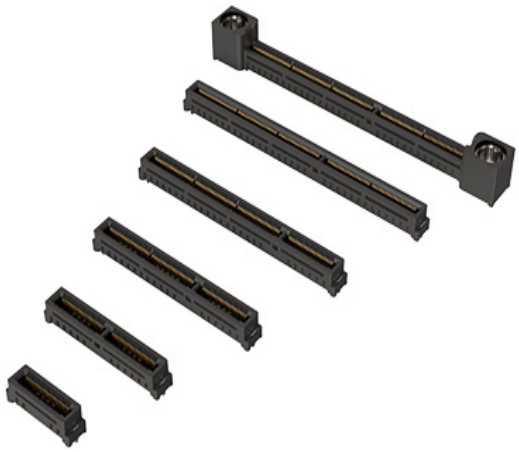
Storage & Server IO

Amphenol

Slim Cool Edge 0.65mm Hybrid Power & Signal Gen 6 Connectors

SPACE-SAVING HYBRID CONNECTOR FOR VERSATILE BOARD-TO-BOARD APPLICATIONS

Amphenol's new Slim Cool Edge Gen 6 64G PAM4 Hybrid Power and Signal connectors offer a compact, one-piece card-edge solution for high-speed and high-power applications. These connectors provide a cost-effective and high-density alternative, featuring a versatile 0.65mm signal pitch design that supports multiple board-to-board (BTB) configurations. Engineered with a flexible Gen 6 high-speed differential pairs pin map, these connectors are capable of hot plugging, ensuring uninterrupted operations. The modular tooling allows for various power-signal combinations in vertical configurations, making them suitable for diverse applications in data centers and advanced computing environments.



TARGET MARKETS

FEATURES	BENEFITS
▪ Module housing design for power and signal	▪ Supports high power and high speed BTB applications
▪ Signal pin pitch at 0.65mm and current rating of 0.5A per pin	▪ Supports most mating board applications
▪ Power pin can be 1 or 2 power blocks at side each support from 60-100A	▪ Power block provide power and mechanical support for AIC
▪ Signal pin module is 50-pin per section and can offer 50, 100, 150, 200, 250 signal pin with SMT termination	▪ Provides min. 4 PCIe® lanes to max. 40 PCIe® lanes
▪ Number of High-speed diff pair and location is highly flexible	▪ Easy PCB layout and pin map arrangement
▪ Module hybrid tooling	▪ Supports Hybrid Power+ Signal or only signal application
▪ Supports 2.36mm thick mating board	▪ Supports most standard BTB applications

TECHNICAL INFORMATION

MATERIAL

- Contact Base Metal: Copper Alloy
- Contact Area Finish: Gold over Nickel
- Solder Area Finish: Tin over Nickel
- Housing: High temperature thermoplastic (UL 94V–0)

ELECTRICAL PERFORMANCE

- Contact Resistance: 30m max. initial; 15m max. change after test
- Current Rating: 60–100A per power pin, 0.5A per signal pin with temperature rise not exceeding 30˚C
- Dielectric Withstanding Voltage: 500VDC for power and 500VDC for signal

MECHANICAL PERFORMANCE

- Durability: 200 mating cycles
- Mating Force: 1N/pin max. for power pin; 0.6N/pin max. for signal pin
- Unmating Force: 0.1N/pin min. for power pin; 0.06N/pin min. for signal pin

ENVIRONMENTAL

- Humidity: 24 cycles between 25±3˚C at 80±3% RH and 65±3˚C at 50±3% RH. Per EIA 364–31
- Temperature Life: 105±2˚C for 240 hours. Per EIA 364–17
- Thermal Shock: 10 cycles between –55˚C to +85˚C. Per EIA 364–32
- Mixed Flow Gas

APPROVALS & CERTIFICATION

- UL

SPECIFICATIONS

- Amphenol Product Specification: SSE022
- Amphenol Application Specification: SSE032

PACKAGING

- Tray

TOOLING INFORMATION

- Special pin count option available upon request

TARGET MARKETS/APPLICATIONS

Server and Storage Systems
High–end Computing system

Baseband
Radio Units
Networking
Commercial Systems

SSIOSLMCL065GEN61224EA4