TowerJazz Announces its SiGe Terabit Platform Enabling High Speed Wireline Communications

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TowerJazz announces availability of its S4 300GHz platform

Showcased by Bell Labs/Nokia and UCI;
Already in design with TowerJazz's largest commercial SiGe wireline customer

MIGDAL HÆMEK, Israel and NEWPORT BEACH, Calif., April 05, 2016 (GLOBE NEWSWIRE) -- TowerJazz, the global specialty foundry leader, today announced its SiGe Terabit Platform targeting high-speed wireline communications for the terabit age. Wireline data traffic is increasing dramatically, with traffic at Google famously increasing by 50 times over the last six to seven years, or at 75 percent per year. Estimates vary, but experts agree on double digit CAGRs and a 2020 market for high speed optical components in excess of $9 billion. TowerJazz addresses this market through a family of customized foundry silicon-germanium (SiGe) BiCMOS technologies and is today announcing availability of its highest performance process to date: S4. TowerJazz customers include the who's-who for components that carry the world's high-speed data traffic such as: **Broadcom**, **Inphi**, **MACOM**, **Maxim**, **Maxlinear** and **Semtech**, among others.

SiGe Terabit Platform – HX, H2, H3, H4, S4
The TowerJazz SiGe Terabit Platform includes advanced CMOS, together with low-noise, high-speed, and high power SiGe devices and unique patented features that enable best-in-class performance for the most demanding ICs in high-speed communication links. These components include, for example, trans-impedance amplifiers (TIAs) on the receive path and laser drivers on the transmit path. The addition of S4 to the SiGe Terabit Platform extends a rich history of process technologies that include HX and H2 (addressing 10 to 28Gbps requirements), H3 with SiGe speeds of 280GHz (addressing requirements up to 100Gbps), and now H4 and S4 with transistor speeds that exceed 300GHz and can reduce power consumption by nearly an order of magnitude.

Two recent demonstrations, both in TowerJazz H3 technology, showcase the value of TowerJazz's SiGe Terabit Platform. The first is UCI's demonstration of TIA performance at 50 Gbps (2015 BCTM). Dr. Payam Heydari, IEEE *Distinguished* Lecturer & Full Professor of Electrical Engineering and Computer Science, University of California, Irvine, said, "We measured up to 70Gbps data rate, using a NRZ (non-return to zero) architecture with an eye of 50Gbps. We estimate this chip will consume less than 0.5mW per GHz."

The second is Bell Labs, the innovation engine of Nokia with its demonstration of a 112Gbps transceiver (2015 IEEE CSICS). Dr. Shahriar Shahramian, Technical Manager, Bell Labs, and the lead author in the publication, said, "To my knowledge, this is the world's first demonstration of a >100GBs serial datalink built with a silicon IC." He added that the "56-GBaud, 4-PAM transmission over 2-km of SSMF (single mode fiber) has been experimentally demonstrated."

"These demonstrations used our H3 process and each represents record performance in data rate, as well as demonstrating new standards in data transmission over single mode fiber" said Dr. David Howard, TowerJazz Executive Director & Fellow. "We are very excited to introduce our newest process, S4, which enables our SiGe Terabit Platform to deliver higher speed and lower power and we look forward to the ground-breaking results our partners and customers will demonstrate next."

About TowerJazz
Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiary Jazz Semiconductor, Inc. operate collectively under the brand name TowerJazz, the global specialty foundry leader. 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 and 700V), and MEMS. TowerJazz also provides a world-class design enablement platform for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies that need to expand capacity. For more information, please visit www.towerjazz.com.

To provide multi-fab sourcing and extended capacity for its customers, TowerJazz operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three additional facilities in Japan (two 200mm and one 300mm) through **TowerJazz Panasonic Semiconductor Co. (TPSCo),** established with Panasonic Corporation of which TowerJazz has the majority holding. Through TPSCo, TowerJazz provides leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies, including the most advanced image sensor technologies. For more information, please visit www.tpsemico.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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