

TOWER SEMICONDUCTOR LTD  
Form 6-K  
June 30, 2010

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of June 2010 No. 8

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

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On June 30, 2010, the registrant announces TowerJazz Licenses its Y-Flash Non-Volatile Memory Technology to a Leading Digital Foundry.

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

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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: June 30, 2010

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

TowerJazz Licenses its Y-Flash Non-Volatile Memory Technology  
to a Leading Digital Foundry

MIGDAL HAEMEK, Israel – June 30, 2010 – TowerJazz, the global specialty foundry leader, announced today that it has licensed its Y-Flash Non-Volatile Memory (NVM) technology to a worldwide leading digital foundry. TowerJazz's Y-Flash cell will be used by this foundry as a building block for its own process modules to enhance its current offering and modify it for implementation in a variety of technology nodes.

TowerJazz's Y-Flash technology is the leading solution for NVM in the market today due to its small cell size, zero mask adder and flexibility to implement various NVM sizes. Y-Flash can support a variety of memory densities from a few bits for trimming and chip ID applications, up to 256Kb and more for code storage. NVM blocks that utilize this proprietary technology include array sizes that are up to five times smaller than other competitive solutions and can be built using only one gate oxide allowing for ultra low cost designs.

"That a digital foundry leader chose to license our NVM technology is a substantial confirmation of its capability to enable, among others, fully differentiated power management platforms." said TowerJazz Chief Executive Officer, Russell Ellwanger. "In Q1 TowerJazz established itself as the number one specialty foundry world-wide by revenue. This agreement is one proof of our position as the number one specialty foundry by technology. We are pleased to have entered into this relationship with a leading digital foundry and look forward to its continuance."

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#### About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the global specialty foundry leader and its fully owned U.S. subsidiary Jazz Semiconductor, operate collectively under the brand name TowerJazz, manufacturing integrated circuits with geometries ranging from 1.0 to 0.13-micron. TowerJazz provides industry leading design enablement tools to allow complex designs to be achieved quickly and more accurately and offers 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 MEMS capabilities. To provide world-class customer service, TowerJazz maintains two manufacturing facilities in Israel and one in the U.S. 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 Tower and/or 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, 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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