

TOWER SEMICONDUCTOR LTD

Form 6-K

September 24, 2012

---

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of September 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  S    Form 40-F  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  F    No  S

---

On September 24, 2012, the registrant announces Modiotek Choice to Manufacture Next Generation DSP for Wireless Companion Dedicated to Smart TVs.

---

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: September 24, 2012

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

---

NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

Modiotek Chooses TowerJazz to Manufacture Next Generation DSP for Wireless Companion Dedicated to Smart TVs

Modiotek utilizes TowerJazz's 0.13µm CMOS process for rapid and cost-effective DSP development and reference design

Smart TV shipments expected to reach nearly 125 million units in 2014

MIGDAL HAEMEK, Israel and HSINCHU, Taiwan, September 24, 2012 — TowerJazz, the global specialty foundry leader and Modiotek Co., Ltd., a fabless design house, today announced their joint development of Modiotek's next-generation DSP (digital signal processor) for a wireless camera companion dedicated to Smart TVs. TowerJazz's 0.13µm CMOS process combined with Modiotek's technology leadership in DSP lays the foundation for rapid and cost-effective DSP product development and its reference design.

According to a study by DisplaySearch, shipments for Smart TVs are estimated to reach approximately 125 million units in 2014. The connected TV market is developing beyond mature regions like Western Europe and Japan into China, Latin America and North America. Since these emerging countries have excellent broadband infrastructure, the adoption of connected TV capabilities is a natural next step in TV feature innovation.

Modiotek's latest DSP – M90, leveraging TowerJazz's 0.13µm CMOS process, integrates a low-power H.264 video encoder as well as all the functionalities dedicated to wireless camera applications. The M90-based reference system design is an innovative product concept. As Smart TV consumers demand slimmer solutions, there is almost no room for a camera module on the TV. As such, a wireless camera companion can be the best alternative so that Smart TVs can keep the camera-related applications like video phone, gesture control, and gaming. This type of concept has drawn major worldwide TV manufacturers' attention and it is believed Smart TVs shall all be equipped with such wireless camera peripheral in the coming years.

---

Modiotek launched the world's first DSP-based reference design for Smart TV remote controls in 2010 and has continued to develop and mass-produce DSPs with varieties of remote control reference system designs since then. Compared to MCUs which are fully on or off, Modiotek DSPs are configurable, so inherently they can achieve superior performance in remote control and wireless voice communication with lower power consumption. Also the remote control reference system designs based on Modiotek DSPs can utilize various wireless technologies, such as 2.4GHz RF, Bluetooth 2.1, and Bluetooth 4.0 by the end of 2012. Most importantly, customers can differentiate their applications by leveraging the flexibility of Modiotek DSPs. Digital allows them to custom configure the IC to best fit their application while maximizing system performance, minimizing system power and reducing system cost.

"Our relationship with TowerJazz dates back nearly a decade, and in that time we have worked closely together to develop the most leading-edge processors and semiconductor technologies," said J. T. Chung, General Manager of Modiotek. "We appreciate TowerJazz's technology strength, quality assurance, capacity support, and customer service. Developing next-generation DSPs with TowerJazz is a good example of how two companies can collaborate extremely well to push semiconductor technology to another level."

"Modiotek is meeting the demand of consumers for more and more functionality associated with one device. We are excited to be chosen by Modiotek, the pioneer in the Smart TV market. We look forward to continue working with Modiotek on next generation DSPs for this leading edge emerging market," said Ilan Rabinovich, VP of Customer Support and GM of CMOS Business Unit.

#### About Modiotek

Modiotek, a fabless design house, is a prominent technology innovator and solution provider in semiconductors for Smart TV, mobile audio platform, and digital answering machines. Founded in 2006, Modiotek has consistently introduced new chips available on devices ranging from mobile phones, digital answering machines to remote controllers for Smart TV. In addition to its successful solutions for mobile phones and digital answering machines, Modiotek's expertise in DSP has led to transform a large-sized, complex and hard-to-use remote controller for Smart TV to be compact, inexpensive, user-friendly and widely accessible. Modiotek is headquartered in Hsinchu, Taiwan, and has offices in China. Modiotek may be contacted at +886.3.666.8881 or at Sales@modiotek.com.tw

#### 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).

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.

###

For TowerJazz:

Media Contact:

Lauri Julian

949 715 3049

lauri.julian@towerjazz.com

Investor Relations Contact:

Noit Levi

+972 4 604 7066

noit.levi@towerjazz.com