TOWER SEMICONDUCTOR LTD
Form 6-K
October 29, 2007

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of October 2007 No. 4

TOWER SEMICONDUCTOR LTD.
(Translation of registrant's name into English)

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 [_]

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 [X]

On October 29, 2007, Tower Semiconductor announced that it launched its new power management platform. Attached hereto is a copy of the press release.

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: October 29, 2007

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR LAUNCHES NEW POWER MANAGEMENT PLATFORM

ADDRESSES OVER A THIRD OF THE FAST GROWING 16B$ POWER MANAGEMENT MARKET
BY PROVIDING
A COMPREHENSIVE AND WELL INTEGRATED SOLUTION ON TOWER'S FAB2 0.18
MICRON BASE TECHNOLOGY

MIGDAL HAEMEK, Israel, October 29, 2007 - Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), an independent specialty foundry, today announced the availability of its new Power Management Platform. The new offering combines high-voltage, fast-switching devices onto the base of its 0.18-micron technology platform. The technology is produced in Tower's advanced Fab2 facility.

The new offering is a fully integrated dual/triple gate 0.18um Power Management platform that supports a wide scale of voltages, including 5, 12, 25 and 42 Volts. The switching devices are implemented by high-current-drive LDMOS transistors, and deliver world-class performance of RDSON = 25 mOhms*mmsq, at 33 Volts BVdss. This performance, which is on an integrated, non-Epi technology, enables implementation of single chip multi-ampere power management integrated circuits. Such integration suits well a wide range of power management applications that require cost effective and sophisticated power switching.

The underlying platform implements basic logic, analog and I/O, at both 5 Volts and 1.8 Volts (3.3V is available upon request.) Among the devices that complement the switches, Tower offers poly resistors; MIM capacitors; LV and HV bipolar transistors; Schottky diodes and thick metal conductors in both aluminum and copper. The platform includes all elements required for both analog and digital SoC power management designs.

In addition to the process and device offering, Tower provides a complete and exclusive Process Design Kit (PDK), as well as extensive customer support.

"We are very excited to provide existing and emerging customers with this comprehensive power management platform," said Yossi Netzer, general manager of Mixed-Signal and RF-CMOS product line at Tower Semiconductor. "The wealth of supporting devices we provide makes implementation easy and rewarding for any designer. The ability to attain effective switches on the same silicon as the control circuits enables the Tower platform to be a very attractive option with high performance, small form factor and attractive cost."

The power management IC market is estimated at $16B by 2010. Its accelerated growth, of 13% per annum is due to energy saving and product mobility trends. Tower's new platform offering addresses the requirements of more than one-third of this market, specifically, products that require integrated solutions and switching voltages in the range of 5 Volts to 42 Volts. The primary applications where the platform will be applied are: LED drivers, Line drivers, Battery chargers, DC to DC converters, hand-held devices' power supplies and automotive power management.

The power management platform is also available on Tower's shuttle program for fast and low cost design verification and engineering samples.

ABOUT TOWER SEMICONDUCTOR LTD.:

Tower Semiconductor Ltd. (Nasdaq: TSEM, TASE: TSEM) is an independent specialty foundry that delivers customized solutions in a variety of advanced CMOS technologies, including digital CMOS, mixed-signal and RF (radio frequency) CMOS, CMOS image sensors, power management devices, and embedded non-volatile

memory solutions. Tower's customer orientation is complemented by its uncompromising attention to quality and service. Its specialized processes and engineering expertise provides highly flexible, customized manufacturing solutions to fulfill the increasing variety of customer needs worldwide. Offering two world-class manufacturing facilities with standard and specialized process technologies ranging from 1.0- to 0.13-micron, Tower Semiconductor provides exceptional design support and technical services to help customers sustain long-term, reliable product performance, while delivering on-time and on-budget results. More information can be found at http://www.towersemi.com.

SAFE HARBOR:

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 our business is included under the heading "Risk Factors" in our most recent Annual Report on Forms 20-F, F-1, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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