

TOWER SEMICONDUCTOR LTD

Form 6-K

November 19, 2012

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of November 2012 No. 6

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 November 19, 2012, the registrant announces Xtendwave Selects TowerJazz for the Manufacture of Next Generation WWVB Atomic Timekeeping Signal Receiver Products.

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: November 19, 2012

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

Xtendwave Selects TowerJazz for the Manufacture of Next Generation WWVB Atomic Timekeeping Signal Receiver Products

Xtendwave's ICs to be used in clocks, watches, small appliances, automobiles, utility meters, personal electronics and other applications

Non-networked clock-enabled devices sold in US every year estimated at 200M units

MIGDAL HAEMEK, Israel and DALLAS, Texas, November 19, 2012 – TowerJazz (Nasdaq: TSEM), the global specialty foundry leader, and Xtendwave, a fabless semiconductor company focused on the development of physical-layer communication technologies, today announced the selection of TowerJazz to provide foundry support for Xtendwave's EverSet® radio controlled clock receiver products. EverSet® products will be capable of receiving the new WWVB atomic-timekeeping broadcast developed by Xtendwave under a Small Business Innovation Research (SBIR) contract with the U.S. National Institute of Standards and Technology (NIST), a government organization responsible for the transmission of the WWVB time signal. Xtendwave has designed radio receivers capable of receiving the WWVB signal with a signal-to-noise ratio (SNR) much lower than present designs. WWVB is the station that radio-controlled ("atomic") clocks in the U.S. use for synchronization.

The new standard is currently being tested for potential broadcast across North America by NIST from its facility in Fort Collins, Colorado. Xtendwave's EverSet® technology will provide orders-of-magnitude improvement in reception compared to existing products based on the current broadcast format. Xtendwave's design will be manufactured using TowerJazz's TS18SL process in its Fab 2. EverSet® ICs will be used in clocks, watches, small appliances, automobiles, utility meters, personal electronics and more, a market estimated at a total of about 200 million non-networked clock-enabled devices sold in the U.S. each year.

Xtendwave's EverSet® receiver technology provides manufacturers of clocks, watches, and other products with a cost-effective chip that can receive and decode the new WWVB broadcast and offers reliable timekeeping and ubiquitous reception across North America. The CMOS implementation of EverSet® requires minimal external component count and also allows it to be integrated as an IP core into existing CMOS system-on-chip (SoC) solutions.

"By using TowerJazz's CMOS technology, Xtendwave can offer a high-performance, cost-effective receiver IC for the new WWVB broadcast standard," said Ilan Rabinovich, Vice President of Customer Support and General Manager of CMOS Business Unit.

"We are very pleased to work with TowerJazz on our next generation atomic timekeeping signal products, as we believe their process offers great flexibility along with cost effectiveness," said Dennis I. Robbins, President of Xtendwave. "We are thrilled to be at the forefront of technology for the next generation of WWVB atomic timekeeping as we continue to proactively address this growing market."

About Xtendwave

Xtendwave, based in Dallas, Texas, is a fabless semiconductor company focused on the development of physical-layer communication technologies. These are based on both analog and digital signal processing methods, strategically targeted at enabling improved performance over various media through increased data rates, greater distances, and higher quality-of-service. Xtendwave is currently engaged with customers in both the precise timekeeping industries and telecommunications industries. Xtendwave has strong collaborative relationships with leading universities, and is the recipient of numerous SBIR (Small Business Innovation Research) awards from the U.S. government. Visit: www.xtendwave.com.

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 Technology Optimization Process Services (TOPS) 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.

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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T o w e r J a z z M e d i a C o n t a c t : L a u r i J u l i a n | + 1 9 4 9 4 3 5 8 1 8 1 |
lauri.julian@towerjazz.com

TowerJazz Investor Relations Contact: Noit Levi | +972-4-604-7066 | noit.levi@towerjazz.com

Xtendwave Contact: info@xtendwave.com
