

TOWER SEMICONDUCTOR LTD

Form 6-K

September 24, 2015

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month September 2015 No. 4

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 September 24, 2015 TowerJazz Panasonic Semiconductor Co. (TPSCo) Announces Development of the First Comprehensive 65nm mmWave 110GHz RFCMOS Platform

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 24, 2015

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

FOR IMMEDIATE RELEASE

NEWS ANNOUNCEMENT

TowerJazz Panasonic Semiconductor Co. (TPSCo) Announces Development of the First Comprehensive 65nm
mmWave 110GHz
RFCMOS Platform

Targeted for increased performance in communication, automotive and imaging applications

MIGDAL HAEMEK, Israel, and UOZU CITY, Japan, September 24, 2015 — TowerJazz, the global specialty foundry leader, and TowerJazz Panasonic Semiconductor Co., Ltd. (TPSCo), the leading analog foundry in Japan, today announced the development of the first 65nm millimeter wave (mmWave) 110GHz RFCMOS platform targeted for a variety of applications, such as wireless communication (60~77GHz), automotive radar (57~86, mostly 77GHz), and imaging and scanning (100GHz), among others.

TowerJazz and TPSCo are expanding their mmWave platform capabilities by introducing new process modules and comprehensive validated EDA tools and modeling, targeted to support a larger application segment. The platform supports 110GHz with state of the art RF modeling for MOSFETs, inductors and transmission lines, a very large set of metal combination and a full set of RFCMOS elements. RF applications such as WiFi 802.11, Wireless HDMI, and WiGi that require 65nm mmWave technology can now utilize modeling capabilities up to 110GHz. In addition, this platform is automotive qualified at TPSCo's 300mm fab in Uozu, Japan, considered one of the best fabs in the automotive industry.

According to a report by MarketsandMarkets, the millimeter wave technology market was valued at \$208.1 million in 2014. According to the above mentioned report, this market is expected to grow at a 43% CAGR rate in the near future. The North American millimeter wave technology market is expected to grow from \$96.1 million in 2014 to \$782.9 million by 2020, driven by growing applications in the mobile and telecom sectors. TowerJazz anticipates its growth to surpass the overall market growth as customers move from III-V technology to silicon-based technology with either SiGe or RF CMOS.

“Expanding our 65nm RFCMOS automotive platform into the mmWave regime is a mandatory part of our global MS/CMOS and RFCMOS roadmap in order to provide a comprehensive and total solution for our automotive customers in Europe and to our wireless customers in the U.S., Europe and across the board,” said Ilan Rabinovich, Vice President and GM of MS/CMOS Business Unit at TowerJazz. “This is yet an additional expansion of our offering in this marketplace. Having both advanced SiGe solutions and a 65nm Si-based RF platform enables our customers maximum flexibility in selecting the right technology for their specific application.”

For more information on the 65nm mmWave 110GHz CMOS platform, please contact TPSCo through its portal: https://www.tpsemico.com/technology#tab_design-enablement.

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. 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. For more information, please visit www.towerjazz.com.

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, including the most advanced image sensor technologies. For more information, please visit 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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