TOWER SEMICONDUCTOR LTD
Form 6-K
August 03, 2009

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of August 2009 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 03, 2009, the registrant announces that Medigus and Tower Semiconductor Announce World s Smallest Medical Video Camera Based on Advanced CMOS Image Sensor.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us under the Securities Act of 1933.

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 03, 2009

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

Medigus and Tower Semiconductor Announce World s Smallest Medical Video Camera Based on Advanced CMOS Image Sensor

Targets fast growing single use endoscopic procedures market, estimated at 0.5 Billion dollars in 2010, with a CAGR of nearly 15%

Camera s smaller size lowers cost of endoscopic procedures; enables new medical diagnostic and therapeutic applications

OMER and MIGDAL HA EMEK, Israel, August 3, 2009 Medigus Ltd. (TASE: MDGS) a leading developer of endoscopic and visualization medical devices, and Tower Semiconductor, Ltd. (Nasdaq: TSEM, TASE: TASE: TSEM), a leading global specialty foundry, today announced successful sampling of a new CMOS imager that will serve in Medigus line of disposable miniature cameras and its new medical devices camera; the smallest of its kind in the world, designated to be incorporated into disposable endoscopes or used in various diagnostic and surgical medical applications. First product samples have been shipped to end customers and mass production of the camera is expected to commence in mid-2010. The camera sensor will be manufactured in Tower s Fab2 using its 0.18-micron CMOS image sensor process and will be integrated into the camera which will be produced in Medigus manufacturing facilities.

The CMOS imager offers a high performance product at a low cost and combines superb sensitivity, resolution and dynamic versatility, allowing customers a variety of potential medical applications in growing markets such as Gastroenterology, Natural Orifice Transluminal Endoscopy Surgery, Bronchoscopy, Orthopedics and ENT. The new camera encompasses tiny electronics and objective lenses developed by Medigus, along with Tower s CMOS imager measuring only 700 x 700 microns.

The imager was developed using Tower s advanced sensor design and production technologies, while the camera was developed using Medigus electronic, optic and integration platform technologies. The camera features dedicated bio-compatible components suitable for medical device applications and will enable new medical diagnostic and therapeutic markets in which the use of current video cameras is not feasible due to their size. The miniature camera s outer diameter size, which includes a special housing, is only 1.2 mm x 5 mm long. In addition, it is completely disposable, eliminating the very costly sterilization process commonly associated with endoscopic procedures.

We are proud to advance our visualization capabilities with Tower, the leading specialty semiconductor manufacturer and foremost CMOS image sensor provider, said Dr. Elazar Sonnenschein, CEO for Medigus Ltd. The new camera and its unique imager represent a dramatic breakthrough in the endoscopic medical field; it opens a wide hatch to new markets, medical applications and customers, and at the smallest size ever accessible, it will allow procedures not previously achievable. Medigus innovative cameras will support an important unmet market need, giving both physicians and patients the most cost-effective level of technology, without compromising the quality of treatment which they deserve.

We are very excited to work with a leader in the miniature diagnostic and surgery tools fields to jointly develop a breakthrough camera solution for the medical market, said Dr. Avi Strum, Vice President & General Manager, Specialty Business Unit at Tower. Our cutting-edge sensor and customized design technology combined with Medigus expertise in the miniaturization of diagnostic and surgical tools is key to enabling the industry s lowest cost high performance camera. Our extraordinary sensor design capabilities, along with best in class pixel performance, have allowed us to get into this very high margin market which will be sustainable for many years.

About Medigus Ltd.
Medigus is a medical device company specializes in developing innovative endoscopic procedures and devices. Medigus is a pioneer developer of a unique proprietary endoscopic device for the treatment of GERD, one of the most common chronic diseases in the western world. Medigus has an advanced technology platform that includes the necessary elements for developing a wide range of endoscopic procedures. The platform includes various CCD and CMOS video cameras developed by Medigus. Each camera includes a micro camera head with high quality optics and video processors. For more information, please visit www.medigus.com

About Tower Semiconductor, Ltd.
Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), a global specialty foundry leader, manufactures integrated circuits with geometries ranging from 1.0 to 0.13-micron and provides complementary technical services and design support. Tower, along with its fully owned U.S. subsidiary, Jazz Semiconductor, Inc., offers a broad range of process technologies including Digital, Mixed-Signal and RFCMOS, HV CMOS, Power Management, Non-Volatile Memory (NVM), Embedded NVM, MEMS, and CMOS Image Sensors. Tower provides world-class customer service and maintains two fabrication facilities in Israel and a fab in Newport Beach, CA, with manufacturing capacity available in China through partnerships with ASMC and HHNEC. For more information, please visit www.towersemi.com and www.jazzsemi.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 s and 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. 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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