Tower Semiconductor and Alcyon Photonics Announce Collaboration to Accelerate Integrated Photonics Innovation

Providing Silicon-Validated Photonics IP Based on Tower's SiPho Platform for Datacom, Telecom and Sensing Markets

MIGDAL HAEMEK, Israel, and MADRID, Spain, March 25, 2025 – **Tower Semiconductor** [NASDAQ/TASE: TSEM], the leader in high-value analog semiconductor foundry solutions, and **Alcyon Photonics,** a leader in integrated photonics design, today announced their collaboration to accelerate photonics integration. Through this partnership, Alcyon Photonics will provide customers with silicon-validated, high-performance photonic building blocks (BBs) and circuits to accelerate the development of next-generation optical applications.

Leveraging Tower Semiconductor's advanced, high-volume SiPho platform, this collaboration enabled the development of robust, silicon-proven photonic IP, facilitating a seamless transition from concept to production while ensuring exceptional performance, reliability, and manufacturability. Alcyon's proprietary design techniques, optimized for Tower's SiPho technology, provide significant competitive advantages, including outstanding stability that maintains channel drifts below 3 nm even with fabrication variations of up to 30 nm. Joined with Tower's high-volume SiPho manufacturing capabilities, this partnership provides customers with consistent, high-yield results, enabling efficient and cost-effective photonic integration.

"We are thrilled to partner with Tower Semiconductor to deliver best-in-class photonic IP to the market," **said Jimena García-Romeu, CEO of Alcyon Photonics**. "By combining our advanced photonics design expertise with Tower's industry-leading foundry SiPho technology, we are enabling customers to create compelling new applications with a faster and more predictable development cycle."

This collaboration brings specific advancements to market, including CWDM solutions optimized for data center networking in the O band, which support high-capacity and high-performance optical interconnects. Additionally, the partnership is driving advancements in coherent communications across the C+L bands, expanding bandwidth, enhancing scalability, and future-proofing optical networks.

"Tower Semiconductor is committed to fostering a strong ecosystem that supports our customers in accelerating their photonic innovation," **said Dr. Samir Chaudhry, Vice President of Customer Design Enablement, Tower Semiconductor**. " Collaborating with Alcyon Photonics as an IP partner further reinforces Tower Semiconductor's leadership in silicon

photonics, strengthening our offering by providing validated, high-performance photonic components that will help drive the next wave of integrated photonics applications."

To learn more about Tower's advanced silicon photonics (SiPho) platform and RF & HPA technology offerings, **visit Tower's booth #3222 at the upcoming OFC conference, April 1-3, 2025.** Additional information is also available on the company's website: here.

More detailed information and additional technical data on this development can be found here: Alcyon & Tower Semiconductor Whitepaper

For more information about Alcyon, visit www.alcyonphotonics.com.

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 SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, displays, integrated power management (BCD and 700V), photonics, 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 owns one operating facility in Israel (200mm), two in the U.S. (200mm), two in Japan (200mm and 300mm) which it owns through its 51% holdings in TPSCo, shares a 300mm facility in Agrate, Italy with STMicroelectronics as well as has access to a 300mm capacity corridor in Intel's New Mexico factory. 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 disclaims any obligation to update, the information contained in this release.

About Alcyon Photonics:
Alcyon Photonics is a leading innovator in integrated photonics design, delivering high-performance photonic building blocks and circuits for advanced optical applications. The company's cutting-edge solutions enable seamless, efficient, and reliable photonic integration, empowering industries from datacom and telecom to sensing and quantum technologies. Alcyon's proprietary design techniques ensure exceptional stability and performance, driving innovation and efficiency in next-generation optical systems. For more information, visit www.alcyonphotonics.com..

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