

TOWER SEMICONDUCTOR LTD

Form 6-K

December 18, 2012

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of December 2012 No. 1

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  S    Form 40-F  E

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  E    No  S

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On December 18, 2012, the registrant announced that its Customer SiTime named the Fastest Growing Semiconductor Company in North America by Deloitte's Technology Fast 500™

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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: December 18, 2012

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

NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

TowerJazz's Customer SiTime named the Fastest Growing Semiconductor Company in North America by Deloitte's Technology Fast 500™

Over 100M MEMS resonators manufactured at TowerJazz during strategic multi-year relationship

NEWPORT BEACH, Calif., December 18, 2012, TowerJazz, the global specialty foundry leader today announced its congratulations to its customer, SiTime Corporation, an analog semiconductor company that is revolutionizing the timing market, for being named the fastest growing semiconductor company in North America, based on Deloitte's 2012 Technology Fast 500. This ranking includes the 500 fastest growing technology, media, telecommunications, life sciences and clean technology companies in North America. Technology Fast 500 winners are selected based on the percentage of fiscal year revenue growth from 2007 to 2011. SiTime ranked 38th overall with revenues up 3853 percent during this period.

For a number of years, SiTime has been utilizing TowerJazz's 200mm wafer foundry in Newport Beach, CA to volume produce its silicon MEMS oscillator products, designed to replace traditional quartz oscillators. SiTime's products offer unsurpassed performance, reliability and flexibility, with the lowest cost of ownership, and are being rapidly adopted by major electronics companies worldwide.

SiTime first announced a partnership with Jazz Semiconductor to bring its silicon MEMS oscillators to market in 2006, prior to Jazz's merger with Tower Semiconductor. Jazz was one of the first pure-play CMOS foundries with MEMS manufacturing capability allowing for the industrial scaling of MEMS products in the commercial CMOS foundry environment. Today, as a combined global company, TowerJazz is also pursuing other MEMS technologies, including RF MEMS, for both discrete product manufacturing and for integration with existing TowerJazz RF CMOS, HV CMOS and SiGe BiCMOS technologies.

"SiTime's innovative silicon MEMS timing solutions are transforming the decades-old timing industry. By replacing quartz-based timing products, SiTime's MEMS solutions bring a multi-billion dollar frequency control market to the semiconductor industry. Unlike quartz, SiTime's MEMS timing solutions are manufactured in standard semiconductor fabs, ensuring easy availability and extremely large capacity," said Pavan Gupta, Vice President of Operations at SiTime. "We are extremely pleased with this amazing achievement and we would like to thank TowerJazz for all of their support. Our relationship with TowerJazz has successfully allowed SiTime to revolutionize the timing market. We look forward to continuing our close relationship with TowerJazz."

“Through our strategic partnership, we are proud to have delivered significantly more than 100 million MEMS resonators to SiTime and we are pleased with the recognition SiTime has received on Deloitte’s Technology Fast 500. As a longtime partner of SiTime, our collaboration demonstrates the successful and rapid implementation of 200mm MEMS manufacturing, including both prototype and volume production,” said Dr. Marco Racanelli, Senior Vice President & GM of RF and High Performance Analog Business Group, TowerJazz.

TowerJazz continues to strengthen its portfolio of specialty silicon technology, consisting of MEMS, analog and RF CMOS, high speed SiGe, and high voltage technology, among others, enhancing the ability of its customers to create and bring to market more highly integrated analog products.

#### About SiTime

SiTime Corporation, an analog semiconductor company, offers MEMS-based silicon timing solutions that replace legacy quartz products. With 80% market share and over 120 million devices shipped, SiTime is driving the \$6 Billion timing market’s transition to 100% silicon-based timing. SiTime’s configurable solutions enable customers to differentiate their products with higher performance, reduced size and better reliability. The rich feature set and flexibility of our solutions allows customers to consolidate their supply-chain, reducing cost of ownership and time to market. By using standard semiconductor processes and high volume plastic packaging, SiTime offers the best availability and shortest lead times in the industry. Top-tier manufacturers are experiencing these benefits and recognize SiTime as The Smart Timing Choice™.

#### 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 with geometries ranging from 1.0 to 0.13-micron, offering a broad range of customizable process technologies including: SiGe, BiCMOS, Mixed-Signal and RFCMOS, CMOS Image Sensor, Power Management (BCD), and Non-Volatile Memory (NVM) as well as CMOS and MEMS capabilities. TowerJazz also offers a world-class design enablement platform that complements its sophisticated technology and enables a quick and accurate design cycle. In addition, TowerJazz provides (TOPS) Technology Optimization Process Services to IDMs as well as fabless companies that need to expand capacity, or progress from an R&D line to a production line. To provide multi-fab sourcing, TowerJazz maintains two manufacturing facilities in Israel, one in the U.S., and one in Japan with additional capacity available in China through manufacturing partnerships. For more information, please visit [www.towerjazz.com](http://www.towerjazz.com).

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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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