

TOWER SEMICONDUCTOR LTD

Form 6-K

April 29, 2014

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month April 2014 No. 5

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

Ramat Gavriel Industrial Park

P.O. Box 619, Migdal Haemek, Israel 23105

(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 April 29, 2014, the registrant announced its New, Record Breaking Ultra High Digital Density 700V Power Management Platform at ChipEx 2014

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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: April 29, 2014

By: /s/ Nati Somekh  
Name: Nati Somekh  
Title: Corporate Secretary

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NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

TowerJazz Presents its New, Record Breaking Ultra High Digital Density 700V Power Management Platform at ChipEx 2014

MIGDAL HAEMEK, Israel, April 29, 2012 – TowerJazz, the global specialty foundry leader, today announced that it will participate at ChipEx's annual conference of the Israeli microelectronics industry, on April 29-30, 2014 at The Israel Trade Fairs & Convention Center in Tel Aviv, Israel. TowerJazz will be exhibiting as well as presenting its record breaking 700V power management platform with a paper titled, "Ultra high digital density 700V platform incorporating shallow trench isolation for advanced digital offline applications," presented by Shye Shapira, TowerJazz Director of Power Management R&D.

"We are pleased with the opportunity to showcase our advanced solution at ChipEx which attracts an international audience. Our new 700V power platform allows the highest digital gate density currently available for integrated 700V power management applications. This offering from TowerJazz will enable Israeli and other startups to leapfrog their position in the power management application space especially in digital lighting applications. The new platform will allow integrations of digital analog mid-voltage and high voltage control stages on one chip, replacing large control modules integrated on board so far. This platform will further extend our leadership in this field where we have first tier customers and have shipped thousands of wafers," said Dani Ashkenazi, Vice President of Sales for APAC and Israel.

The main application for the new platform is LED lighting, a high growth industry. According to data from IHS, the LED lighting segment will rise to \$5.9 billion in 2018, up from \$4.2 billion in 2013 with a 5-year CAGR of 7%.

The platform will be presented in Track C: Physical Design & Implementation taking place at 12:30am – 1:00pm on April 30, 2014. In addition, TowerJazz will showcase its full specialty offering of RF SiGe and its image sensor technologies in a presentation booth. For more information, please contact Oded Harel, Director, Sales & Applications in Israel, TowerJazz, oded.harel@towerjazz.com.

About TowerJazz's 700V Power platform

TowerJazz's TS18UHV – the first 700V 8" 0.18um – allows customers to design in a smaller node, very high voltage ICs with an ability for highly functional integration. This also allows integration of an external power device and is suitable for LED driver applications in general illumination and primary controllers in power supplies. In addition, this process offers integration of digital and analog functionality as well as modularity of the platform to fit different needs for various applications. TS18UHV provides a competitive power device R<sub>dson</sub> and the best in the industry digital circuit density (up to 125k gates/mm<sup>2</sup>).

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor, Inc. and its fully owned Japanese subsidiary TowerJazz Japan, Ltd., operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz also owns 51% of TowerJazz Panasonic Semiconductor Company, Ltd. through a joint venture with Panasonic Corporation. 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 & 700V), and MEMS capabilities. Through the JV with Panasonic, TowerJazz offers best of class 65nm CMOS image sensor dark current and quantum efficiency performance as well as 45nm digital technology. TowerJazz provides a world-class design enablement platform that enables a quick and accurate design cycle. TowerJazz also offers Transfer Optimization and development Process

Services (TOPS) to IDMs and fabless companies that need to expand capacity. To provide multi-fab sourcing for its customers, TowerJazz operates two manufacturing facilities in Israel, one in the U.S., and four in Japan. For more information, please visit [www.towerjazz.com](http://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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