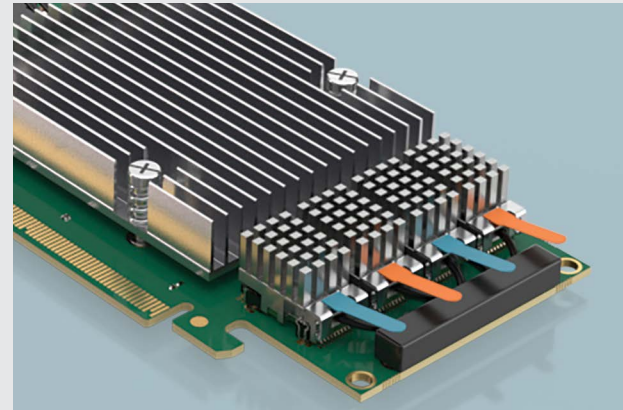
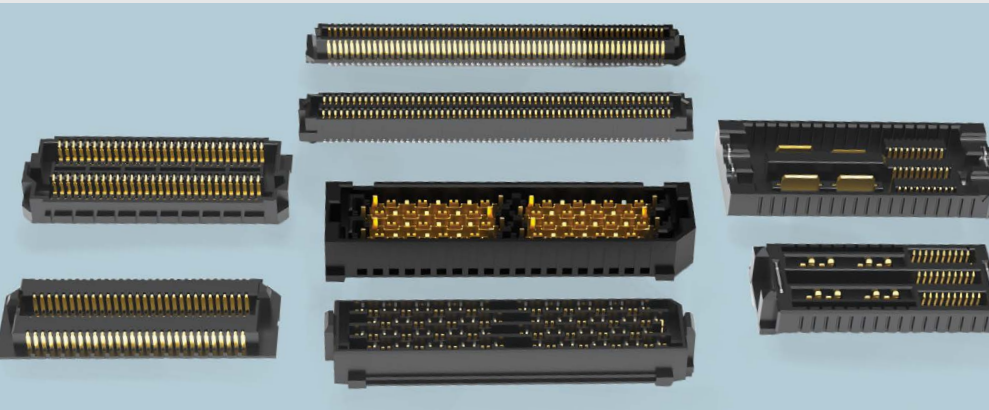




PCI Express[®] INTERCONNECT SOLUTIONS



PCI Express CEM AIC • PCI Express Capable • 112+ Gbps PAM4 for Next Gen PCI Express Technologies



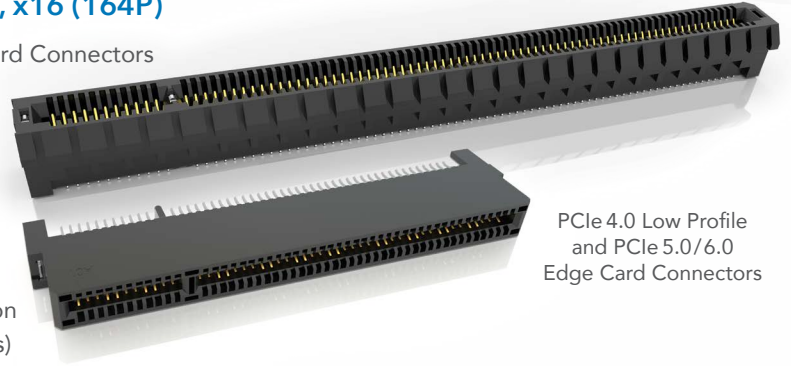
PCI Express® CEM AIC Solutions

PCIe® Edge Card Sockets & Cable Assemblies

PAM4
64 Gbps

1.00 mm Pitch • x1 (36P), x4 (64P), x8 (98P), x16 (164P)

- PCIe 3.0 Vertical, Right-Angle & Edge Mount Edge Card Connectors (PCIE Series)
- PCIe 4.0 Slim Edge Card Connector (PCIE-G4 Series)
- PCIe 4.0 Low Profile Connector (PCIE-LP Series)
- PCIe 5.0/6.0 Vertical & Edge Mount Connector (PCIE-G5 Series)
- Also available: PCIe 3.0/4.0/5.0/6.0 Jumper/Extension Cable Assemblies (PCIEC/PCIEC-G4/PCIEC-G5 Series)



PCIe 4.0 Low Profile and PCIe 5.0/6.0 Edge Card Connectors

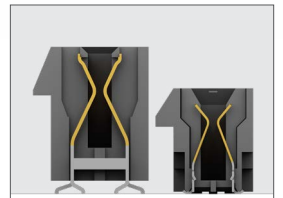


8 Gbps 16 Gbps 32 Gbps



PCI Express Jumpers for use as a Loop Back Extender, SerDes Physical Extender or as a physical extender for PCIe card debug and analysis.

Right-Angle & Edge Mount Options



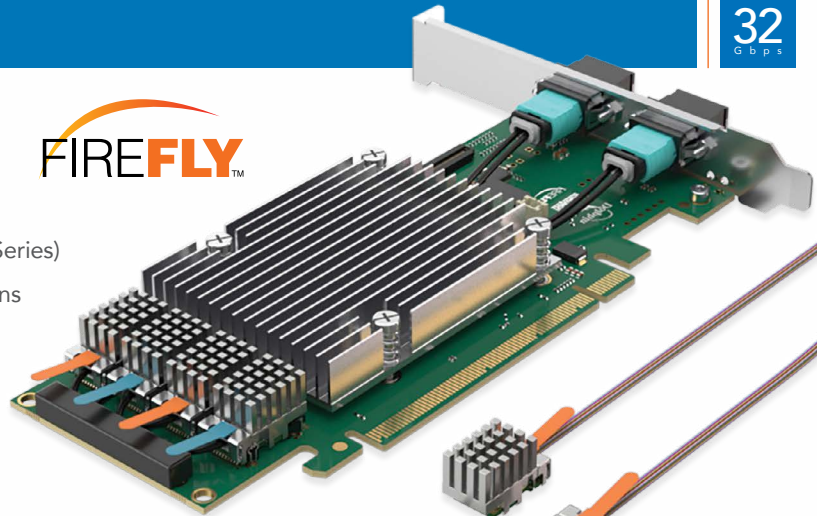
8 mm Low Profile Design vs. 11 mm Standard Height

PCIe®-Over-Fiber Cable Assemblies

32 Gbps

Optical FireFly™ Systems

- PCIe 4.0 Optical Cable Assembly (PCUO Series)
 - x4, x8 and x16 PCIe micro optical engines
- PCIe 4.0 Adaptor Card with Optical FireFly™ (PCOA Series)
 - x16, x8, dual x8, x4, dual x4 & quad x4 configurations
 - PCIe x16 Edge Card Connection
- In development: PCOA & PCUO Series for PCIe 5.0



Optical FireFly™ Cables & Adaptor Card

Copper FireFly™ Systems

- PCIe 3.0 & 4.0 Copper Cable System (PCUE Series)
 - 34 AWG ultra low skew twinax ribbon cable
 - x4 duplex system
 - Interchangeable with PCUO in the same connector footprint



8 Gbps 16 Gbps 32 Gbps

PCI-SIG®, PCI Express® and the PCIe® design marks are registered trademarks and/or service marks of PCI-SIG.

PCI Express® Capable Solutions

Generate™ High-Speed Edge Card Systems

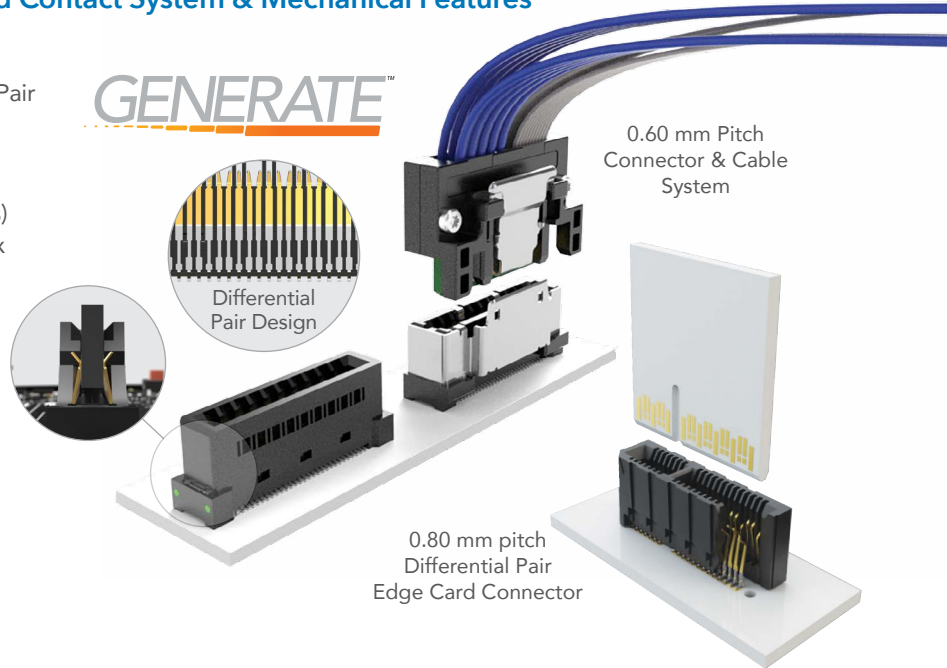
PAM4
64
Gbps

Choice of Pitches & Orientations • Rugged Contact System & Mechanical Features

PCIe® 6.0 Capable

- Generate™ 0.60 mm pitch High-Speed Differential Pair Edge Card Connector (HSEC6-DV Series)
 - SFF-TA-1002 Compliant
 - Mating High-Speed Cable Assembly (GC6 Series) with 34 AWG Eye Speed® Ultra Low Skew Twinax
- Generate™ 0.80 mm pitch Differential Pair Edge Card Connector (HSEC8-DP Series)

GENERATE™




0.60 mm Pitch Connector & Cable System

0.80 mm pitch Differential Pair Edge Card Connector



Differential Pair Design



Optimized for Signal Integrity
Reduced Broadside Coupling and Crosstalk
Increased Durability

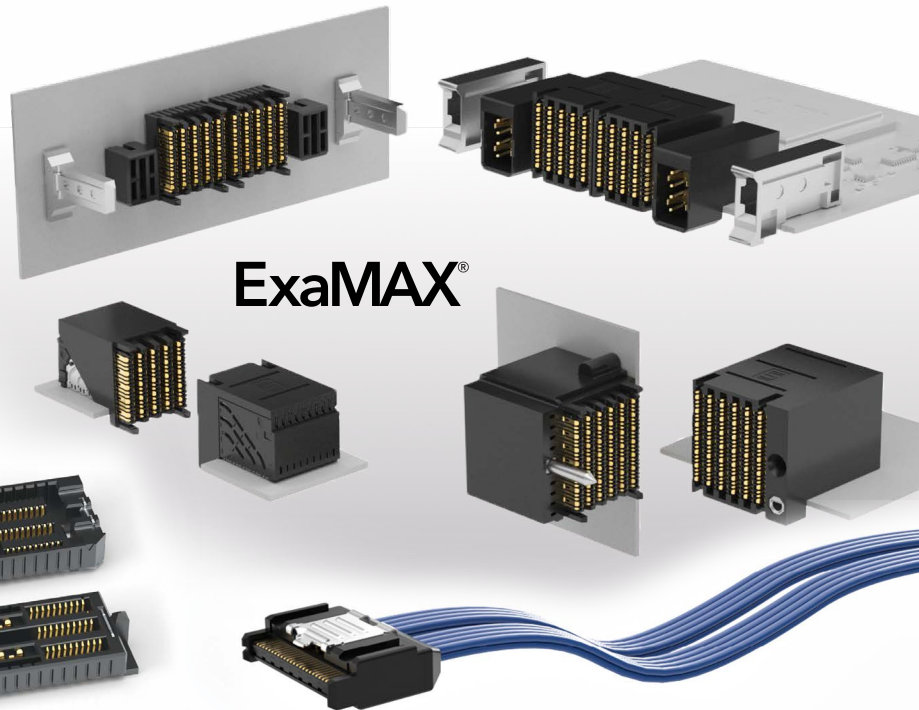
High-Speed/High-Density Arrays & Backplane Systems

PAM4
64
Gbps

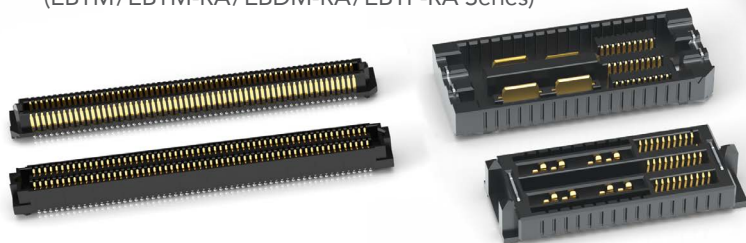
Design Flexibility • Space Savings

PCIe 6.0 Capable

- AcceleRate® HD 4-Row, Slim Body Arrays (ADM6/ADF6 Series)
- AcceleRate® Slim Cable Assemblies (ARC6/ARF6 and ARF6-RA Series)
- AcceleRate® mP High-Density, High-Speed Power/Signal Arrays (UDM6/UDF6 Series)
- ExaMAX® High-Speed Vertical, Right-Angle and Orthogonal Headers and Receptacles (EBTM/EBTM-RA/EBDM-RA/EBTF-RA Series)



ExaMAX®



ACCELERATE® HD

ACCELERATE® mP

ACCELERATE®

Future-Proof 112+ Gbps PAM4 Solutions

In addition to PCI Express® Capable Solutions, Samtec offers a full line of ultra high-performance solutions engineered for 112 Gbps PAM4 speeds and beyond, providing future-proof design flexibility for the support of next gen PCIe® technologies.

Panel Mount Cable Systems

PAM4
112
Gbps

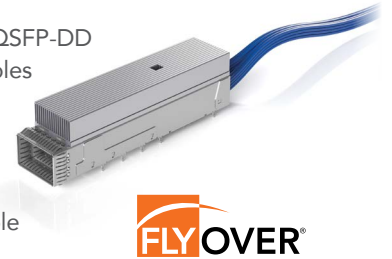
NovaRay® I/O Panel Mount Cable System

- 112 Gbps PAM4 performance
- 8, 16 & 32 differential pair configurations
- Cable-to-Cable bulkhead panel connection using Flyover® Technology
- Multiple ASIC-adjacent connectivity options available



Flyover® QSFP Cable Systems

- Compatible with all QSFP, QSFP-DD and QSFP-DD/800 pluggables
- Up to 800 Gbps aggregate (112 Gbps PAM4)
- Multiple ASIC-adjacent connectivity options available



Mid-Board ASIC-Adjacent Interconnect Solutions

PAM4
112
Gbps

NovaRay® Extreme Density and Performance Arrays

- 4.0 Tbps aggregate data rate – 9 IEEE 400G channels
- Mating 0.80 mm pitch socket cable assembly



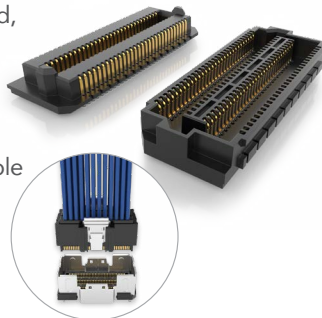
Si-Fly™ Low Profile High-Density Cable System

- Extremely low profile (3.8 mm)
- 8 or 16 pairs for routing 4 or 8 channels
- Extreme channel performance enables 25.6 TB aggregate with a path to 51.2 TB



AccelRate® HP High-Performance Arrays

- 0.635 mm pitch, open-pin-field, 4-row design (up to 400 total pins; roadmap to 1,000+)
- PCIe 6.0 & 100 GbE capable
- Mating cable assembly available



AccelRate® Mini Extreme Performance Cable System

- Incredibly small form factor
- Eye Speed® Thinax™ ultra performance twinax
- One or two differential pairs



Backplane Cable Systems

PAM4
112
Gbps

ExaMAX® High-Speed Cable Backplane System

- Two reliable points of contact
- 2.4 mm mating surface area (contact wipe)
- Supports panel, mid-board, cable-to-cable and cable-to-board configurations

ExaMAX

