TOWER SEMICONDUCTOR LTD

Form 6-K

September 15, 2014

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of September 2014 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 x Form 40-F o

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 o No x

On September 15, 2014, the registrant announced that Global Invacom Chooses TowerJazz's SiGe BiCMOS Technology for its New Revolutionary Chipset for Software Configurable Satellite TV Reception.

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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: September 15, 2014 By: /s/ Nati Somekh

Name: Nati Somekh Title: Corporate Secretary

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Global Invacom Chooses TowerJazz's SiGe BiCMOS Technology for its New Revolutionary Chipset for Software Configurable Satellite TV Reception

For the first time, satellite TV equipment makers can design one programmable system for all global markets

NEWPORT BEACH, Calif., and LONDON, UK, September 15, 2014 – TowerJazz, the global specialty foundry leader and Global Invacom, a leading innovator and manufacturer of technology to the global satellite industry, announced today the production of a software configurable satellite TV chipset - Romeo & Juliet - for global applications enabled by TowerJazz's advanced SiGe BiCMOS (SBC18) technologies and design enablement services.

For the first time, the chipset Global Invacom has developed allows satellite equipment makers to design one programmable system for all global markets. Global Invacom's' Romeo & Juliet based FibreIRSTM Mk 3 Gateway Termination Units (GTUs) and SwitchBlade Fibre-MultiSwitch (FMS) will be available from Q4/14 and Q1/15 respectively.

The Romeo & Juliet chipset lets OEMs develop their own range of FibreIRSTM compatible products for any satellite TV service frequency plan in the world with a single, programmable design, radically reducing manufacturing proliferation, driving cost reductions and increased ROI (return on investment). Romeo is a wide band LNA (low-noise amplifier), while the programmable Juliet dual-channel down-converter supports all the global frequency plans, avoiding the need for a separate discrete design for each region.

Global Invacom invented the widely used FibreIRSTM technology that distributes satellite TV from a whole-band LNB (low-noise block) or optical LNB around apartment blocks, MDUs (multi-dwelling units) and multiscreen enterprise networks requiring live TV services. The new chipset also supports a modular design so that TV feeds from extra satellites can be added to a base unit sharing a controller and power. This allows property developers to install a scalable network for one satellite and others can easily add new ones to for residents to watch alternative TV services from around the world.

Global Invacom developed the FibreIRSTM architecture and products to allow cost-effective satellite TV service distribution. Resilient, lightweight optical fibre cable backbones are used rather than traditional expensive coaxial cable that is highly susceptible to interference and picture degradation and requires signal amplifiers throughout the building.

"We launched our Romeo & Juliet chipset to dramatically open up the market for more economical products, useable worldwide, for the distribution of multiple satellite TV services over fibre in residential MDUs, hotels and the enterprise," said Ian Walsh, VP Business Development at Global Invacom.

Malcolm Burrell, Global Invacom's Technical Director added, "We selected TowerJazz as our manufacturing partner for their ability to produce low-noise, high-gain, wide-band and linear SiGe devices. Also, their design enablement platform complements their sophisticated technology and includes silicon verified, highly scalable device models, robust physical design tools for up front design optimization, and their design support infrastructure, to enable a quick and accurate design cycle."

"We are pleased that Global Invacom chose our SiGe BiCMOS (SBC18) process platform for their innovative solution for satellite TV services. Our SBC18 family of processes integrate a high performance SiGe HBT device with standard 0.18um CMOS in order to monolithically integrate high performance RF circuit blocks with digital control circuitry. The SiGe HBTs provide excellent RF gain, noise, and linearity characteristics at the satellite communications frequencies used in these products," said Dr. Marco Racanelli, Sr. VP & GM of RF & High Performance Analog Business Group, TowerJazz.

Romeo & Juliet chipset samples and evaluation boards are available on request and production shipments from Q1/2015.

About Global Invacom Group Limited

Global Invacom Group Limited ("Global Invacom") is listed on the Singapore Exchange Securities Trading Limited Mainboard ("SGX-ST") and its shares are admitted to trading on the AIM Market of the London Stock Exchange in the U.K.

Global Invacom is a fully integrated satellite equipment provider with five manufacturing plants across China, Malaysia and the U.K., providing a full range of LNB receivers, transmitters, switches and video distribution components and electronics manufacturing services in satellite communications, TV peripherals, computer peripherals, medical, and consumer electronics industries. Its customers include satellite broadcasters such as BSkyB of the U.K. and DISH Network of the U.S.A. For more information please visit: www.globalinvacom.com

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiary Jazz Semiconductor, Inc. operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides a world-class design enablement platform for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies that need to expand capacity.

To provide multi-fab sourcing and extended capacity for its customers, TowerJazz operates two manufacturing facilities in Israel (150mm and 200mm), one in the U.S. (200mm) and three additional facilities in Japan (two 200mm and one 300mm) through TowerJazz Panasonic Semiconductor Co. (TPSCo), established with Panasonic Corporation of which TowerJazz has the majority holding. Through TPSCo, TowerJazz provides leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies. 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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Europe Company Contact: Limor Silberberg | +972-4-604-7249| limor.silberberg@towerjazz.com TowerJazz Investor Relations Contact: Noit Levi | +972-4-604-7066 | noit.levi@towerjazz.com

Global Invacom Contact: Maggi Fox | +44 7770 754811 | maggi@maggi-fox.co.uk

Global Invacom Investor Relations Contact: Matt Garner | +44 1438 310510 | Matt.Garner@globalinvacom.com

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