

PwrBlade ULTRA® Connector System

ULTRA-HIGH CONDUCTIVITY CONNECTOR FOR HIGH DENSITY POWER SUPPLIES

PwrBlade® ULTRA's design offers an overall height reduction of 24% to reduce airflow impedance in high-density power supplies. Three contact choices are available; High Power, Low Power, and Signal.

Ultra-high conductivity materials and new highly conductive plating, combine to produce an ultra-low resistance of just 0.4mΩ at end-of-life conditions. The result is the lowest profile power distribution connector capable of delivering more than 200A per linear inch.

PwrBlade® ULTRA's high-density beam design further increases its linear current density making it an ideal interconnect solution for next-generation 1U/2U servers, storage enclosures, telecommunications equipment, EV charging stations, and datacom/networking equipment applications.

- Overall height reduction of 24%
- Three contact sizes available: High Power, Low Power, and Signal
- 0.4mΩ ultra-low resistance
- Delivers more than 200A
- Ideal interconnect solution for next-generation 1U/2U servers



TARGET MARKETS



FEATURES

- Up to 75A per contact for high power and up to 45A per contact for low power
- 9.6mm height
- Highly vented housing design
- Halogen-free housing material
- Operating temperature ranges from -40°C to 125°C
- Right Angle header, Right Angle receptacle and Vertical receptacle types
- Number and placement of power and signal contacts are configurable for customer needs
- Solder or press-fit tails

BENEFITS

- Provide excellent power density and multiple power voltage
- Low profile configuration ideal for 1U power supplies or power distribution system
- Maximizes heat dissipation for effective system cooling
- Meets next generation environmental requirements
- Adaptable to extreme environments
- For both co-planar applications and backplane applications
- Design flexibility and choices for customers
- Termination flexibility

TECHNICAL INFORMATION

MATERIAL

- Housing
 - High-Temperature Thermoplastic (UL 94 V-0, halogen-free), Black
- Power contact base metal
 - High-Conductivity Copper Alloy
- Contact finish
 - Separable Interface:
Power Contact: GCS® or GXT®
Signal Contact: GXT®
- Board Connector Solder Tail Area:
Matte Tin over Nickel

ELECTRICAL PERFORMANCES

- High power contact current:
Up to 75A/contact at 30°C T-rise in still air
- Low power contact current rating:
Up to 45A/contact at 30°C T-rise in still air
- Operating Voltage:
 - High power on 7.00mm pitch –400V
 - High power on 5.00mm pitch –200V
 - Low power on 3.5mm pitch –218V
- Dielectric Withstanding Voltage:
 - High/Low power contacts: 2500V
- Insulation Resistance: > 1000MΩ max. at end of life
- Contact Resistance
 - Power Contact: 0.4mΩ max. at end of life
 - Signal Contact: 20mΩ max. at end of life

ENVIRONMENTAL

- Operating Temperature: –40°C to +125°C
- RoHS: this product is compatible according to the European Union Directive 2002/95/IEC

MECHANICAL PERFORMANCE

- Contact Wipe Distance: 5.5mm
- Durability: 200 mating cycles

SPECIFICATIONS

- Product specification: GS-12-1176
- Application specification: GS-20-0389

APPROVALS AND CERTIFICATIONS

-  E66906

PACKAGING

- Trays

TARGET MARKETS/APPLICATIONS



AC/DC pluggable power supplies



Industrial PCs



Medical



EV Charging

PART NUMBERS

Description	Part Numbers
Right Angle Header	1012739X-XXXXXXXXLF
Vertical Receptacle	1012740X-XXXXXXXXLF