

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of January 2006 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 January 15, 2006, the Registrant announced successful raising of approximately \$48 million through sales of convertible debentures. 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 15, 2006

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR ANNOUNCES SUCCESSFUL RAISING OF
APPROXIMATELY \$48 MILLION THROUGH SALES OF
CONVERTIBLE DEBENTURES

MIGDAL HAEMEK, Israel -- January 15, 2006 -- Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), a pure-play independent specialty foundry, today announced that it has successfully completed its previously announced offering of rights, resulting in gross proceeds of approximately \$48 million.

"We are very pleased with the success of this offering and especially with the strong vote of confidence given to Tower by our shareholders and the financial community, as demonstrated by the exercise of approximately 96% of the total rights," said Russell Ellwanger, Tower's CEO. "We achieved substantial fourth quarter over third quarter revenue growth of 50%. This fundraising will allow us to continue to meet our customers' needs and help enable their success, as we drive the company towards further growth".

The debentures will be listed for trade on the Nasdaq Capital Market under the symbol TSEMG and the Tel Aviv Stock Exchange under the symbol TSEM.C2. In light of U.S. settlement procedures and January 16, 2006 being a U.S. holiday, the debentures are expected to be listed for trade on these exchanges on or about Wednesday January 18, 2006, subject to the procedures of both exchanges. As stated in the prospectus, the debentures will be convertible commencing the day after the debentures are listed for trading on the Tel Aviv Stock Exchange through December 27, 2011. Debentures may only be converted in integral multiples of \$1.00 amounts.

The terms of the rights distribution and the convertible debentures are described in the prospectus included in the registration statement. Copies of the prospectus can also be obtained from the U.S. Securities and Exchange Commission's EDGAR website at www.sec.gov, from the Israel Securities Authority's Magna website at www.magna.isa.gov.il or from Tower's website at www.towersemi.com. Copies of the prospectus for the rights distribution may be also be obtained from Tower Semiconductor at PO Box 619, Migdal Haemek, Israel 23105, Attention: Corporate Secretary, telephone: +972 4 650 6109, or e-mail: investors_news@towersemi.com.

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.

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