



NEWS ANNOUNCEMENT

FOR IMMEDIATE RELEASE

TowerJazz and Ranix announce a partnership to develop RF transceivers to be used in V2X and ETCS Systems for the Automotive Market

Ranix has secured over 90% share of ETCS modem in the Korean automotive market; expected to expand into China

MIGDAL HAEMEK, Israel and Seoul, Korea, January 22, 2019 – [TowerJazz](https://www.towerjazz.com), the global specialty foundry leader, and Ranix, a total solution provider for automotive communication and IoT security, today announced the development of RF transceivers for V2X (Vehicle-to-everything) and ETCS (Electronic Toll Collection System) modems for the automotive market based on TowerJazz's advanced RF manufacturing platform. Ranix's RF transceiver design is specifically customized for ETCS and V2X modems.

RF transceiver for V2X modem is targeting the growing worldwide automotive market's need for WAVE (Wireless Access in Vehicle Environments) systems. Ranix is the sole domestic Korean company providing V2X solutions for Korea's automobile market and largest manufactures, expecting to expand its presence worldwide as well. The RF transceiver for ETCS has been designed to be compliant with the Korean and Chinese market standards to serve both of these markets with high performance and cost-effective solutions.

As the demand for autonomous driving is increasing, there is a constantly rising need for V2X modems offering sophisticated solutions along with enhanced RF communication capabilities. Vehicle-to-everything (V2X) communication modules are in charge of passing information from a vehicle to any entity that may affect it, and vice versa. These modules incorporates specific types of communications such as V2I (vehicle-to-infrastructure), V2N (vehicle-to-network), V2V (vehicle-to-vehicle), V2P (vehicle-to-pedestrian), V2D (vehicle-to-device) and V2G (vehicle-to-grid). These systems serve a variety of today's ever evolving automotive market requirements

among which are road safety, traffic efficiency, and energy savings. Visiongain estimates the market of V2X modules in vehicles to reach a 24% CAGR between 2015-2025.

“Ranix’s RF transceivers are designed to provide high RF performance for our developed ETCS and V2X solutions for the automotive market. As RF communication requirements in the automotive system become more complex, we need the optimized RF transceiver to provide excellent performance. We chose TowerJazz’s automotive-qualified RF platform for its combination of good performance and top accurate models. This collaboration between Ranix and TowerJazz was a natural fit and we look forward to cooperate as strategic partners,” said SoungWook Choi, CEO, Ranix Inc.

“We are delighted to cooperate with Ranix in designing RF transceiver modems for the automotive market. TowerJazz’s reputable and highly accurate PDK modeling, it’s AEC-Q100 qualified processes and vast manufacturing expertise provides Ranix with the optimal development and manufacturing platform,” 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 Ranix

RANIX Ltd. is a company perpetually challenging in research and development to provide the best system semiconductors and solutions, confronted with the convergence and integration era between industries changing rapidly. Ranix is committed to developing core technologies of autonomous vehicles and internet of things(IoT), which are national core strategic projects to lead the future of a nation. Having a sense of national duty, we are driving our best effort into developing new cutting-edge and competitive semiconductors at the forefront for more than 15 years. DSRC modem chip, a Korea standard automobile dedicated communication protocol, was launched successfully in 2007 and is built into the ETCS(Electronic Toll Collection System) which in total occupies about 90% of Korea ETCS before market. The development of system semiconductor should be preceded before everything else in order to spread new R&D technologies on their target market. It’s sometimes arduous and struggling to overcome the risks and pioneer new technologies at the forefront but we are making an earnest effort with a sense of duty and passion to enhance national competitiveness and to raise status of national technology. All members of RANIX will always do our best to grow into a global company representing the Republic of Korea.

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.

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