
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the month of June 2026 No.2

Commission File Number 0-24790

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 of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

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: June 18, 2026

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Tower Semiconductor and Marvell Ship Over Five Million Coherent Photonic Ics

*Tower's advanced silicon photonics platform enables high-bandwidth,
energy-efficient data center connectivity*

MIGDAL HAEMEK, Israel, June 18, 2026 - Tower Semiconductor (NASDAQ/TASE: TSEM), the leading foundry for high-value analog semiconductor solutions, today announced a significant milestone. The company, in partnership with Marvell Technology, has shipped over five million coherent photonic integrated circuits (PICs) to Marvell global customers, delivering advanced, high-performance photonics solutions to address the growing bandwidth and efficiency demands of AI-driven data center interconnect (DCI) networks.

Coherent PICs are complex because they must control the phase and polarization of light, not just the amplitude. The design and process requirements for these PICs are far more stringent compared to simpler direct-detect chips.

“As optical transceiver applications and requirements continue to evolve, photonics platforms must evolve to meet these requirements. This is especially true in the area of coherent optical transceivers,” said **Dr. Ed Preisler, Vice President and General Manager of the RF Business Unit at Tower Semiconductor**. “We are proud to collaborate with Marvell to stay at the forefront in this field.”

Tower has collaborated with Marvell to advance next-generation coherent technologies, including process capabilities, such as the integration of non-silicon materials, the 3D integration of electronics and the enablement of advanced optical packaging such as V-Grooves, which serve to extend the performance and functionality of silicon photonics platforms.

“This milestone demonstrates the strength of our collaboration,” said **Dr. Radha Nagarajan, Senior Vice President and Chief Technology Officer, Optical Engineering, at Marvell**. “As one of our key ecosystem partners, we look forward to continue working with the Tower team to advance next-generation coherent technologies for scale-across data center architectures, providing customers with the latest efficient, high-performance photonics technologies to power their advanced AI workloads.”

For additional information about Tower Semiconductor's SiPho technology platform, [visit here](#).

For additional information about Marvell, [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.

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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