TowerJazz Announces Korea Electrotechnology Research Institute (KERI) Begins Prototyping Gate Driver IC on its Advanced 0.18um SOI Power Platform

December 3, 2018 at 6:00 AM EST

High temperature, high voltage gate driver IC dedicated to SiC MOSFETs for application in white goods and electric vehicles

MIGDAL HAEMEK, Israel and CHANGWON, Korea, December 3, 2018 – TowerJazz, the global specialty foundry leader, today announced Korea Electrotechnology Research Institute (KERI), a government research institute specializing in IC and system development for power and energy fields with advanced technology, has begun prototyping its gate driver IC based on TowerJazz's advanced power SOI 0.18um platform. These gate driver ICs are aimed for high-temperature, high-voltage applications such as white goods and electric vehicles which need power converters and inverters with high efficiency and high power density.

KERI's gate driver IC is expected to be a more efficient solution than the IGBT/SiC MOSFET offering as it enables higher operating speeds (500KHz) and a newly added short circuit protection function. KERI has completed a prototype of the single SiC MOSFET and expects to benefit customers by providing both the SiC MOSFET and the gate driver IC as an optimized set.

TowerJazz's 200V power SOI 0.18um platform provides highly integrated mixed-signal capabilities combined with noise and voltage isolation, smaller die size and negative voltages, making it an ideal solution for a wide range of end applications such as: automotive battery monitors, industrial gate drivers, consumer haptic drivers, AC/DC and medical ultra sound sensors. This offering is highly suitable to meet the increasing demand for high voltage operation, multi-channel ICs and the 48V market trend that requires the ability of ICs to support up to 200V breakdown voltage, with a development roadmap designed to meet higher voltage demands. In addition, the process enables low leakage, improved latch-up and immunity that ultimately increases the reliability of operation at high temperatures and high voltages.

"TowerJazz's SOI power process offers flexibility to optimize device options for our product design, and we are very satisfied with their advanced BCD technology and their strong local support in terms of fast response on our diverse needs. We look forward to cooperating on further projects with TowerJazz," said Dr. Bahng Wook, Director of Power Semiconductor Research Center at KERI.

"We are pleased to closely support KERI with new technology to produce their high performance gate driver IC, enabling higher temperature and higher voltage applications. We are continuously expanding our power platform portfolio to provide extensive and competitive analog process solutions meeting the needs of the rapidly growing automotive market in Korea," said Michael Song, President TowerJazz Korea and Vice President of Sales Korea.

For more information about TowerJazz's process technology offerings, please click here or inquire at: info@towerjazz.com.

About the Korea Electrotechnology Research Institute (KERI)
KERI is a government-funded research institute specializing in electronics and affiliated with the National Research Council of Science and Technology of the Ministry of Science and ICT. Since its foundation as the Korea Electrical Testing Research Institute in 1976, KERI has continued its remarkable growth each year and emerged as one of the leading electrotechnology research institutes.

About TowerJazz
Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its subsidiaries operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures next-generation integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, medical and aerospace and defense. TowerJazz's advanced technology is comprised of a broad range of customizable process platforms such as: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides world-class design enablement 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. 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 facilities in Japan (two 200mm and one 300mm). 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.

TowerJazz Company Contact: Shoko Saimiya | Shoko.saimiya@towerjazz.com
TowerJazz Investor Relations Contact: Noit Levi | +972-4-604-7066 | noit.levi@towerjazz.com

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- Press release (PDF).pdf

Source: Tower Semiconductor