POWER CARD EDGE

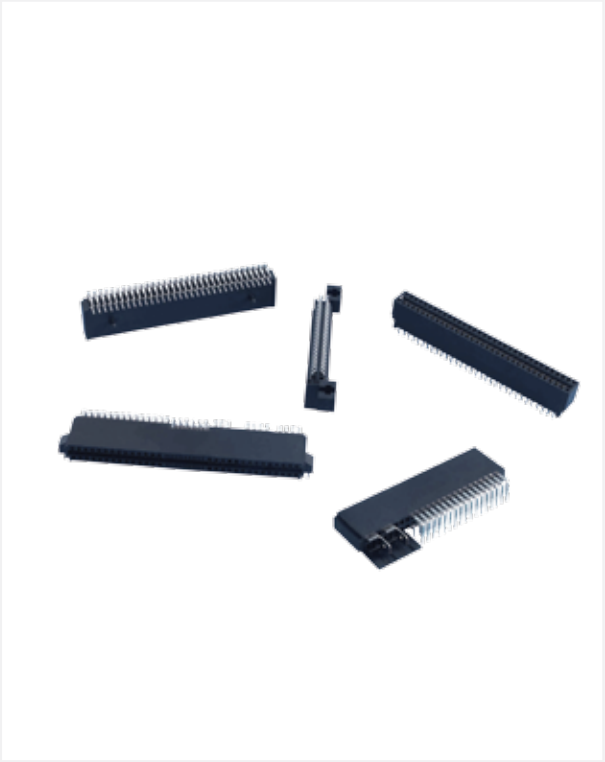
Low profile AC/DC power distribution connector system

OVERVIEW

The Power Card Edge connectors are a cost-effective system that can be used for DC power output from embedded AC/DC power supplies or for power distribution between boards within an enclosure. The narrow connector body helps maximize airflow for increased cooling and is well-suited for use in 1U rack-mount servers or on power distribution boards inside 1U redundant power supply assemblies.

Adjacent power contacts are positioned on 2.54mm pitch along the card edge. Power contacts are manufactured using a high-conductivity copper alloy. Each power contact is rated for up to 7A current measured at 30°C temperature rise in still air. Signal contacts are positioned on 1.27mm pitch.

The connector range includes options for right-angle, vertical, or straddle-mount solder termination with a full complement of power contacts. Right-angle options also include versions that combine power and power control signal contacts or power contacts and an integrated AC pass-through port in a single connector.



FEATURES & BENEFITS

- One-piece card edge design provides cost-effective power delivery with capacity for up to 7A per power contact
- An arrow connector body enables use in 1U servers and power supplies
- Low-profile design helps maximize airflow for system cooling
- Option for integration of signals and power in a single right-angle connector supports both power control and power distribution
- Integrated connector design simplifies board assembly
- Right-angle product range includes versions with molded posts or metal fork-locks for retention
- Straddle-mount connectors feature mounting ears for secure PCB attachment
- An optional AC cable port enables a cable pass-through solution
- RoHS compatible design enables compliance with environmental regulations

TARGET MARKETS/APPLICATIONS

- Servers
- Storage
- Telecommunications
- Datacom / Networking

TECHNICAL INFORMATION

MATERIALS

- Housings: high-temperature thermoplastic (UL94V-0), black
- Contact base material:
  - Power – high-conductivity copper alloy
  - Signal – copper alloy
- Contact area finish: gold over nickel
- Solder area finish: matte pure tin over nickel

ELECTRICAL PERFORMANCE

- Current rating: 7A/power contact measured at 30°C temperature rise in still air
- Insulation resistance: 5000MΩ min. for power contact
- Withstanding voltage: 1000V AC for power contact
- Contact resistance:
  - Right-angle: 55mΩ max.
  - Straddle-mount: 20mΩ max.
  - Vertical: 20mΩ max.

MECHANICAL PERFORMANCE

- Durability: 200 mating/un-mating cycles
- Insertion force for an add-in board:
  - Right-angle: 13.62kg max.
  - Vertical or straddle-mount: 8.0kg max.
- Operating temperature range: -5°C to +105°C

SPECIFICATIONS

- Right-angle product specification: GS-12-259
- Vertical product specification: GS-12-338
- Straddle-mount product specification: GS-12-279

APPROVALS AND CERTIFICATIONS

- UL, CSA and TUV approved

PACKAGING

- Trays

PART NUMBERS

Description	
Right Angle Solutions	Base Number
5 power + 12 signal + 5 power	10028886
7 power + 12 signal + 7 power	
10 power + 12 signal + 10 power	
14 power + 12 signal + 14 power	
With AC Power port	10055090
2x14, 2x17, 2x22, 2x25, 2x28, 2x29, 2x31, 2x32 power	10035388
Vertical Solutions	
2x19, 2x31, 2x32, 2x35 power	10046972
2x8 power	10046972
Straddle-Mount Options	
2x19, 2x23 power	10035388

Use the base numbers to reference the product drawings to obtain detailed dimensions and complete part numbers.

PWRPWRCE0613EA4

For more information,
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