
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month May 2020 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 May 27, 2020, the Registrant announced Infinera Leverages Tower Semiconductor SiGe Technology in its Industry-leading 800Gbs Optical Engine

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: May 27, 2020

By: /s/ Nati Somekh

Name: Nati Somekh

Title: Corporate Secretary

Infinera Leverages Tower Semiconductor SiGe Technology in its Industry-leading 800Gbs Optical Engine

Providing the highest performance Data Center and 5G Infrastructure Optical ICs

MIGDAL HAEMEK, Israel, May 27, 2020 –Tower Semiconductor (NASDAQ/TASE: TSEM), the leader in high-value analog semiconductor foundry solutions, today announced Infinera’s selection of Tower’s high performance Terabit SiGe BiCMOS platform for use in Infinera’s industry-leading 800G sixth-generation Infinite Capacity Engine (ICE6). ICE6 provides 800 gigabits per second single wavelength with unparalleled performance providing significant cost, power, and fiber capacity advantages to network operators, enabling them to cost-effectively address the relentless bandwidth demand on their networks.

“Infinera always leverages best-in-class technologies to achieve industry-leading system performance. This includes Infinera’s industry-leading indium phosphide (InPh) photonic integrated circuits and Tower’s advanced silicon-germanium (SiGe) for high bandwidth driver and receiver circuitry,” said Dr. Ray Milano, Senior Vice President, Optical Module Development at Infinera.

Infinera’s ICE6 optical engine is the latest innovation from Infinera’s Optical Innovation Center and designed in a compact digital coherent optical (DCO) package that can be easily integrated into a variety of networking platforms. Supporting two 800G wavelengths and boasting ground-breaking optical feature, the 1.6Tbs optical engine demonstrated significantly superior performance than competing solutions providing incremental value to network operators.

Tower Semiconductor’s advanced Terabit SiGe BiCMOS platform (SBC18) is optimized for high-speed networking applications providing transistors with speeds exceeding 300GHz and is a workhorse for industry leaders designing high-performance telecom and datacom optical networks with speeds of 100Gbps, 400Gbps and now 800Gbps. This SiGe platform is also tailored to deliver the highest performance for high-frequency wireless communications such as automotive radar, satellite communications and 5G for both sub-6GHz and mm-wave bands.

“We are very proud to partner with Infinera in the development of their industry-leading 800G optical engine. Our collaboration with Infinera’s team has allowed both companies to achieve an important milestone in the optical transmission market segment,” said Dr. Marco Racanelli, Sr. Vice President and General Manager of Analog IC Business Unit, Tower Semiconductor. “Tower continues to bring to market cutting-edge technologies and corresponding high-volume manufacturing capabilities to serve the rapidly growing data transport market and enable industry-leading companies such as Infinera to deliver differentiated, high-value solutions.”

For more information about Tower Semiconductor’s RF & HPA process technology offerings, please [click here](#).

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About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the leader in high-value analog semiconductor foundry solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating 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, 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 Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies. To provide multi-fab sourcing and extended capacity for its customers, Tower Semiconductor 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 TPSCo. 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 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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