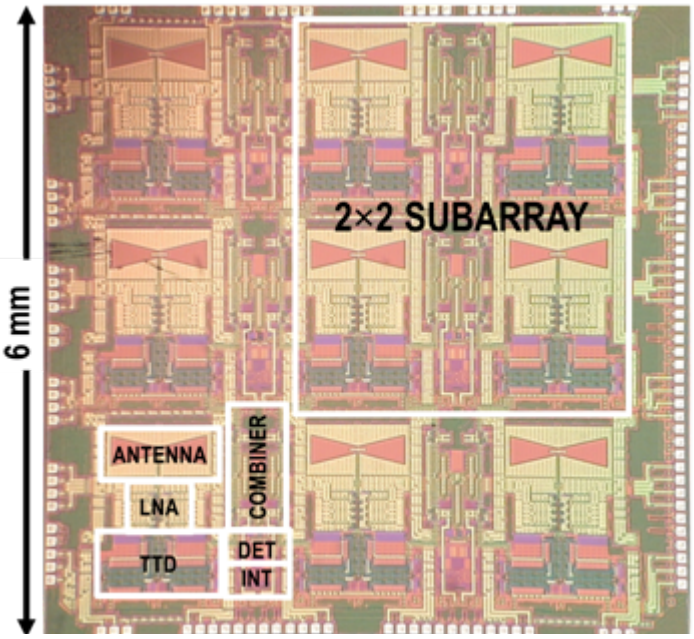
NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

UC Irvine and TowerJazz Present 9-element Fully Integrated W-band Direct-detection-based Receiver at Prestigious IC Design Conference (ISSCC)

Imaging receiver chip designed by UCI Labs and manufactured by TowerJazz is the most complex W-band imaging integrated circuit in the world

NEWPORT BEACH, and IRVINE Calif., February 17, 2014 – TowerJazz, the global specialty foundry leader, announced today that researchers at the University of California, Irvine's (UCI's) Nanoscale Communication Integrated Circuits (NCIC) Labs presented results from the world's most sophisticated integrated circuit at W-band (75-110GHz) comprising a 9-element fully integrated direct-detection-based receiver (RX) array at the IEEE International Solid-State Circuits Conference (ISSCC). ISSCC is arguably the most prestigious IEEE technical forum (http://www.isscc.org) and has been the largest technical forum where universities and high-tech companies present the latest advances in integrated circuits design. The fully integrated solution presented by NCIC was fabricated in TowerJazz's advanced 0.18 µm SiGe BiCMOS process.



Die photo of the 9-element imaging array receiver

W-band imaging systems have been traditionally designed and implemented in compound semiconductors since the early 1990's. These III-V imaging solutions are typically in the form of multi-chip modules. The imaging receiver chip designed by NCIC Labs and manufactured by

TowerJazz is the most complex W-band imaging integrated circuit in the world with the lowest noise temperature and highest performance. The fully integrated receiver uses a new concept -- spatial-overlapping super-pixels -- for millimeter-wave (MMW) imaging applications that is used for concealed weapon detection, airplane navigation in low visibility conditions, and satellite surveillance.

The novel use of spatial-overlapping super-pixels results in: (1) improved signal-to-noise-ratio at the pixel level, (2) the same pixel density as a traditional focal plane array, (3) partially correlated adjacent super-pixels, (4) a 2×2 window averaging function in the RF domain, (5) the ability to compensate for the systematic phase delay and amplitude variations due to the off-focal-point effect for antennas away from the focal point, (6) the ability to compensate for mutual coupling effects among the array elements, and (7) signal processing capabilities in the RF domain.

The receiver chip achieves a peak measured coherent responsivity of 1,150MV/W, a measured incoherent responsivity of 1,000MV/W and a front-end 3-dB bandwidth from 87-108GHz, while consuming 225mW per receiver element. The measured NETD of the SiGe receiver chip is 0.45K with a 20ms integration time. Finally, the imaging chip achieves lowest noise equivalent power (NEP) ever reported for any imaging receiver at W-band. This record breaking performance means that if commercialized, this imaging chip will achieve the best image resolution among all commercial products for security/surveillance applications.

“Our continued collaboration with TowerJazz through the years to support NCIC Labs at UCI has resulted in the success of a number of significant projects such as the development of several imaging receivers at W-band and the design of the first dual-band radar-on-chip covering 22-29GHz and 77-81GHz. TowerJazz’s dedicated support and its advanced technology enabled us to achieve silicon-based integrated circuits with comparable or better performance when compared to more expensive III-V technologies,” said Prof. Payam Heydari, Full Professor of Electrical Engineering and Computer Science, University of California, Irvine. Besides the ISSCC 2013 presentation, this chip has been showcased as part of several invited talks including a keynote speech to the IEEE Global Conference on Signal and Information Processing (GlobalSIP 2013): http://www.ieeeglobalsip.org/sym/13/mmwis.

“The advanced circuit demonstrations by the Heydari group at UCI continue to impress. UCI’s results stem from very clever design architectures and highly optimized circuit block designs. These building blocks have methodically evolved over the span of our tight collaboration, and

harness our best process and manufacturing technologies," said Dr. David Howard, Executive Director and Fellow at TowerJazz.

About Nanoscale Communication Integrated Circuits (NCIC) Labs at UCI
Nanoscale Communication Integrated Circuits (NCIC) Labs is one of the foremost research labs in the area of high frequency integrated circuits. Located at the University of California, Irvine, the NCIC Labs have the infrastructure for the measurement of integrated circuits for frequencies up to 500 GHz. Since its start in 2002, twenty graduate students have graduated from the labs, and eleven Ph.D. student researchers are currently carrying out research.

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 manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, Mixed-Signal/CMOS, RFCMOS, CMOS Image Sensor, Power Management (BCD), and MEMS capabilities. TowerJazz also provides a world-class design enablement platform that enables a quick and accurate design cycle. In addition, TowerJazz provides (TOPS) Transfer Optimization and development Process Services to IDMs and fabless companies that need to expand capacity. TowerJazz offers multi-fab sourcing with two manufacturing facilities in Israel, one in the U.S., and one 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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