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November 19, 2024 at 6:00 AM EST

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Addressing the surging demand for faster, high-capacity solutions for AI, cloud computing, and data centers by doubling the speed of today's 800Gbps high-volume transceivers

MIGDAL HAEMEK, Israel, November 19,2024 – Tower Semiconductor (NASDAQ/TASE: TSEM), a leading foundry of high-value analog semiconductor solutions, today announced the start of volume production of 1.6 Tbps silicon photonic products for multiple lead customers based on its latest Silicon Photonics (SiPho) platform. Tower's latest platform includes innovations that have helped double data rates relative to its current 800 Gpbs high-volume products. These innovations have been developed in close collaboration with several Tier 1 customers that have designed breakthrough 1.6Tbps products on this enhanced platform and have now begun to order production quantities.

The process supports data rates of 200Gbps per lane, of which eight are built in parallel to achieve the total 1.6Tbps transceiver throughput. This is in contrast to the 100Gbps per lane data rates of existing high-volume silicon photonic technology as used in today's high-volume 800Gbps products.

"We have recently announced 1.6Tbps optical transceivers based on silicon photonics technology in addition to ramping up our SiPho based 8x100G transceivers. We are very happy to have a strong partner in Tower. Tower can help innovate and bring to market advanced technology and also has the experience to ramp silicon photonic products to high-volume thereby benefiting our mutual customers." said **Dr. Jack Xu, VP of Transceiver Engineering, Coherent Corp**.

Tower's high volume Silicon Photonics platform delivers all of the key enabling features required for high data rate optical transceivers including high bandwidth optical modulators and low-loss edge coupling from lasers, and to optical fibers. These features play a vital role in the development of high-speed data communication components and vastly support the industry shift from 100Gbs per lane to 200Gbs per lane and beyond.

"We are thrilled to announce this achievement and to see it deployed by esteemed companies like Coherent, a leader in high-speed data communications," **said Dr. Marco Racanelli, President of Tower Semiconductor.** "As always, Tower is dedicated to delivering cutting-edge technology solutions that empower our customers to shape and advance their respective markets."

For additional information on Tower's RF & HPA technology platform, please 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 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 two facilities in Israel (150mm and 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 ST as well as has access to a 300mm capacity corridor in Intel's New Mexico factory. For more information, please visit: www.towersemi.com.

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Attachment

- Coherent 1.6T PR_Final



Source: Tower Semiconductor