

# SEARAY and SEARAY Slim Mezzanine Connector Family

**molex**

Low-profile SEARAY Mezzanine Connectors and Jumpers deliver a 12.5-Gbps data rate, small footprint and robust solder-charge termination while SEARAY Slim Connectors also improve airflow to address thermal management issues

## Features and Benefits

### Multiple stack heights (7.00 to 17.00mm) and circuit options (SEARAY: 90 to 500; SEARAY Slim: 40 to 200)

Delivers high-speed differential and single-ended performance in low profile applications. Provide design flexibility

### 1.27 by 1.27mm pitch grid (footprint)

Maximizes routing flexibility and grounding

### 12.5 Gbps data rate

Delivers high-density signal transfer

### Large lead-in and shrouded terminal housing

Prevents stubbing. Protects terminals during mating

### Patented solder-charge technology: Solder precisely stamped onto terminals

Provides a more reliable termination method over BGA connectors. Reduces cost over BGA connectors because connectors need to go through solder process only once.

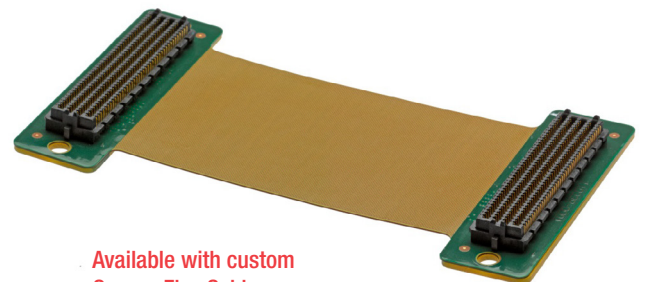
### Narrow body design

Provides optimal airflow and design flexibility



### Robust guiding pins on both ends of the connector and polarization design

Provides correct alignment. Reduces risk of damage to mating interface. Supports blind mating applications



### Available with custom Copper Flex Cable Jumpers

Delivers complete solution for applications needing design flexibility

## Applications

### Data/Computing

- High-end servers
- Mid-range servers

### Defense

- Radar or topographical equipment

### Medical

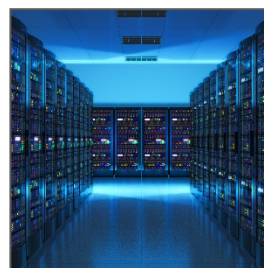
- Data acquisition
- Imaging equipment
- Scanning equipment

### Telecommunications/Networking

- Servers
- Routers and switches



MRI Equipment



High-End Servers

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## Specifications

### REFERENCE INFORMATION

Packaging: Tray or Tape and Reel  
Designed In: Millimeters

### ELECTRICAL

Voltage (max.):  
Current (max.): 2.7A per Contact  
Contact Resistance: 25 milliohms nominal  
Dielectric Withstanding Voltage: 500V DC  
Insulation Resistance: 5000 Megohms  
Impedance: 100 Ohms Differential

### MECHANICAL

Mating Force (max.): 50g per Contact  
Unmating Force (max.): 30g per Contact  
Normal Force (max.): 82g per Contact  
Durability (max.): 100 Cycles

### PHYSICAL

Housing: Glass-Filled LCP, UL 94V-0  
Contact: Copper Alloy  
Plating:  
Contact Area (min.) — 0.75 $\mu$ m Gold  
Solder Tail Area (min.) — 3.80 $\mu$ m Tin  
Underplating — 1.25 $\mu$ m Nickel  
PCB Thickness: 1.60mm  
Operating Temperature: -55 to +125°C

## Ordering Information

| Series No.            | Component              |
|-----------------------|------------------------|
| <a href="#">45970</a> | SEARAY Plug            |
| <a href="#">45971</a> | SEARAY Receptacle      |
| <a href="#">46556</a> | SEARAY Slim Plug       |
| <a href="#">46557</a> | SEARAY Slim Receptacle |

| Custom Product                | Description              |
|-------------------------------|--------------------------|
| <a href="#">Contact Molex</a> | SEARAY Jumper Assemblies |

[www.molex.com/product/searay.html](http://www.molex.com/product/searay.html)

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