

FORM 6-K

**SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

For the month of December 2003 (No. 2)

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

**P.O. BOX 619, MIGDAL HAEMEK, ISRAEL 10556
(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 December 31, 2003, the Registrant announced that it had signed a memorandum of understanding with Siliconix incorporated, an 80.4% owned subsidiary of Vishay Intertechnology, Inc., for a long-term manufacturing and supply arrangement between the parties.

Annexed as Exhibit 99.1 is a copy of the press release announcing the signing of the memorandum of understanding.

This Form 6-K is being incorporated by reference into (i) the Registrant's Registration Statement on Form F-3 filed with the Commission on November 14, 2003 (File No. 333-110486), as amended, and (ii) all currently effective registration statements of the Registrant under the Securities Act of 1933.

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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 2, 2004

By: /s/ Tamar Cohen _____

Tamar Cohen
Corporate Secretary and General Counsel

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TOWER SEMICONDUCTOR AND SILICONIX ANNOUNCE A LONG-TERM ARRANGEMENT FOR VOLUME PRODUCTION OF SEMICONDUCTOR DEVICES

MIGDAL HAEMEK, Israel and SANTA CLARA, California – December 31, 2003 – Semiconductor wafer foundry Tower Semiconductor (NASDAQ: TSEM, TASE: TSEM) and chip maker Siliconix incorporated (NASDAQ: SILI), an 80.4% owned subsidiary of Vishay Intertechnology, Inc. (NYSE: VSH), announced today that a memorandum of understanding has been signed for a long-term manufacturing and supply arrangement between the parties.

Pursuant to the terms of the memorandum of understanding, 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, of which approximately \$53 million is guaranteed and will be delivered over the three year period starting at the first anniversary of the definitive agreement. 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.

The transaction is subject to the approval of both companies' boards of directors, Tower's lending bank and the Israeli investment center and to the negotiation of definitive documentation. A definitive agreement is expected to be signed during the first quarter of 2004.

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 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 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 Siliconix incorporated

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 2002 worldwide sales of \$372.9 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, and Taiwan. Assembly and test facilities include a company-owned facility in Taiwan, a joint venture in Shanghai, China, and subcontractors in the Philippines, China, Taiwan, Israel, and the United States.

About Vishay Intertechnology, Inc.

Vishay, a Fortune 1000 Company listed on the NYSE, is one of the world's largest manufacturers of discrete semiconductors (diodes, rectifiers, transistors, optoelectronics, and 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 25,000 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) approvals of the transaction by the boards of Tower and Siliconix; (ii) the negotiation and execution of definitive documentation for the transaction between the companies, in which certain terms of the transaction may be subject to change; (iii) obtaining the approval of the Israeli Investment Center and any other approvals required for the transaction; (iv) the satisfaction of any conditions to effectiveness contained in the definitive documentation; (v) 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 (vi) 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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