



# **NEWS ANNOUNCEMENT**

## FOR IMMEDIATE RELEASE

Nujira Extends Foundry Partnership with TowerJazz; Prepares for Volume Production of New Envelope Tracking IC for 4G Smartphones

Annual revenue for analog application specific ICs for 4G mobile handsets forecast to grow from \$827M in 2012 to \$2.9B by 2017, an estimated CAGR of 29%

**CAMBRIDGE**, **U.K.** and **MIGDAL HAEMEK**, Israel – July 09, 2013 – Nujira Ltd, the world's leader in Envelope Tracking (ET) technology, and TowerJazz, the global specialty foundry leader, have today announced the companies will extend their partnership agreement to include production of Nujira's latest NCT-L1300 Coolteq.L ET modulator chip for LTE handsets. ET is the leading technology being developed to reduce power consumption of 4G smartphones in order to extend battery life. ET dynamically adapts the Power Amplifier (PA) supply voltage to the signal amplitude, and thus dramatically reducing dramatically the power consumption of the PA that transmits the signal to the antenna.

Anyone who uses 4G phones experiences an empty battery much earlier than with 3G, sometimes in the middle of the day. There are several technologies being developed in order to reduce power consumption of such phones, but recently ET interfaces have become standardised on LTE basebands, which paves the way to a very high adoption rate of this technology. Nujira is the world leading company in ET and therefore is well positioned to take a large portion of the market. According to global information provider, IHS, the annual revenue for analog application specific ICs for 4G mobile handsets is forecast to grow from \$827 million in 2012 to \$2.9 billion by 2017, a compound annual growth rate (CAGR) of 29% for the next five years.

Nujira selected TowerJazz, the number one specialty foundry and fifth largest foundry worldwide, as its manufacturing partner in early 2012. With the launch of Nujira's NCT-L1300

ET modulator IC last month, the partnership is being extended as the new chip is geared up for volume production to support 4G smartphone shipments in 2014. The NCT-L1300 is fabricated in TowerJazz's proven 0.18 micron RF CMOS technology, used in hundreds of millions of RF front end devices with additional uniquely fitted HV modules. Nujira's NCT-L1300 delivers the best ET performance on the market across all key metrics and delivers power conversion efficiencies in excess of 80%, effectively doubling the efficiency of existing solutions.

Tim Haynes, CEO, Nujira said: "Over the last year we've built an excellent relationship with TowerJazz; its processes offer us the ideal combination of high performance analog and power management capabilities. Nujira's ET ICs have the highest bandwidth, widest voltage range, fastest slew rates, and lowest output impedance in the market, placing significant demands on the underlying process technology. TowerJazz meets all of these stringent requirements and works closely with us to ensure a high success rate and competitive time to market."

"As the world's largest specialty analog foundry, TowerJazz offers us the experience and capacity to address the high volume smartphone market, and enables us to meet the price points demanded by the world's largest smartphone vendors. Moving our new IC into volume production is a critical step for our business, and with its process expertise, wafer capacity and security of supply across multiple fabs, TowerJazz is the right foundry partner for Nujira," added Haynes.

"Nujira's technology has huge potential, with ET technology heading towards a 100% attach rate in LTE smartphones in 2014. We are excited to be their partner and to be supporting them in volume production of their NCT-L1300. Nujira's chips combine wireless communications and smart energy, which are two high growth focus areas for TowerJazz," said Russell Ellwanger, TowerJazz CEO. "As one of the world's largest foundries and with capacity on three continents, TowerJazz offers a unique combination of speciality processes and wafer capacity, enabling high growth fabless IC companies like Nujira to rely on us as their silicon supplier."

The NCT-L1300 is packaged in a low-profile Wafer-Level Chip Scale Package, and started sampling to lead customers in June.

## **About Nujira**

Nujira is enabling the design of cost-effective multi-mode, multi-band handsets that deliver faster data rates, longer battery life, and better coverage. A fabless semiconductor company, Nujira is realizing its mission to dramatically improve the energy efficiency of transmitters for 3G

and 4G handsets, base stations and TV broadcast applications by reducing the amount of waste energy dissipated as heat in the RF Power Amplifier circuit.

Nujira's patented Coolteq® Modulator technology dynamically modulates the power supply to the circuit in line with the amplitude of the signal, enabling the creation of highly efficient RF Power Amplifiers. Today, Coolteq technology powers the industry's most energy efficient and highest performing 4G base stations and TV broadcast transmitters. Underpinned by the industry's largest portfolio of Envelope Tracking technology patents, Nujira is applying the same energy efficient technology to smartphones and other portable wireless devices. Nujira is headquartered in Cambridge, UK, with design centers in Cambridge, UK and Edinburgh, Scotland.

For more information, please visit www.nujira.com, follow us on Twitter @nujira\_et or view our Tumblr http://nujira.tumblr.com/.

## **About TowerJazz**

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor Ltd., 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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