

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of September 2006

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  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 05, 2006, the Registrant announced that Tower Semiconductor Strengthens Senior Management Team, attached hereto is a copy of the press release.

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: September 05, 2006

By: /s/ Nati Somekh Gilboa

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Nati Somekh Gilboa  
Corporate Secretary

TOWER SEMICONDUCTOR STRENGTHENS SENIOR  
MANAGEMENT TEAM

APPOINTS AMNON BEN-YISHAI AS SENIOR VP OF OPERATIONS, FORMER EXECUTIVE IN  
APPLIED MATERIALS, INDIGO AND INTEL FAB 8

MIGDAL HAEMEK, Israel - September 5, 2006 - Tower Semiconductor Ltd. (NasdaqGM: TSEM; TASE: TSEM), a pure-play independent specialty foundry, today announced the appointment of Amnon Ben-Yishai as senior VP of operations, responsible for Tower's Fabs, operations and manufacturing services.

Ben-Yishai brings more than twenty-five years of experience in manufacturing and operations in semiconductor and technology companies. Throughout his career, he held key positions in manufacturing, engineering, yield, quality and reliability and was responsible for world-class achievements in the areas of establishing new operations, ramp-up, cycle time, yield, supply chains, cost effectiveness and manufacturing efficiencies.

"The Tower team has successfully achieved a 2.5x quarterly revenue growth over the past year and we guided Q3 to be Tower's third consecutive record revenue quarter. We are pleased that Amnon Ben-Yishai has joined Tower's senior management team and are confident that his experience will further contribute to the immediate success of Tower's Fab capacity increases as well as our long term growth plans.", said Russell Ellwanger, Tower's chief executive officer. "Amnon has a strong reputation of achieving Fab efficiencies and establishing operational benchmark and we look forward to his leadership to inspire and create further vision towards the next stage of growth and performance."

Most recently, Amnon Ben-Yishai was a vice president in Applied Materials Corporation (NasdaqGM: AMAT), where he served more than 8 years, including PDC Operations in Rehovot. Prior to joining Applied, he served as VP operations at Indigo (now HP; NYSE: HPQ). He began his career at Intel Corporation (NasdaqGM: INTC) and worked there for 14 years. During this period, he was part of the core team that established Fab 8 in Jerusalem, served as manufacturing manager and managed the yield, quality and reliability activities.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. is a pure-play independent specialty foundry established in 1993. The company manufactures integrated circuits with geometries ranging from 1.0 to 0.13-micron; it also provides complementary technical services and design support. In addition to digital CMOS process technology, Tower offers advanced non-volatile memory solutions, mixed-signal and CMOS image-sensor technologies. To provide world-class customer service, the company maintains two manufacturing facilities: Fab 1 has process technologies from 1.0 to 0.35-micron and can produce up to 16,000 150mm wafers per month. Fab 2 features 0.18 and 0.13-micron, standard and specialized process technologies and has a current capacity of up to 15,000 200mm wafers per month. Tower's website is located at [www.towersemi.com](http://www.towersemi.com).

CONTACT:

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