

TOWER SEMICONDUCTOR LTD

Form 6-K

June 20, 2011

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of June 2011

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  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

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On June 20, 2011, the registrant announces SWID Selects TowerJazz as Strategic Foundry for High Performance RF ICs.

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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 20, 2011

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

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SWID Selects TowerJazz as Strategic Foundry for High Performance RF ICs

SHENZHEN, China and NEWPORT BEACH, Calif., June 20, 2011 – Southwest Integrated Circuit Design (SWID), a fabless IC design company, and TowerJazz, the global specialty foundry leader, today announced that SWID has selected TowerJazz's proven SiGe BiCMOS process technologies to develop its latest high performance RF integrated circuits (ICs). SWID is announcing availability of an integrated walkie-talkie chip (XN239) and a low noise amplifier (XN255) to complement its fully integrated RF tuner previously announced.

SWID's XN239 is manufactured using TowerJazz's SBC35 process and is a multi-functional transceiver chip for walkie-talkies. It includes a built-in power detector as well as an MPU to perform functional control through a serial interface which can significantly reduce the need of other discrete components and reduce the total BOM cost of the walkie-talkie. XN239 realizes a good noise figure for the transmission and receiver design of audio-frequency walkie-talkies; its radio frequency is 460Mhz; its first-order IF (intermediate frequency) is 21.7Mhz; and its 2nd IF is 450Khz or 455Khz which can support dual frequency conversion.

SWID's XN255 is built using TowerJazz's SBC18 process and is a low noise amplifier (LNA) for GPS applications. SiGe BiCMOS technology enables both the high gain and low noise required for sensitive GPS receivers. With XN255 placed at the front-end of a GPS receiver, it can increase the sensitivity of the signal receiver so the GPS can be used in many different environments. XN255 can be operated with a 2.7V ~ 3.3V voltage source, and its current consumption is only 3mA, with an idle current less than 10uA which allows very low power consumption.

“Again we have chosen TowerJazz to manufacture our successful products as they offer very reliable technologies, extremely accurate models and excellent technical support which enables us to achieve first time silicon success and to reduce our design cycle time,” said Lin Fan, President of SWID. “We fully trust TowerJazz as a strong technology and solution provider and we look forward to continuing to work together on several other products.”

“SWID leverages our SiGe BiCMOS process to enable better noise performance over standard CMOS and better integration of RF functions,” said Dr. Marco Racanelli, Senior VP and General Manager, RF and High Performance Analog Business Group, TowerJazz. “SWID is a very important customer and an RF communication applications leader as well as a significant company within the Chinese region and we will continue to support them as their strategic foundry of choice for SiGe solutions.”

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#### About TowerJazz's SiGe BiCMOS

TowerJazz's 0.18- and 0.35-micron SiGe BiCMOS process comes with many options like deep trench, ultra thick metal, deep N-Well, and MIM caps ranging from 1fF/um<sup>2</sup> to 5.6fF/um<sup>2</sup>, as well as a complimentary process allowing for a vertical PNP on NPN. These offerings achieve noise and power performance that is competitive with GaAs while offering as much as 40% lower die cost. In addition, TowerJazz's industry leading tools and accurate simulation models enable RF IC designers to realize first time silicon success, reduce design cycle time and achieve faster time-to-market.

#### About SWID

Southwest Integrated Circuit Design Co., Ltd, (SWID), provides integrated circuits (ICs) and other electronic circuits for mobile communication, modules and systems, circuit design, circuit production, circuit test, and circuit marketing, as well as provides consultation service for circuit design and production technologies. Using the fabless model, SWID designs and develops high-end products with proprietary IP, and represents China's analog ICs standard. SWID has many senior engineers for RF IC design and other analog-oriented ICs. SWID is located in China with a design center in Chongqing and an office in Shenzhen. For more information, please visit [www.swid.com.cn](http://www.swid.com.cn).

#### 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 1.00 micron to 95 nanometer. 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, one in the U.S., one in Japan and an additional capacity available in China through manufacturing partnerships. For more information, please visit [www.towerjazz.com](http://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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Jazz Company Contact:  
Melinda Jarrell  
949/435-8181  
[melinda.jarrell@towerjazz.com](mailto:melinda.jarrell@towerjazz.com)

SWID Company Contact:  
Tobey Liu  
+86-23-62771116  
[production@swid.com.cn](mailto:production@swid.com.cn)

Jazz Media Contact:  
Lauri Julian  
949/715-3049  
[lauri.julian@towerjazz.com](mailto:lauri.julian@towerjazz.com)

SWID Media Contact:  
Gengqiang Chen  
+86-23-62836174  
[market@swid.com.cn](mailto:market@swid.com.cn)

Tower Investor Relations Contact:

Noit Levi

+972 4 604 7066

noit.levi@towerjazz.com

