

PwrBlade® Mini Board-to-Board Connector

LOW PROFILE POWER & SIGNAL HYBRID BOARD-TO-BOARD CONNECTOR

PwrBlade® Mini Board-to-Board connector enhances Amphenol's existing PwrBlade® product line with the smallest profile to date. PwrBlade® Mini has an 8.10mm height above board, making it the lowest height power and signal board-to-board connector in the PwrBlade® portfolio. This connector series offers a power dense connection with zero PCB overhang, which provides versatility in space-constrained applications. This mini connector series features a modular tooling design, which enables the number of power and signal contacts to be customized. The header side is currently available in right-angle or vertical configurations, while the receptacle side is currently available in a right-angle configuration. Both press-fit tails and solder tail PCB termination options are available. PwrBlade® Mini has a very low end-of-life contact resistance less than 2.0mΩ after testing.

- Lowest profile power and signal board-to-board connectors available
- Modular tooling to accommodate a wide range of application requirements
- 8.10mm height above board
- No PCB overhang
- Solder-tail and press-fit terminations available



TARGET MARKETS



FEATURES

- Rated up to 45A per high power contact (4 adjacent contacts)
- Low profile 8.10mm height above board
- Modular tooling design
- Solder-tail and press-fit tail board termination
- Patented GCS® plating for power contacts, GXT® for signal contacts
- No PCB overhang

BENEFITS

- Provides excellent power density in a low profile
- Ideal for space-constrained system designs
- The number and placement of power and signal contacts can be customized
- Termination flexibility for different PCB layouts
- Lower contact resistance
- There is no gap between mating coplanar boards, maximizing space available on the PCB

TECHNICAL INFORMATION

MATERIAL

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

MECHANICAL PERFORMANCE

- Mating/Un-mating Force: Mating force shall not exceed 2.3N and un-mating force shall not be less than 0.70N
- Durability: 200 mating cycles

ELECTRICAL PERFORMANCE

- Power Contacts:
 - Up to 45A/Contact (30°C temperature-rise over ambient, still air)
- Operating Voltage Rating
 - High Power on 3.00mm pitch – 300VDC
- Dielectric Withstanding Voltage
 - Power Contacts – 2500VDC
- Contact Resistance:
 - End-of-life contact resistance of 1.2mΩ

ENVIRONMENTAL

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

APPROVALS & CERTIFICATION

- UL Approved
- EIA 364
- UL94V-0 Flammability

PACKAGING

- Trays

SPECIFICATIONS

- Product Specification: GS-12-1740
- Application Specification: GS-20-0773

TARGET MARKETS/APPLICATIONS



EV Charging



Telecom



Server/Storage Applications
IT&D



Industrial and Automation
ESS/UPS