Tower Semiconductor Teams up with Oriole to Advance AI Infrastructure and Networking with Nanosecond Optical Circuit Switching

Tower's advanced silicon photonics platform enables optical networking innovation with high-speed optical circuit switching and transceivers for AI infrastructure

MIGDAL HAEMEK, Israel, and Palo Alto, March 16, 2026 - Tower Semiconductor (NASDAQ/TASE: TSEM), the leading foundry for high-value analog semiconductor solutions, and Oriole Networks, developer of the PRISM (Photonic Routing Infrastructure for Scalable Models) and PRISM Ultra networking platforms, today announced their collaboration to deliver ultra-low, deterministic-latency networking for scale-up and scale-out AI architectures, built on Tower's mature silicon photonics platform.

As AI models continue to scale, requiring increasingly large clusters of processors, achieving high-radix networks with massive bandwidth and low latency becomes increasingly challenging. Leveraging Tower's advanced silicon photonics platform, Oriole's edge-switching architecture enables nanosecond optical circuit switching and a passive network core designed to deliver low and predictable tail latency with improved resiliency. Based on market reports by Dell'Oro and LightCounting, the AI Networking market is expected to surpass $80B by 2030.

Tower Semiconductor's silicon photonics platform enables the integration of lasers, optical amplification, switching, high-speed modulation, and high-speed detection on a single platform, supporting Oriole's nanosecond optical circuit switching with fast tunability and high bandwidth for AI networking.

"We are excited to expand our silicon photonics applications beyond traditional data center transceivers and into the network fabric itself," **said Dr. Ed Preisler, General Manager of RF Business Unit at Tower Semiconductor**. "Our joint work with Oriole is a key step toward bringing AI back-end networking to market that can scale clusters and break through today's latency wall."

The collaboration combines Oriole's networking technology with Tower's silicon photonics manufacturing platform to commercialize nanosecond optical circuit switching as a foundational building block of Oriole's network architecture.

"The exponential growth of AI is forcing the industry to rethink traditional electrical, packet-switched network infrastructure," **said James Regan, CEO of Oriole**. "Together with Tower Semiconductor, we're developing nanosecond optical circuit switching technology designed to deliver a scalable AI fabric where scale-up and scale-out converge into a single, homogeneous, synchronous network. As models grow, legacy architectures hit a hard latency wall - while Oriole's low, deterministic latency simply steps over it."

Tower Semiconductor's high-volume silicon photonics platform is optimized for high-speed optical interconnects and optical circuit switching, making Tower an ideal foundry partner for companies building next-generation AI infrastructure and data center networking.

Both companies will be attending the upcoming OFC 2026 Conference in Los Angeles, **March 17–19**, with representatives available for meetings during the event.

To learn more about Tower Semiconductor's advanced silicon photonics (SiPho) platform and RF & HPA technology offerings, visit **booth #2221**. Additional information is also available on the Company's website: here.

For more information about Oriole Networks, visit **booth #5344** or visit the company's website.

About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ/TASE: TSEM), the leading foundry of high-value analog semiconductor solutions, provides technology, development, and process platforms for its customers in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating a positive and sustainable impact on the world through long-term partnerships and its advanced and innovative analog technology offering, comprised of a broad range of customizable process platforms such as SiPho, SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, displays, integrated power management (BCD and 700V), and MEMS. Tower Semiconductor also provides world-class design enablement for a quick and accurate design cycle as well as process transfer services including development, transfer, and optimization, to IDMs and fabless companies. To provide multi-fab sourcing and extended capacity for its customers, Tower Semiconductor currently owns one operating facility in Israel (200mm), two in the U.S. (200mm), and two in Japan (200mm and 300mm) which it owns through its 51% holdings in TPSCo and shares a 300mm facility in Agrate, Italy with STMicroelectronics. For more information, please visit: www.towersemi.com.

Safe Harbor Regarding Forward-Looking Statements

This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements. A complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect Tower's business is included under the heading "Risk Factors" in Tower's most recent filings on Forms 20-F, F-3, F-4 and 6-K, as were filed with the Securities and Exchange Commission (the "SEC") and the Israel Securities Authority. Tower does not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

Tower Semiconductor Company Contact: Orit Shahar | +972-74-7377440 | oritsha@towersemi.com
Tower Semiconductor Investor Relations Contact: Liat Avraham | +972-4-6506154 | liatavra@towersemi.com

About Oriole

AI Networking, Reimagined. Oriole Networks is a photonic networking company, developing disruptive technologies for AI/ML and HPC networking that will revolutionize data centers. These technologies address AI's biggest challenges – speed, latency, and sustainability. Our holistic approach replaces energy-hungry electrical switching with photonic switching. By using only light to move data in the network, our solution will increase the efficiency of LLM training and inference to unprecedented levels while

dramatically reducing the energy consumption of data centers, currently putting a huge strain on energy grids. We can offer faster, more efficient, and more sustainable AI without sacrificing the planet. oriolenetworks.com

Oriole Press contacts:
Joost Verberk – VP Business Development & Marketing: joost.verberk@oriolenetworks.com
Nina Groothuijzen – Director of Marketing: nina.groothuijzen@oriolenetworks.com