

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of January 2005

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 January 2, 2005, the Registrant announced closing of sale of its shares in Saifun Semiconductor. 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: January 13, 2005

By: /s/ Tamar Cohen  
-----  
Tamar Cohen  
Corporate Secretary

TOWER SEMICONDUCTOR ANNOUNCES CLOSING OF SALE OF ITS SHARES IN  
SAIFUN SEMICONDUCTOR

SAIFUN SHAREHOLDERS EXERCISED RIGHTS OF FIRST REFUSAL

TOWER Q-4 LOSS PER SHARE TO DECREASE BY APPROXIMATELY \$0.50

MIGDAL HAEMEK - ISRAEL - JANUARY 2, 2005 - Tower Semiconductor Ltd. (Nasdaq: TSEM; TASE: TSEM), today announced the closing of the sale of all its holdings in Saifun Semiconductor on December 31, 2004 for approximately \$39 million in cash. Shares were sold to Saifun shareholders, who exercised their rights of first refusal.

As previously announced, Tower agreed to sell all of its holdings in Saifun to a U.S. based private equity investor, subject to the rights of first refusal held by Saifun's other shareholders. Such rights were exercised prior to the end of a 21 day right of first refusal period.

Tower may receive additional payments through August 2005 subject to certain future events. Following the transaction, Tower is recording a capital gain, net, of approximately \$32 million in the fourth quarter of 2004, which decreases its quarterly loss per share by approximately \$0.50.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor LTD. is a pure-play independent wafer 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-micron and below process technologies, including foundry-standard technology. When fully equipped, Fab 2 is expected to offer full production capacity of 33,000 200mm wafers per month. The Tower Web site is located at [www.towersemi.com](http://www.towersemi.com).

# # #

PR AGENCY CONTACT  
Matt Beevers  
Pacifico, Inc.  
+1 (408) 293-8600  
[mbeevers@pacifico.com](mailto:mbeevers@pacifico.com)

INVESTOR RELATIONS CONTACT  
Sheldon Lutch  
IR & Communications  
+1 (212) 268 1816  
[sheldon@fusionir.com](mailto:sheldon@fusionir.com)

CORPORATE CONTACT  
Tamar Cohen  
Tower Semiconductor  
+972 (4) 650 6998  
[pr@towersemi.com](mailto:pr@towersemi.com)