FEATURES AND SPECIFICATIONS

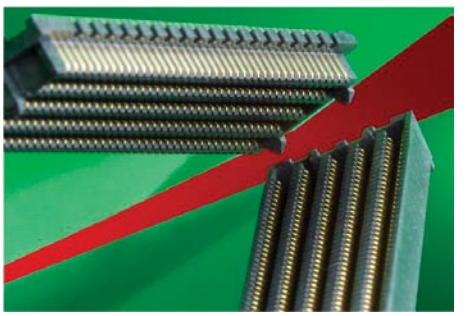
1.27 by 1.27mm (.050 by .050") Pitch SEARAY* Connector

45970 Plug
45971 Receptacle

The SEARAY connector accommodates low-profile applications with stack heights of 7.00 to 15.00mm (.276 to .591") for the large and growing, high-density, high-performance mezzanine connector market

The SEARAY board-to-board connector is designed for applications with high pin-count devices or memory modules that are mounted on mezzanine or module PCBs. The unique, Molex-patented, solder-charge technology results in better process yields and a lower-applied cost versus equivalent Ball Grid Array (BGA) connector products. Solder-charge technology is a patented Molex process, which provides optimized PCB adhesion and immense mechanical retention force.

The SEARAY connector provides numerous benefits. It allows customers to simplify PCB routing without sacrificing performance. Customers will avoid the expense of large, complex, multi-layer boards and utilize space better within a given card slot area. Option cards may be added or upgraded to increase flexibility in design, production and testing. The SEARAY connector design has superior electrical and mechanical features that are cost competitive. For additional information, please visit: www.molex.com/product/searay.html.



SEARAY mezzanine solutions pack many high-speed signals in very dense spaces with stack heights of 7.00 to 15.00mm (.276 to .591")

Features and Benefits

- Molex's unique and patented, solder- attach method is more cost effective and reliable than BGA attach methods
- Data rates of up to 10Gbps have excellent signal clarity and large bandwidth for customer requirements in high-speed designs
- Flexible tooling design with multiple stack heights and circuit sizes provides ease in tooling a new circuit size or stack-height version
- Popular footprint is compatible with other products in the market: 1.27 by 1.27mm (.050 by .050"); and allows ease in multiple sourcing with other common products
- Robust contact design prevents stubbing and damage in mating interface

SPECIFICATIONS

Reference Information

Product Specification: PS-45970-001
Packaging: Tray
UL File No.: TBD
CSA File No.: TBD
Designed in: Inches

Electrical

Voltage: 250V AC per contact
Current: 1.0A per contact
Contact Resistance: 25 milliohms nominal
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: 50g max. per contact
Un-mating Force: 30g max. per contact
Normal Force: 82g max. per contact
Durability: 100 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper (Cu) Alloy
Plating:
Contact Area – 0.75µm Gold (Au) min.
Solder Tail Area – 3.80µm Tin (Sn) min.
Underplating – 1.25µm Nickel (Ni) min. overall
Operating Temperature: -55 to +105°C

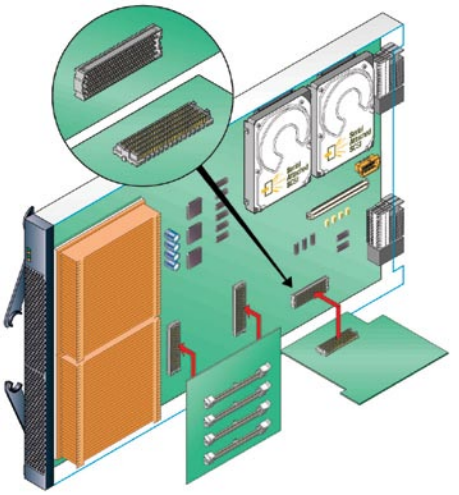
*SEARAY is a trademark of Samtec, Inc.

APPLICATIONS

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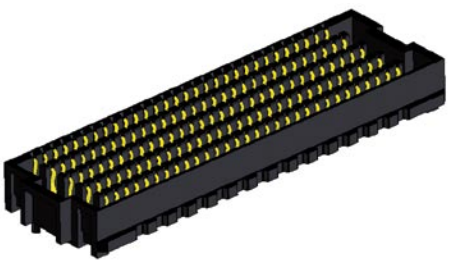
- High and Mid-Range Computers
  - Servers
- Medical
  - Scanning equipment
- Military
  - Radar or topographical equipment
- Networking and Telecommunications
  - Network routers and switches
  - Mobile base stations



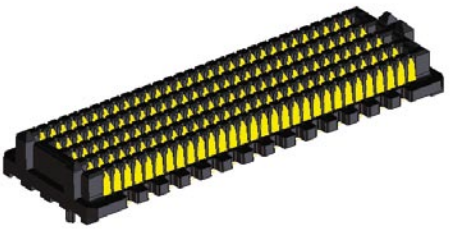
ORDERING INFORMATION

Plug Order No.	Circuits	Stack Height	Receptacle Order No.
45970-9161	114	7.00mm (.276")	45971-9161
45970-2311	200	10.00mm (.393")	45971-2311
45970-3181	240	7.00mm (.276")	45971-3181
45970-3213	300	8.00mm (.314")	45971-3113
45970-3111	300	7.00mm (.276")	45971-3113
45970-4311	400	11.00mm (.433)	45971-4411

Notes
1) Refer to the product sales drawing for mated stack-height options
2) Please contact inside sales for other circuit sizes and stack heights
3) Please contact inside sales for parts with Tin/Lead solder charges



SEARAY Receptacle



SEARAY Plug

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