

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of October 2009 No. 5

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 October 15, 2009, the registrant announces Third Quarter 2009 Financial Results Conference Call.

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: October 15, 2009

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

Tower Semiconductor Announces Third Quarter 2009 Financial Results Conference Call

Migdal Haemek, Israel – October 15, 2009 – Tower Semiconductor (NASDAQ: TSEM, TASE: TSEM), an independent specialty foundry, will hold a conference call to discuss its third quarter 2009 financial results on Monday, November 09, 2009, at 10:00 a.m. Eastern Time (09:00 a.m. Central, 08:00 a.m. Mountain, 07:00 a.m. Pacific and 17:00 Israel Time). Tower Semiconductor will issue its third quarter 2009 earnings release on Monday, November 09, 2009.

This calls will webcast by Thomson-Reuters and can be accessed at Tower's Website at www.towersemi.com, or can also be accessed in the U.S. and in Israel by calling a domestic number:

1-888-668-9141	(U.S. Toll-Free)
03-918-0650	(Israel)
+972-3-918-0650	(International)

The webcast is also being distributed through the Thomson-Reuters Street Events Network to both institutional and individual investors. Individual investors can listen to the call at www.earnings.com, Thomson/CCBN's individual investor portal, powered by StreetEvents. Institutional investors can access the call via Thomson's password-protected event management site, StreetEvents (www.streetevents.com).

The teleconference will be available for replay for 90 days.

About Tower Semiconductor Ltd.

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) is a pure-play independent specialty wafer foundry. Tower 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. Through access to the process portfolio of its fully owned subsidiary, Jazz Semiconductor, Tower offers RF CMOS, Analog CMOS, Silicon and SiGe BiCMOS, SiGe C-

BiCMOS, Power CMOS and High Voltage CMOS. To provide world-class customer service, Tower maintains two manufacturing facilities in Israel with access to its fully owned subsidiary Jazz Semiconductor's fab in the U.S. and manufacturing capacity in China through Jazz's partnerships with ASMC and HHNEC. For more information, please visit www.towersemi.com and www.jazzsemi.com.

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