FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of July 2010 (No. 3)

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 x Form 40-F o

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 o No x

As previously reported, on July 9, 2010 our wholly-owned subsidiary, Jazz Technologies, Inc. ("Jazz"), together with its United States subsidiaries and our company, Tower Semiconductor Ltd. ("Tower"), entered into an exchange agreement (the "Exchange Agreement") with certain holders (the "Participating Holders") holding approximately \$79.6 million principal amount of Jazz's outstanding 8% senior convertible notes due 2011(the "Old Notes"). Under the Exchange Agreement, the Participating Holders agreed to exchange their Old Notes for approximately \$93.5 million in aggregate principal amount of newly-issued 8% senior notes of Jazz due 2015 (the "New Notes") and warrants to purchase approximately 25.2 m illion ordinary shares of Tower (the "Tower Warrants"). On July 15, 2010, the transactions contemplated by the Exchange Agreement were consummated, resulting in the issuance of the New Notes and Tower Warrants in exchange for the Old Notes in accordance with the terms of the Exchange Agreement.

For additional information regarding the exchange transaction and the terms of the New Notes and Tower Warrants, including a description of the indenture, warrant agreement and registration rights agreements entered into at the closing, see our Report on Form 6-K filed with the Securities and Exchange Commission on July 12, 2010, which Report is incorporated by reference herein.

The exchange transaction has not been registered and will not be registered under the Securities Act of 1933, as amended (the "Securities Act"), and the securities offered in the exchange may not be offered or sold in the United States absent registration or an applicable exemption from registration. The exchange transaction was entered into with the exchanging bondholders party to the exchange agreement in reliance upon applicable exemptions from the registration requirements of the Securities Act. This disclosure is not an offer to exchange or a solicitation of an offer to exchange any securities.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us under the Securities Act.

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.

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TOWER SEMICONDUCTOR LTD.

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa Corporate Secretary

Date: July 16, 2010