



# PwrMAX<sup>®</sup> Ortho

## Product Presentation



High Density, Robust Power Distribution – for Orthogonal Systems Architectures



# PwrMAX<sup>®</sup> Ortho



## What is it?

PwrMAX<sup>®</sup> is a new product family of very high current density connectors used for distributing power and signal between circuit boards.

PwrMAX<sup>®</sup> Ortho takes the fundamental contact design from PwrMAX<sup>®</sup> and packages it in a robust blind-mate-able housing to satisfy the next generation “Orthogonal” systems architectures being implemented in high-end servers and data storage equipment.

What is an orthogonal systems architecture?

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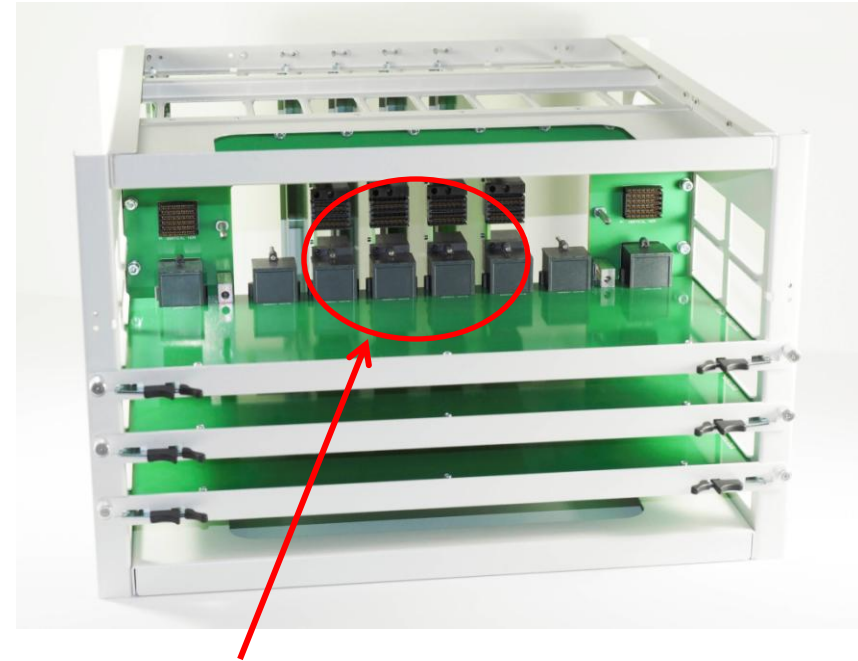


## Orthogonal systems architectures

Rack-mounted equipment utilize several methods of connecting circuit boards.

Orthogonal interconnects (also called Direct-Mate Orthogonal) offer several benefits:

- Higher density packaging
- Improved signal transmission speeds
- Improved airflow – for system cooling

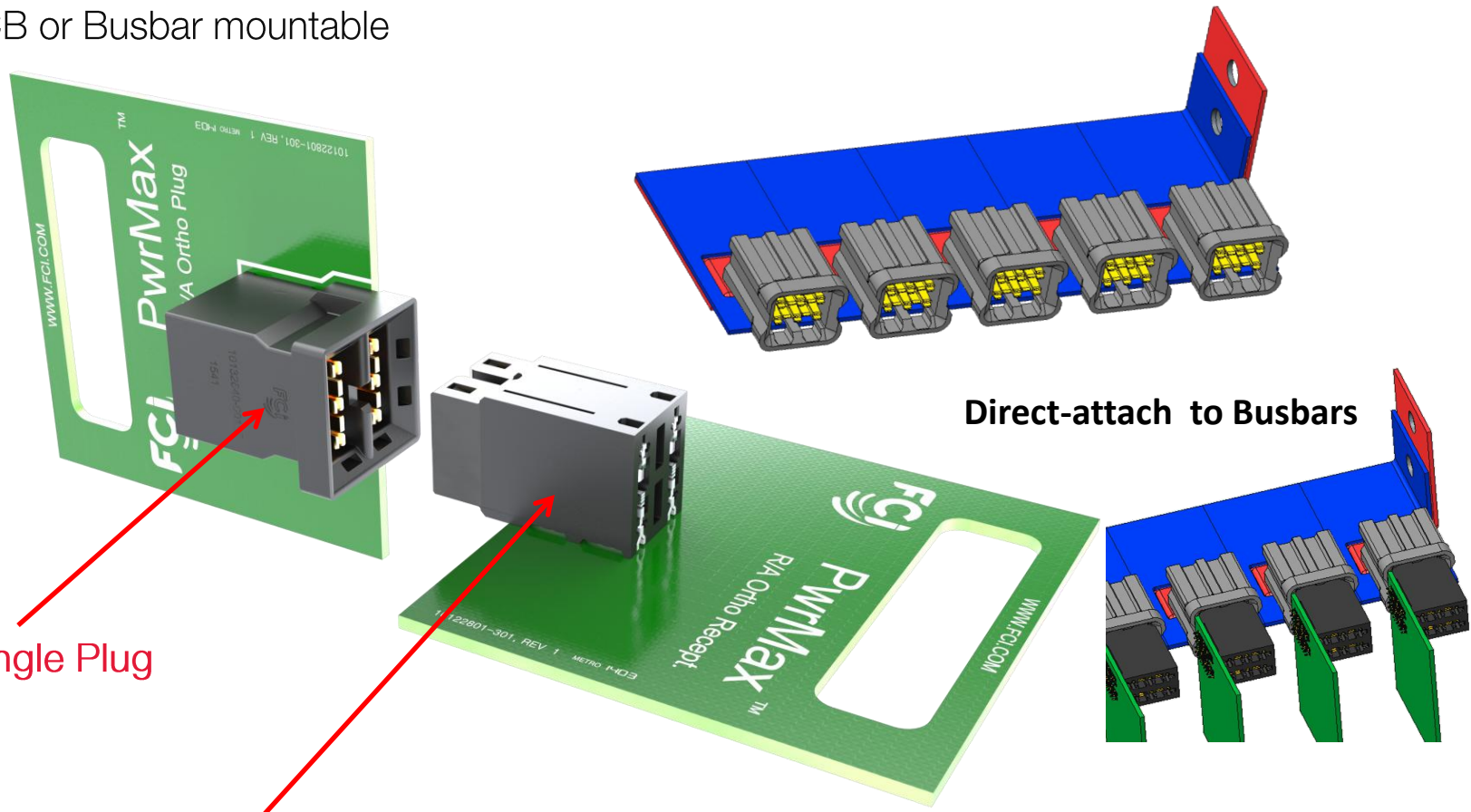


Direct-Mate Orthogonal connects front horizontal pcbs to rear vertical pcbs, without requiring a mid-plane

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- Direct-Mate Orthogonal
- High Current, Robust, Blind-mate
- PCB or Busbar mountable



Right Angle Plug

Right Angle Receptacle

Direct-attach to Busbars

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## Features

- 10 contact beams, high conductivity alloys, GCS™ \* plating
- Up to 100 Amps per contact
- Solder-less, press-fit terminations
- Rugged blind-mate capability with +/- 3.5mm gatherability

## Benefits

- High efficiency/low resistance/low loss, state-of-art performance
- High current power distribution in limited space
- Apply to either PCBs or Busbars
- Self-aligns, easily mated, eliminates damage during system assembly

\* For more information, visit [www.fci.com/products/pwrmaxortho](http://www.fci.com/products/pwrmaxortho)

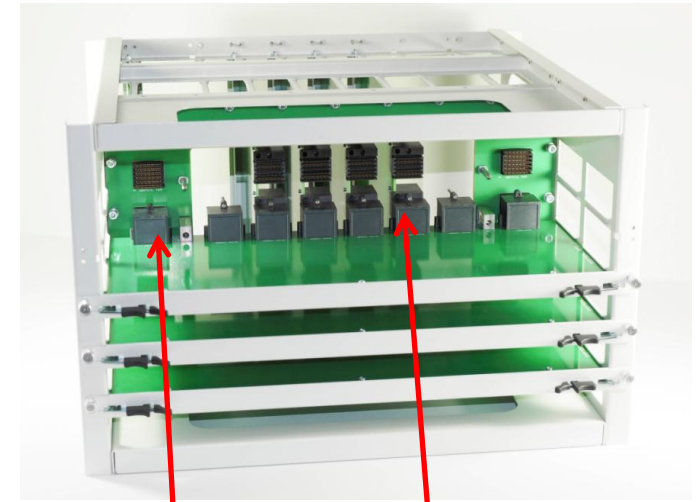
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## Typical Applications

As with other direct-mate orthogonal connectors such as FCI's ExaMAX® DMO, the benefit is the mid-plane interface is eliminated.

For power, this helps to improve the efficiency of the power distribution.



Mid-plane Orthogonal Connection

Direct-Mate Orthogonal Connections



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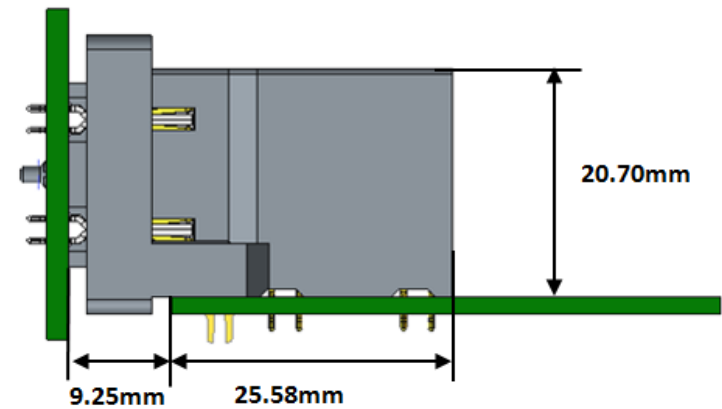
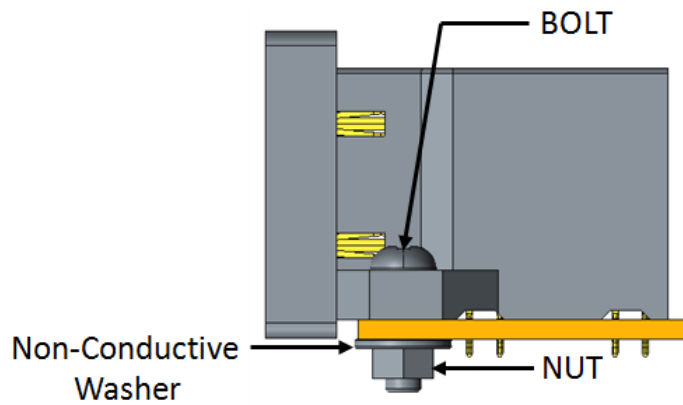
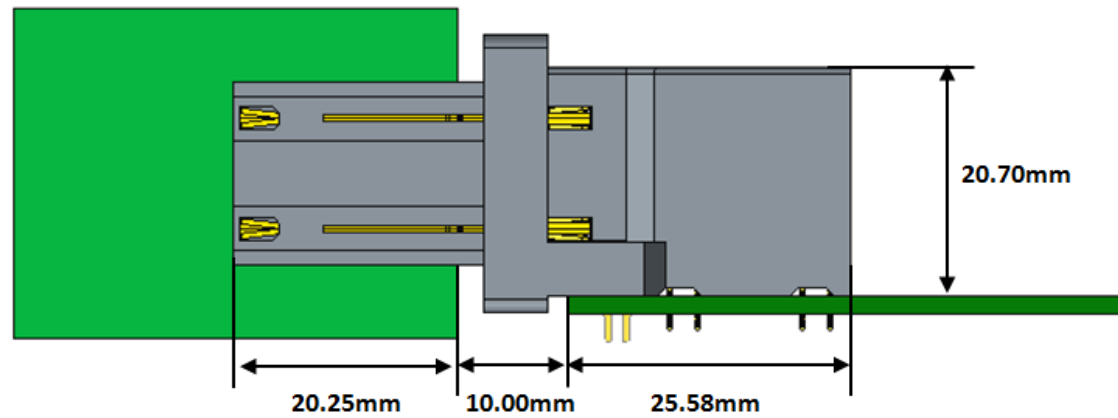


ExaMAX® DMO

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## Specifications – Size



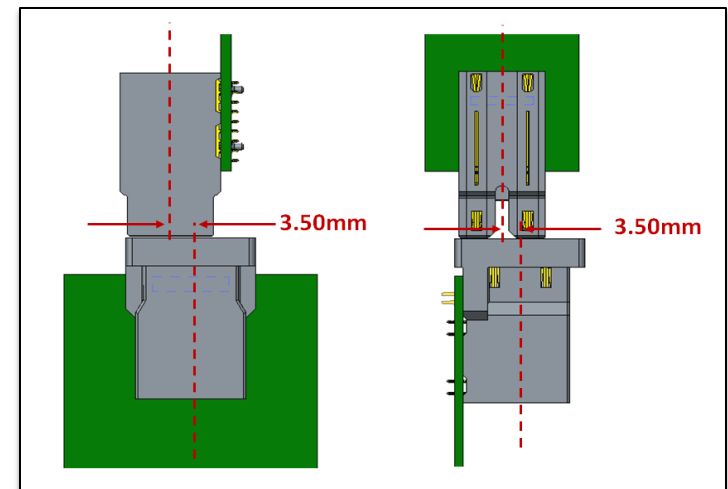
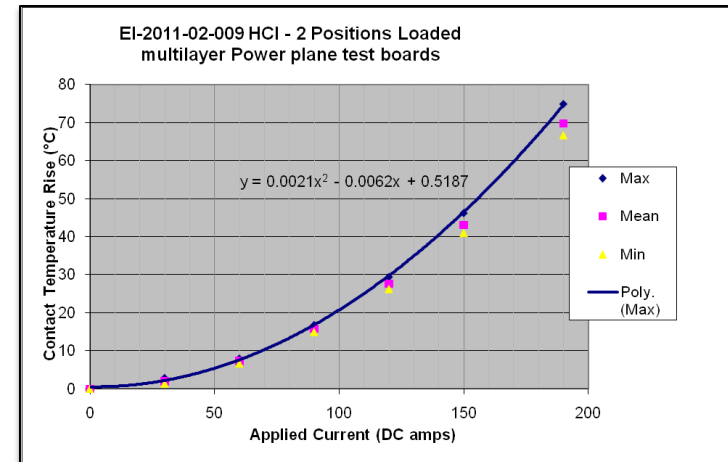


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## Specifications – Electrical / Mechanical

Mechanical	Mating force	20N/contact
	Durability	100 cycles
Electrical	Contact Resistance	0.3mOhms
	Current Rating	100 amps
Environmental	MFG exposure	20 days (10 un-mated + 10 mated)
	Max. operating temperature	125°C
	Halogen Free	Yes
	RoHS Compliant	Yes



For more specification details, visit [www.fci.com/products/pwrmaxortho](http://www.fci.com/products/pwrmaxortho)



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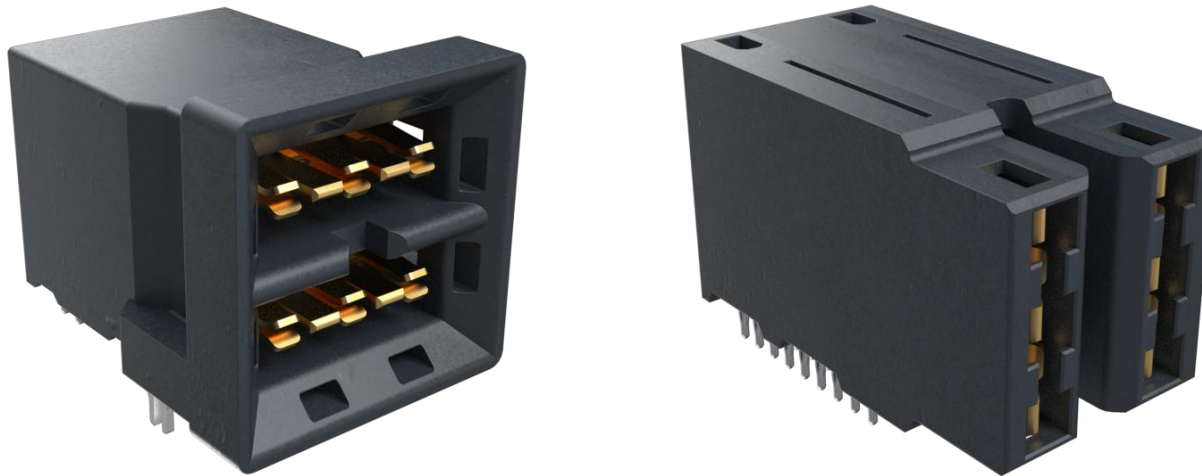


## Part Numbers

Product	Mount	Part Number
Right Angle Plug	PCB Boardlocks	10132640-001LF
Right Angle Receptacle	PCB Retention Pegs	10132644-002LF
Vertical Receptacle	PCB Retention Pegs	10133407-002LF

For more information, visit [www.fci.com/products/pwrmaxortho](http://www.fci.com/products/pwrmaxortho)

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- Maximum power - Up to 100 amps per contact
- Maximum efficiency - 0.3mOhm resistance, @ End-Of-Life
- Circuit Board or Busbar mountable
- Samples readily available



**THANK YOU**

