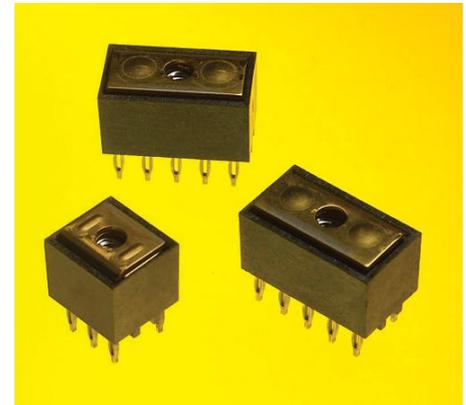




# Z-Power™ Connector 10.30mm (.405") Parallel Board Spacing

## Mezzanine, Board-to-Board and Wire-to-Board Applications

76001



30.0 and 50.0A Z-Power Connectors

*Z-Power is a high-current, rigid, board-to-board and wire-to-board mezzanine style interconnect designed to transfer power loads from one PCB to another*

Z-Power connectors utilize a unique, dual interface which results in long-term reliability. The Z-Power connector allows 50.0A to be carried between parallel boards in 0.232 in<sup>2</sup>, with less than .020 milliohms initial plane-to-plane resistance.

The Z-Power connector is press-fit into the PC base board. The PC top board is then screwed down on top of the Z-Power connector, forming a high-pressure interface. A unique, dual Hertzian contact design allows the screw to be installed without affecting the compliant-pin interface in the opposing PCB.

### Features and Benefits

- 50.0 and 30.0A versions available to cover a variety of applications
- Low contact resistance is ideal for high-current applications
- Compliant-pin interface provides a solderless termination
- Rigid, screw-down interface ensures a high-pressure, reliable contact
- Patented internal terminal design relieves stress on press-fit pins from shock and vibration
- Captured internal nut provides for ease of assembly
- Board-to-board or wire-to-board interface provides flexible design options

The rigid nature of this interconnect allows high-density PCB applications to benefit from real-estate savings, by employing Z-Power in a dual role. Z-Power performs as both a high-reliability power connector and a durable stand-off, relieving the need for separate mechanical stand-offs in some applications.

Z-Power can also be used as an efficient, wire-to-board connector. This application is achieved through using standard wire-crimp, ring-lug terminals as the mating interface to the Z-Power screw-down terminal interface.

## SPECIFICATIONS

### Reference Information

Packaging: Tray  
UL File No.: 1792321  
Designed In: Millimeters

### Electrical

Voltage: 600V  
Current at 30°C

10 Circuit - 50.0A

6 Circuit - 30.0A

Contact Resistance:

Beginning of Life: 10 Circuit 0.18 milliohms max.  
6 Circuit 0.30 milliohms max.

End of Life: 10 Circuit 0.25 milliohms max.  
6 Circuit 0.40 milliohms max.

Insulation Resistance: 5000 Megohms min.

### Mechanical

Insertion Force to PCB: 9.07N (20lbf) per tail  
Recommended Torque: 0.75 N-m (6.6 Inch-lbs)  
Durability: 5 cycles mate/un-mate (bolt interface)

### Physical

Housing: LCP

Contact: Copper (Cu) Alloy

Plating:

Contact Area - 30μ" min. Gold (Au)  
or 100μ" Tin (Sn) min.

Solder Tail Area - 100μ" min. Select Matte Tin (Sn)

Underplating - 50μ" min. Nickel (Ni)

PCB Thickness: 2.36mm (.093") min.

Operating Temperature: -40 to +105°C



Hertzian Contact Areas

## APPLICATIONS

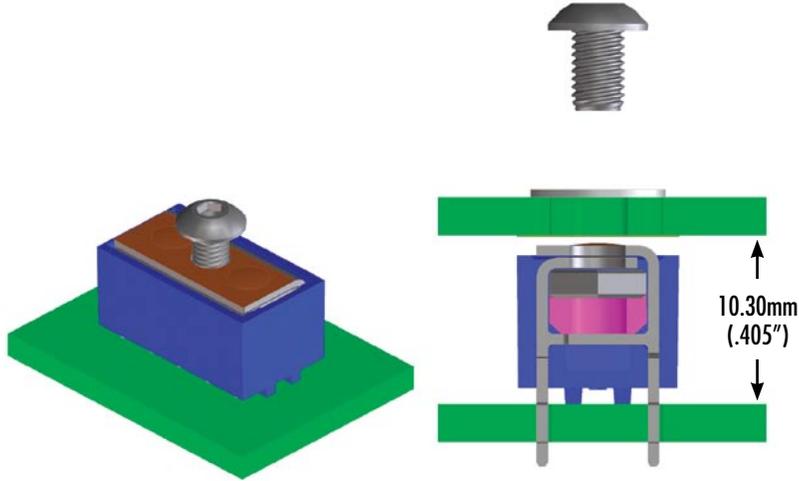


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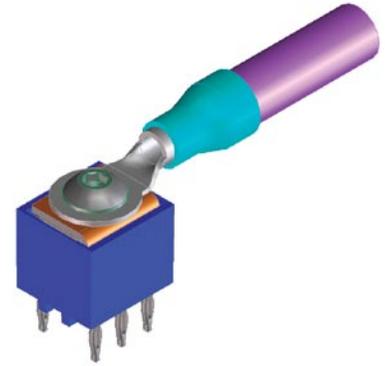
## Mezzanine, Board-to-Board and Wire-to-Board Applications

**76001**

- Z-Power is a 10.30mm (.405") parallel board-spacing, board-to-board and wire-to-board connector
- Designed for high-current power transfer from one PCB to another, utilizing a press-fit termination into the base board, and a screw-down termination to the top board
- With 50.0 and 30.0A sizes, Z-Power can be used in a variety of applications and industries where power connections between parallel boards is necessary



Board-to-Board Application



Wire-to-Board Application

## ORDERING INFORMATION

### Z-Power Headers

Order No.	Current (A)	PC Press-Fit Tails	Plating
76001-0006	30	6	Gold
76001-0106			Tin
76001-0010	50	10	Gold
76001-0110			Tin

### Suggested Ring Terminals for Wire-to-Board Applications

Order No.	Wire AWG	Thread Size	Thread Length
19193-0128	8	M3 X 0.05	5.00mm (.196")
19073-0216			
19193-0199	10		

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