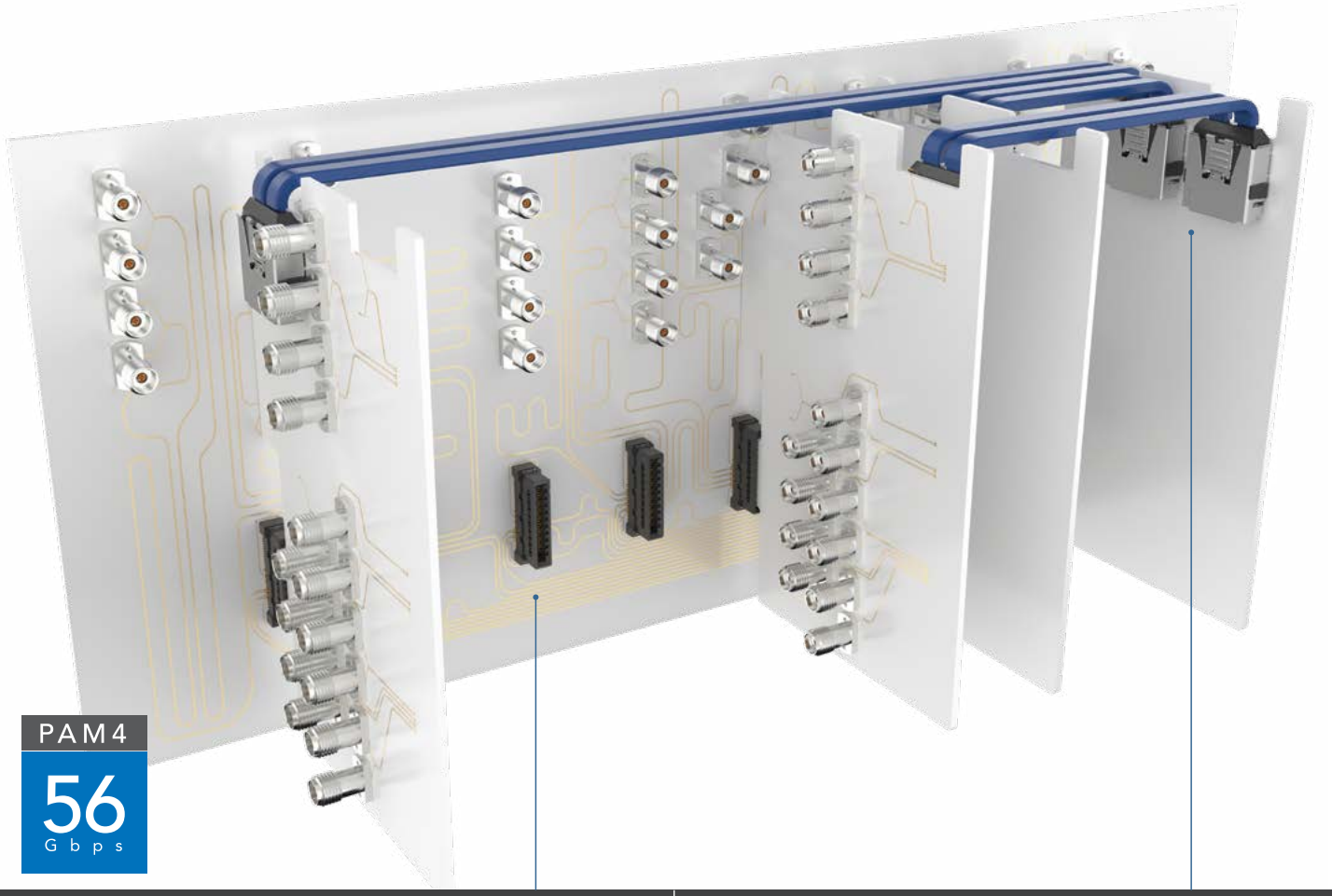
INTERCONNECT SOLUTIONS FOR
AI SYSTEMS

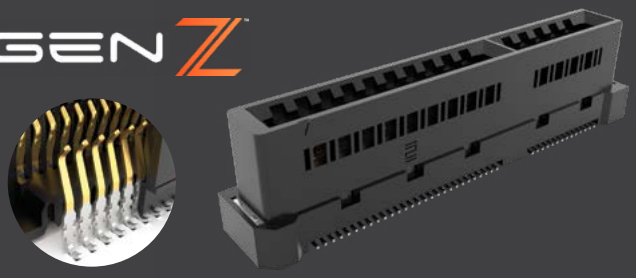
Fast-growing technologies like Artificial Intelligence are driving new system architectures that demand increased speeds, bandwidths, frequencies and densities. To meet these challenges, Samtec offers innovative Silicon-to-Silicon solutions from testing and development to interconnects that meet or exceed industry standards.

SCALABLE 32 GT/s SILICON TEST PLATFORM FOR AI

This scalable and configurable test fixture platform is one example of Samtec's innovative AI solutions. Leveraging Gen Z™ PECFF (PCIe® Enclosure Compatible Form Factor), the platform validates Signal Integrity evaluation with realistic topology loss ranges over a cable mesh backplane and edge card connectors, which are optimized for 32 GT/s PCIe® Gen 5 performance in targeted AI-HPC architectures.

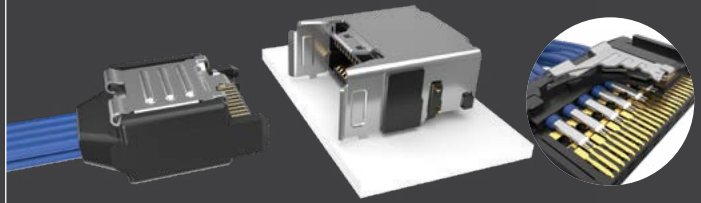


GEN Z



PCIe® Gen 5 compatible Edge Rate® High-Speed Edge Card Connector provides 56 Gbps PAM4 performance and is compliant to SFF-TA-1002.

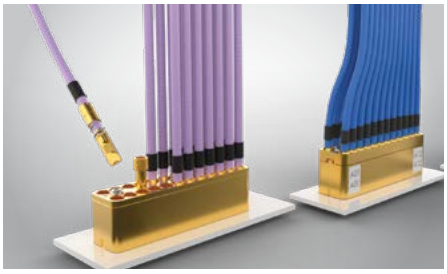
ACCELERATE®



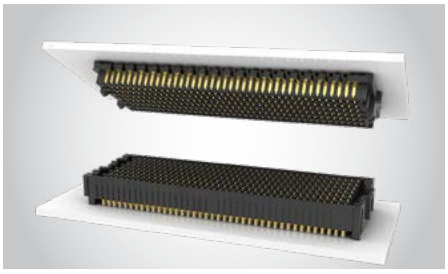
AcceleRate® Slim Cable System leverages Eye Speed® Ultra-Low Skew Twinax Cable & Direct Attach technology for 56 Gbps PAM4 speeds.

AI **CHIPSETS**

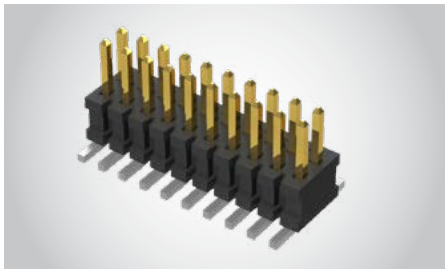
Computing Platforms • Reference Designs • Characterization Boards



Compression interface, small footprint and high cycle count make Bulls Eye® ideal for high-performance test applications to 70 GHz.



SEARAY™ high-speed, high-density arrays feature an open-pin-field design for maximum routing flexibility with configurations that meet FMC and FMC+ standards.

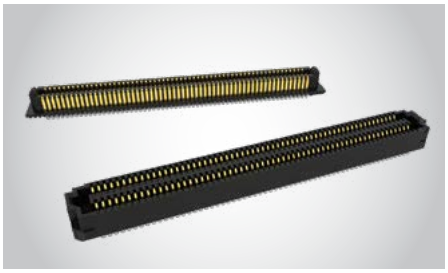


Samtec's .050" pitch micro header (FTSH) is designed for flexibility with position counts that meet JTAG standards for testing.

AI **EMBEDDED PLATFORMS**

SoMs • CoMs • Carrier Cards

AcceleRate® HP arrays achieve 112 Gbps PAM4 performance in a low profile, high density open-pin-field design compatible to PCIe® Gen 5 and COM-HPC architectures.

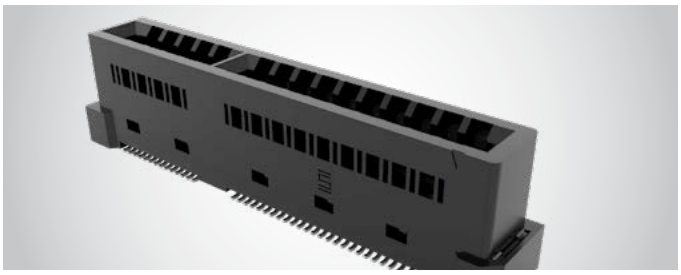


AcceleRate® HD 4-row strips are ultra-dense with up to 400 I/Os in a slim 5 mm width and rated for 56 Gbps PAM4 performance.

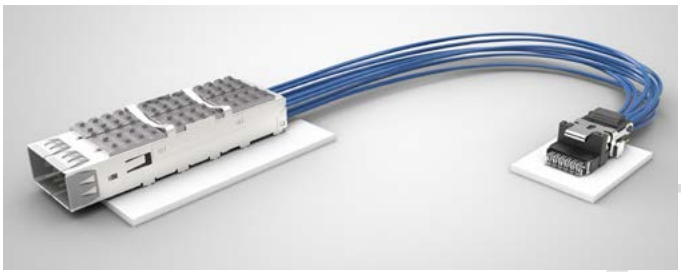
Ultra-micro mPOWER™ interconnects with up to 21 Amps per blade are designed for power only or power/signal applications alongside Samtec's most popular high-speed connectors.

AI **ACCELERATORS**

Low-latency • High Bandwidth • Performance Scalability



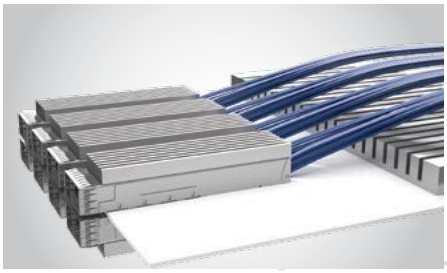
Gen Z™ and PCIe® Gen 5 compatible 0.60 mm pitch edge card sockets feature differential pair Edge Rate® contacts optimized for SI performance to 56 Gbps PAM4.



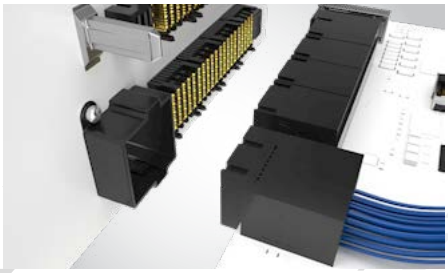
Flyover® QSFP to FireFly™ routes the signal via Samtec's Eye Speed® ultra low skew twinax cable directly from the package, or mid-board, to the panel.

APPLICATION SPECIFIC HARDWARE

Ultra-low Latency • High Data Rates • Low Ping



Leveraging Samtec's ultra low skew twinax cable, Flyover® QSFP Double Density to AcceleRate® Slim Cable or NovaRay® Extreme Performance Cable extends signal reach and density.



ExaMAX® backplane system delivers 56 Gbps performance with two reliable points of contact in a high-density, modular design for customizable flexibility.

ExaMAX® backplane to AcceleRate® or NovaRay® cable assemblies provides increased density, flexibility and space savings by routing the signal via ultra low skew twinax cable.

Visit **samtec.com/ai** or contact Customer Engineering Support at **asg@samtec.com** to learn more.