TOWER SEMICONDUCTOR LTD
Form 6-K
August 01, 2011

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of August 2011
No. 1

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 August 01, 2011, the registrant announces that TowerJazz Israel and Ramon Chips Deliver Advanced, Second Generation Radiation-Hardened Processor for Space Applications.

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: August 01, 2011

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

TowerJazz Israel and Ramon Chips Deliver Advanced, Second Generation
Radiation-Hardened Processor for Space Applications

Rad-hard-by design for aerospace and defense is a highly specialized foundry market
estimated between $400-$500 million

MIGDAL HAEMEK and HAIFA, Israel, August 1, 2011 – TowerJazz, the global specialty foundry leader, and Ramon Chips Ltd., a fabless company that specializes in the development of space components, announced today the successful completion of a second generation radiation-hardened (rad-hard) processor for space applications (GR712RC). The part is being fabricated exclusively in TowerJazz's Fab2 in Migdal Haemek, Israel utilizing its internal 0.18-micron CMOS process technology. According to King Research, the Rad-hard-by design (RHBD) foundry market for aerospace and defense is estimated between $400-$500 million worldwide.

The processor was mutually developed by Ramon Chips and Aeroflex Gaisler, and is marketed exclusively by Aeroflex Gaisler. This next-generation graphics processor is resistant to cosmic radiation and harsh environmental conditions and is intended for use on space missions in earth-orbiting satellites and for high reliability avionic applications. The processor has been designed using Ramon Chips' proprietary RadSafe™ methodology and standard cell library which were developed on the TowerJazz process to assure radiation hardness of parts fabricated in TowerJazz's Israeli facility.

The GR712RC is a dual-core LEON3FT SPARC V8 processor. It can be clocked up to 125 MHz over the full military temperature range. This provides up to 300 DMIPS and 250 MFLOPS peak performance. It integrates advanced interface protocols, including SpaceWire, CAN, SatCAN, UART, 1553B, Ethernet, SPI, I2C, GPIO, and more. It has high speed interface busses to external SDRAM/SRAM/PROM/EEROM/NOR-FLASH memories. It employs rad-hard-by-design methods, with proven radiation hardness up to 300Krad, which exceeds the requirements for all space environments, together with excellent low-power performance.

"We are once again pleased with the results we have achieved with our rad-hard high performance product on TowerJazz's 0.18-micron CMOS technology platform," said Prof. Ran Ginosar, CEO of Ramon Chips. "The team at TowerJazz here in Israel has closely collaborated with our team for several years to achieve such an advanced product to improve the quality and performance of space exploration."

"We are excited about the work we have accomplished with Ramon Chips on their industry leading, high performance rad-hard processor using our CMOS process technology," said Ilan Rabinovich, VP, Customer Support and General Manager, CMOS Business Unit at TowerJazz. "Our engineering team continuously focuses on developing customized technology platforms for our customers and our collaboration with Ramon Chips is an example of our versatility and ability to modify the process to meet our customers' specific needs."

About Ramon Chips, Ltd.
Ramon Chips, Ltd. is a fabless semiconductor company focused on developing and marketing unique VLSI /ASIC solutions for space and avionics applications, based on its RadSafe™ methodology and cell library and on TowerJazz CMOS processes. Named in memory of the late Col. Ilan Ramon, Israel's first astronaut who perished in the Columbia space shuttle re-entry accident in 2003, the company was founded in 2004 and is based in Israel. For additional information contact: info@ramon-chips.com.

Safe Harbor
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 our business is included under the heading "Risk Factors" in our most recent Annual Report on Form 20-F, Forms F-1, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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 1.0 to 0.13-micron. 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., 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.

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