

EXTreme Guardian™ Power Connector System

11.00mm Pitch with 80.0A per Blade

Exceed high-current and reliability requirements with EXTreme Guardian™ Power Connector System, providing EMI/RFI shielding with overmolded and non-overmolded cable harness options in vertical and right-angle configurations for design flexibility

Features and Benefits

System Wide

Current-dense design with high-current terminals and small pitch	Provides one of the greatest current-density options amongst high-current wire-to-board connectors
Gold-plated terminals	Greater corrosion resistance compared to other materials, which optimizes electrical conductivity
Fully isolated receptacle terminals and header blades	Protection against potential damage during handling and mating
Terminal interface with 6 independent points of contact	Offers redundant, secondary current paths for long-term performance and reliability

Terminals

Relatively small 11.00mm pitch	Provides a very high 185.0A per linear inch in high-current applications
Low-halogen	Environmentally friendly

Receptacles

Housings accept large gauge wire (up to 6 AWG)	Provides for a large current-carrying capacity
Positive locking housing	Ensures secure retention when receptacle and header are mated. Delivers an audible click to provide feedback that connector is fully mated
Housing lead-in chambers	Provide terminal gatherability for easy mating to header
Terminal position assurance (TPA)	Prevents backing out of terminals during mating and unmating

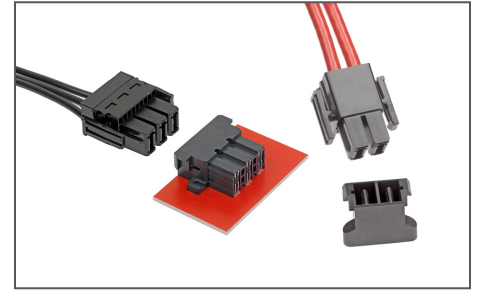
Headers

Locating pegs on the housing	Enable accurate through-hole positioning to PCB
Right-angle header has 2 contact blade lengths	Allows for varied mating sequences
Through-hole solder retention design	Offers a robust, reliable manufacturing option
Solder tails in multiple lengths	Support multiple PCB thicknesses
Compliant, press-fit tails available	Lowers processing costs. Allows for no max PCB thickness

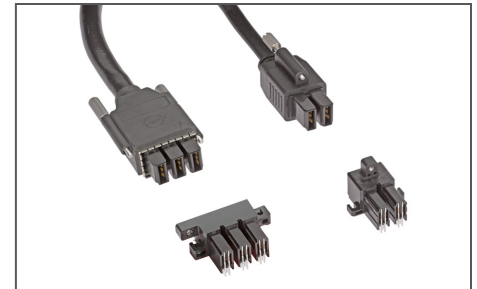
Packaging

Reel packaged terminals	Increases terminal protection during processing and handling. Allows for greater manufacturing speeds
Bulk packaging	Helps minimize packaging waste for TPAs
Trays	Protects headers, tails and receptacles from accidental handling damage

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EXTreme Guardian™ Non-Overmolded Power Assembly: L, Right Angle ; R, Vertical



EXTreme Guardian™ Overmolded Power Assembly

Applications

Data Communication Equipment

High-end servers

Telecommunication Equipment

Cellular base stations

Hubs

Servers

Routers

Switches

Aerospace and Defense

Power Supplies

UPS (Uninterruptable Power Supply)

Other Markets

Solar

Medical

Electric vehicles

Commercial applications that require small form factor interconnects delivering up to 200.0A



Solar-Powered Cellular Base Station

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Specifications

Reference Information

Packaging: Tray, Reel or Bulk
 UL File No.: E29179
 CSA File No.: LR19980 (1779070)
 Mates With: PCB Headers (Series 46817, 151035, 151053) mate with Overmolded Cable Assemblies (Series 68790 or 111119)
 Use With: Power Harness Crimp Receptacles (Series 46818, 151034) use High-Power Terminals (Series 46819) and TPA Clips (Series 151076)
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Yes
 Glow Wire Compliant: No

Electrical

Voltage (max.): 600V AC/DC
 Current (max.): 80.0A per blade
 Dielectric Withstanding Voltage: 2,200V AC

Mechanical

Contact Retention to Housing (average): 26.61N
 Mating Force (max.): 36.60N
 Unmating Force (max.): 34.39N
 Durability (min.): 25 cycles

Physical

Housing: Polyester, 94V-0
 Contact: Copper (Cu) Alloy
 Plating:
 Contact Area — Gold (Au)
 Solder Tail Area — Tin (Sn)
 Underplating — Nickel (Ni)
 PCB Thickness: 1.40mm min.
 Operating Temperature: -40 to +105°C

Ordering Information

PCB Headers (Series 46817, 151035, 151053)

Series No.	Orientation	Overmolded	PCB Thickness (mm)	Tail Length (mm)	Circuits
46817	Right Angle	Yes	2.36, 3.18 or 3.60	3.86 or 4.69	2 or 3
151035		No	2.36	3.86	2 to 6
151053	Vertical	No	2.30	N/A (press-fit tail)	

Power Crimp Receptacles (Series 46818, 151034)

Series No.	Overmolded	Circuits	Wire Gauge (AWG)
46818	Yes	3	6, 8 or 10
151034	No	2, 3, 4, 5, 6	6

High-Power Terminals (Series 46819)

Series No.	Wire Gauge (AWG)	Plating
46819	6, 8, 10	Gold (Au)

Power Harness Terminal Position Assurance (TPA) Clips (Series 151076)

Series No.	Circuits	Note
151076	2, 3, 4, 5, 6	TPA's must be used with housings; they are ordered separately

Power Cable Assemblies (Series 68790, 111119)

Series No.	Overmolded	Circuits	Wire Gauge (AWG)	Single or Double Ended	Cable Length (m)
68790	Yes	2, 3	6	Single, Double	1.20, 1.50, 2.00, 3.00, 15.00
111119	Overmolded Non-overmolded	2, 3, 4, 5, 6	8, 10	Double	1.00

www.molex.com/link/extremeguardian.html