

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of October 2007 No.5

TOWER SEMICONDUCTOR LTD.  
(Translation of registrant's name into English)

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 October 30, 2007, Tower Semiconductor announced that it Ranks in Deloitte Israel Technology Fast 50 for 2007 Based on Five-Year Revenue Growth. 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: October 30, 2007

By: /s/ Nati Somekh Gilboa

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Nati Somekh Gilboa  
Corporate Secretary

TOWER SEMICONDUCTOR RANKS IN  
DELOITTE ISRAEL TECHNOLOGY FAST 50 FOR 2007  
BASED ON FIVE-YEAR REVENUE GROWTH

TOWER RECOGNIZED FOR IMPRESSIVE BUSINESS TURNAROUND AND FINANCIAL  
ACCOMPLISHMENTS

MIGDAL HAEMEK, Israel, October 30, 2007 - Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), an independent specialty foundry, today announced that it was selected as one of the 2007 Deloitte Israel Technology Fast 50, a ranking of the 50 fastest growing technology companies in Israel. The program ranks Israeli technology companies based on their five-year revenue growth between 2002 and 2006.

"Recognition as one of the 50 fastest growing technology companies in Israel is an impressive accomplishment. We commend Tower Semiconductor for making the Deloitte Technology Fast 50 with a phenomenal 262 percent growth rate over the last five years," said Asher Mechlovich, partner in charge of the Deloitte Brightman Almagor Technology Fast 50 Program.

Over the past two years, Tower has demonstrated continuous sales and margins improvements. From an annual sales run-rate of \$80M in mid-2005, sales rose to an annual run-rate of more than \$200 million by the end of 2006. Furthermore, improvements in operational efficiency have resulted in revenue growth translating to significant EBITDA and cash flow improvement with the Company recently reporting seven consecutive quarters of positive EBITDA and three consecutive quarters of positive cash flow from operations.

The 'Fast 50' award recognizes Tower's accomplishments and serves as a token of recognition to the turnaround. As such, it is an honor to the employees of Tower who put their energy and dedication into accomplishing the results.

"We are honored to have been recognized as one of Israel's fastest growing high tech companies" said Russell Ellwanger, CEO of Tower. "We anticipate continued top and bottom line growth as we continue to focus on our customers' needs via product platform roadmap alignment as well as through continuous improvement in operation performance and business processes."

ABOUT TOWER SEMICONDUCTOR LTD.:

Tower Semiconductor Ltd. (Nasdaq: TSEM, TASE: TSEM) is an independent specialty foundry that delivers customized solutions in a variety of advanced CMOS technologies, including digital CMOS, mixed-signal and RF (radio frequency) CMOS, CMOS image sensors, power management devices, and embedded non-volatile memory solutions. Tower's customer orientation is complemented by its uncompromising attention to quality and service. Its specialized processes and engineering expertise provides highly flexible, customized manufacturing solutions to fulfill the increasing variety of customer needs worldwide. Offering two world-class manufacturing facilities with standard and specialized process technologies ranging from 1.0- to 0.13-micron, Tower Semiconductor provides exceptional design support and technical services to help customers sustain long-term, reliable product performance, while delivering on-time and on-budget results. More information can be found at <http://www.towersemi.com>.

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