

## FEATURES AND BENEFITS

### 5GHZ Bi-directional 4 Lane I/O Connector System with Superior Mechanical Reliability

The Molex 4 Lane I/O connectors incorporate an industry compatible mating interface compliant with InfiniBand™ requirements. This I/O system has also been adopted by several other standards or MSA groups in addition to InfiniBand™, noted below. LaneLink™ is a 100ohm cable to board I/O system optimized for differential signaling at 2.5Gbps per pair. The Molex design features superior mechanical reliability and an extensive range of options including latching and jackscrews versions.

A new feature to both 4x options is the addition of a landing area for automated Pick and Place.



**0.50mm (.020") Pitch  
LaneLink™ 4x Latch  
Receptacle  
91803 Jackscrew  
Receptacle  
91804 Latch Receptacle**



| Features                                                          | Benefits                                                                                               |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| • Die cast frame with unitary latch posts and screw attach to PCB | • Provides the best available strain relief of cable to socket and isolates cable loads from SMT tails |
| • Optional top mount attach of die cast frame to chassis          | • Additional strain relief                                                                             |
| • Dedicated pick and place landing area                           | • Allows use of standard pick and place nozzles                                                        |
| • Solder post options (2 or 4 posts)                              | • Replaces need for screw down                                                                         |
| • Various place thickness accommodated                            |                                                                                                        |
| • High level of pin to PCB compliancy                             | • Helps coplanarity                                                                                    |
| • Extended crush PCB alignment posts                              | • Eases alignment of connector to board                                                                |
| • Jackscrew option complies with SFF-8470                         |                                                                                                        |

## SPECIFICATIONS

### Specifications

#### Reference Information

Packaging: Tray  
Mates With: 91525 to 91635;  
91629 to 91659  
Designed In: Millimeters

#### Electrical

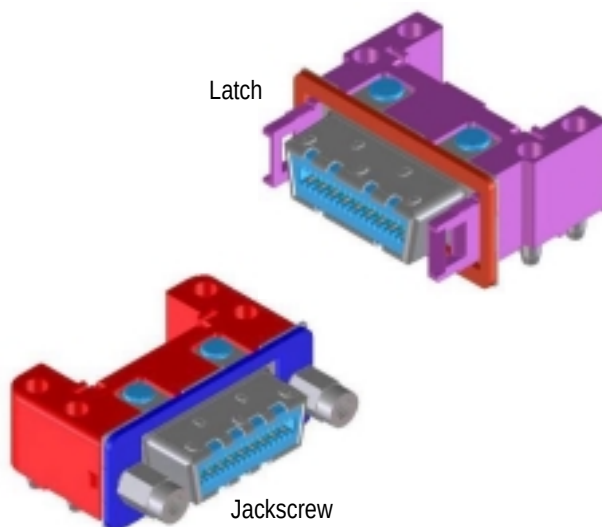
Voltage: 30V AC max  
Current: 0.5A max  
Contact Resistance: 80 mOhms  
Dielectric Withstanding Voltage:  
300V AC  
Insulation Resistance: 1000  
MOhms

#### Mechanical

Contact Retention to Housing: 5N  
(1.12 lb) min  
Mating Force: 55.5N (12.33 lb) max  
for 4x; 73N (16.37 lb) max for 12x  
Unmating Force: 7.0N (1.57 lb) min  
for 4x; 10.5N (2.35 lb) min for 12x;  
49.0N (10.99 lb) max for 4x; 59.0N  
(13.23 lb) min for 12x  
Durability: 250 cycles

#### Physical

Housing: LCP, UL 94V-0  
Contact: Phosphor Bronze  
Plating: Contact Area – Gold over  
Palladium Nickel  
Solder Tail Area – Tin/Lead  
Underplating -- Nickel  
PCB Thickness: 1.60mm (.063"),  
2.40mm (.094"), 4.00mm (.157")  
Operating Temperature: -20 to 60  
degrees Celsius



## APPLICATIONS



**0.50mm (.020") Pitch  
LaneLink™ 4x Latch  
Receptacle**

**91803 Jackscrew  
Receptacle**

**91804 Latch Receptacle**

Server

### Markets and Applications

- Telecommunication and Data:
  - SAN (Storage Area Network) switches
  - RAID devices
- Industry Standard organisations:
  - 4x and 12x InfiniBand
  - 10 Gigabit Ethernet
  - 10 Gigabit Fiber Channel
  - 4x Serial ATA (Jackscrew)
  - 4x Serial Attach SCSI (Jackscrew)
- Specific Applications include:
  - Servers
  - Switches
  - Computers
  - Storage Devices
  - Internetworking Equipment



Switch



## ORDERING INFORMATION

| Order No.<br>Tray Packaging | Order No.<br>Tape & Reel | Version      | Rear Mounts | Solder Posts | Panel Mount |
|-----------------------------|--------------------------|--------------|-------------|--------------|-------------|
| 91803-0410                  | 91803-8410               | 4x Jackscrew | No          | No           | No          |
| 91803-0412                  | 91803-8412               | 4x Jackscrew | Yes         | No           | No          |
| 91803-0414                  | 91803-8414               | 4x Jackscrew | No          | 2            | No          |
| 91803-0416                  | 91803-8416               | 4x Jackscrew | Yes         | 4            | No          |
| 91804-0410                  | 91804-8410               | 4x Latch     | No          | No           | No          |
| 91804-0412                  | 91804-8412               | 4x Latch     | Yes         | No           | No          |
| 91804-0414                  | 91804-8414               | 4x Latch     | Yes         | No           | Yes         |
| 91804-0416                  | 91804-8416               | 4x Latch     | No          | No           | Yes         |
| 91804-0450                  | 91804-8450               | 4x Latch     | No          | 2            | No          |
| 91804-0452                  | 91804-8452               | 4x Latch     | Yes         | 4            | No          |
| 91804-0454                  | 91804-8454               | 4x Latch     | Yes         | 4            | Yes         |
| 91804-0456                  | 91804-8456               | 4x Latch     | No          | 2            | Yes         |



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