

TOWER SEMICONDUCTOR LTD

Form 6-K

March 13, 2014

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of March 2014 No. 3

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

On March 13, 2014, the registrant announced First 700V 8" 0.18um Power Platform at APEC 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: March 13, 2014

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

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TowerJazz Announces First 700V 8" 0.18um Power Platform at APEC 2014

Most advanced power technology available enables customers to design high voltage ICs in smaller node on 8" wafer for highly functional integration

NEWPORT BEACH, Calif., March 13, 2014 – TowerJazz, the global specialty foundry leader, announces TS18UHV – the first 700V 8" 0.18um Power platform which 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_{dson} and the best in the industry digital circuit density (up to 125k gates/mm²).

According to data from IHS, the growth of LED lighting and the continuous improvement in LED pricing drives market growth. 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%, according to IHS. At the same time, the industrial market segment for analog ICs is expected to rise to \$9.2 billion in 2018 from \$6.8 billion in 2013 with a 5-year CAGR of 8%.

"TowerJazz is introducing the most advanced 700V 8" technology currently available. This technology enables our customers to efficiently design integrated circuits (ICs) for general illumination LED applications, power supplies and industrial applications," said Dr. Marco Racanelli, Sr. VP and GM of Power & RF/HPA Business Groups, TowerJazz. "Competitive R_{dson} of the power devices allows for higher efficiency and better costs. High density digital and analog circuits enable higher integration of features while modularity of the platform creates opportunities for choice of modules needed for design."

TowerJazz will be exhibiting at APEC in Fort Worth, TX on March 17-19, 2014 at booth #314. For more information, please contact Marijana Vukicevic at marijana.vukicevic@towerjazz.com.

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 manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, Mixed-Signal/CMOS, RFCMOS, CMOS Image Sensor, Power Management (BCD), and MEMS capabilities. TowerJazz also provides a world-class design enablement platform that enables a quick and accurate design cycle. In addition, TowerJazz provides (TOPS) Transfer Optimization and development Process Services to IDMs and fabless companies that need to expand capacity. TowerJazz offers multi-fab sourcing with two manufacturing facilities in Israel, one in the U.S., and one in Japan. 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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