
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month November 2024 No. 3

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

Ramat Gavriel Industrial Park

P.O. Box 619, Migdal Haemek, Israel 2310502

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes No

**On November 26, 2024, the Registrant Announces Release of 300mm Silicon Photonics
Process as a Standard Foundry Offering**

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: November 26, 2024

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Tower Semiconductor Releases 300mm Silicon Photonics Process as a Standard Foundry Offering

Featuring industry-leading figures of merit addressing the evolving needs for next-generation datacom applications

MIGDAL HAEMEK, Israel, November 26, 2024 – Tower Semiconductor (NASDAQ/TASE: TSEM), a leading foundry of high-value analog semiconductor solutions, today announced the release of its new 300mm Silicon Photonics (SiPho) process as a standard foundry offering. This advanced process complements Tower's well-established 200mm (PH18) platform that is in high-volume production today, providing its customers with a cutting-edge solution tailored to meet the growing needs of high-speed data communications for next generation datacom applications.

The unique 300mm offering features best-in-class silicon waveguides and the most advanced low-loss silicon nitride waveguide offerings in the industry. The larger wafer size enhances compatibility with industry-standard OSAT (Outsourced Semiconductor Assembly and Test) platforms, facilitating seamless integration with electronic components and improving overall efficiency.

"We are proud to introduce our new, highly advanced Silicon Photonics offering, which provides a seamless path for our existing customers to transition to next-generation technology on 300mm wafers," **said Dr. Edward Preisler, Vice President and General Manager of RF Business Unit.** "This process builds on Tower's industry-leading 200mm SiPho platform both in terms of continuous process enhancements and increasing flexibility of supply for our customers."

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.

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 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 Investor Relations Contact: Noit Levy | +972-4-604-7066 | noitle@towersemi.com

Tower Semiconductor Company Contact: Orit Shahar | +972-74-7377440 | oritsha@towersemi.com
