



1.27mm (.050") Pitch SEARAY* Slim 4-Row Connectors

46556 Plug
46557 Receptacle



SEARAY Slim offers a deceptively narrow profile while providing a robust solution capable of speeds in excess of 12.5Gbps.

SEARAY Slim is a solution armed with the benefits of the standard SEARAY family but with a width similar to 2-row mezzanine products. The design meets system needs as a highly compact solution but with speed capabilities of 12.5 Gbps, a level of performance most other 2-row products cannot achieve today. As system-level speeds approach 5Gbps and beyond, SEARAY stands as an enticing mezzanine architecture that provides headroom for future-generation iterations as protocol speeds continue to increase.

SEARAY Slim pushes the envelope of the SEARAY product family, offering a 4-row solution that is a narrower version of the existing SEARAY housings. Because Slim features Molex's patented solder-charge technology and can pack tighter signal density into a 1.27mm (.050") pitch, the connector width is

equivalent to that of standard 2-row SMT products. With a flexible tooling strategy, SEARAY Slim can offer circuit sizes ranging from 40 to 200 circuits and stacking heights of 7 to 15mm (.236 to .591").

SEARAY Slim's slender profile provides design engineers with a solution complementary to system airflow and with a long body that provides ease in routing signals through minimal signal layers, as few as 2 layers if signals are routed to both sides of the connector or 4 layers if all signals route to one side of the mezzanine solution. In addition, unlike competitors products available today, SEARAY Slim offers guide posts for blind-mating capabilities.

For additional information about SEARAY Slim visit: www.molex.com/link/SEARAYSlim.html.

Features and Benefits

- Narrow body width comparable to 2-row SMT products provides minimal PCB footprint for high-density board designs and effective design for airflow considerations
- Data rates of up to 12.5 Gbps provide 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
- Robust contact design prevents stubbing and damage in mating interface
- Molex's unique and patented, solder-charge technology are more cost effective and more reliable than Ball Grid Array (BGA) attach methods with less assembly processing required and a more reliable PCB adhesion

SPECIFICATIONS

Reference Information

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

Electrical

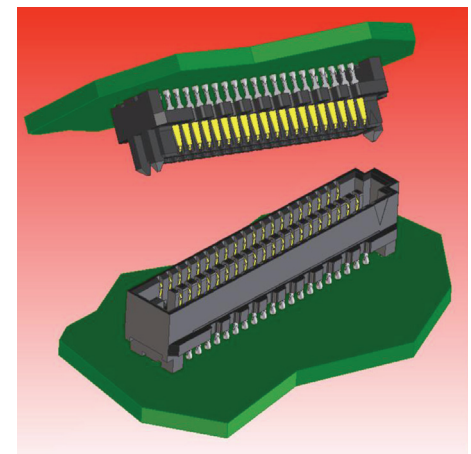
Voltage: 250V AC per
Current: 1.0A per contact
Contact Resistance: 25 milliohms nominal
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 5000 Ohms min.
Impedance: 100 ohm differential signal pairs

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 +125°C



*SEARAY is a trademark of Samtec, Inc.

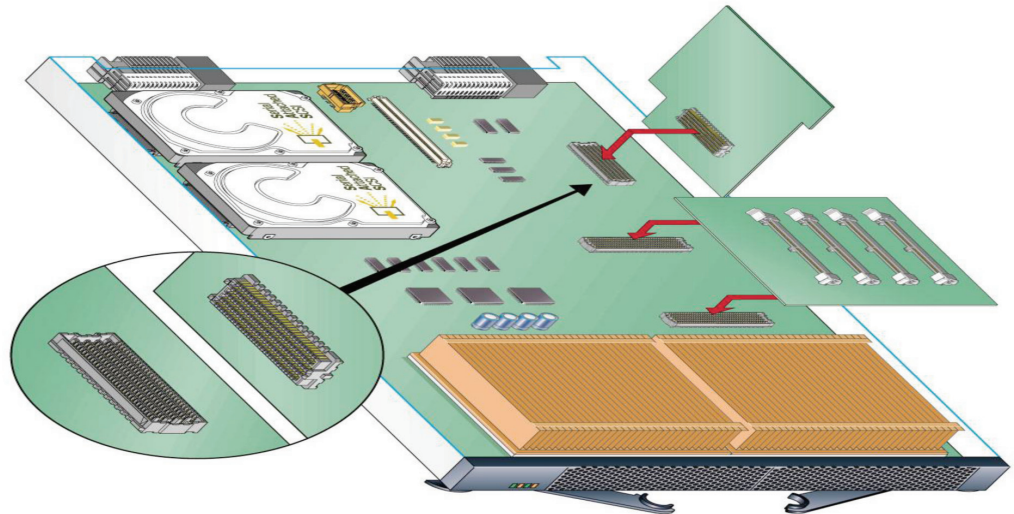


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Connectors**

46556 Plug

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- Mezzanine add-on cards
 - Memory expansion
 - I/O expansion
- Real estate proliferation
- Controller cards
 - Motherboard personality cards
 - Industrial controllers
 - ASIC port enablers



ORDERING INFORMATION

Order No.	Component	Circuits	Unmated Height	Plating	Plant No. for Samples
46556-2345	Plug	80	7.11mm (.280")	30µ Gold	3109
46557-2345	Receptacle	80	6.55mm (.258")	30µ Gold	3109
46556-4145	Plug	160	5.61mm (.221")	30µ Gold	3109
46557-4545	Receptacle	160	8.05mm (.317")	30µ Gold	3109

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www.molex.com/link/SEARAYSlim.html

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