

TOWER SEMICONDUCTOR LTD

Form 6-K

March 23, 2017

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month March 2017 No.4

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

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On March 23 2017, the Registrant Announce New Foundry Silicon  
Photonic (SiPho) Process Targeting Optical Transceiver Electronics Market

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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 23, 2017    By:    /s/ Nati Somekh  
Name: Nati  
Somekh  
Title: Corporate  
Secretary

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NEWS ANNOUNCEMENT FOR IMMEDIATE RELEASE

TowerJazz Announces New Foundry Silicon Photonic (SiPho) Process Targeting Optical Transceiver Electronics Market

Collaborates with Phoenix Software to provide customers with photonic PDKs for the manufacture of optical integrated circuits for optical networking components

LOS ANGELES, Calif., March 23, 2017, OFC – TowerJazz, the global specialty foundry leader, announced today a new silicon photonic process (SiPho) which complements its SiGe BiCMOS processes utilized for the manufacture of optical transceiver electronics. Further, TowerJazz is collaborating with Phoenix Software to provide process design kits (PDKs) for its customers who are developing optical networking and data center interconnects applications. Silicon photonics holds the potential to become a cost-effective, scalable technology for the production of photonic integrated circuits and addresses the high-performance requirements of these applications.

TowerJazz's foundry SiPho process offering is built to enable a wide range of optical fiber interconnect Tx and Rx front-end optical ICs. The process includes several versions of single-mode silicon waveguides, high speed germanium photodetectors, p-n junction modulators and enablement for edge and grating couplers.

Phoenix Software's award winning PIC design solution, OptoDesigner 5.1, uses a unique process known as photonic synthesis to map design intent into a design-rule clean circuit layout targeted to the TowerJazz SiPho process. Designers can use OptoDesigner's parametric object oriented scripting environment and its integrated photonic simulators to optimize their designs to achieve an optimal layout that meets their performance and design requirements while also ensuring robust design manufacturability.

"We are excited to be entering the silicon photonics foundry space in order to provide solutions to a greater portion of the optical transceiver market for our customers," said Dr. Marco Racanelli, Sr. Vice President and General Manager of RF & High Performance Analog Business Unit, TowerJazz. "As a pure-play foundry, design enablement plays a critical and complementary role to the manufacturing process and we are excited to have partnered with Phoenix Software which has extensive experience in the silicon photonics space to bring high-value PDKs to our customers."

"PDK-based design is key to achieving greater designer productivity and we are very excited to be working with TowerJazz to make their SiGe BiCMOS PDKs available to the datacom market", said Twan Korthorst, CEO of Phoenix Software. "We are especially pleased to be working with TowerJazz as they offer world-class production capabilities to our mutual customers in the integrated photonics market."

Availability

SiPho PDKs for TowerJazz' SiPho process will be available Q3 2017. Please contact [info@towerjazz.com](mailto:info@towerjazz.com) more information.

TowerJazz and Phoenix will be exhibiting at OFC, March 20-23, 2017 at the Los Angeles Convention Center in booth #3824 and booth #3538 respectively.

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiaries Jazz Semiconductor, Inc. and TowerJazz Texas Inc., operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides a world-class design enablement platform 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 additional facilities in Japan (two 200mm and one 300mm) through TowerJazz Panasonic Semiconductor Co. (TPSCo), established with Panasonic Corporation of which TowerJazz has the majority holding. Through TPSCo, TowerJazz provides leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies, including the most advanced image sensor technologies. For more information, please visit [www.towerjazz.com](http://www.towerjazz.com) or [www.tpsemico.com](http://www.tpsemico.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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