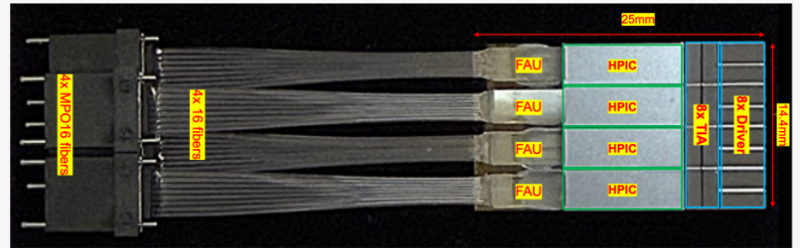


# Skorpios Unveils Revolutionary 1.6 Tbps and 6.4 Tbps Optical Engines to Deliver Lowest Cost-per-Bit for AI Data Centers

*New Tru-SiPh™ Photonic Integrated Circuits (PIC) and Optical Engines Enable Unprecedented Scale, Efficiency, and Cost Reduction for 102.4 Tbps AI Infrastructure*

TEMECULA, CA, UNITED STATES, March 16, 2026 /EINPresswire.com/ --

Skorpios Technologies, a leader in heterogeneous silicon photonics and advanced semiconductor manufacturing, today announced its breakthrough Tru-SiPh™ Optical Engine platform, featuring the industry's most advanced 1.6 Tbps PIC and Optical Engine, offering the lowest cost per bit, smallest form factor, and lowest power consumption, alongside the high-density 6.4 Tbps Optical Engine to power next-generation 102.4 Tbps Ethernet switches in hyperscale AI data centers and GPU fabrics.



New Skorpios Tru-SiPh 6.4Tbps Optical Engine for 102.4Tb Ethernet Switch

As hyperscalers accelerate massive AI cluster deployments with tens of thousands of GPUs, optical interconnects must deliver ultra-high bandwidth while slashing power, complexity, and cost per bit. Skorpios' Tru-SiPh™ platform accelerates this transformation by introducing the 1.6 Tbps PIC and Optical Engine, which is transformative by lowering the cost per bit for hyperscaler transceiver deployments in large-scale AI data centers by more than 30% starting in 2026 and beyond. This breakthrough enables dramatic reductions in power consumption, footprint, and overall system economics, making high-speed optical scaling economically viable at unprecedented volumes.

The Tru-SiPh™ 6.4 Tbps Optical Engine is built on an open, pluggable architecture that allows individual optical engines to be quickly replaced without disrupting the rest of the 102.4 Tbps Ethernet switching fabric, a critical advantage for hyperscale AI infrastructure. This modular design significantly improves network uptime, serviceability, and operational resilience compared to tightly integrated co-packaged optics architectures, where optical failures can require servicing or replacing an entire switch platform. Even as next-generation networking ASICs push power densities and thermal envelopes to new extremes, Skorpios' Tru-SiPh™ optical engines operate reliably at temperatures up to 85°C without requiring dedicated cooling,

enabling hyperscalers to deploy compact, high-density optical connectivity inside AI switching fabrics while delivering the industry's lowest cost per bit for 6.4 Tbps optical architectures.

Looking ahead, Skorprios plans to introduce next-generation optical engines in Q3 2026 capable of 400G/ lane and operating at temperatures up to 120°C while maintaining up to 45-year laser reliability, allowing hyperscale AI data centers to maintain maximum rack density, network uptime, and operational resilience even under the most demanding thermal conditions of modern AI infrastructure.

"AI factories will become the power plants of the intelligence economy," said Gunter Reiss, Chief Revenue Officer of Skorprios Technologies. "To build them, hyperscalers need optical interconnects that deliver massive bandwidth while minimizing power and cost per bit. By integrating redundant lasers, amplifiers, modulators, and photodiodes directly into silicon using our Tru-SiPh™ platform, Skorprios is enabling the most compact and efficient 1.6T and 6.4T optical engines powering the optical backbone of next-generation AI infrastructure."

### Built for AI-Scale Networking

The Skorprios open pluggable Tru-SiPh™ Optical Engine platform is purpose-built for AI superclusters and hyperscale GPU fabrics, delivering massive scale-out bandwidth inside next-generation AI data centers.

The architecture features:

- 1.6 Tbps PIC and Optical Engine: Pioneering lowest cost-per-bit, smallest form factor, and lowest power consumption for transformative transceiver economics in large-scale AI deployments starting 2026.
- 6.4 Tbps Optical Engine: High-density integration with 16 × 6.4 Tbps DR32 Optical Sub-Assemblies (each incorporating four 1.6 Tbps Optical Engines) for unprecedented optical density in Ethernet switching platforms.
- Linear Pluggable Optics (LPO) architecture - 200G per lane
- Integrated driver and TIA electronics
- Compatible with Broadcom TH6 and next-generation networking ASICs
- Silicon interposer integration for ultra-high-speed electrical routing
- Hot-pluggable/swappable architecture
- Streamlined packaging for lower system cost
- Flexible connector support: MPO, MMC, or SN-MT
- Approximately 30% lower power consumption compared to conventional optical architectures
- High-reliability integrated and redundant lasers with projected lifetimes up to 45 years

### Lower Cost-Per-Bit for AI Infrastructure

As AI factories and hyperscale GPU clusters expand at record speed, optical interconnects represent one of the largest cost and power drivers in modern data center infrastructure. The

global optical interconnect market, predominantly driven by hyperscaler AI deployments, is projected to grow from approximately \$22 billion in 2026 to \$41 billion by 2030 according to Mordor Intelligence.

Skorpios' non-ELSFP Tru-SiPh™ platform dramatically lowers optical networking costs through:

- Higher optical integration density
- Lower power consumption per port
- Simplified packaging and assembly
- Smaller optical engine footprint

The result is one of the lowest cost-per-bit optical interconnect solutions available for hyperscale AI networks, with the 1.6 Tbps PIC and Optical Engine setting a new benchmark for transceiver affordability and efficiency later in 2026.

“External-Laser Small Form Factor Pluggables (ELSFPs) belong to the previous generation of optical networking,” said Damien Lambert, CTO of Skorpios Technologies. “AI factories need something far more robust in 2026. Our Tru-SiPh™ platform integrates both primary and backup lasers directly into the Photonic Integrated Circuit (PIC) with real-time monitoring and seamless failover, delivering up to 45 years of time to 0.25% cumulative failure at maximum temperature. By eliminating costly external laser architectures and embedding laser redundancy directly into silicon, Tru-SiPh™ enables the most compact and power efficient Optical Engine, allowing hyperscalers to pair it with next-generation networking ASICs like Broadcom Tomahawk 6 while maximizing uptime, serviceability, and scalability for AI factory networks.”

## Availability

Skorpios' Tru-SiPh™ powered 1.6 Tbps and 6.4 Tbps Optical Engines will begin sampling to customers and ecosystem partners later in Q2 2026.

## Live Demonstration at OFC 2026

Skorpios will showcase its new Tru-SiPh™ silicon photonics portfolio at OFC 2026, taking place March 15–19 at the Los Angeles Convention Center.

Visitors can experience live demonstrations of the 1.6 Tbps and 6.4 Tbps Optical Engine platforms at Skorpios booth #4957 and learn how the company's silicon photonics PICs and Optical Engines are enabling the next generation of hyperscale AI networking infrastructure.

## About Skorpios Technologies

Skorpios Technologies is a leader in Silicon Photonics and advanced semiconductor fabrication, delivering next-generation solutions for AI infrastructure, hyperscale networking, HPC interconnects, aerospace, defense, MEMS, LiDAR, biotech, micro displays, and quantum computing. The company's proprietary Tru-SiPh™ heterogeneous integration platform embeds lasers and III-V materials directly into silicon, redefining photonic performance, scalability, and cost-efficiency. In addition, Skorpios provides test-wafer services and advanced foundry

capabilities from its Temecula, California fab, including 2.5D and 3D packaging, enabling disruptive startups, lab-to-fab university spin-offs, and global enterprises to bring breakthrough semiconductor and photonic technologies to production.

For more information, visit [www.skorpiosinc.com](http://www.skorpiosinc.com).

Gunter Reiss

Skorpios Technologies

+1 408-799-7097

[email us here](#)

Visit us on social media:

[LinkedIn](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/899687515>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.