TowerJazz Releases Enhanced RF SOI CMOS and High Speed SiGe Process Design Kits for Use with Agilent Technologies' Advanced Design System Software

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Demos taking place at DAC and IMS; PDKs to provide mutual customers a more accurate and productive design environment to deliver new chips to market faster

NEWPORT BEACH, Calif.--(BUSINESS WIRE)--Jun. 3, 2014-- TowerJazz, the global specialty foundry leader, today announced the availability of enhanced RF SOI CMOS and high speed SiGe process design kits (PDKs) for its 0.18um process technology. These kits were developed for use with Agilent Technologies' Advanced Design System (ADS) software and target a wide range of analog markets including front-end modules for mobile phones, tablets and WiFi terminals, fiber optic connections for data centers and network infrastructure, radar for automotive collision avoidance and other high-frequency applications.

The enhanced PDKs enable reduction of die size and bill of materials with new advanced inductor based passive components e.g. significant area savings are possible when using solenoids which provide 250% more inductance per area as compared to regular inductors. The new PDKs also improve simulation accuracy for die packaged in thin-form factors and allows the simulation of thermal effects across chips that are critical in many of the targeted applications.

In addition to inductors, the PDKs are now supporting scalable solenoids (series inductors), balun/transformer devices and improved model capabilities to account for substrate thinning and flipchip packaging effects. Ultrathin substrates of 100um or less are common in the assembly of FEM chips, while flipchip stand-off distances between the chip surface and the circuit laminate can be on the order of 80um.

The Agilent EES of EDA Electro-Thermal Simulator in ADS has been enabled for high-speed SiGe BiCMOS technology, allowing designers to simulate the impact of thermal coupling across the chip. Thermal effects in SiGe designs can cause degradation in both performance and reliability. This new capability allows designers using the ADS PDK for TowerJazz's SBC18HA process to "design around" the thermal effects by optimizing design parameters in conjunction with layout modifications.

TowerJazz and Agilent plan to demonstrate the PDKs at the International Microwave Symposium (IMS) conference, June 3-5, in Tampa, FL, booth #1328 and the Design Automation (DAC) conference, June 2-4, in San Francisco, CA, booth #1301.

"We are excited to work with Agilent and complement our leading edge RF SOI and SiGe BiCMOS technologies with strong design enablement capability to speed our customers' time to market," said Ori Galzur, vice president of the TowerJazz VLSI Design Center. "We constantly strive to provide our customers a clear advantage in bringing analog products to market by offering the best process technology together with a sophisticated design infrastructure."

"We are very pleased that our mutual customers can now leverage RF critical functionalities like cutting edge inductor design capability and electro-thermal analysis in TowerJazz's leading RF process technologies," said Juergen Hartung, RFIC marketing and foundry program manager of Agilent's EEs of EDA. "Based on a full 3D thermal solver tightly integrated with ADS circuit simulation and IC layout environment, this solution provides accurate, 'thermally aware' simulation results, including steady-state, transient, and envelope analyses, that account for thermal coupling between devices as well as heat transfer through the die and packaging."

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor, Inc. and its fully owned Japanese subsidiary TowerJazz Japan, Ltd., operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz also owns 51% of TowerJazz Panasonic Semiconductor Company, Ltd. (TPSCo) through a joint venture with Panasonic Corporation. TowerJazz manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, Mixed-Signal/CMOS, RF CMOS, CMOS Image Sensor, integrated Power Management (BCD & 700V), and MEMS capabilities. Through TPSCo, TowerJazz offers additional capacity as well as leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies. TowerJazz provides a world-class design enablement platform that enables a quick and accurate design cycle. TowerJazz also offers Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies that need to expand capacity. To provide multi-fab sourcing for its customers, TowerJazz operates two manufacturing facilities in Israel, one in the U.S., and four in Japan. For more information, please visit www.towerjazz.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 TowerJazz'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, respectively. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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