

TOWER SEMICONDUCTOR LTD

Form 6-K

August 24, 2010

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of August 2010 No. 5

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

On August 24, 2010 the registrant announces that Magma's Titan Qualified for TowerJazz Reference Flow.

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: August 24, 2010

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

Magma's Titan Qualified for TowerJazz Reference Flow

Automated solution dramatically improves designer productivity and shortens turnaround time

SAN JOSE, Calif., and MIGDAL HAEMEK, Israel, August 24, 2010 — Magma® Design Automation (Nasdaq: LAVA), a provider of chip design software, today announced TowerJazz, the global specialty foundry leader, has qualified the Titan™ Mixed-Signal Design Platform for TowerJazz's Power Management Analog/Mixed-Signal (AMS) Reference Flow and process design kits (iPDKs) for its 180-nanometer (nm) technologies. Magma's Titan software and TowerJazz's foundry technology provide mutual customers with a comprehensive design and manufacturing solution that accelerates the design-to-silicon process and achieve first-time silicon success.

TowerJazz's Power Management AMS Reference Flow includes a comprehensive design flow and a Band Gap Reference design that demonstrates an effective methodology when taking advantage of TowerJazz's advanced Power Management process. With detailed flow steps and tools such as Titan that are qualified for TowerJazz's 180-nm Power Management process iPDK, the reference flow provides TowerJazz and Magma customers faster turnaround time.

"By working together to provide out-of-the-box flows, and create and qualify iPDKs for the most advanced power management offering, TowerJazz and Magma offer mutual customers a faster, more reliable path from design to volume production," said Ori Galzur, vice president of Design Center and iPDK Development at TowerJazz. "Having such a reference flow enables customers to easily design into the complex technologies that TowerJazz develops using automated best-in-class EDA tools."

"By automating key steps in the design process, Titan enables designers to quickly explore the design space and find the optimal solutions," said Anirudh Devgan, general manager of Magma's Custom Design Business Unit. "The combination of Titan with TowerJazz technology makes it easier for our customers to develop highly differentiated and more profitable mixed-signal systems-on-chip (SoCs)."

TowerJazz 180-nm Process and Features

TowerJazz's 180-nm Power Management process is a cost-effective solution which offers modular add-ons such as a unique zero-mask-adder multi-programmable non-volatile memory (NVM) solution, thick copper-top metallization for high current drive, and optional 1.8V gate for heavy digital power management ICs. In addition, it offers scalable LDMOS devices that provide excellent area optimization of the power devices for up to 60 volts, all with very low mask count.

Titan: Accelerating Analog Design

The Titan environment includes the comprehensive Titan Mixed-Signal Design Platform and a set of breakthrough point-tool technologies known as the Titan Accelerators. The Titan Mixed-Signal Platform is the industry's first true mixed-signal design platform. It integrates implementation and verification while delivering first-time-correct, predictable mixed-signal designs. The Titan mixed-signal platform includes a schematic editor, a complete analog simulation environment, schematic-drive layout and layout editor. This platform is tightly integrated with the Talus® digital implementation tools and provides a chip finishing flow to deliver a comprehensive mixed-signal design platform.

Titan Accelerators are advanced technology solutions that dramatically improve analog/mixed-signal design productivity and reuse. The Titan Accelerators can be used separately as point tools to augment existing tool flows, or combined to create a comprehensive high-performance analog/mixed-signal design environment. The family of products includes the Titan Analog Design Accelerator (ADX) design and optimization tool that enables analog design reuse, the Titan Analog Virtual Prototyper (AVP) layout-aware schematic design tool that performs simultaneous electrical and physical co-design for rapid schematic-to-layout convergence, the Titan Analog Layout Accelerator (ALX) that automates migration of analog cell layouts to new process technologies while preserving design intent and Titan Shape-Based Router (SBR) that automates difficult routing tasks to deliver a 10x improvement in routing productivity.

The Titan Mixed-Signal Platform and Titan Accelerators are fully compatible with TowerJazz's 180-nm Power Management design flow.

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.

About Magma

Magma's electronic design automation (EDA) software provides the "Fastest Path to Silicon"TM and enables the world's top chip companies to create high-performance integrated circuits (ICs) for cellular telephones, electronic games, WiFi, MP3 players, digital video, networking and other electronic applications. Magma products are used in IC implementation, analog/mixed-signal design, analysis, physical verification, circuit simulation and characterization. The company maintains headquarters in San Jose, Calif., and offices throughout North America, Europe, Japan, Asia and India. Magma's stock trades on Nasdaq under the ticker symbol LAVA. Follow Magma on Twitter at www.Twitter.com/MagmaEDA and on Facebook at www.Facebook.com/Magma. Visit Magma Design Automation on the Web at www.magma-da.com.

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Magma is a registered trademark and "Fastest Path to Silicon" and Titan are trademarks of Magma Design Automation Inc. All other product and company names are trademarks or registered trademarks of their respective companies.

Forward-looking statements:

Except for the historical information contained herein, the matters set forth in this press release including statements about the features and benefits of Magma software and TowerJazz's AMS Reference Flow are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially, including but not limited to Magma's and TowerJazz's abilities to keep pace with rapidly changing technology and the companies' products' abilities to produce desired results. Further discussion of these and other potential risk factors may be found in Magma's, Jazz's and Tower's most recent public filings with the Securities and Exchange Commission (www.sec.gov) and Tower's filings with the Israel Securities Authority. Magma, Jazz and Tower undertake no additional obligation to update the information contained in this release or these forward-looking statements.

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