TowerJazz Announces the Availability of its Newly Released Advanced Stacked BSI Hybrid Bonding Technology

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NEWS ANNOUNCEMENT ***FOR IMMEDIATE RELEASE***

New offering enables outstanding pixel performance and significant competitive advantages for leading growing markets including automotive, event-driven sensors and high-end photography among others

MIGDAL HAEMEK, Israel, September 25, 2019 – TowerJazz (NASDAQ/TASE: TSEM), the global specialty foundry leader, today announced the release of its highly advanced 65nm stacked BSI hybrid bonding technology manufactured in Company's 300mm facility in Uozu, Japan. This new offering, implemented in pixel level, enables a significantly reduced pixel size along with enhanced performance by splitting the pixel IC functionality between two wafers. With a pitch smaller than 4µm, sensors manufactured with this technology provide higher data rate, lower power consumption, better performance, and smaller form factor, accurately meeting the innovative requirements of world-leading growing markets and applications including automotive, high-end photography, event-driven sensors and Time of Flight (ToF), among others.

"We are very pleased to announce this new and highly advanced offering, providing our customers with extensive technological solutions which enable them to competitively lead in their markets," said Dr. Avi Strum, senior vice president and general manager of the Sensor Business Unit at TowerJazz. "As always, we are greatly committed to bring to market the most advanced technology and state-of-the-art pixel performance providing strategic, value-add development opportunities and roadmap".

With pixel functionality split between wafers, TowerJazz hybrid BSI stacking, electrically connects each of the Photo Diodes (PD) in the imaging top wafer to the pixel circuit in the bottom wafer**.** This new offering is an expansion of the Company's well-established and reputable CIS technology which includes stitching with 1D and 2D for large format sensors in the high-end photography, industrial and medical X-Ray markets, as well as highly advanced SPAD technology profoundly used in the rapidly growing automotive market with silicon proven pixels that can be customized to customer specifications.

In addition, TowerJazz has recently expanded its non-imaging sensor (NIS) technology platform portfolio serving diversified market segments. The silicon based sensors are embedded on the Company's mature and well-established 180nm CMOS manufacturing process and now include full system-on-chip, and unique environmental sensor technology for gas, temperature and time-to-temperature sensing, radiation and magnetic sensing, in addition to a GaN based platform for high-temperature sensing applications. TowerJazz NIS platform offers complimentary design IPs and PDKs enabling design support and fast time-to-market.

Dr. Avi Strum will give a keynote presentation at the upcoming MEMS & Imaging Sensor Summit to be held in Grenoble, France on Sept. 25-27, 2019. The presentation, titled: **Considerations of Optical Fingerprint and 3D Face Recognition Sensors for Cellular Security Applications**, is scheduled for Sept. 25th 5:30pm-6:00pm as part of the summit's opening session.
For more information and details about the summit please visit here.

For additional information about TowerJazz CIS technology, please click here.
For additional information about TowerJazz non-imaging sensor technology, please click here.

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) through its partnership with Panasonic Semiconductor Solutions Co. LTD. 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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Attachments

- TowerJazz's Newly Released Advanced Stacked BSI Hybrid Bonding Technology
- CIS Stacked BSI Hybrid and Sensor Summit_FINAL

The Global Specialty Foundry Leader