

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of June 2004

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 May 17, 2004, the Registrant announced that it has signed a foundry agreement with Vishay Siliconix for long-term production of semiconductors. A copy of the press release is attached hereto.

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: June 28, 2004

By: s/ Tamar Cohen

Name: Tamar Cohen
Title: Corporate Secretary

VISHAY SILICONIX AND TOWER SEMICONDUCTOR SIGN FOUNDRY
AGREEMENT FOR LONG-TERM PRODUCTION OF SEMICONDUCTORS

SANTA CLARA, California and MIGDAL HAEMEK, Israel - May 17, 2004 - Chip maker Siliconix Inc. (NASDAQ: SILI), an 80.4% subsidiary of Vishay Intertechnology, Inc. (NYSE: VSH), and Semiconductor wafer foundry Tower Semiconductor (NASDAQ: TSEM, TASE: TSEM) announced today that they have signed a definitive long term foundry agreement for semiconductor manufacturing.

As previously announced, Siliconix will place with Tower orders valued at approximately \$200 million for the purchase of semiconductor wafers to be manufactured in Tower's Fab 1 over a seven to ten year period. Approximately \$53 million of that amount will be delivered over an initial three year period starting after the completion of the technology transfer. The first phase of technology transfer from Siliconix to Tower has started and is estimated to last approximately 12 months. Siliconix will advance to Tower \$20 million to be used for the purchase of additional equipment required to satisfy Siliconix's orders, which will be credited towards the purchase price of the wafers.

Dr. King Owyang, Siliconix CEO commented: "We at Siliconix were very impressed with Tower's technical capabilities and its experience in technology transfers. We are very pleased to add Tower to our strategic suppliers list, and confident this foundry deal will strengthen our competitive position in the market."

Carmel Vernia, chairman and CEO of Tower noted: "It is a great achievement for Tower to become one of the major suppliers for a challenging and professional customer such as Siliconix. This \$200 million deal should start generating revenues for Tower in 2005, and by 2007 we expect to ramp to substantial volume utilizing up to 50percent of our Fab 1 capacity."

Dr. Felix Zandman, chairman of the board and CEO of Vishay added: "Vishay is extremely pleased with this agreement. We already have a very strong cluster of Vishay activities in Israel, and the addition of wafer manufacturing services for Vishay Siliconix by Tower will increase the synergies between our activities in Israel and will make our offerings even more competitive."

The closing of the agreement is subject to the approval of Tower's lending banks and the Israeli investment center.

ABOUT VISHAY SILICONIX

Siliconix, an 80.4% subsidiary of Vishay Intertechnology, Inc., is a leading manufacturer of power MOSFETs, power ICs, analog switches, and multiplexers for computers, cell phones, fixed communications networks, automobiles, and other consumer and industrial electronic systems. With 2003 worldwide sales of \$392.1 million, the Company's facilities include a Class 1 wafer fab dedicated to the manufacture of power products in Santa Clara, California, and an affiliated Class 1 wafer fab located in Itzehoe, Germany. The Company's products are also fabricated by subcontractors in Japan, Germany, China, Taiwan, and the United States. Assembly and test facilities include a company-owned facility in Taiwan, a joint venture in Shanghai, China, and subcontractors in the Philippines, China, Taiwan, and Israel.

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 0.18 microns; it also provides complementary manufacturing 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 microns 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 complete, 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.

ABOUT VISHAY INTERTECHNOLOGY, INC.

Vishay, a Fortune 1,000 Company listed on the NYSE, is one of the world's largest manufacturers of discrete semiconductors (diodes, rectifiers, transistors, and optoelectronics), selected ICs, and passive electronic components (resistors, capacitors, inductors, and transducers). The Company's components can be found in products manufactured in a very broad range of industries worldwide. Vishay is headquartered in Malvern, Pennsylvania, and has plants in 17 countries employing over 26,000 people. Vishay can be found on the Internet at www.vishay.com.

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 these forward-looking statements. Potential risks and uncertainties include, without limitation, those associated with (i) obtaining the approval of the Israeli Investment Center and any other approvals required for the transaction; (ii) the satisfaction of any conditions to effectiveness contained in the definitive documentation; (iii) any difficulties encountered in adaptation of Tower's production facilities, technologies and processes to accommodate the Siliconix orders, which may affect the timing and quality of production; and (iv) conditions in the market for discrete semiconductor products generally and

general economic and business conditions affecting each of Tower and Siliconix, as a result of which the amount of the orders under the definitive transaction documentation and the timing of their delivery may vary from those anticipated.

A more complete discussion of risks and uncertainties affecting the businesses of Tower and Siliconix generally is included in Tower's most recent Annual Report on Form 20-F under the heading "Risk Factors" and in Siliconix's most recent Annual Report on Form 10-K, which have been filed with the Securities and Exchange Commission, and in Tower's filings with the Israel Securities Authority.

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