

# PwrBlade® ULTRA HD+ BTB Connector System

## HIGH POWER BOARD-TO-BOARD CONNECTOR SYSTEM

Amphenol's new, PwrBlade® ULTRA HD+ connector series features an enhanced high-power contact design capable of providing up to 100A per contact (per 4 adjacent contacts) and high-density signal options with up to 6 signal pins per column. The connector series features Amphenol's proprietary silver-based plating technology GCS® which ensures best-in-class current carrying capability and ultra-low end-of-life contact resistance of 0.4mΩ max. Compared to the earlier PwrBlade® series designs, PwrBlade® ULTRA HD+ maintains a low profile of 11.40mm height above the board that enables airflow for efficient system cooling. The modular tooling design permits versatility for a wide range of applications ideal for power supply units (PSUs), power distribution boards (PDBs), and other high-current applications.

- High Current Density: Up to 100A per 4 adjacent contacts
- Low Profile Configuration: 11.4mm height above board
- Ultra-low end-of-life contact resistance of 0.4mΩ
- Modular tooling to accommodate a wide range of application requirements
- Ideal interconnect solutions for next-generation 1U/2U servers



### TARGET MARKETS



### FEATURES

- High-density power contact design
- Highly configurable tooling design
- Low-profile configuration, 11.4mm height above board
- GCS® based plating technology
- Optimized guide pin design for space savings
- Solder or press-fit tails

### BENEFITS

- Up to 100A per contact (per 4 adjacent) up 140A max. (per 1 adjacent)
- Wide range of power and signal contact combinations
- Enables maximum airflow, ideal for 1U power supplies or power distribution
- Permits high durability and low contact resistance
- Reduces connector's end module width, permitting 26% in space reduction
- Termination flexibility

## TECHNICAL INFORMATION

### MATERIAL

- Power Contacts: High conductivity Copper Alloy
- Signal Contacts: Copper Alloy
- Housing & TPA: Glass-filled, halogen-free polyamide or other high-performance resin-rated flame retardant 94V-0 in accordance with UL94

### ELECTRICAL PERFORMANCE

- Power Contacts:
  - Up to 100A/contact at 30°C T-rise in still air (4 adjacent contacts)
  - Low power contact current rating: 65A/ contact (4 adjacent contacts)
- Operating Voltage:
  - High power on 7.00mm pitch – 380V
  - High power on 5.00mm pitch – 180V
  - Low power on 3.5mm pitch – 200V
- 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

### ENVIRONMENTAL

- Operating Temperature Range: -40°C to +125°C

### MECHANICAL PERFORMANCE

- Mating / Unmating Force:
  - Mating force shall not exceed 12N and unmating force shall not be less than 2.2N

### SPECIFICATIONS

- Product Specification: GS-12-1895
- Application Specification: GS-20-0849

### APPROVALS AND CERTIFICATIONS

- UL approved (E66906)
- EIA-364
- UL94V-0 flammability

### PACKAGING

- Trays

### TARGET MARKETS/APPLICATIONS



AC/DC Pluggable Power Supplies



Server  
Data Center  
Storage Sleds  
Storage Applications IT&D  
Artificial Intelligence / Machine Learning



Robotics

## PART NUMBERS

Description	Part Numbers
PwrBlade® ULTRA HD+ Right Angle Receptacle (10LP + 36S + 10HDP)	10169892-A6A000SLF
PwrBlade® ULTRA HD+ Right Angle Header (10LP + 36S + 10HDP)	10169891-A6A000SLF