

# PwrBlade ULTRA<sup>®</sup> CONNECTOR SYSTEM

## OVERVIEW

The PwrBlade ULTRA<sup>®</sup> connector is the newest addition to the PwrBlade<sup>®</sup> product line. This new 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 0.4 at end-of-life conditions. The result is the lowest profile power distribution connector capable of delivering more than 200 Amps per linear inch.



## FEATURES

- Up to 65A per contact for high power and up to 25A 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

### MATERIALS

- 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 65A/contact at 30°C T-rise in still air
- Low power contact current rating:  
Up to 25A/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

## PART NUMBERS

Description	Part Number
Right Angle Header	1012739X-XXXXXXLF
Vertical Receptacle	1012740X-XXXXXXLF

### ENVIRONMENTAL

- Operating Temperature: –40°C to 125°C
- RoHS Information: 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 MARKET / APPLICATIONS

- Data & Communications
  - AC/DC pluggable power supplies
- Industrial & Instrumentation
  - Industrial PCs
- Medical