
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of June 2010

No. 4

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 E

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 E

No S

On June 17, 2010, the registrant announces TowerJazz and Toppan Technical Design Center Strategic Agreement.

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 17, 2010

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



NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

TowerJazz and Toppan Technical Design Center Announce Strategic Agreement

Increases TowerJazz market penetration opportunity in Japan

Foundry services market in Japan expected to grow to \$1.3B in 2012

MIGDAL HAEMEK, Israel, June 17, 2010 – TowerJazz, the global specialty foundry leader, today announced it was selected by Toppan Technical Design Center Co., Ltd. (TDC) as its preferred specialty foundry supplier. TowerJazz has successfully engaged in multiple specialty design projects in Japan with TDC in the area of Silicon Germanium (SiGe) BiCMOS technologies used for high speed RF applications. This partnership enables TowerJazz to strengthen its penetration in the Japanese market particularly TDC's customers targeting RF, high speed analog, power management, high voltage, CMOS image sensors and MEMS. According to Gartner, the market for foundry services in Japan is expected to grow to \$1.3 Billion in 2012.

Additionally, TDC was selected by TowerJazz as an official design center partner in Japan. This distinction applies to companies that achieve the highest standards of knowledge and experience on at least one TowerJazz specialty process technology and associated design enablement models and tools as well as deliver successful designs with high levels of customer satisfaction. This agreement enables TDC's diverse customer base greater access to TowerJazz's specialty process technologies, its technical support, and manufacturing capacity.

"We are very pleased with the depth and breadth of the TowerJazz specialty process technologies and accuracy of their design enablement models and tools," said Kaname Arai, TDC President & CEO. "This agreement strengthens our relationship and enables improved specialty technology solutions for the Japanese market."

"We are thrilled to expand our relationship with TDC," said Ori Galzur Vice President, VLSI Design Center at TowerJazz. "Combining their design expertise and experience with our leading specialty technologies will allow us to jointly increase our market opportunity in Japan."

About Toppan Technical Design Center Co., Ltd.

Toppan Technical Design Center Co., Ltd. (TDC) a group company of Toppan Printing Co., Ltd., is a total service provider for the development of LSIs utilizing various LSI technology including digital, mixed-signal, analog, memory, etc.

The company's SOC design business began over 30 years ago, as part of Toppan Printing's photomask production business. Its expertise grew over time, and now its technical capability includes large scale system LSI design utilizing world-class IP such as ARM CPU cores and wide variety of ICs across broad range of analog technology. In recent years, the demand for such full service operation - LSI design through to volume production - has grown dramatically, and this Device OEM Business is now on course to become one of our main business lines.

<http://www.toptdc.com/> <http://www.toptdc.com/en/index.html>

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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