## FORM 6-K

## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of November 2012 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 £

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 S

On November 13, 2012, the registrant announces	Participation at EDSFair in	Japan to Further	Awareness 10	or its
World-Class Design Enablement Technology.				

# **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: November 13, 2012 By: /s/ Nati Somekh

Name: Nati Somekh Title: Corporate Secretary

## **NEWS ANNOUNCEMENT**

## FOR IMMEDIATE RELEASE

TowerJazz Announces Participation at EDSFair in Japan to Further Awareness for its World-Class Design Enablement Technology

Provides several demonstrations with leading EDA companies

NISHIWAKI, Japan, November 13, 2012 – TowerJazz, the global specialty foundry leader, today announced it will participate at the Electronic Design and Solution (EDS) Fair in Yokohoma, Japan on November 14-16, 2012 to further its relationships with its EDA partners in Japan and gain more exposure with Japanese fabless companies and IDMs for the local availability of its pure play foundry offerings and design enablement innovation. Last year, TowerJazz introduced its world-class design enablement technology to the Japanese market, including its 700V power management process design kit (PDK) addressing the fast-growth, emerging LED commercial lighting market. At the EDSFair, TowerJazz will provide seminars and demonstrations with its EDA partners to offer attendees hands-on experience with its PDKs and a chance to meet the TowerJazz Japan design enablement team in person (booth D-33).

"At the EDS Fair, this year we have a dedicated booth and are planning a number of demos with our EDA partners to showcase our design enablement capabilities," said Ori Galzur, Vice President of Design Center and PDK Development at TowerJazz. "This is our second time at the EDSFair since our acquisition of Micron's Japan fab in Nishiwaki last year. The EDSFair is an important conference in Japan and we are excited to build further awareness for our local foundry offerings and increase visibility for TowerJazz in the APAC region."

TowerJazz offers customers novel design enablement tools that leverage the tight interaction between EDA, models and process technology to improve time to market and yield of highly integrated analog products. TowerJazz offers a complete design enablement platform that complements its sophisticated technology and enables a quick and accurate design cycle to enable first-time working silicon and fast time-to-market. This platform includes silicon verified and highly scalable device models and robust physical design tools for up front design optimization. TowerJazz's powerful and efficient tools enable unprecedented accuracy in device models and its unparalleled customer support at every stage of the design flow ensures confidence in designs at near zero risk.

At the EDSFair, TowerJazz will provide four seminars; one which focuses on its design enablement capabilities and the others with partner companies: IPL, Mentor Graphics and Tanner EDA. For more information on TowerJazz's participation at the EDSFair or to set up an appointment, please contact: Shoko Saimiya at saimiya@towerjazz.com or call 81-795-23-6609.

#### About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the global specialty foundry leader, its fully owned U.S. subsidiary Jazz Semiconductor, Inc. and its fully owned Japanese subsidiary TowerJazz Japan, Ltd., 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 multi-fab sourcing, TowerJazz maintains two manufacturing facilities in Israel, one in the U.S., and one in Japan 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 TowerJazz'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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