

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of September 2008 (No.2)

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

**Ramat Gavriel Industrial Park
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 September 19, 2008, Tower Semiconductor Completes Merger With Jazz Technologies. Attached please find 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: September 19, 2008

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary



NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

**TOWER SEMICONDUCTOR COMPLETES MERGER WITH
JAZZ TECHNOLOGIES**

Merger Creates:

- **Leading specialty foundry with increased capacity and scale offering a comprehensive process portfolio;**
- **Cross-selling opportunities among diverse customer bases of both companies;**
- **Financially strong merged company with:**
 - **Trailing twelve month (TTM) revenues of approximately \$440 million;**

Gilbert F. Amelio Retires as Jazz Chairman and CEO, Will Serve as Special Advisor to Tower's Board of Directors

MIGDAL HAEMEK, Israel and NEWPORT BEACH, Calif. (September 19, 2008) – Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), an independent specialty wafer foundry, today announced the completion of its merger with Jazz Technologies, Inc. (formerly AMEX: JAZ), a leader in Analog-Intensive Mixed-Signal (AIMS) foundry solutions. As a result of this transaction, both Jazz Technologies and its subsidiary, Jazz Semiconductor, Inc., became wholly owned subsidiaries of Tower Semiconductor. Tower's name will remain the same and Jazz Semiconductor will be known as Jazz Semiconductor, Inc., a Tower Group Company. Russell Ellwanger, Tower's chief executive officer, has been named chairman of the board of directors of Jazz and will be responsible for developing final details of the merged organizational structure and the integration plan over the next several months.

Commenting on the transaction Ellwanger stated, "We expect the merger of the two companies to provide expanded opportunities for growth based on the significant cross-selling opportunities and the broader, more complete product, technology, and service portfolio we are now able to offer to customers. These opportunities further enhance the immediate benefits we expect the merger to provide to our cost structure, which when combined with the recently announced anticipated restructuring of our debt, we expect to result in significant improvements to our financial results, EBITDA and cash flow margins, as well as greatly improve the balance sheet of the combined company."

Paul Pittman, Jazz's Chief Financial Officer, said, "We are pleased with the strong support from Jazz's stockholders for this merger. More than 66% of our stockholders voted in favor of this merger and less than one percent voted against it. We look forward to working with Tower to enhance our corporate value for the benefit of Tower's stockholders."

The merger creates a financially stronger company with trailing twelve month (TTM) revenues of approximately \$440 million and pro forma TTM EBITDA of approximately \$120 million, including the effects of an expected additional \$40 million in annual cost saving synergies previously announced in conjunction with the merger. Following the anticipated closing of Tower's restructuring transaction with its lenders based on the Memorandum of Understanding reached last month, Tower's balance sheet will be significantly improved and reflect a \$250 million reduction in debt and corresponding \$250 million increase in shareholders' equity. This restructuring is also expected to result in improved financial performance and cash flow margins due to lower interest expense as a result of the reduced debt.

In addition, the merger creates significant cross-selling opportunities from Tower to Jazz customers and from Jazz to Tower customers. Jazz's major customers listed alphabetically include, among others: Conexant Systems, Inc., Entropic, Marvell Technology Group, Ltd., Mindspeed Technologies, Inc., RF Micro Devices, Inc., Skyworks Solutions, Inc. and Texas Instruments. Tower's major customers listed alphabetically include, among others: Atheros Communications, International Rectifier, Macronix International, On Semiconductors, SanDisk Corporation, Siliconix-Vishay and Zoran Corp.

Tower and Jazz together now provide one of the industry's broadest portfolios of specialty process technologies combining Tower's offerings in CMOS image sensor, non-volatile memory (NVM) and CMOS (RF and power) with Jazz's expertise in mixed signal, power management (CMOS and BCD) and RF (RF CMOS, SiGe and BiCMOS). Jazz's process technologies and customer base are complementary to Tower with minimal overlap, which we believe will enable Tower and Jazz to address a diverse customer base in high growth markets. Additionally, Tower and Jazz offer an IDM technology transfer program along with strong design support and customized design solutions providing modular technology that allows flexibility and rapid customization to fit customers' production needs.

"We are pleased to complete this merger and are excited to move forward, poised to realize our vision of becoming the leading pure-play specialty foundry worldwide," added Ellwanger. "Technology leadership and scale are critical in meeting the unique requirements of our customers, and with the merger now complete, we will continue to focus on customer needs for increased capacity, expanded process offerings and industry-leading design enablement services."

Operational facilities for Tower and Jazz span the globe with one fully owned fab in the United States, two fabs in Israel, as well as an ownership interest in a fabrication facility in China, which collectively expand capacity up to 750,000 wafer starts annually (8" equivalents). As a result, this merger considerably enhances both companies' geographic reach and distribution capabilities, which we believe creates a significant opportunity for revenue enhancement and increased efficiencies in manufacturing.

Gilbert F. Amelio, Jazz's chairman and chief executive officer, announced his decision to retire as an officer and director effective upon the closing of the merger. He will continue to serve as a special advisor to Tower's board of directors.

Dr. Amelio co-founded Jazz Technologies (formerly Acquicor Technology) in 2005 and helped to lead the company through an initial public offering in 2006, its merger with Jazz Semiconductor, Inc. in 2007, and its merger with Tower.

"On behalf of Jazz and Tower, I would like to thank Gil Amelio for his hard work and dedication," said Ellwanger. "He was a driving force in helping Jazz evolve into a public company and played a critical role in the merger with Tower. We are grateful for all Gil has done for Jazz, its customers and its employees. We wish Gil the best and look forward to continuing to work with him."

Commenting on his retirement, Dr. Amelio said, "I am pleased to have helped Acquicor evolve from a blank check company to a leader in AIMS foundry solutions, and with the merger with Tower, into a truly international company. I am proud of what Jazz's employees have accomplished under my leadership. It has been a privilege to work with them, and I will miss my close association with the Jazz team and my fellow directors. I am confident that the future for Tower and Jazz is bright, and I look forward to helping contribute to its continued success."

Under the terms of the merger, Tower acquired all of the outstanding shares of Jazz in a stock-for-stock transaction. Upon the closing of the merger, each outstanding share of Jazz common stock was converted into 1.8 Tower ordinary shares, each outstanding warrant and outstanding option to acquire Jazz common stock became exercisable for 1.8 Tower ordinary shares, and Jazz's convertible notes became convertible into Tower ordinary shares based on the same exchange ratio. Effective September 19, 2008, Jazz's common stock, warrants and units will no longer be traded on the American Stock Exchange (AMEX).

Tower and Jazz have submitted the merger for review by the Committee on Foreign Investment in the United States ("CFIUS"), a group of U.S. agencies that reviews foreign acquisitions of U.S. companies for national security reasons pursuant to the Defense Production Act of 1950. The review by CFIUS has not been

completed. In this regard, Ellwanger said, “We are committed to continued full cooperation with CFIUS in its review and we will address in good faith any issues that arise in the course of that review.”

About Tower Semiconductor Ltd.

Tower Semiconductor Ltd. is a pure-play independent specialty 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 mixed-signal & RF-CMOS, Power Management, CMOS image-sensor and non-volatile memory technologies. To provide world-class customer service, the company maintains two manufacturing facilities, each with standard and specialized process technology processes: Fab 1 ranging from 1.0 to 0.35-micron and Fab 2 featuring 0.18 and 0.13-micron. Tower’s web site is located at <http://www.towersemi.com>.

About Jazz Technologies and Jazz Semiconductor

Jazz Technologies, Inc. and Jazz Semiconductor, Inc. are wholly owned subsidiaries of Tower Semiconductor Ltd. Jazz Semiconductor, Inc., a Tower Group company is a leading wafer foundry focused on Analog-Intensive Mixed-Signal (AIMS) process technologies. The company’s broad process portfolio includes specialty technologies, such as RF CMOS, Analog CMOS, Silicon and SiGe BiCMOS, SiGe C-BiCMOS, Power CMOS and High Voltage CMOS. Jazz also offers world-class design enablement tools to allow complex designs to be achieved quickly and more accurately. Jazz executive offices and its U.S. wafer fabrication facility are located in Newport Beach, CA. For more information, please visit <http://www.jazztechnologies.com> and <http://www.jazzsemi.com>.

Forward Looking Statements

This press release includes forward-looking statements based on management’s current expectations and beliefs which are subject to risks and uncertainties. For example, forward-looking statements include statements regarding synergies, customer benefits, growth opportunities, financial improvements, costs savings and other benefits anticipated from the merger and the expected closing of Tower’s restructuring transaction with its banks. Actual results may vary from those projected or implied by such forward-looking statements. The potential risks and uncertainties include, among others, the possibility that these expected synergies, customer benefits, growth opportunities, financial improvements, costs savings and other benefits will not be achieved or that the companies are unable to successfully execute their integration strategies, that after the closing of the merger, the businesses of the companies may suffer due to uncertainty, as well as other risks. A complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect our business is included under the heading “Risk Factors” in Tower’s most recent filings on Forms 20-F, F-3, F-4 and 6-K, as were filed with the Securities and Exchange Commission (the “SEC”) and the Israel Securities Authority, and Jazz’s most recent filings on Forms 10-K and 10-Q, as were filed with the SEC. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

Tower Semiconductor:
Limor Asif
+972-4-650 6936
limoras@towersemi.com

Jazz Technologies:
Melinda Jarrell
949/435-8181
melinda.jarrell@jazzsemi.com

Tower Investor Relations Contact:
Ryan Bright
972/239-5119 ext. 159
rbright@sheltongroup.com

Jazz Investor Relations Contact:
Linda Rothemund
415/445-3236
linda@marketstreetpartners.com
