

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

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.

12.5 Gbps data rate

Delivers high-density signal transfer

Large lead-in and shrouded terminal housing

Prevents stubbing. Protects terminals during mating

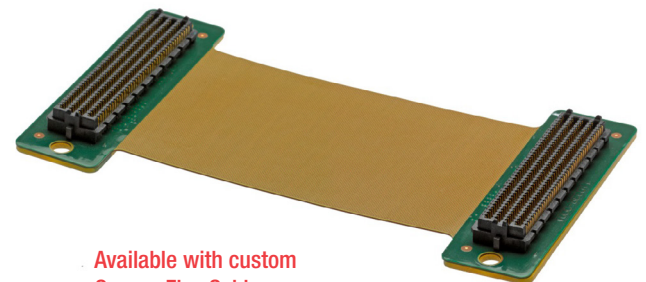
Narrow body design

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

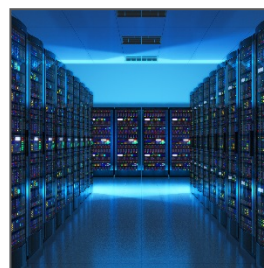
- Data acquisition
- Imaging equipment
- Scanning equipment

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 μ m Gold
Solder Tail Area (min.) — 3.80 μ m Tin
Underplating — 1.25 μ m Nickel
PCB Thickness: 1.60mm
Operating Temperature: -55 to +125°C

Ordering Information

Series No.	Component
45970	SEARAY Plug
45971	SEARAY Receptacle
46556	SEARAY Slim Plug
46557	SEARAY Slim Receptacle

Custom Product	Description
Contact Molex	SEARAY Jumper Assemblies

www.molex.com/product/searay.html

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