

**FORM 6-K**

**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

For the month of October 2009 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  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

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On October 12, 2009, the registrant announces it was Selected as Preferred Foundry by C&S Technology in Korea for Power Automotive Devices.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us 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: October 12, 2009

By: /s/ Nati Somekh Gilboa

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Nati Somekh Gilboa  
Corporate Secretary

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**Tower Semiconductor Selected as Preferred Foundry by C&S Technology in  
Korea for Power Automotive Devices**

*C&S Technology is first ever local provider of power automotive devices, reducing the reliance on  
overseas imports*

**SEOUL, South Korea and MIGDAL HA'EMEK, Israel, October 12, 2009** – Tower Semiconductor, Ltd. (Nasdaq: TSEM, TASE: TSEM selected by C&S Technology in Korea as its preferred foundry to manufacture its power automotive devices. C&S Technology, the official automotive device supplier of multimedia solutions (audio and video systems) for Hyundai & Kia Motor Company, will now supply a power device to the automotive manufacturer. The device can integrate multiple ICs that are typically independent within the vehicle, resulting in a more cost-effective solution. As this IC is being designed for current models of automobiles, the volume ramp will be several years sooner. This customer engagement for Tower is one of several recently announced in Korea as momentum grows for its advanced Bipolar-CMOS-DMOS (BCD) power management process.

This strong focus on utilizing the innovation and accumulated design capabilities prevalent in the Korean fabless community allows Korea to strengthen their competitiveness in both the automotive and IC markets, reducing its reliance on overseas suppliers. As more vehicles are being equipped with power, multimedia and network devices, the demand for automotive chips will increase. The percentage of electronic parts used in vehicles is expected to reach 40% by 2015 and over 30% will have semiconductors.

“We chose Tower’s 0.35-micron power management 60V solution for its integration capabilities and their strong quality commitment to automotive manufacturing requirements,” said, Mr. J.Y. Kim, Head of Automotive Business, C&S Technology. “In addition, the modularity of the Power BCD process gives us the ability to reuse much of our IP in future more highly integrated designs.”

“Tower’s modular platform with scalable voltage LDMOS is ideal for the family of automotive devices required by C&S Technology,” stated Dr. Itzhak Edrei, Executive VP, Tower and Jazz Business Units. “The advanced, and we believe singular modeling capability, combined with the process flow efficiency (20 – 30% less mask layers than standard IDM offerings) provides C&S Technology a cost-effective, best-in-class technical capability. We are thrilled that our

differentiated capability, combined with a dedicated customer support structure and our continued commitment to quality is gaining wide acceptance within a technically demanding Korean market.”

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#### **About C&S Technology**

C&S Technology Inc.(KOSDAQ : C&S) is a chip & solution provider in broadcasting, communications, and automobile sectors and it has put a focus on Mobile TV, IP Telephony, ASIC, and Automotive business as a total solution company. Since its foundation in 1993, the company has been developing with technological capabilities of image and voice processing. As a result, it came to lead industrial innovations amidst technological revolution and changing market conditions. Based on a cooperative relationship with customers as well as accumulated design capabilities and know-how, C&S Technology makes a contribution to developing automotive chips with Korean technology, lessen reliance on foreign semiconductor suppliers, and strengthen the competitiveness of auto and semiconductor industries by overcoming technological barriers. For more information, please visit <http://www.cnstec.com/>

#### **About Tower Semiconductor, Ltd. and Jazz Semiconductor, Inc.**

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) is a global specialty foundry leader and its fully owned subsidiary Jazz Semiconductor, a Tower Group Company is a leader in Analog-Intensive Mixed-Signal (AIMS) foundry solutions. Tower and Jazz manufacture integrated circuits with geometries ranging from 1.0 to 0.13-micron and provide industry leading design enablement tools to allow complex designs to be achieved quickly and more accurately. Tower and Jazz offer a broad range of process technologies including Digital, Mixed-Signal and RFCMOS, HV CMOS, BCD, Non-Volatile Memory (NVM), Embedded NVM, MEMS, and CMOS Image Sensors. To provide world-class customer service, Tower and Jazz maintain two manufacturing facilities in Israel and one in the U.S. with additional manufacturing capacity available in China through partnerships with ASMC and HHNEC. For more information, please visit [www.towersemi.com](http://www.towersemi.com) and [www.jazzsemi.com](http://www.jazzsemi.com).

#### **Safe Harbor Regarding 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 such forward-looking statements. 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 Tower’s and Jazz’s 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.

#### **For Tower:**

##### Company Contact:

Melinda Jarrell  
(949) 435-8181  
[melinda.jarrell@tower-usa.com](mailto:melinda.jarrell@tower-usa.com)

##### Media Contact:

Lauri Julian  
(949) 715-3049  
[lauri.julian@jazzsemi.com](mailto:lauri.julian@jazzsemi.com)

##### Investor Relations Contact:

Noit Levi  
+972 4 604 7066  
[noitle@towersemi.com](mailto:noitle@towersemi.com)

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