

PwrMAX® Ortho Power Connectors

100A ORTHOGONAL POWER CONNECTOR

The PwrMAX® Ortho power connector offers a compact means for connecting up to 100A DC power in a PCB edge-to-edge application. PwrMAX® Ortho takes the fundamental contact design from PwrMAX® and packages it into robust blind-mate housing. This also offers ultra low contact resistance to satisfy orthogonal system architectures implemented in high-end servers and data storage equipment. The orthogonal configuration supports airflow passage around and through the connector, eliminating mid-plane and backplane air blockage.

- 100A per contact
- Press-fit termination to the PCB or Busbar
- GCS® plating provides ultra-low resistance
- $\pm 3.5\text{mm}$ gatherability for blind mating



TARGET MARKETS



FEATURES

- GCS® plating technology
- Press-fit termination
- Rugged chamfered housings
- Industry proven contact design with 10 points of contact
- High temperature thermoplastic housing
- Halogen-free housing

BENEFITS

- Provides very low resistance and low voltage drop
- Supports both PCB and busbar applications
- Supports $\pm 3.5\text{mm}$ gatherability
- Provides superior long term reliability
- Wide operating temperature from -55°C to $+125^{\circ}\text{C}$
- Meets next generation environmental requirements

TECHNICAL INFORMATION

MATERIAL

- Power Contacts : High conductivity copper alloy
- Housing: High temperature thermoplastic, UL 94V-0
- Contact Finish: GCS® plating over nickel

MECHANICAL PERFORMANCE

- Mating Force: 25N max. per connector
- PCB Thickness: 1.6mm min.
- Insertion Force: 67N max. per tail receptacle, 140N max. per tail RA plug
- Retention Force: 35N min. per tail

ELECTRICAL PERFORMANCE

- Current Rating: up to 100A per contact (30°C temperature rise in still air)
- Operating Voltage: up to 600V DC
- Dielectric Withstanding Voltage: 2500V
- Insulation Resistance: 10,000MΩ
- Contact Resistance: 0.3mΩ max. at end-of-life conditions

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C
- RoHS: this product is compatible according to the European Union Directive 2002/95/IEC

SPECIFICATIONS

- Product Specification: GS-12-1342
- Application Specification: GS-20-0452

APPROVALS AND CERTIFICATIONS

- UL-Approved

PACKAGING

- Carton

TARGET MARKETS/APPLICATIONS



Telecomm
Switches
Datacom/Networking Equipment



Servers
Storage



Industrial Equipment

PART NUMBERS

Description	Part Numbers
PwrMAX® Ortho right angle plug	10132640-001LF
PwrMAX® Ortho right angle receptacle	10132644-002LF
PwrMAX® Ortho vertical receptacle	10133407-002LF

Mouser Electronics

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