

TOWER SEMICONDUCTOR LTD

Form 6-K

July 15, 2010

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of July 2010 No. 2

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 July 15, 2010, the registrant announces TowerJazz Licenses Kilopass' One-Time Programmable Non-Volatile Memory IP.

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: July 15, 2010

By:

/s/ Nati Somekh Gilboa

Name: Nati Somekh Gilboa

Title: Corporate Secretary

TowerJazz Licenses Kilopass' One-Time Programmable Non-Volatile Memory IP

Offers customers high performance and secure storage at reduced cost

MIGDAL HAEMEK, Israel, and SANTA CLARA, Calif., July 15, 2010 – TowerJazz, the global specialty foundry leader, and Kilopass Technology, a leading provider of semiconductor logic non-volatile memory (NVM) intellectual property (IP), today announced that TowerJazz has licensed Kilopass' one-time programmable (OTP) memory intellectual property (IP) for its 0.13µm CMOS process. Kilopass XPM™ OTP technology is built using standard, commercially available CMOS logic process technologies and is silicon proven to deliver high density, high performance, and highly reliable, electrically field-programmable embedded NVM solutions at a low cost.

Kilopass was the first to pioneer antifuse technology, which is used to permanently program integrated circuits (ICs) in a standard CMOS process without extra mask steps. Antifuse is known to provide the highest degree of physical security for the permanent storage of sensitive information and is ideal for design IP protection. OTP devices can store data even during power shutdown. The data is programmed during production and stored forever. These types of devices frequently are used in video game consoles, mobile phones, radio-frequency identification (RFID) tags, implantable medical devices, high-definition multimedia interfaces (HDMI) and in many other consumer and automotive electronics products.

“Kilopass is a proven leader in OTP IP and we are pleased to offer their solution to benefit our customers and enable them with the design advantages offered by this technology,” said Ori Galzur, Vice President, VLSI Design Center at TowerJazz. “In addition to using it for 0.13µm CMOS designs, we have the flexibility to transfer it to other advanced nodes. By offering Kilopass OTP, we continue to expand the world-class services we provide to our customers for the cost-effective manufacture of their differentiated products and this expands our addressable market by approximately \$100 million.”

“We are excited that TowerJazz, a specialty foundry leader with deep NVM expertise, has chosen our XPM OTP solution to offer their customers high-reliability designs at a lower cost,” said Linh Hong, Vice President of Marketing at Kilopass. “Because our patented XPM technology doesn't require any changes to the masks, manufacturing steps, or equipment used, foundries such as TowerJazz are able to keep manufacturing costs low while providing high-value designs.”

Availability

For availability, please contact TowerJazz at info_general@towerjazz.com.

About Kilopass

Kilopass Technology, Inc., a leading supplier of embedded NVM intellectual property, leverages standard logic CMOS processes to deliver one-time programmable (OTP) memory. With 54 patents granted and more than 500,000 wafers shipped from a dozen foundries and Integrated Device Manufacturers (IDM), Kilopass has more than 70 customers in applications ranging from storage of firmware and security codes to calibration data and other application-critical information. The company is headquartered in Santa Clara, Calif. For more information, please visit www.kilopass.com or email info@kilopass.com.

XPM™ and XPM Xtend™ are trademarks of Kilopass Technology Inc. All other tradenames and trademarks are the property of their respective holders.

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.

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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