
**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 April 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

On April 27, 2026, the Registrant and Axiro Semiconductor Deliver High-Power, High-Efficiency SiGe ICs for Secure U.S. Defense Applications

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: April 27, 2026

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Tower Semiconductor and Axiro Semiconductor Deliver High-Power, High-Efficiency SiGe ICs for Secure U.S. Defense Applications

Leveraging Tower's advanced SiGe technology, these U.S.-fabricated Beamforming ICs achieve superior performance, and strengthen secure domestic supply chains for critical next-generation radar and satcom applications

MIGDAL HAEMEK, Israel, and SAN DIEGO, CA. April 27, 2026 - [Tower Semiconductor](#) (NASDAQ/TASE: TSEM), the leading foundry for high-value analog semiconductor solutions, and Axiro Semiconductor Inc., a U.S.-based company specializing in advanced radar, satcom, and high-speed communications solutions, today announced availability of Axiro's high-performance radar beamforming integrated circuits (BFICs), built on Tower's market-leading Silicon Germanium (SiGe) technology. The devices are fabricated by Tower Semiconductor in its US facilities, and designed and sold by Axiro, strengthening the resilience of U.S. domestic defense supply chains. Currently ramping to volume production, Axiro's BFICs are ready for deployment in critical defense systems and set a new performance benchmark over existing market alternatives, driving increased design wins and positioning both Tower and Axiro as key players in delivering secure foundry services for next-generation defense applications.

Axiro's new Ku and X-band BFICs deliver differentiated advantages across key performance metrics including gain, linearity, output power, high-efficiency, and fast-switching capabilities, which are critical for modern defense radar applications. These devices are designed to meet the stringent requirements of advanced radar systems while addressing growing demand from U.S. defense primes and radar manufacturers for domestically sourced solutions.

"Tower has an established presence as a leading vendor to the U.S. aerospace and defense industry," said **Mike Scott, Vice President and General Manager of the Aerospace & Defense Business Unit at Tower Semiconductor**. "This A&D experience, along with our market-leading SiGe technology capabilities, sets the foundational performance and scalability essential for modern defense systems, empowering partners, like Axiro, to deliver innovative, high-performance solutions to meet the sector's rising demands."

"We selected Tower Semiconductor for their unparalleled SiGe technology expertise, which is fundamental to achieving the superior performance of our radar BFICs," said **Naveen Yanduru, CEO of Axiro Semiconductor**. "As a U.S.-based company, we design and deliver our domestically engineered solutions directly to American defense prime contractors. Working with Tower's US facility enables us to reinforce our commitment to secure, mission-critical technology within the U.S. defense supply chain."

Tower Semiconductor will be participating in upcoming SPIE Defense and Security 2026, taking place April 28 - 30, 2026 in National Harbor, MD, booth #739.

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

For additional information about Tower Semiconductor's Aerospace and Defense comprehensive technology solutions, [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.

About Axiro

Axiro Semiconductor Inc. is a U.S.-based semiconductor design company specializing in advanced RF, radar, satcom, and high-speed communication solutions. The company develops high-performance integrated circuits and front-end solutions for mission-critical applications across aerospace, defense, and next-generation connectivity systems. Axiro leverages a multi-technology design approach spanning SiGe, RF CMOS, GaAs, and GaN to deliver optimized performance, efficiency, and integration for demanding system requirements.

For More information, please visit: www.axiro.com

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

Tower Semiconductor Investor Relations Contact: Liat Avraham | +972-4-6506154 | liatavra@towersemi.com