#### FORM 6-K

#### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of February 2012 No. 11

# 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 February 27, 2012, the registrant announces that TowerJazz Receives Innovation Award from Skyworks Solutions.

## **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: February 27, 2012 By: /s/ Nati Somekh Gilboa

Name: Nati Somekh Gilboa Title: Corporate Secretary

TowerJazz Receives Innovation Award from Skyworks Solutions

Recognized for innovations in technology and cost improvement that enable Skyworks to exceed its customer expectations

MIGDAL HAEMEK, Israel, and NEWPORT BEACH, Calif., February 27, 2012 – TowerJazz, the global specialty foundry leader, today announced it has received the 2011 Innovation Award from Skyworks Solutions, Inc., an innovator of high reliability analog and mixed-signal semiconductors enabling a broad range of end markets. This is the first time TowerJazz has won this particular award; the Company was previously recognized as the Foundry Supplier of the Year for three consecutive years for providing excellent quality, performance and solid alignment with Skyworks' supply chain requirements.

Skyworks utilizes a broad range of TowerJazz's specialty process offerings including mixed-signal CMOS, RFCMOS, BiCMOS, SOI and SiGe BiCMOS, to develop a variety of products such as transmit/receive modules, power amplifier controllers, switch controllers, linear devices, and wireless LAN solutions.

"Skyworks has been a long time customer of TowerJazz and we are extremely pleased to continue addressing their next-generation technology needs year after year to manufacture their leading-edge devices," said David Postula, TowerJazz Vice President of Sales. "This award demonstrates our commitment to partnering with our customers in helping reduce their costs through joint value-engineering projects that deliver economic benefits not only to existing but also new products. We truly appreciate the validation we consistently receive from Skyworks for our proven technology platforms and design enablement solutions as well as excellence in customer service and support."

#### About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor Ltd., and its fully owned Japanese subsidiary TowerJazz Japan, Ltd., operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures integrated circuits with geometries ranging from 1.0 to 0.13-micron, offering 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 CMOS and MEMS capabilities. TowerJazz also offers a world-class design enablement platform that complements its sophisticated technology and enables a quick and accurate design cycle. In addition, TowerJazz provides (TOPS) Technology Optimization Process Services to IDMs as well as fabless companies that need to expand capacity, or progress from an R&D line to a production line. 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.

###

Company/Media Contact: Lauri Julian 949/435-8181 lauri.julian@towerjazz.com

Investor Relations Contact: Levi Noit +972 4 604 7066 noit.levi@towerjazz.com