Terminal	---	---	---	Power Only	
44262	Signal Terminal				Signal Only	
TBD*	Signal Terminal	---	---	---	Signal Only	

www.molex.com/link/ten60.html

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