TOWER SEMICONDUCTOR LTD
Form 6-K
January 13, 2014

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of January 2014

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 x Form 40-F o

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 o No x

On January 13, 2014, the registrant announce TowerJazz and MAPS Launch First Resonant Wireless Power Transfer (Rx Chip) for Mobile Devices; New Paradigm Enables Charging at Much Greater Distances. 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: January 13, 2014

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

NEWS ANNOUNCEMENT FOR IMMEDIATE RELEASE

TowerJazz and MAPS Launch First Resonant Wireless Power Transfer (Rx Chip) for Mobile Devices; New Paradigm Enables Charging at Much Greater Distances

Worldwide revenues from wireless power devices to exceed $15B by 2020; systems based on resonant wireless power transfer to account for more than 80% of total market

MIGDAL HAEMEK, Israel and GYEONGGI-DO, Korea, January 13, 2013 –TowerJazz, the global specialty foundry leader, and MAPS Inc. (Mixed Analog Power Solution), a provider of mobile, lighting and automotive ICs, today announced collaboration on the launch of the first resonant wireless power transfer (WPT) receiver Chip(Rx) for mobile products which integrates high efficiency full active rectifier (FAR) technology and enables wireless charging at a distance which is cutting-edge in the market. Resonance wireless power transfer offers greater distances between coils versus inductive charging, which requires tight coupling between transmitter and receiver. Wireless charging is a breakthrough in the mobile communications and computing devices infrastructure arena. MAPS expects mass production to begin in Q2 2014, targeting the giant mobile, portable and computing market in Korea as well as worldwide.

Korea's mobile market is one of the strongest in the world. MAPS, as a local fabless company, has a high potential to be dominant in the wireless charging market as the trend moves from inductive to resonant. A recent report from Pike Research estimates that worldwide revenues from wireless power devices will exceed $15 billion by 2020, and that systems based on highly resonant wireless power transfer will account for more than 80% of the total market.

MAPS' exclusive technology, combined with TowerJazz's 0.18um Bipolar-CMOS-DMOS (BCD) process, enabled the first successful resonant wireless power transfer (WPT) product in the market. Although inductive WPT was already introduced by others, the resonant type that MAPS has developed using TowerJazz's BCD process is a first of its kind and offers wireless power charging at greater distances than ever before.

TowerJazz's 0.18um BCD process combines high-density digital CMOS, embedded non-volatile memory, and area-efficient high voltage devices with a sophisticated design kit that allows the optimization of performance and die size and enables the fast introduction of innovative and cost-effective products. The process design kit (PDK) includes accurate analog models with Monte Carlo statistical capability showing dispersion of products so customers can tune and optimize their designs, enabling higher performance and smaller size, in the shortest time frame. Moreover, TowerJazz's diverse process options such as metal combination, high value resistors and stacked high-density MIM capacitors further allow customers to optimize their products and offer the required performance in the minimum die size.

"TowerJazz's support, based on our strategic partnership, contributed to the success of our technology development. This offering is significant for both MAPS and TowerJazz as it is the leading product in the market that can possibly bring big production volume in the near future," said Shin Hyunick, Chief Executive Officer of MAPS.

“We are excited that MAPS was successful using our 0.18um BCD process to launch, in a very short time frame, its resonant wireless power transfer as the first in the market. We will continually work closely with MAPS to support mass production of the product. Moreover, as MAPS has diverse roadmaps in addition to mobile products, we expect our capabilities can support upcoming projects in other areas as well and bring about a win-win result,” said Michael Song, Vice President of Sales and President of TowerJazz Korea.

Availability

MAPS is currently sampling the product to various smartphone and battery manufacturers and is working on system co-development. The current charging efficiency of the receiver IC (Rx) is over 80%.

About MAPS
MAPS Inc. (Mixed Analog Power Solution) is a start-up company in Korea, established in May, 2012. MAPS Inc. provides mobile, lighting and automotive solutions through new technology development and invents dependable silicon solutions, especially in Mixed-Analog Power Management ICs. The main focus of MAPS Inc. is to develop “Wireless Power Conversion and Wireless Power Charging.” Despite their short business history, MAPS Inc. has already released the prototype of an Rx(receiver) chip with full active rectifier for wireless power transfer in magnetic resonance (A4WP). In addition, evaluation of the product is underway now with top mobile companies.

About TowerJazz
Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor Ltd., 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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