Tower Semiconductor and Coherent Demonstrate 400Gbps/lane Data Transmission with a Silicon Modulator in a Production-Ready Sipho Process

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The demonstration uses a silicon MZM without use of exotic materials targeting next-generation 3.2T optical transceivers

MIGDAL HAEMEK, Israel, March 23, 2026 - Tower Semiconductor (NASDAQ/TASE: TSEM), the leading foundry for high-value analog semiconductor solutions and Coherent Corp. (NYSE: COHR), a global leader in photonics, today announced a breakthrough demonstration of 400 Gbps/lane data transmission using a silicon modulator built in a production-ready silicon photonics (SiPho) process. This achievement targets next-generation 3.2T optical transceivers and extends the capabilities of silicon for pluggable transceivers and Co-Packaged Optics (CPO) in datacenter connections.

Details of the modulator were presented last week at OFC. The demonstration showed a clear open eye at 420 Gb/s PAM4, and utilized Coherent's InP CW high power laser. The performance milestone was enabled by the strong collaboration between Coherent's advanced design expertise and Tower Semiconductor's industry-leading SiPho platform.

The Optical transceiver market continues to outpace prior projections and next-generation bandwidth is required to continue the exponential growth in AI infrastructure.

"We strongly value the partnership with Coherent and are very excited about this breakthrough," **said Russell Ellwanger, CEO of Tower Semiconductor**. "The result can extend the use of silicon for another generation of transceivers, re-utilizing the large multi-fab capacity investments we continue to make while we proceed with our work on more advanced material systems for next-generations".

"We are pleased to partner with Tower Semiconductor on Silicon Photonics Platforms," **said Jim Anderson, CEO of Coherent**. "Together with Tower Semiconductor, we are advancing high-performance optical interconnects for AI-driven data centers."

For additional information about Tower Semiconductor's SiPho technology platform, visit here.

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.

About Coherent
Coherent is the global photonics leader. We harness photons to drive innovation. Industry leaders in the datacenter, communications, and industrial markets rely on Coherent's world-leading technology to fuel their own innovation and growth.

Founded in 1971 and operating in more than 20 countries, Coherent brings the industry's broadest, deepest technology stack; unmatched supply chain resilience; and global scale to help its customers solve their toughest technology challenges. Visit us at coherent.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.

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