
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month March 2025 No. 1

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

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: March 5, 2025

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Tower Semiconductor to Showcase its Next-Generation BCD Technology at APEC 2025

Presenting Advanced Power Management Solutions for Automotive, AI, Mobile, and Data Center Applications

MIGDAL HAEMEK, Israel, March 5, 2025 – Tower Semiconductor (NASDAQ/TASE: TSEM), a leading foundry of high-value analog semiconductor solutions, today announced its participation in the upcoming 2025 Applied Power Electronics Conference (APEC), taking place March 17–19 in Atlanta, Georgia. The Company will highlight its cutting-edge power management technology platform with its high-efficiency power conversion capabilities including the latest 300mm 65nm 3.3V-based BCD solution, designed to meet the growing demands of Automotive, AI, Mobile PMIC, and Data Center power delivery.

Tower's industry-leading 0.18 μ m (200mm) and 65nm (300mm) Bipolar-CMOS-DMOS (BCD) platforms drive innovation across a broad range of applications, including driver ICs, battery management, portable power solutions, PC power control, and high-voltage gate drivers. With its recently announced 3.3V gate oxide technology offering 3.3V and 5V-based solutions as well as a comprehensive suite of design enablement tools, Tower continues to set new benchmarks in power efficiency, enabling next-generation solutions for a variety of high-demand sectors.

Presentation schedule:

Tower Semiconductor's BCD Technology Foundry Offerings: From Automotive to Datacenter Power

By Dr. Mete Erturk, Sr. Director, Power Management Marketing

Date: March 19, 2025

Time: 12:45 PM – 1:15 PM

Location: A312

To meet with Tower's engineering team at APEC 2025, visit **booth #1148**.

For more information on Tower's Power Management 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 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 one operating facility in Israel (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 STMicroelectronics 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, 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.

###

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

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