TOWER SEMICONDUCTOR LTD
Form 6-K
May 21, 2009

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of May 2009 No. 5

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 May 21, 2009, the registrant announce Xceive Ramps Volume Production Using Jazz Semiconductor s 0.18-micron SiGe BiCMOS Process for Silicon Tuner in Flat Panel TVs.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us under the Securities Act of 1933.

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: May 21, 2009

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

Xceive Ramps Volume Production Using Jazz Semiconductor s 0.18-micron SiGe BiCMOS Process for Silicon Tuner in Flat Panel TVs

LG Adopts Xceive s XC5000 Silicon Tuner for LCD and Plasma TVs, First of its Kind in Mainstream TV Production for Worldwide Markets

SANTA CLARA and NEWPORT BEACH, Calif. May 21, 2009 Xceive Corporation, the market leader in hybrid silicon tuners with proven success in PC, television and the digital home, and Jazz Semiconductor®, a Tower Group Company (NASDAQ: TSEM, TASE: TSEM), and the leader in Analog-Intensive Mixed-Signal (AIMS) foundry solutions today announced volume production with Xceive s Silicon Tuner, the XC5000, recently selected by LG for its high-end flat panel TVs. Xceive leveraged Jazz s 0.18-micron SiGe BiCMOS process (SBC18) for its next-generation of silicon tuners to achieve unprecedented size reduction and outstanding performance where both analog and digital reception is required.

XC5000 is the most highly integrated single chip silicon terrestrial TV class tuner with all filtering and analog demod (Vif/Sif) on chip as well. The tuner benchmarks favorably against traditional shielded discrete hybrid analog/digital implementations (CAN tuners) by tier one TV manufacturers and successfully met and exceeded LG s rigorous performance tests. The XC5000 is the only global hybrid TV tuner with an on-board DSP controller and unique architecture and is the first of its kind to meet mainstream production requirements for flat screen TVs across all regions, providing world-class tuner performance for all major analog and digital broadcast standards. Xceive s multi-standard tuner solutions have proven to be a critical component for optimized reception and sensitivity in a compact size for TV production worldwide.

LG chose Xceive s XC5000 for its LCD and plasma screens ranging from 22 to 60 inches. The addition of smart tuner architecture on board helps reduce engineering costs across multiple regional products and reduce return rate due to tight production tolerances, protecting customers from product variances susceptible in CAN-based TVs. Also, the XC5000 s extremely small size (7x7mm) and footprint allows LG to deliver slimmer TV designs with a lower BOM.

Jazz Semiconductor s SBC18 process was used in this demanding silicon tuner application to increase performance in a variety of areas including enabling faster channel acquisition and better filtering for adjacent channel rejection. The SBC18 process was specifically designed for the efficient integration of RF receivers by combining two low-noise, high dynamic range, low power SiGe (NPN) transistors together with high-density, 1.8V and 3.3V mixed signal CMOS and a wealth of options including: lateral and vertical PNP transistors, high quality passive elements such as MIM capacitors, resistors (poly and metal), deep trench and triple well isolation, and up to six layers of metal with thick top metal for high Q inductors.

We are very pleased with the performance of our breakthrough tuner technology as evidenced in the latest LG flat panel TVs and made possible by Jazz Semiconductor s high performance 0.18um SiGe BiCMOS process, said Jean-Louis Bories, CEO of Xceive. In addition, their world-class design enablement tools helped us achieve fast time-to-market while integrating high levels of functionality into our award-winning product.

We are thrilled with the results of our collaboration with Xceive to deliver its one-of-a-kind hybrid silicon tuner using our SBC18 process, ideally suited for high performance products, said Chuck Fox senior vice president of worldwide sales and marketing, Tower and Jazz Semiconductor. By integrating high levels of functionality on the same wafer, customers like Xceive can achieve new circuit benchmarks for gain, noise figure and linearity to be attained at a cost that is competitive with previous-generation solutions.

About Xceive

Venture-backed Xceive Corporation, headquartered in Santa Clara, Calif., enables fast, high-quality TV signal reception in any consumer electronics device worldwide. First to market with a one-design-fits-all-TV-standards analog and digital single chip design, Xceive s QuickTune® RF-to-baseband single integrated circuit (IC) TV tuners provide superior performance, low power, and smaller form factor for the development of advanced TV and PC-TV applications. Xceive s universal RF-to-baseband analog and breakthrough RF-to-baseband analog and digital TV tuner ICs reduce the need for OEMs to maintain multiple inventories in order to service a global market. Visit www.xceive.com, e-mail info@xceive.com, or call (408) 486-5610 for more information.

About Tower Semiconductor, Ltd. and Jazz Semiconductor, Inc.

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) is a pure-play independent specialty wafer foundry and its fully owned U.S. subsidiary Jazz Semiconductor, Inc., is a leader in Analog-Intensive Mixed-Signal (AIMS) foundry solutions. Tower and Jazz manufacture integrated circuits with geometries ranging from 1.0 to 0.13-micron and provide complementary technical services and design support. In addition to digital CMOS process technology, Tower offers advanced mixed-signal and RF CMOS, Power Management, CMOS image-sensor, non-volatile memory technologies and Flash MTP and OTP solutions. Jazz s comprehensive process portfolio of modular AIMS technologies includes RFCMOS, Analog CMOS, Silicon and SiGe BiCMOS, SiGe C-BiCMOS, MEMS, Power CMOS and High Voltage CMOS. To provide world-class customer service, Tower maintains two manufacturing facilities in Israel; Jazz maintains a fab in the U.S. and additional

manufacturing capacity is available in China through partnerships with ASMC and HHNEC. For more information, please visit www.towersemi.com and www.jazzsemi.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 Tower s and Jazz 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. 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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