



Message from CEO

Russell Ellwanger

We are pleased with the performance and progress made in the third quarter and especially in the activities that will drive continuous growth and improvements. Our revenues were approximately \$155 million and for the first 9 months, we recorded \$491 million of revenues year-to-date, growing 13% versus the same period of last year. During this period, we realized a record amount of new photo masks entering our factories, which can indicate continuous growth for us in 2013 and beyond.

Additionally, Q3 2012 realized a record number of initial stage design wins, 30% higher than the average of the preceding 10 quarters beginning in 2010. As such, we are optimistic for the future as our existing customer and customer opportunity funnels remain strong and growing.

At the end of October, we hosted our 7th annual US Technical Global Symposium (TGS) focused on our 2012 mantra "Pursuit of Excellence." Again this year, we provided an Aerospace & Defense day as well as a day focused on Commercial applications. We were pleased with the opportunity to provide updates on TowerJazz technologies and design enablement capabilities as well as hear case studies from our customers. The customer survey responses were quite positive indicating agreement and pleasure with our stated and executed strategies and activities which each of our customers see as reality and rely upon.

Next week, on December 4th, we will be hosting our first TowerJazz Technical Global Symposium in Japan. We will be highlighting our success in transitioning TJP from DRAM to a highly efficient, qualified analog/power manufacturing site and will strengthen our visibility among Japanese semiconductor companies, research institutions and academia by building awareness for our broad range of specialty process technologies and design enablement capabilities. We have received strong response thus far from executives and lead engineers from over 50 companies having confirmed attendance.

I am also pleased to announce Rafi Mor has been appointed CEO of TowerJazz Japan (TJP). Rafi will be in charge of continuing the integration of the TJP site with the fabs in Migdal Haemek and Newport Beach, and further developing business in Japan and the APAC region. He is looking forward to working with an exceptional team to ramp up foundry operations to meet the future demands for this facility, and continuing to cultivate a collaborative, high performance environment.

As 2012 is coming to its end, we are encouraged with the progress made in many areas, but are very aware that we must improve on all fronts to maintain our position as the #1 specialty foundry and to cement our place as a preferred supplier. Yesteryear's good performance is next year's average performance; such is the way of our industry, and our goal of "pursuing excellence" requires a much higher degree of yearly refinement than just maintaining a "good" status.

We will shortly be presenting our plans and targets for 2013. They will be aggressive, but with the continued dedication and most capable collaboration and focus of TowerJazz employees, these goals will be achieved. There is little that is more rewarding or which can produce greater personal growth or group and company unity, than the achievement of highly set goals.

As we enter the Holiday season and the New Year, I send my personal best wishes and prayers for peace, security and happiness.

Respectfully,

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Events



TGS Japan
December 4, 2012
Tokyo, Japan



GSA Awards Dinner
December 13, 2012
Santa Clara, California, USA

VISION VISION Conference

This year, for this first time, we exhibited at the annual VISION conference that took place in Stuttgart, Germany on November 6-8, 2012.

With hundreds of exhibitors and thousands of visitors, VISION is the world's leading conference for the machine vision industry, where leading companies meet to present a wide range of product offerings and services: from sensors to processors, cables to cameras, and software to illumination systems, etc.

Among the machine vision systems exhibitors and the specific applications companies (in markets such as mechanical engineering, automotive and medical technology), TowerJazz's presence, as the only specialty foundry exhibitor, was distinctive and exceptional.

As the global specialty foundry leader, with a unique CMOS image sensor offering for optical sensors, we drew the visitors' attention and were very well received by our existing and potential customers who attended the conference. www.towerjazz.com/cmso-image-sensor.html



IC China 2012

On October 23-25, 2012, TowerJazz participated at the IC China 2012 conference held in Shanghai. This was the first time for TowerJazz to exhibit with its own booth at this venue.

The focus for TowerJazz at this show was to increase awareness of the availability of our advanced specialty process offerings and our growing technical support capabilities in the China market.

We had over 100 people from the China IC industry visit our booth and we had close to 40 people attend the keynote presentations delivered by Dr. Samir Chaudhry. Dr. Chaudhry spoke about "The Contribution of Foundry PDKs in Analog Design" and focused on TowerJazz's

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TowerJazz Technical Global Symposium USA Summary



October 31-November 1, 2012

Our 7th annual US Technical Global Symposium (TGS) was held for two days, focusing first on our Aerospace & Defense (A&D) foundry solutions followed the next day by our Commercial focused applications. On A&D day, we presented an overview of our A&D offerings, a focused talk on our CMOS image sensor technology, and a Workshop: Migration of TowerJazz PDKs to Cadence IC 6.1 as well as a panel to discuss “Innovation in SiGe vs. Digital CMOS” with participants from Bell Labs, Boeing, SaberTek and UC Irvine. In addition, many other presentations were provided by TowerJazz customers on a variety of topics. Also this year, we welcomed many attendees from RHET, the US Air Force Radiation Hard Electronics Technology Meeting, which we sponsored in conjunction with TGS.

Commercial day began with an inspiring keynote speech from our CEO, Russell Ellwanger highlighting our company’s philosophy and our mantra, “Pursuit of Excellence” which we follow as we closely collaborate with our customers for continued



To request a presentation from any of our TowerJazz speakers, please visit, www.towerjazz.com/tgs_usa.html.

success. Next, we provided an overview on our advanced technology offerings including: SiGe/RF/HPA, power management, CMOS image sensors and mixed-signal/CMOS. We also presented our transfer optimization process services (TOPS) solutions and an update on our design enablement capabilities. In addition, we offered presentations from some of our customers. From the survey results, this year’s symposium received an overwhelmingly “Very Good” score overall. We did face some challenges, including a number of cancellations due to Superstorm Sandy, and we send our best regards to those who were affected by this disaster.

We would like to thank our Gold and Silver sponsors for their support:

Gold Sponsors:



Silver Sponsors:



Roundtable

Message from our Executives

In this issue, we feature a message from Rafi Mor, CEO of TowerJazz Japan since October 2012. Previously he was Senior Vice President and General Manager of the Newport Beach facility since September 2008. Mr. Mor joined Tower Semiconductor 21 years ago when it was established and was previously with National Semiconductor. He has served in a variety of positions at Tower including VP of Business Development, VP and Fab 2 Manager and Fab 1 Manager.

TowerJazz has grown significantly in the past eight years; from a small company in Israel with annual revenues of \$102M to a global company with revenues of ~\$640M/year. We are more than pleased and proud with the progress of our company. It is clear that our worldwide presence has driven the above mentioned revenue growth and we believe it can further accelerate our growth in the future by creating better and closer technical and geographic alignment with our valued customers.

TowerJazz Japan (TJP) is serving as the company gateway to acquire new Japanese and Asia Pacific customers. By transferring processes from Newport Beach and Migdal Haemek to Nishiwaki, we offer multi-sourcing capabilities and enable strong sales synergies. In addition, TJP is also serving in many cases as a model for many operational methods and procedures, mainly due to Japanese culture and work style as well as being part of a very large IDM for many years. As a company, we leverage the best practices of each facility in order to increase our quality and efficiency to continue to accelerate our growth.

In the last year since the acquisition, myself and the TowerJazz management team have acknowledged that the employees we have in TJP are highly capable. Along with a great management team, we have a great operational team that is knowledgeable in how to run a mass production facility very efficiently.

Our goals for TJP are focused on four main areas:

- Continue to integrate the TJP site with the other two sites to leverage TowerJazz’s global capabilities for accelerating TJP’s growth as a foundry. Also, leverage TJP’s unique capabilities as a benchmark for our other fabs to be best-in-class.
- Further develop our business in Japan; win many more new Japanese customers; ensure that we have the correct technology in place as well as the necessary supportive functions in order to secure high loading in TJP in the coming years.

- Develop the operations and support functions into a foundry organization; make sure that we can support multiple customers with best in benchmark operational indices. Focus on creating an efficient fab with a competitive cost structure that will enable us to compete and maintain good gross and net margins.
- Maintain stability and long term employment at TJP; verify that our employees at TJP are highly motivated and make sure that the company invests in the development of its employees and managers.

TJP is expected to be the largest volume 200mm foundry in the world. As such, our employees are continuously focused on all activities that will speed our conversion to a specialized mass production foundry. Higher loading is vital for the site. Our employees are focused on delivering products on time with the best quality while making sure that technology development and/or transfer and customer service are given high priority since this will enable future revenue growth.

Q3 2012 Financial Results Highlights

Revenue

- Revenues of \$154.6 million for the third quarter of 2012 and of \$491.2 million in the first nine months of 2012, a 13% increase over revenues of \$436.4 million in the same period last year

Profitability

- Q3 2012 EBITDA of \$40M
- Non-GAAP gross and operating margins at 37% and 26% respectively as compared to 33% and 22% in the third quarter of 2011, respectively

Balance Sheet

- \$161M cash balance as of Sept. 30, 2012
- Strong & solid financial ratios
 - Current ratio of 1.6X as of Sept. 30, 2012
 - 2.2X Net debt/EBITDA ratio

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modeling, PDK offerings and support, which is different for an analog vs. digital foundry. This proved to be a good opportunity for us to build awareness for TowerJazz's specialty pure play foundry offerings and we received positive feedback from the attendees.

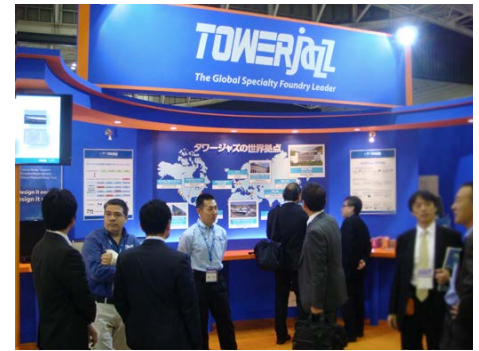
The visitors to our booth included some of our existing customers as well as potential customers and we heard from many people they feel comfortable working with TowerJazz even without a facility in China since we provide excellent local support.

Our support team in China works very closely with our customers' technical teams. Moreover, TowerJazz's participation at the IC China conference demonstrated to attendees that we are committed to focusing on the China market moving forward.



On November 14-16, TowerJazz attended EDSFair 2012 in Yokohama, Japan. This was our second time at the EDSFair since TowerJazz acquired Micron's Japan fab in Nishiwaki last year. By having a dedicated booth, we solidified our presence at the show. About 300 people visited during the event. Some came to our booth looking for a foundry in Japan.

During the event, we hosted several joint seminars with EDA partners to introduce our unique design enablement capabilities. We also provided demonstrations to give customers hands-on experience with our tools. Since we are a new foundry in Japan, we attracted a lot of attention.



We presented our wide range of technologies, our design solutions and customer support services. We received a great deal of traction and interest in TowerJazz. We are pleased with the success of this event.



Getting to Know Us

Oded Goldshlager
Expert Process Engineer

Oded received TowerJazz's 2012 CEO Award. He joined Tower Semiconductor in 2006 and serves as a process engineer in the photolithography department.

Q: Please tell us about your position, focus areas, etc.

A: As a process engineer at TowerJazz, my position holds varied roles and responsibilities. I am in charge on some of the existing photolithography processes and of the equipment involved. I give real time and hands on solutions to production line problems, as well as write and update related procedures. In addition, I am in charge of setting up and implementing new equipment, developing new processes and improving existing ones. I also support the introduction of new technologies into our Migdal Haemek factory and other TowerJazz locations around the globe.

Q: What do you enjoy about your position and what challenges you?

A: I studied mechanical engineering at the Technion Technical Institute and majored in Optical Engineering. Photolithography is one of my main interests, being derived directly from my studies. I also enjoy the

versatility of my position, and the daily challenges it brings along my way. As an example, I recently took part in a major project, in which TowerJazz allowed me to execute on extensive research which was followed by an implementation phase. This experience was very satisfying and enriched my knowledge and expertise in the photolithography field.

Q: What is your focus this year from a business standpoint?

A: One of the projects I am involved with will potentially increase the production capacity of the photolithography area which in turn could increase the Company's production volume significantly to meet higher customer demands.

Q: Are you married; how long? Do you have kids?

A: I've been happily married for the past 7 years to a loving and caring wife. We have 3 gorgeous girls; a 6 year old, a 4 year old, and a new baby who is only one

month old. My family is undoubtedly the center of my life. I sincerely believe that a supporting and warm family at home gives one that much needed balance between their professional and personal lives, and helps them be truly fulfilled.

Q: What are some of your hobbies?

A: Unfortunately I don't find as much time for hobbies as I would like. However, when I do have spare time, I always prefer to spend it with my wife and girls. We often hike or go camping in the many natural reserves and historic sites Israel has to offer. I enjoy playing and talking with my young girls. Children have unique degrees of intelligence and honesty, and you can actually learn quite a bit from them.

Q: What is your favorite travel destination?

A: There are a lot of places I would still like to visit, but my favorite holiday destination so far is Italy, and especially Rome. We really fell in love with the people there and the vibrant, yet very chilled, atmosphere of the city.

Press Releases

August 30–November 30, 2012

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11/19 – TowerJazz Announces Participation at EDSFair in Japan to Further Awareness for its World-Class Design Enablement Technology
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11/19 – Xtendwave Selects TowerJazz for the Manufacture of Next Generation WWVB Atomic Timekeeping Signal Receiver Products
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11/12 – TowerJazz CEO Russell Ellwanger to Deliver Opening Keynote at GSA Israel Executive Forum
- 

11/05 – TowerJazz, Foundry of Choice for CMOS Image Sensors, Announces Participation at VISION 2012, the Most Recognized European Show for Industrial and Machine Vision Cameras
- 

10/18 – TowerJazz and University of California, Irvine Demonstrate an Integrated 94 GHz Millimeter-wave Imaging Transceiver with Record Performance in Silicon
- 

10/17 – TowerJazz Further Demonstrates Commitment to China Market; Announces Participation at IC China 2012 and IC CAD 2012
- 

9/24 – Modiotek Chooses TowerJazz to Manufacture Next Generation DSP for Wireless Companion Dedicated to Smart TVs
- 

9/06 – TowerJazz Selected as Winner of Raytheon Network Centric Systems Supplier Excellence Award for the Second Year in a Row
- 

9/03 – TowerJazz Was Chosen by Vishay Intertechnology for High Volume Manufacturing Engagement Through 2018

Featured TowerJazz News

Vishay goes with TowerJazz in Japan and Israel

TowerJazz has signed a five-year agreement with Vishay-Siliconix to manufacture two Vishay Siliconix product families at TowerJazz's Japanese facility (Fab 4) as well as multiple Vishay Siliconix product families at TowerJazz's Fabs 1 and 2 in Migdal HaEmek, Israel. TowerJazz has worked with Vishay Siliconix over the last eight years. During the past year, TowerJazz and Vishay Siliconix established an epitaxial (epi) growth centre in order to support Super Junction technology. The epi centre has already begun production and is expected to be fully equipped at the beginning of 2013.

"We expect to reach hundreds of millions of dollars of revenues out of this expanded agreement," said Dr. Itzhak Edrei, President of TowerJazz.

Modiotek Chooses TowerJazz to Manufacture Next Generation DSP for Wireless Companion Dedicated to Smart TVs

Smart TV shipments expected to reach nearly 125 million units in 2014

TowerJazz and Modiotek Co., Ltd., a fabless design house, today announced their joint development of Modiotek's next-generation DSP (digital signal processor) for a wireless camera companion dedicated to Smart TVs. TowerJazz's 0.13-micron CMOS process combined with Modiotek's technology leadership in DSP lays the foundation for rapid and cost-effective DSP product development and its reference design.

"Our relationship with TowerJazz dates back nearly a decade, and in that time we have worked closely together to develop the most leading-edge processors and semiconductor technologies," said J. T. Chung, General Manager of Modiotek. "We appreciate TowerJazz's technology strength, quality assurance, capacity support, and customer service. Developing next-generation DSPs with TowerJazz is a good example of how two companies can collaborate extremely well to push semiconductor technology to another level."



TowerJazz and University of California, Irvine Demonstrate an Integrated 94 GHz Millimeter-Wave Imaging Transceiver with Record Performance in Silicon

Breakthrough promises lower cost and broader penetration of the >\$100M emerging markets of passive imaging for security and automotive radar

TowerJazz, announced recently that researchers at UCI's Nanoscale Communication Integrated Circuits (NCIC) Labs have built a W-band (80-100GHz) 2x2 focal-plane array (FPA) integrated system with record NETD (noise equivalent temperature difference) performance for passive millimeter-wave imaging using TowerJazz's advanced SiGe BiCMOS process (SBC18H2). This unprecedented level of integration and performance in a silicon process can reduce cost of millimeter-wave imaging systems, which are initially being deployed in security (cameras and scanning), medical, and automotive radar applications, but with the lower cost that silicon provides, can be applied to future consumer applications.



Xtendwave Selects TowerJazz for the Manufacture of Next Generation WWVB Atomic Timekeeping Signal Receiver Products

Xtendwave's ICs to Be Used in Clocks, Watches, Small Appliances, Automobiles, Utility Meters, Personal Electronics and Other Applications

TowerJazz and Xtendwave announced the selection of TowerJazz to provide foundry support for Xtendwave's EverSet® radio controlled clock receiver products. EverSet products will be capable of receiving the new WWVB atomic-timekeeping broadcast developed by Xtendwave under a contract with the U.S. National Institute of Standards and Technology (NIST).

"We are very pleased to work with TowerJazz on our next generation atomic timekeeping signal products, as we believe their process offers great flexibility along with cost effectiveness," said Dennis I. Robbins, President of Xtendwave.