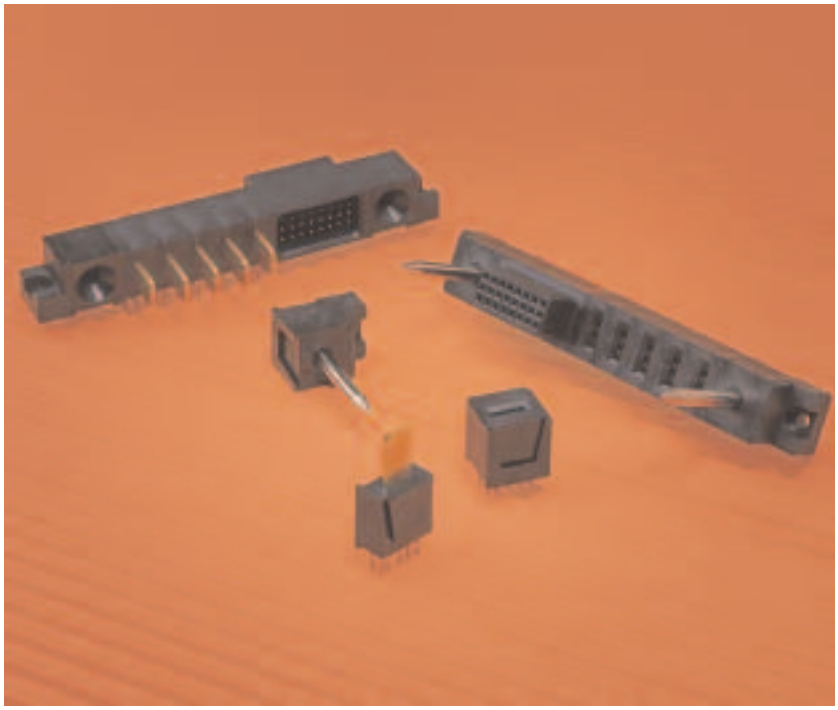
FEATURES AND SPECIFICATIONS

Power Dock™ Modular Plug and Socket Configured Assemblies

Reliable Custom Solutions for Board-to-Board Power Interconnects

Power Dock is a modular connector system offering a broad range of options to provide custom solutions for AC and DC power requirements. Features include vertical or right angle board orientations and sequential mating. They are ideal for connecting power supplies used in high-end computer and telecom equipment. Power Dock connectors are drop-in replaceable and intermateable with existing popular power connectors, now giving customers a valuable second source.

Selecting the exact Power Dock connector system will be easy using the Power Dock configurator website. The website enables customers to choose the module components and the module sequence they need and then instantly receive a price, part number, drawing with basic dimensions and the option to order samples.



Features and Benefits

- Vertical or right angle styles for parallel or perpendicular board mating orientations
- Rated up to 35.0A for a variety of power applications
- Three mating sequence options for hot pluggability
- Press-fit (compliant pin) or solder through hole termination for use with a range of PCB thicknesses
- Signal modules available in 6 or 24 circuits to facilitate customization
- Guiding pins enable self-aligning of mated assemblies

Specifications

Electrical

Voltage: 250V or 600V

Current: Power Contacts — 35.0A per mated contact
Signal Contacts — 3.0A per mated contact

Contact Resistance:
Power Contacts — 2 milliohms max.
Signal Contacts — 15 milliohms max.

Dielectric Strength: No Breakdown

Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Power Contact — 17.8N (4.0 lbf) max.
Signal Contact — 1.4N (5 ozf) max.

Unmating Force: Power Contact — 4.4N (1.0 lbf) min.
Signal Contact — 0.1N (0.5 ozf) min.

Durability: 250 mating cycles

Housing Contact Retention: 22.2N

Physical

Contact: Copper Alloy

Plating: Select Gold over Nickel

Operating Temperature: -40 to +105°C

Applications

- Telecommunications Equipment
- High-End Computer Servers
- Power Distribution Systems
- Low Noise Power Supplies
- Switched Mode Power Supplies (SMPS)
- Power Factor-Correcting Power Supplies
- Uninterruptible Power Supplies (UPS)

ORDERING INFORMATION

Series	Description	Termination
45481	Vertical Plug Assembly	Solder
45482	Vertical Plug Assembly	Press-fit
45483	Vertical Socket Assembly	Solder
45484	Vertical Socket Assembly	Press-fit
45485	Right Angle Plug Assembly	Solder

Molex Power Dock™ Connector Assembly Design Form

Use this form to configure a Power Dock connector. Simply follow the step-by-step instructions below and fax this form to 630-512-8620. Once Molex has received this form, a drawing will be created and sent to you for final approval.

Fax to Molex at 630-512-8620

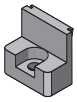
Company	Location
Contact Name	Title
Telephone ( )	Fax ( )
Signature	Email Address
	Date / Quantity Required

STEP 1

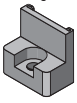
Choose from the following modules to create an assembly.

Mounting, Spacer and Guide Modules

Flange Modules



PD500
Left Flange Mount



PD501
Right Flange Mount

Spacer Modules (without contacts)

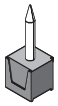


PD511
Vertical or Right Angle 250 V Spacer



PD513
Vertical or Right Angle 600 V Spacer

Guide Modules



PD503 Passive
PD515 Active, M3 Threads
PD517 Active, 4-40 Threads
Vertical Guide Pins



PD507
Passive Right Angle Guide Pin



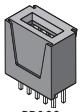
PD502
Passive Vertical Guide Socket



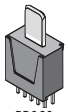
PD506 Passive
PD516 Active
Right Angle Guide Sockets

Solder Terminated Modules

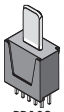
250V Power Modules (Vertical)



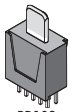
PD100
Socket



PD101
Standard

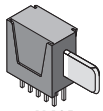


PD102
Pre-mate

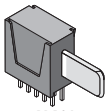


PD103
Post-mate

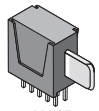
250V Power Modules (Right Angle)



PD105
Standard

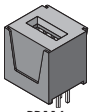


PD106
Pre-mate

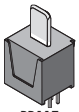


PD107
Post-mate

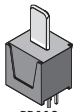
600V Power Modules (Vertical)



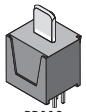
PD116
Socket



PD117
Standard

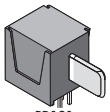


PD118
Pre-mate

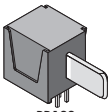


PD119
Post-mate

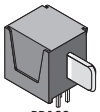
600V Power Modules (Right Angle)



PD121
Standard

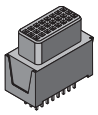


PD122
Pre-mate

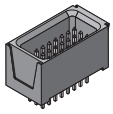


PD123
Post-mate

Signal Modules (Vertical)



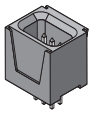
PD301 24 Pin Socket



PD300 24 Pin Standard

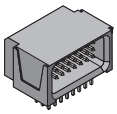


PD313
6 Pin Socket

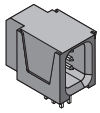


PD312
6 Pin Standard

Signal Modules (Right Angle)



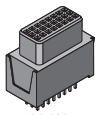
PD302
24 Pin Standard



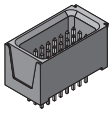
PD314
6 Pin Standard

Press-Fit Terminated Modules *For 2.36mm (.093") or greater board thickness*

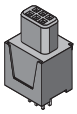
Signal Modules (Vertical)



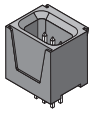
PD401
24 Pin Socket



PD400
24 Pin

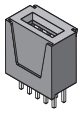


PD413
6 Pin Socket

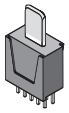


PD412
6 Pin

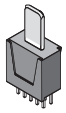
250V Power Modules (Vertical)



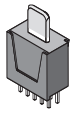
PD200
Socket



PD201
Standard

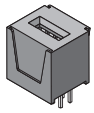


PD202
Pre-mate

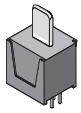


PD203
Post-mate

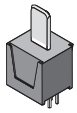
600V Power Modules (Vertical)



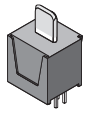
PD216
Socket



PD217
Standard



PD218
Pre-mate



PD219
Post-mate

STEP 2

Place your chosen module numbers in the boxes at right (left to right) with the mating side facing. For right angle modules, the tails are to face downward.

First Assembly	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD
Mating Assembly	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD

STEP 3 - *(Use for Solder Modules Only)*

Place an "X" for the board thickness or solder tail length of each assembly. Place an "X" for retentive feature (see right for more information).

Board Thickness / Solder Tail Length	1.57mm (.062") / 2.92mm (.115")	2.36mm (.093") / 3.60mm (.143")	3.17mm (.125") / 4.50mm (.177")	Retentive Feature
First Assembly				
Mating Assembly				

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Visit the Power Dock configurator website at www.power-dock.com

Order No. USA-196 Rev. 1

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