

TOWER SEMICONDUCTOR LTD

Form 6-K

December 10, 2013

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of December 2013 No. 2

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 December 10, 2013, the registrant and Silicon Works Announce Power Management IC (PMIC) with Embedded LED Driver IC Set for Laptop Production. Attached please find the press release.

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: December 10, 2013

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

NEWS ANNOUNCEMENT

TowerJazz and Silicon Works Announce Power Management IC (PMIC) with Embedded LED Driver IC Set for Laptop Production

PMIC for laptop is installed in LED display panel; targeting over 4M units shipped in Korea alone

MIGDAL HAEMEK, Israel and DAEJEON, Korea, December 10th, 2013 – TowerJazz, the global specialty foundry leader, and Silicon Works Co., Ltd., a leading Korean fabless company, announced today a power management integrated circuit (PMIC) with an embedded LED driver IC was developed utilizing TowerJazz's 0.18um Bipolar-CMOS-DMOS (BCD) process. TowerJazz's unique 0.18um BCD process variant with isolated drain fills a void in the current foundry BCD market space and opens the door for fabless/fablite companies to capture markets not previously available. The isolation scheme allowed Silicon Works to implement an LED driver IC, traditional PMIC and negative charge pump in one chip to form a 'one chip solution.' This disruptive approach allows Silicon Works to improve performance while providing PCB board space and pricing reductions.

TowerJazz is one of the very few foundries offering the technology which enables this one chip solution and serves as a distinct advantage. The close collaboration during development, where TowerJazz supported new devices and tailored other features to meet Silicon Works' requirements, enabled the improvement of product characteristics. The strong application knowledge of Silicon Works benefitted TowerJazz as well by enforcing device options that are optimized to next generation PMIC applications. Together, the solution provides superior product efficiency and a cost benefit as a one chip solution. The product will be in large volume production by year end.

TowerJazz's unique 0.18um BCD process can fully isolate drain and source from the substrate providing the benefits of expensive SOI technology while using more cost-effective standard bulk silicon substrates. This unique isolation technique allows integration of display drivers requiring positive and negative supply together with digital control, precision analog and power management functions creating highly integrated PMICs. TowerJazz's suite of design enablement support that includes analog-accurate models, NVM IP, ESD support and easy-to-use design kits help bring products to market quickly with a simplified design flow and first-time silicon success.

"Our PMIC product using TowerJazz's 0.18um BCD process is efficient in terms of several aspects. Most importantly, TowerJazz's BCD deep platform made a significant contribution to reducing the cost by developing a one chip solution. This is a very competitive advantage and we expect production will ramp significantly in the coming years, targeting millions of units per month if the market becomes mature," said DK Han, Chief Executive Officer of SiWorks.

“We are very pleased to initiate mass production with Silicon Works, the leading fabless company in Korea for PMIC application. Along with LED driver IC production for TV and laptops, this PMIC for laptops successfully started production within a short period of development time. We look forward to continually working with Silicon Works for upcoming projects as a strategic partner while building a successful roadmap together,” said Michael Song, VP of Sales and President of TowerJazz Korea.

About Silicon Works

Silicon Works Co. Ltd. (KOSDAQ: 108320:KS) is the No.1 domestic Fabless company in Korea which designs, develops, and markets mixed-signal semiconductors. The Company utilizes its own algorithm and technologies to enhance the features and capabilities of flat panel displays that are used in electronic devices and mobile handsets. For more information, please visit www.siliconworks.co.kr

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) Technology Optimization 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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