

TOWER SEMICONDUCTOR LTD

Form 6-K

March 27, 2017

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month March 2017 No.5

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

Ramat Gavriel Industrial Park

P.O. Box 619, Migdal Haemek, Israel 2310502

(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 March 27 2017, the Registrant and TPSCo Release Enhanced up to
200V 180nm BCD on SOI Power Management Process

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: March 27, 2017 By: /s/ Nati Somekh
Name: Nati Somekh
Title: Corporate Secretary

NEWS ANNOUNCEMENT FOR IMMEDIATE RELEASE

TowerJazz and TPSCo Release Enhanced up to 200V 180nm BCD on SOI Power Management Process

Provides superior performance for a wide range of analog and power markets such as motor drivers, home and industrial appliances,
electric vehicles, GaN drivers, and more

MIGDAL HAEMEK, Israel and TONAMI, Japan, March 27, 2017 – TowerJazz, the global specialty foundry leader, and TowerJazz Panasonic Semiconductor Co., Ltd. (TPSCo), the leading analog foundry in Japan, announced today the availability of a newly developed, state of the art 180nm Bipolar-CMOS-DMOS (BCD) SOI power management technology platform supporting applications with up to 200V breakdown voltage. The process features an integrated Deep Trench isolation and buried Oxide which provide superior performance for a wide range of analog and power applications such as motor drivers, home and industrial appliances, battery management systems, electric vehicles, ultra-fast GaN drivers, industrial motor controllers, and many more.

The 200V SOI process is based on, and compatible with TowerJazz's advanced 180nm bulk BCD platform. Hence, customers can reuse in this platform, elements designed for bulk process leading to faster time to market with high confidence of success, and cost and time savings on the design cycle, with the ability to extend their designs up to 200V.

This advanced technology offering addresses a significant number of end applications within the automotive and industrial power management IC markets, which according to Databeans, a semiconductor and electronics industry market research firm, are expected to grow from \$3 billion in 2017 to approximately \$5.3 billion in 2021, with a CAGR of about 11%.

TowerJazz expects to increase its footprint in various growing markets by providing customers with an enhanced technology offering that includes dramatic die size reduction with deep trench isolation. In addition to high voltage support, the SOI process offers high immunity to ESD/EMC and Latch up, noise, negative voltages operation, low leakage and fast switching due to faster reverse recovery, support for high temperatures fully isolated transistors and circuitry. The new platform includes a digital library with eNVM, 200V LDMOS and additional devices not included in the existing TowerJazz power management offering.

“TowerJazz is proud to further expand its rich power management offering with its 180nm BCD offering, with a best in-class SOI process platform supporting up to 200V applications. This advanced process platform will enable us to best serve multiple new market segments such as motor drivers, industrial tools, automotive and others,” said Shimon Greenberg, Vice President and General Manager of Mixed-Signal and Power Management Business Unit, TowerJazz. “The 200V SOI offering is fully compatible with our existing 180nm power management PDK, enabling our existing customers to re-use some of the already designed and proven circuits and new customers to make use of our power management rich device list and support environment.”

TowerJazz will be exhibiting at APEC in Tampa, FL on March 26-30, 2017 in booth #1410.

About TowerJazz Panasonic Semiconductor Co.

TowerJazz Panasonic Semiconductor Co., Ltd. (TPSCo) was established by Panasonic Corporation (NASDAQ ADS: PCRFY, TYO: 6752), 51% of which was acquired by Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and 49% of which is now held by Panasonic Semiconductor Solutions Co., Ltd. TPSCo has three manufacturing facilities in Hokuriku, Japan which have been producing large scale integrated circuits for over 30 years. Areas of process technology focus include: high dynamic range image sensors (CIS and CCD), integrated power devices (BCD, SOI, and LDMOS) and high frequency silicon RFCMOS. With over 120 qualified silicon process flows on 200mm

and 300mm wafers from super micron to 45nm as well as internal back end processing, assembly and test services, TPSCo provides both IDMs and fabless companies with unparalleled semiconductor manufacturing quality and technology, including in-house turnkey services. For more information, please visit <https://www.tpsemico.com/>.

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiaries Jazz Semiconductor, Inc. and TowerJazz Texas 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), two 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, including the most advanced image sensor technologies. For more information, please visit www.towerjazz.com or www.tpsemico.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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