Tower Semiconductor and Teramount Announce Technology Collaboration Connecting a Large Number of Optical Fibers to Silicon Chips

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Addresses a key challenge of next generation high bandwidth datacom and telecom applications

MIGDAL HAEMEK, Israel, and JERUSALEM, Israel – March 6, 2023 – Tower Semiconductor, (NASDAQ/TASE: TSEM), the leading foundry of high value analog semiconductor solutions, and Teramount, the leader in scalable solutions for connecting optical fibers to silicon chips, today announced a collaboration based on Teramount's '*PhotonicPlug*' technology and Tower'ssilicon photonic 'Bump-ready' wafers.'Bump-ready' wafers combine Tower's high-volume PH18 silicon photonic technology with features that allow the simultaneous connection of a large number of fibers to the chip dramatically simplifying assembly into a final high-speed data transport solution for datacenters and telecom networks, as well as new emerging applications in artificial intelligence (AI) and sensors. The technology enables scalable silicon photonics packaging, high yield fiber assembly and compatibility with high-volume semiconductor manufacturing lines.

Tower has successfully manufactured PH18 '*Silicon Photonic Bump-ready*' wafers that demonstrated unparalleled performance in assembly tolerances when integrated with Teramount's '*PhotonicPlug*' connectors solving a key bottleneck in the wider use of silicon photonics. PH18 is Tower's high-volume silicon photonic platform available to all foundry customers.

"Our joint work with Tower has been very successful in producing this innovative scalable connectivity technology in a high-volume manufacturing facility," said Hesham Taha, CEO of Teramount. "By offering this capability to the industry, Teramount solves one of the major hurdles to further adopt optical connectivity, which is critical for so many applications that require high-speed data transfers".

Going forward,Tower and Teramountwill offer this capability to customers who need silicon photonics solutions for devices ranging from transceivers to high-bandwidth switches, as well as Co-Packaged Optics (CPO) for networking and advanced computing applications.

"Through our collaboration with Teramount, we are able to offer our customers yet another tool to enable differentiated optical solutions," said Dr. Ed Preisler, Director of Technology Development, RF & HPA at Tower. "This feature is a powerful addition to Tower's comprehensive portfolio of photonics technologies, which include our high-volume PH18 platform, and our unique heterogeneously integrated III-V technologies."

For more information about Tower's RF and SiPho technology offerings, please visit here.

About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the leading foundry of high value analog semiconductor solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating 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, 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 owns two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm), two facilities in Japan (200mm and 300mm) which it owns through its 51% holdings in TPSCo and is sharing a 300mm manufacturing facility being established in Italy with ST. For more information, please visit: www.towersemi.com.

About Teramount

Teramount changes the world of optical connectivity by offering a novel solution for connecting optics to silicon for data center, advanced computing, sensors and other datacom and telecom applications. Its innovative PhotonicPlug solution provides scalable connectivity of fibers to photonic chips and aligns photonics with standard semiconductor high-volume manufacturing and packaging capabilities. Teramount office is located in Jerusalem Israel. for more information, visit www.teramount.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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