

# ZSFP+ FOR DATACOM/ NETWORKING



## Molex zSFP+™ Interconnect System Helps Solve Thermal Management Challenges Found in Shrinking Data Centers

### BUSINESS CHALLENGE

**Modern data centers are tasked with delivering high performance in smaller physical spaces while keeping in mind the potential for thermal problems**

Today's always-on technology is placing immense pressure on data centers. Recent advances in everything from cloud computing and data analytics to the Internet of Things (IoT) and virtualization means demands on server and storage capabilities continue to grow. At the same time, next generation data centers are reducing in size as IT and facilities managers look to save costs by maximizing their infrastructure. In this new environment, thermal management becomes a priority at every level from the facility to the system and rack – even down to the board.

High-performance interconnects are a critical link, helping meet growing bandwidth requirements in smaller form factors. But power hungry 25 Gbps speeds add heat and decreased layer counts restrict airflow, making thermal management a challenge. While solutions such as heat sinks, heat pipes and fans may be effective at helping dissipate heat, they can add size, weight and expense. What system designers need is a solution that cost- effectively meets their power, size and thermal management needs.

### SOLUTION

**zSFP+™ (Small Form-factor Pluggable Plus) Interconnect System from Molex addresses these issues with an innovative design that provides excellent thermal management without adding unnecessary materials or costs.**

The zSFP+ connector solution features a stacked design that delivers maximum thermal efficiency while providing excellent signal integrity and Electromagnetic Interference (EMI) protection. It is available in an enhanced airflow version for applications that require light pipes and a new thru-flow design. Both designs open up the midsection to take advantage of front-to-back airflow, allowing heat to be dissipated without the need for heat sink components or other complex and costly materials.

Ideal for applications requiring 25 Gbps data rates for next-generation Ethernet and Fibre Channel applications, the zSFP+ interconnects provide customers with drop in replacement for their existing zSFP designs (re-routing of thru-flow design may be necessary if light pipes are in the midsection).

#### Applications include:

- **Data Communications:** Servers and storage
- **Networking:** Data networking equipment/servers and test and measurement equipment
- **Telecommunications:** Cellular infrastructure, hubs hardware



*The zSFP+ connector solution features a stacked, thru-flow design. Shown here as a 2-by-4 and 2-by-12 ganged cage. Additional port sizes available.*



## BENEFITS AND ROI

**With proper thermal management, providers can lengthen system life, increase reliability and enhance performance, ultimately leading to financial savings.**

The zSFP+ Interconnect System helps engineers developing next-gen products more easily achieve their goals. It provides the ultimate in design flexibility by facilitating an upgrade from 10 Gbps or 16 Gbps serial lane to 25 Gbps without increasing the PCB footprint or adding unnecessary costs for heat sinks. It also delivers a highly reliable solution on the front end, helping ensure the system will pass all testing parameters so that the design cycle is shortened and even greater cost savings are realized.

To learn more [www.molex.com/ab/zsfp+.html](http://www.molex.com/ab/zsfp+.html)