
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month April 2019 No. 2

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 April 29, 2019, the Registrant and Vishay Siliconix Announce Expanding
Manufacturing Collaboration with Next-generation Automotive Platforms

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 29, 2019

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Vishay Siliconix and TowerJazz Expand Manufacturing Collaboration with Next-generation Automotive Platforms

Production of additional platforms utilizes two of TowerJazz's automotive qualified global fabrication facilities

MIGDAL HAEMEK, Israel, and MALVERN, Pennsylvania, April 29, 2019 - TowerJazz, the global specialty foundry leader and Vishay Siliconix, one of world's foremost manufacturers of low-voltage power MOSFETs (metal-oxide semiconductor field-effect transistors), today announced manufacturing portfolio expansion of existing and next-generation power semiconductor products for the automotive markets, to be produced in two of TowerJazz's worldwide IATF16949 qualified manufacturing facilities. The newly developed automotive dedicated platforms will enable improved efficiency of power management circuitry in end products while reducing space requirements.

"With the ongoing increase of electronic content, automotive has been the main driver of growth in our industry. Ranking as Vishay Siliconix's number one foundry while continuously supporting growing market activities, this expansion recognizes TowerJazz's valuable continued commitment, exceptional technical and customer support, strong collaboration, and delivery performance," said Serge Jaunay, Vishay MOSFET Division Head.

According to IC Insights, the automotive IC market reached record revenue of \$32.3 billion in 2018 and is expected to remain the fastest growing IC market with a CAGR of 12.5%, exceeding \$43 billion in 2021. This market is expected to be dominated by analog ICs, power management including power MOSFETs, visual and non-visual sensors, RF, and lighting.

Vishay Siliconix utilizes TowerJazz's Transfer Optimization and development Process Services (**TOPS**) business unit for its world-leading low-and high-voltage power MOSFET products. These services provide best-in-class transfer methodologies, including the development of next-generation custom processes, technological capabilities with manufacturing capacity assurance and flexibility.

"We are excited to expand our long-term collaboration and business relationship with Vishay Siliconix, our highly valued customer and partner. The combination of both companies' extensive technology expertise and market leadership, fosters an environment allowing mutual growth and success, enabling us to best serve Vishay Siliconix's technological and operational needs", said Zmira Shternfeld-Lavie, Senior Vice President and General Manager of Transfer, Optimization and development Process Services (**TOPS**) Business Unit.

For more information about TowerJazz's TOPS offerings, please visit [here](#).

For more information about TowerJazz technology, please visit: www.towerjazz.com.

For more information about Vishay Siliconix technology, please visit [here](#).

About Vishay

Vishay Intertechnology, Inc., a Fortune 1000 Company listed on the NYSE (VSH), is one of the world's largest manufacturers of discrete semiconductors (diodes, MOSFETs, and infrared optoelectronics) and passive electronic components (resistors, inductors, and capacitors). These components are used in virtually all types of electronic devices and equipment, in the industrial, computing, automotive, consumer, telecommunications, military, aerospace, power supplies, and medical markets. Vishay's product innovations, successful acquisition strategy, and "one-stop shop" service have made it a global industry leader. Vishay can be found on the Internet at www.vishay.com.

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its subsidiaries operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures next-generation integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, medical and aerospace and defense. TowerJazz's advanced technology is comprised of a broad range of customizable process platforms such as: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides world-class design enablement for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (**TOPS**) to IDMs and fabless companies that need to expand capacity. To provide multi-fab sourcing and extended capacity for its customers, TowerJazz operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three facilities in Japan (two 200mm and one 300mm) through its partnership with Panasonic Semiconductor, Solutions Co. LTD. For more information, please visit: www.towerjazz.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 TowerJazz'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 and Jazz's most recent filings on Forms 10-K and 10-Q, as were filed with the SEC, respectively. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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