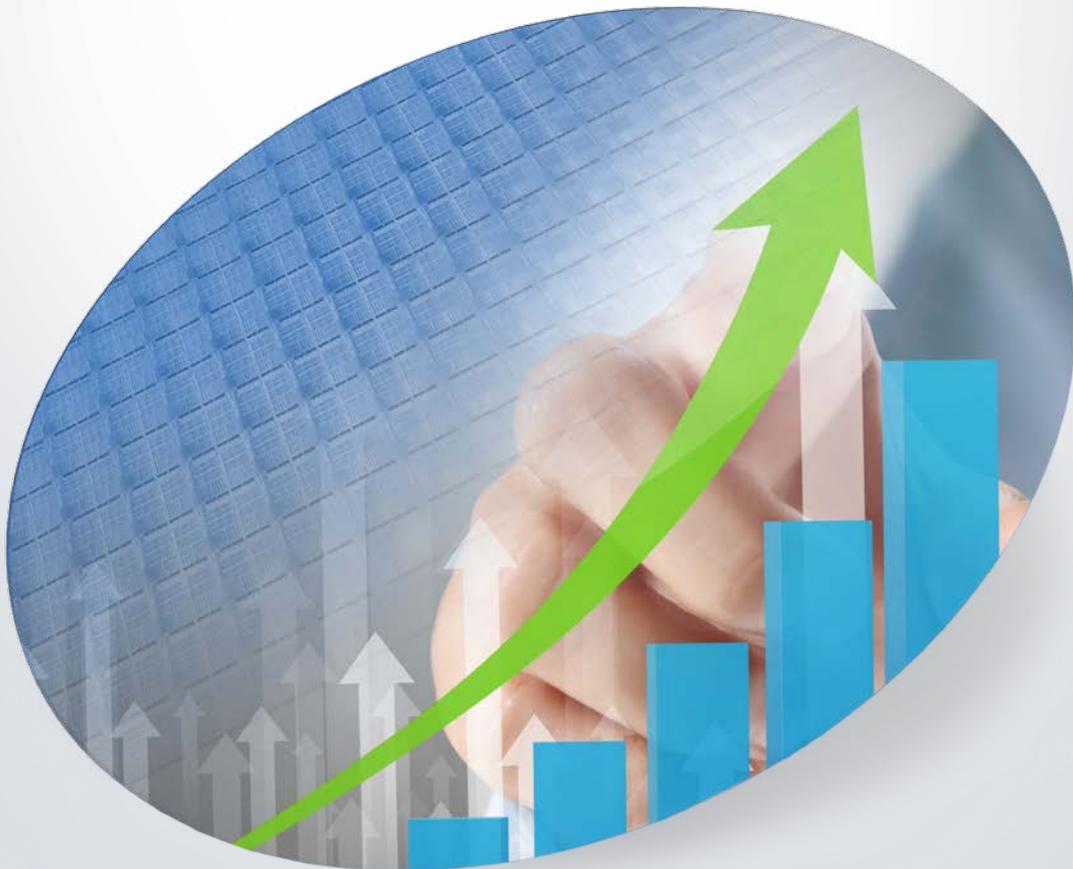


# **TOWERjazz**

*The Global Specialty Foundry Leader*



## **2015 ANNUAL REPORT**

[www.towerjazz.com](http://www.towerjazz.com)

**In 2015, TowerJazz presented record business and financial results while driving customers' success.**

**Moving into 2016, we continue with a strong outlook for company growth through a commitment to performance and manufacturing excellence.**



## LETTERS TO SHAREHOLDERS

- 2 Chairman of the Board
- 3 Chief Executive Officer

## COMPANY OVERVIEW

- 4 Executive Management
- 6 TowerJazz Highlights
- 7 Company Overview
- 8 History
- 9 Vision, Mission and Values
- 10 Financial Overview
- 12 Operations Overview
- 14 TPSCo (TowerJazz Panasonic Semiconductor Co.)
- 16 Fastest Growing Foundry

## TECHNOLOGY PORTFOLIO

- 17 Core Business Units
- 18 RF/HPA (Radio Frequency/High Performance Analog)
- 20 CIS (CMOS Image Sensor)
- 22 Power Management
- 24 IoT (Internet of Things)
- 25 Megatrends and Semiconductor Implications
- 26 Aerospace & Defense
- 27 MS/CMOS (Mixed-Signal CMOS)
- 28 TOPS™ (Process Services)
- 29 Design Enablement
- 30 Research & Development

## 31 COMMUNITY CONTRIBUTION

## 32 FINANCIAL RESULTS

## 41 CONTACT INFO



Dear Shareholders,



I would like to open by congratulating the entire team – both management, as well as our worldwide employee base, for their outstanding performance and contribution in 2015, bringing us another record year at TowerJazz. Our strong results very much demonstrate the fruits of our efforts to drive increased shareholder value.

2015 was a noteworthy year, presenting continuous increase in revenues and profitability, and even more important, setting the stage for future growth by adding significant manufacturing capacity and advanced leading technological offerings, in order to better serve our customers. Our stated vision is to be the world leader in specialty foundry solutions. With a strong and growing customer base, which includes long term tier-1 partners and with meaningful activities fueling our design wins pipeline, I believe that in 2015 we have extended that lead significantly.

We are successfully delivering on our strategy to build an increasingly profitable, fast growing and world leading specialty semiconductor foundry. We continuously focus on creating added value to our customers while setting both business and financial goals, aiming to reach new heights each and every year.

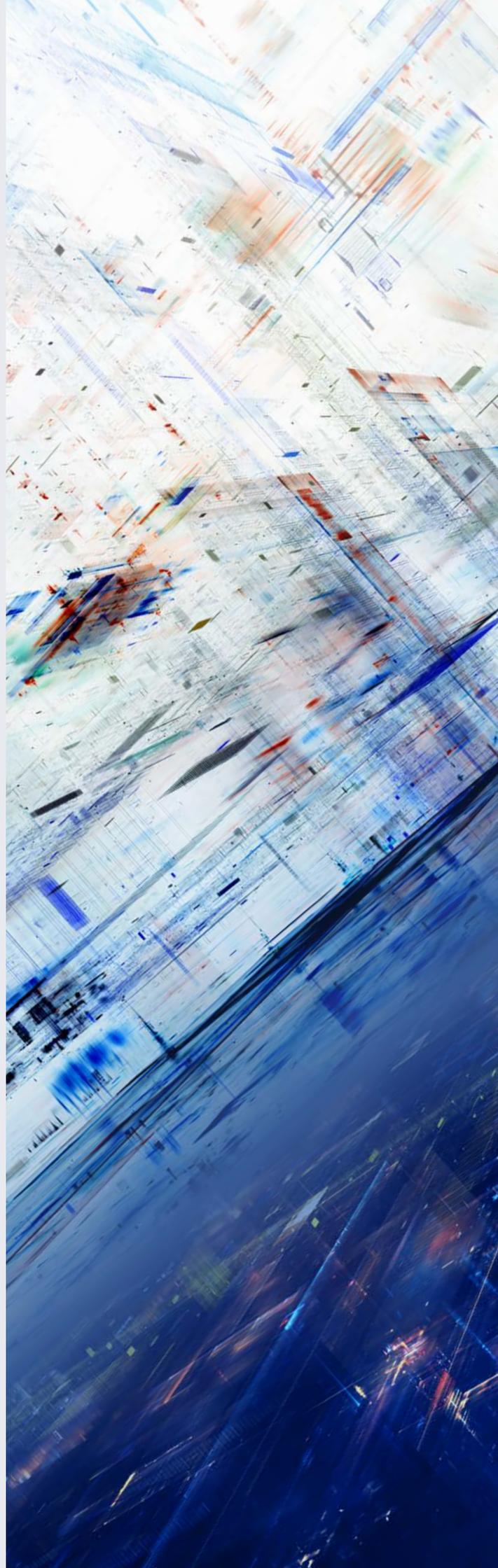
I very much look forward to the journey ahead continuing our strong performance in 2016 and beyond.

I would like to thank you for placing your trust in TowerJazz.

Sincerely,  
**Amir Elstein**  
Chairman of the Board

## BOARD OF DIRECTORS

**Amir Elstein** Chairman of the Board  
**Ilan Flato** Chairman of the Compensation Committee  
**Dana Gross** Director  
**Rami Guzman** Director  
**Kalman Kaufman** Director  
**Alex Kornhauser** Chairman of the Audit Committee



Dear Shareholders,



There is a set of principles that define and produce fulfillment, achievement and security, or in other words, which produce success. These principles can be distilled into two groupings: vision and staffing. An initial vision defines the required staffing. A correct staffing enables the initial vision, and equally important, gives input for the vision to evolve. As the vision evolves, the staffing may be refined. This cycle should continue throughout the “lifetime” of the company. When properly executed there is not a “cradle to grave” lifeline, but rather a continual “cradle to cradle” of the many segments which comprise a healthy and growing business.

Ten years ago some of the present management joined together and created a vision for Tower. It was to become the “specialty foundry leader” while setting two short term goals to enable this, namely (1) positive EBITDA within the next two quarters, and (2) positive cash from operations within the next six quarters. The tactics focused on organizing (staffing) the company to capitalize on customer wins based mainly on existing technologies to drive fast growth. These targets were achieved. We also, of greatest strategic importance, acquired Jazz Technologies and became “TowerJazz.” Together we refined our vision to focus on analog solutions and we set a new target —to achieve \$500 million of annual revenues in 2010. We changed our tactics to develop leading edge analog offerings and to gain first tier customers. We achieved this and became the number one analog specialty foundry by revenue.

The last five years focused on the same vision with four strong targets: (1) one billion dollar annual revenue run rate in 2015; (2) achieve a model for sustainable and growing GAAP net profit; (3) grow our manufacturing capacity in order to facilitate an increase in maximum potential from \$550 million to beyond \$1.5 billion of annual revenues; and (4) do this in a manner where we strengthen our balance sheet and reduce our debt. We changed our tactics again. Firstly, we thought it critical to align with first tier customers to develop multiple generation analog roadmaps, and secondly to enter into win-win long term contracts with integrated device makers and with system makers to acquire capacity at reasonably low cost and with guaranteed multi-year utilization levels.

We achieved this! The operational and business targets were realized while reducing our debt by at least \$200 million, achieving a net debt to EBITDA ratio of below 0.4, and comprehensively strengthening our balance sheet.

We enter 2016 with the “full wind filling our sails” fueled by a year of foundry leadership with year over year overall growth of 16% and organic growth of 27% (excluding Panasonic and Micron). We have operational capacity at hand to enable approximately \$1.5 billion in revenue, for which most of the running cost is covered in the current \$1 billion annual run rate cost model. Our vision is to maintain our “leading analog foundry” position, and our tactics are to capitalize and further refine our offerings which serve the three mega trends that drive the IoT; namely “green everything,” “seamless connectivity,” and “smart systems.” As we begin our second decade as a management team, we are leading a company with a strong financial, operational and technological framework, sustained by substantial customer demand and order backlog.

We thank you for joining us on the journey of the last ten years. We are truly thrilled to share with you the successes we have achieved by taking on and meeting big targets and challenges. It is with the dedication of our staff, at every level, who possess the proper knowledge, skills and attitude that our vision is realized and continues to evolve.

Sincerely,  
**Russell Ellwanger**  
TowerJazz Chief Executive Officer &  
TPSCo Chairman of the Board

# MANAGEMENT TEAM

With many decades of semiconductor industry experience, the TowerJazz management team is well-positioned to serve fabless companies and IDMs. By listening to our customers' needs and attracting the best global talent to serve them, we enable quick time to market for their innovative products.



**MR. RUSSELL ELLWANGER**  
Chief Executive Officer  
Chairman, TPSCo



**DR. ITZHAK EDREI**  
President



**MR. RAFI MOR**  
Chief Operating Officer



**MR. OREN SHIRAZI**  
Chief Financial Officer  
Senior Vice President of  
Finance



**MRS. DALIT DAHAN**  
Senior Vice President of Human  
Resources and Information  
Technology



**MRS. NATI SOMEKH**  
Senior Vice President, Chief  
Legal Officer and Corporate  
Secretary



**MR. YOSSI NETZER**  
Senior Vice President of  
Corporate Planning



**MR. ILAN RABINOVICH**  
Vice President of Quality and  
Reliability and Vice President of  
Customer Support

## **BUSINESS UNIT GENERAL MANAGERS**



**DR. MARCO RACANELLI**

Senior Vice President and General Manager of RF/ High Performance Analog and Power Business Groups

General Manager of US Aerospace & Defense Business Group, Newport Beach Site Manager



**DR. AVI STRUM**

Senior Vice President and General Manager, CMOS Image Sensor Business Unit



**MR. SHIMON GREENBERG**

Vice President of Mixed-Signal/CMOS Business Unit



**MRS. ZMIRA SHTERNFELD-LAVIE**

Senior Vice President of Process Engineering R&D

General Manager of Transfer, Optimization and Development Process Services Business Unit (TOPS™)



**MR. ORI GALZUR**

Vice President of VLSI Design Center and Design Enablement

## **SALES EXECUTIVES**



**MR. GARY SAUNDERS**

Senior Vice President of Worldwide Sales & General Manager, TowerUSA



**MR. TODD MAHLEN**

Vice President of Asia Pacific Sales and China Business Development



**MR. DANI ASHKENAZI**

Vice President of Sales for Israel & Europe and Vice President of Customer Solutions



**MR. MICHAEL SONG**

Vice President of Sales and President of TowerJazz Korea



**MR. FRA DRUMM**

Vice President of Business Development, USA

# TOWERJAZZ HIGHLIGHTS



2015 record revenues of \$961 million with strong margins and sustainable model for growing net profit



Seven worldwide manufacturing facilities providing dual-sourcing capabilities with available capacity of over 2.3 million wafers per year



Widest range of advanced specialty analog technology offerings



Over 300 customers with a continually growing customer base



Over 4,500 worldwide employees

# TOWERJAZZ: THE GLOBAL SPECIALTY FOUNDRY LEADER

## CORPORATE OVERVIEW

TowerJazz (NASDAQ/ TASE: TSEM), the global specialty foundry leader, specializes in analog integrated circuits manufacturing for more than 300 customers worldwide in growing markets such as automotive, medical, industrial, consumer and aerospace and defense, among others.

TowerJazz offers a broad range of customizable and advanced process analog technologies for a variety of applications. SiGe BiCMOS and RF CMOS are offered for radio frequency and high performance analog (RF/HPA) applications used in mobile devices, data communications systems and automotive radar. TowerJazz provides CMOS image sensor (CIS) technology to manufacture optical sensors used in high-end cameras, digital imaging for medical and dental X-ray, automotive cameras, and others. In addition, TowerJazz offers a power management platform to improve battery life for smartphones, tablets and wearables, as well as for LED lighting solutions and motor drivers for various products such as drones, power tools and batteries for automotive. TowerJazz also provides mixed-signal/CMOS technology to offer solutions for various types of controllers, analog switches and audio needs as well as applications for the Internet of Things (IoT).

To complement its sophisticated technology offerings, TowerJazz provides a world-class design enablement platform rendering a quick and accurate design cycle. TowerJazz also provides transfer, optimization and development process services (TOPS™) to IDMs as well as fabless companies that need to expand capacity, or progress from an R&D line to a production line. For on-shore aerospace and defense customers in the U.S., TowerJazz offers a wide range of technologies for applications including Large Die ROICs, MEMS and millimeter wave devices, among others. In addition, TowerJazz provides “Trusted” foundry services in its Newport Beach, California

facility through its subsidiary, Jazz Semiconductor Trusted Foundry (JSTF), as accredited by the U.S. Department of Defense.

Deeply rooted in proven technologies, the company continues to drive innovation within silicon rather than by pure technological nodal shrinkage and specializes in customized analog solutions for differentiated products. As the global specialty foundry leader in technology and manufacturing, TowerJazz pursues excellence in all aspects of its business by maintaining industry expertise and cultivating a collective culture of quality, innovation, and trust. Working with TowerJazz, customers are considered valued partners. From initial discussions outlining requirements to customizing and executing an optimal solution, TowerJazz experts work closely with customers every step of the way.

For global capacity assurance, TowerJazz operates seven manufacturing facilities in three geographic regions, providing its diversified customer base with over 2.3 million wafers per year: two fabs (150mm and 200mm) located in Migdal Haemek, Israel, one fab (200mm) located in Newport Beach, California, one fab (200mm) located in San Antonio, Texas, and three additional fabs (two 200mm and one 300mm) through TowerJazz Panasonic Semiconductor Co., Ltd. (TPSCo) located in the Hokuriku region of Japan.

TowerJazz employs approximately 4,500 employees worldwide.

As TowerJazz expands its capabilities, manufacturing capacity and global reach, the company continues to build on its market and technology leadership to maintain its worldwide leadership position.

# HISTORY

1993



Tower Semiconductor was founded with the acquisition of National Semiconductor's 150-mm wafer fabrication facility.

1994



Tower Semiconductor became a public company. Shares began to be traded on NASDAQ (TSEM).

2000



The Worldwide Design Center was established in Netanya, Israel.

2001



Tower Semiconductor shares began to be traded on Tel Aviv Stock Exchange (TSEM).

2004



Tower Semiconductor established an adjacent, state-of-the-art facility (Fab 2) in Migdal Haemek Israel, designed to operate in geometries of 0.18-micron and below, using advanced CMOS technology.

2008



Tower Semiconductor and Jazz Semiconductor\* merged in a stock transaction and the combined companies officially launched as TowerJazz. The merger provided several key benefits: increased global capacity, a larger customer base, a more comprehensive product portfolio, and a stronger financial base.

2014



TowerJazz completed a joint venture with Panasonic Corporation enabling TowerJazz to offer its customers state of the art 300mm technology including best of class 65nm CMOS image sensor dark current and quantum efficiency performance and additional 45nm digital technology, adding available capacity of approximately 800,000 wafers per year (8" equivalent) in three manufacturing facilities in Japan; one 300mm and two 200mm.

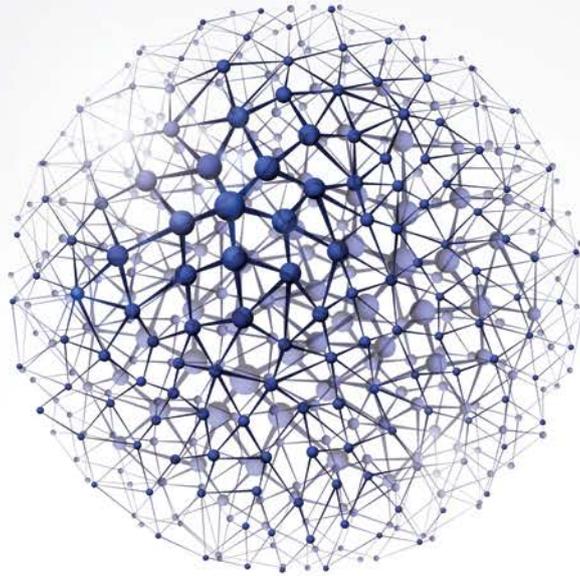
2016



TowerJazz acquired Maxim Integrated's 8-inch wafer fabrication facility in San Antonio, Texas, U.S., in order to support its strong customer demand and to enable additional manufacturing flexibility. The acquisition cost-effectively increased production by approximately 28,000 wafers per month.

\* Jazz Semiconductor was formed in 2002 as a spinoff of Conexant Systems, a fabless semiconductor company that spun-off from Rockwell Semiconductor in 1999. Jazz inherited the Newport Beach, California 200mm fabrication facility and the company's legacy including the establishment of industry leading SiGe, BiCMOS and MEMS technologies and the cultivation of a strong design support organization. In addition, Jazz expanded upon its heritage for on-shore, specialized foundry services focused on the Aerospace and Defense industry.

# VISION MISSION & VALUES



## AT THE COMPANY CORE

**TowerJazz's vision** is to be the world leader in specialty foundry solutions as measured by our customers, employees and investors.

**TowerJazz's mission** is to bring to market specialty foundry solutions that provide unique value to our customers by attentively listening to and proactively providing for their needs, through attracting and retaining the best global talent to serve them.

### COMPANY VALUES



Embrace a customer centric mentality



Foster a culture built on mutual trust and respect



Demand quality and excellence in everything we do



Exemplify a data driven and results-oriented mindset



Focus on the right knowledge, skills and attitude



Emphasize collaboration and innovation

# FINANCIAL OVERVIEW

**RECORD REVENUE FOR THE FULL YEAR**

**\$961 million**  
(16% YoY growth)

2015 was a record year from a financial standpoint for TowerJazz, with the Company breaking records in almost every parameter. With constant growth throughout the year, and while continuously strengthening the company's margins and balance sheet, TowerJazz was able to create a strong foundation for the company to pursue its goals for the future.

2015 revenues grew to \$961 million, 16% over those of last year, with \$254.6 million in the fourth quarter of 2015.

Fourth quarter 2015 resulted in \$75.5 million quarterly EBITDA, \$64.5 million quarterly gross profit, \$22.1 million quarterly net profit and \$53.2 million quarterly positive cash from operating activities.

TowerJazz greatly strengthened its balance sheet with a cash increase to \$206 million, net as well as shareholders' equity nearly doubling year over year, coupled with debt reduction from \$318 million to \$105 million and current ratio (defined as current assets ratio to short-term liabilities) increasing from 1.3X to 2.1X.

The company's solid performance in 2015, combined with a substantial increase in gross and operating margins, demonstrates the operating leverage TowerJazz has in its business model where the company has relatively small variable costs. With that, TowerJazz has reached a sustainable model for growing net profit and overall margins.

TowerJazz's commitment to answer the strong demand of its growing customer base was supported during the year by additional capacity investments and by the new Texas manufacturing facility acquisition; both increased the company's worldwide manufacturing capacity, capabilities and flexibility.

## MAIN FINANCIAL PARAMETERS

IN \$ MILLIONS:	2015	2014
Revenue	961	828
Gross profit	205	64
EBITDA	248	154
Net profit	(30)	4
Net profit excluding non-recurring items*	51	(88)
Cash & short-term deposits	206	187
Current ratio	2.1X	1.3X
Gross Debt	311	505
Net Debt	105	318

\*Non-recurring items included: (i) for FY'15, \$81 million non-cash financing expenses related to bonds F accelerated conversion effect on non-cash financing costs (ii) for FY'14, \$166 million TPSCO acquisition gain, net, \$56 million Nishiwaki cessation relates costs, net and \$18 million non-cash financing expenses related to bonds F accelerated conversion effect on non-cash financing.

## SUBSTANTIAL MARGINS INCREASE

- GAAP gross profit of \$205 million (more than 3X as compared to 2014), with \$258 million run rate based on Q4'15 results
- Record EBITDA of \$249 million (62% YoY increase), with \$302 million run rate based on Q4'15 results
- GAAP net profit since the second quarter of 2015
  - From \$7.8 million in Q2'15 to \$13.6 million in Q3'15 and to \$22.1 million in Q4'15
  - Established sustainable net profits business and financial model
  - Forward looking business model of profit margin growth utilizing cost covered available capacity to support the continued high customer demand

## STRONG BALANCE SHEET AND FINANCIAL RATIOS

- Increased cash and short-term deposits to \$206 million, Vs \$187 million in December 2014 and Vs \$155 million in September 2015
- Generated \$195 million positive cash from operations, net of \$12 million interest payments (excluding \$25 million non-recurring Nishiwaki cessation employee termination related payment)
- Reduced net debt to \$105 million (vs. \$318 million as of Dec' 2014)
- Reduced net debt/EBITDA ratio from > 3.5X in Q1'14 to current < 0.4X
- Current ratio of 2.1X as of Dec' 31, 2015 Vs. 1.3X as of Dec' 2014



**“We are very pleased with the financial success of the company this past year, and as we move through 2016, we believe that TowerJazz is better positioned than it has ever been in its history. We have the balance sheet strength, financial flexibility and global manufacturing capacity to capitalize on all opportunities ahead.”**

**Mr. Oren Shirazi**  
Chief Financial Officer  
Senior Vice President of Finance

# OPERATIONS

## MANUFACTURING EXCELLENCE



Across the entire organization, the main focus for TowerJazz is to maintain a high standard of manufacturing quality and outstanding customer service to support all of its customers' needs.

As TowerJazz grows and matures its global operations and presence, the need for flexible and accurate execution becomes more critical. TowerJazz puts great focus on cross qualification of its specialized technologies between its worldwide facilities to provide flexibility to its customers.

TowerJazz is continuously improving its operational performance, manufacturing quality, and its corporate cost structure. These activities allow TowerJazz to better serve

its customers and achieve improved financial corporate performance. At the beginning of 2015, with the demand outweighing capacity taxonomy, the company invested in expanding capacity in its existing fabs in Israel and Newport Beach, California, acquired an additional fab in San Antonio, Texas, and offloaded major technologies such as power, CMOS 0.16, and radio frequency silicon-on-insulator (RF SOI) to TPSCO's Japan fabs.

### **EXPANDING MANUFACTURING CAPABILITY**

In February 2016, TowerJazz announced the expansion of its worldwide manufacturing capabilities with the acquisition of Maxim Integrated's 8-inch wafer manufacturing plant in San Antonio, Texas, USA. The availability of additional capacity will serve TowerJazz's current and forecasted strong customer demand, enable additional manufacturing flexibility and cost-efficiencies, and increase production by approximately 28,000 wafers per month.

As part of the transaction, the companies have signed a long-term supply agreement of 15 years, under which TowerJazz will manufacture products for Maxim in the San Antonio facility, in quantities which will allow for a gradual ramp of third party products. TowerJazz has been Maxim's supplier for many years and are a trusted partner to manage Maxim's proprietary process technology. TowerJazz also plans to quickly qualify its core specialty technologies in this facility, including its advanced RF SOI offering, to serve the substantial growth in demand from its customers.



**"Our focus on cross qualification of our core technologies together with our recently acquired capacity enables us to even further support our ever-growing customer demand."**

**Mr. Rafi Mor**  
Chief Operating Officer



## WORLDWIDE MANUFACTURING FACILITIES

TowerJazz operates seven manufacturing facilities in three geographic regions, providing global capacity assurance: two fabs located in Migdal Haemek, Israel, one fab in Newport Beach, California, USA, one fab in San Antonio, Texas, USA,

and three additional factories in the Hokuriku region of Japan through TowerJazz Panasonic Semiconductor Company (TPSCO), a company established with Panasonic in March 2014.



### MIGDAL HAEMEK, ISRAEL

- 6" (150mm)
- CMOS, CIS, Power, Power Discrete
- 1 $\mu$ m to 0.35 $\mu$ m
- Planarized BEOL, W and Oxide CMP



### MIGDAL HAEMEK, ISRAEL

- 8" (200mm)
- CMOS, CIS, Power, Power Discrete, MEMS
- 0.18 $\mu$ m to 0.13 $\mu$ m
- Cu and Al BEOL, EPI
- 193nm Scanner



### NEWPORT BEACH, CA, USA

- 8" (200mm)
- CMOS, CIS, MEMS, RF Analog
- 0.18 $\mu$ m to 0.13 $\mu$ m
- Al BEOL, SiGe, EPI



### SAN ANTONIO, TX, USA

- 8" (200mm)
- Power, RF Analog
- 0.18 $\mu$ m
- Al BEOL



### ARAI, JAPAN

- 8" (200mm)
- Analog, CIS
- 0.13 $\mu$ m to 0.11 $\mu$ m
- Thick Cu RDL



### TONAMI, JAPAN

- 8" (200mm)
- Power, Power Discrete, NVM, CCD
- 0.35 $\mu$ m to 0.15 $\mu$ m



### UOZU, JAPAN

- 12" (300mm)
- CMOS, CIS, RF
- 65nm to 45nm

## FOCUS FOR 2016

2016 will be focused on the integration of the San Antonio fab into the TowerJazz family, strengthening of the offloading between the fabs and balancing the loading in all the fabs, enabling the company to increase its overall wafer shipments to serve the increasing customer demand.

While keeping the fabs highly loaded, TowerJazz will continue to focus on quality, efficiency and cost reduction projects while answering all of its customer needs.



# TOWERJAZZ PANASONIC SEMICONDUCTOR CO. (TPSCo)

TPSCo is committed to providing exceptional quality, an environment with high IP security, and total customer satisfaction through its focused production activity.

TPSCo was established in March 2014 as part of a partnership with Panasonic; 51% owned by Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and 49% owned by Panasonic. This partnership brings together two leaders in the semiconductor industry to create a company that serves to grow the analog foundry space as no existing single semiconductor foundry can. Through the partnership with TPSCo, TowerJazz has access to increased capacity at

TPSCo's three manufacturing facilities in the Hokuriku region of Japan which have been producing large scale integrated circuits (ICs) for over 30 years.

TPSCo has developed a robust manufacturing process based around ISO 9001 and ISO/TS 16949 quality and automotive management systems, and has produced more than 500,000,000 ICs for automotive products.

## 2015 ACHIEVEMENTS & COLLABORATIONS

TPSCo's market acceptance and associated production ramp proceeded extremely well in 2015. TPSCo has secured many more contracts with new 3<sup>rd</sup> party customers than was forecasted two years ago and the number of active foundry customer engagements has surpassed 100 in Q4 2015.

TPSCo has achieved several significant successes including mass production of multiple high performance discrete devices for Fairchild Semiconductor targeting the industrial and consumer markets. As such, TPSCo became a first tier supplier for Fairchild, and will continue enhancing its relationship by providing them with the benefit of both specialty TowerJazz and TPSCo technologies and capabilities.

Moreover, TPSCo has started mass production for some important customers, such as Himax imaging, GWS, and over 20 other customers. These customers came to TPSCo because they recognize the company's high quality standards, and they want to fortify their business continuity plans by having multiple geographically diverse manufacturing sites capable of producing TowerJazz compatible devices. Through close working relationships with its customers, TPSCo is earning their respect by providing them fabricated wafers with high quality and delivery standards at a fair price.

In addition, TPSCo has over 100 qualified consumer and high reliability process flows developed by Panasonic that are available for its foundry customers. There is strong interest from TPSCo and TowerJazz customers in several of

the advanced IDM process technologies already qualified in the Hokuriku Japan facilities.

TPSCo has engaged in multiple EDA supplier collaborations in order to develop a comfortable yet efficient design environment for its customers. TPSCo has already announced the collaboration with Synopsys and Keysight on the development of a new iPDK design environment for 65nm image sensor and 65nm RF CMOS platforms. These environments allow customers to improve design efficiency and realize faster design turnaround times and hence faster time to market for their sample integrated circuit designs. This gives TPSCo and TowerJazz customers a significant edge in design wins for end market applications.

TPSCo engineers have developed some of the most advanced process control schemes for high reliability and automotive IC manufacturing which enables the company to achieve higher and more predictable yields.

Finally in 2015, regarding working capital for fabrication expansion needs, JA Mitsui Leasing granted TPSCo an additional long-term loan of 8.5 billion Japanese Yen (approximately \$70 million). This decision was made for several factors which included the strength of the TPSCo shareholder team, the initial progress achieved by TPSCo in 2015, and the clear growth path for future TPSCo revenue forecasts. TPSCo believes this agreement enables its growth and provides seamless expansion to the benefit its existing as well as new customers.



**"2016 is the year that TPSCo truly 'breaks out' and establishes itself as a fully operational international specialty foundry. We are confident that while there will be challenges, there will also be many rewarding times ahead!"**

**Mr. Guy Eristoff**  
TPSCo Chief Executive Officer

## MAIN APPLICATIONS

TPSCo is focused on providing semiconductor process technology solutions in three defined areas.



**AUTOMOTIVE AND HIGH RELIABILITY PROCESSES**



**HIGH-END IMAGE SENSORS (BOTH CIS AND CCD)**



**MOBILE COMMUNICATIONS PERIPHERAL PROCESSES FOR THE INTERNET OF THINGS (IoT)**

## LEADING EDGE PROCESS FLOWS

TPSCo offers leading edge automotive, imaging, RF SOI, power management, embedded NVM and high voltage discrete process flows for differentiated consumer, automotive and industrial applications. In 2015, TPSCo continued to transfer and qualify TowerJazz process technologies in order to offer customers increased capacity and multi-sourcing in three geographic areas.

### RF SOI/RF CMOS SPECIALTY TECHNOLOGY

TPSCo is enhancing its 65nm RFCMOS process in order to be suitable to run 77GHz mmWave technology for collision avoidance systems. TPSCo has also started first silicon on 65nm RF SOI for a mobile communications front-end module (FEM) switch.

### POWER MANAGEMENT SPECIALTY PLATFORM

With 35 years of experience in automotive part manufacturing and many high reliability IDM flows available to its customers, this is an area of focus and differentiation for TPSCo. TPSCo is enhancing this position with the transfer to TS18PM with Y-flash for multiple customers including a major Japanese Tier-1 automotive customer.

### CMOS IMAGE SENSOR (CIS) ADVANCED OFFERING

TPSCo is widely recognized as one of the top three image sensor manufacturing providers worldwide and has provided many CIS products with extremely high quality pixels in a very wide range of end market applications such as surveillance, automotive, digital still camera, industrial, and medical.

## FOCUS FOR 2016

TPSCo is actively developing multiple new process flows and associated devices in order to support its growing customer base. The Company is developing a high voltage SOI process that is compatible with the popular and feature rich TowerJazz TS18PM LDMOS process. This process will enable absolute LDMOS isolation that is highly preferential for high reliability applications such as automotive, industrial or medical products.

In the imaging space, TPSCo has begun developing an ultra-sensitive NIR sensor using a novel light collecting technology that will display much higher contrast in low light applications. This technology is applicable to various applications in the image sensor market and will be ready for customer samples in 2017.

In addition, TPSCo is finalizing a Dual Gate version of its world-leading sub-90 femto-second RF Switch. The Dual Gate PDK

is planned for release in the middle of this year. It contains 1.2V logic PDK as well as the PDK for a 2.5V RF-Switch. This PDK will enable customers to develop integrated LNA & Switch devices on a platform containing minimum feature size devices of 65nm that will run in a 300mm processing environment. This process will be a key enabler for customers to effectively establish connectivity within the IoT and mobile communications space.

Mobile communications applications and IoT interconnectivity are expected to grow rapidly in the next five years. According to Gartner, there were 4.9B IoT-installed devices in 2015, and there are projected to be 6.4B devices in 2016, growing to 20.8B in 2020.



## THE FASTEST GROWING FOUNDRY

Year over year, TowerJazz is the fastest growing foundry in the world; by providing the widest range of advanced specialty technologies and working with the industry's leading companies in the right growth markets, TowerJazz is well-poised to continue on this path.



# TOWERJAZZ CORE BUSINESS UNITS



**RF & HIGH  
PERFORMANCE  
ANALOG**



**POWER  
MANAGEMENT**



**CMOS IMAGE  
SENSOR**



**MIXED-SIGNAL  
CMOS**



**AEROSPACE  
& DEFENSE**



**TOPS™**  
Transfer Optimization &  
development  
Process Services



**IMAGE SENSOR**



**DISCRETE**



**ANALOG  
RF/HPA**



**NON-VOLATILE  
MEMORY (NVM)**



**POWER  
PMIC/BMIC**



**AUTOMOTIVE &  
INDUSTRIAL**



“By offering advanced specialty technologies, leading edge design capabilities and world class customer service, TowerJazz provides complete foundry solutions to our customers enabling them to quickly bring to market their innovative products.”

**Dr. Itzhak Edrei**  
President

# RADIO FREQUENCY AND HIGH PERFORMANCE ANALOG



TowerJazz's SiGe BiCMOS, RF SOI, and RF CMOS technologies enable high-speed and low-power products in many mobile, consumer, infrastructure, and automotive applications.

TowerJazz's industry leading portfolio of advanced radio frequency (RF) and high performance analog (HPA) technologies allow customers to seamlessly and rapidly integrate many differentiating features into their product offerings. TowerJazz's advanced RF and HPA technologies

target the consumer, networking, mobility and automotive markets. The overall global market includes products such as smart phones, tablets and other mobile devices, automotive radar, optical networking, RFID, and many more.

## 2015 ACHIEVEMENTS & COLLABORATIONS

The RF/HPA business unit has experienced 45% year over year growth in 2015 with similar growth prospects in 2016 and has become TowerJazz's largest business unit by revenue. This growth has been fueled by a combination of end products such as smartphones and data networks as well as share gains brought about by technology leadership in TowerJazz's flagship radio frequency silicon-on-insulator (RF SOI) and silicon germanium (SiGe) offering.

In RF SOI, 2015 saw the expansion of TowerJazz's manufacturing footprint with high-volume production now coming from both its US and Israeli factories across all production RF SOI and RF CMOS nodes. This allows capacity for growth and enables unprecedented flexibility in factory loading as identical technology and parts can be produced in high-volume from either factory. Also in 2015, TowerJazz achieved an industry best Ron-Coff figure of merit for an RF SOI device at sub-90fs from TPSCo's 300mm facility in Uozu, Japan.



In SiGe, TowerJazz ramped production in low-noise amplifiers and began production of a new line of power amplifiers for smartphones and other mobile platforms. The company's high-speed SiGe platform was used for some of the industry's most impressive demonstrations such as UCSD's 5G 256-element 60GHz phased array transmitter.



**“The IoT (Internet of Things) is estimated to provide for many billions of connected devices by year 2020. This will drive mobile data traffic exponentially, requiring high speed and high capacity wireline networks and representing a major new market for wireless connectivity. TowerJazz's advanced RF and HPA technologies are well positioned to catalyze this trend.”**

**Dr. Marco Racanelli**  
Senior Vice President & General Manager of RF/High Performance Analog & Power Business Groups  
General Manager of US A&D Business Group, Newport Beach Site Manager

## NEWS ANNOUNCEMENTS

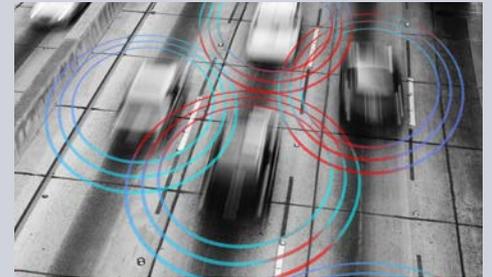
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

05/14/15—TowerJazz and UCSD Demonstrate First 5G 256-Element 60 GHz Silicon Wafer-Scale Phased Array Transmitter

09/02/15—TowerJazz and TPSCo Announce Breakthrough RF Technology for Next-Generation 4G LTE Enabled Smartphones and IoT Applications

## MAIN APPLICATIONS

The main applications for TowerJazz's RF/HPA technologies include mobile devices such as smartphones and IoT terminals, data communication systems and other high frequency markets such as automotive radar, backhaul communications and emerging 5G wireless.



### MOBILE DEVICES

In mobile devices such as smartphones and IoT terminals, RF SOI and SiGe are used to build switches, power amplifiers, and low-noise amplifiers in front-end-modules that receive and transmit wireless signals. TowerJazz's RF SOI technology offers one of the lowest Ron-Coff figure of merit in the industry at 124fs which helps customers minimize losses and distortion improving battery life and boosting data rates. TowerJazz's SiGe technology offers one of the lowest noise figures in the industry to improve reception as well as one of the best power devices in the market to improve transmission in these same wireless terminals.

### INFRASTRUCTURE

In infrastructure markets, TowerJazz's high-speed SiGe technology is used to build front-end components or other high-speed wired connections that together form the backbone of the data network and enable communication within data centers and even through fiber-to-the-home services. Exploding data traffic, proliferation of data centers and cloud computing are fueling the growth of this TowerJazz offering. In addition, few foundries offer high-speed SiGe technology and TowerJazz maintains a consistent technology leadership offering transistor speeds of 240GHz and above.

### AUTOMOTIVE

In the automotive market, TowerJazz's SiGe technology is used in collision avoidance systems in addition to wireless communication systems and GPS. Collision avoidance radar operates at 24GHz or 77GHz and can take advantage of the high-speed and low-noise characteristics of TowerJazz's SiGe technology.

## FOCUS FOR 2016

In 2016, TowerJazz anticipates continued growth for both RF SOI and SiGe primarily driven by smartphone front-end-modules. To enable this growth, TowerJazz continues to expand its capacity and has begun transferring RF SOI to a third TowerJazz factory in San Antonio, Texas (recently acquired from Maxim).

In addition to adding capacity, the company continues its aggressive roadmap. In RF SOI, TowerJazz continues to reduce Ron-Coff by 20% year-over-year providing further benefit to its customers. In SiGe, TowerJazz continues to reduce noise and power consumption while increasing speed with its 4th generation technology (H4).

Today, TowerJazz's high-speed SiGe is used in network communications and automotive radar applications. In the future, the company anticipates 5G wireless cellular transmission to migrate to higher frequencies and enable higher data-rates in mobile devices. With this future transition, TowerJazz sees an opportunity to expand the market for its SiGe technology as it is well suited to operate efficiently at these higher frequencies relative to competing technology.



## MAIN APPLICATIONS

TowerJazz's CIS offering is customized for the application—based on a wide range of geometries from 180nm technology to 65nm technology.



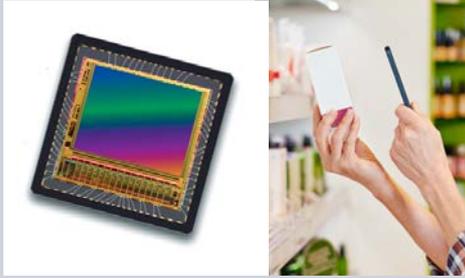
### PROFESSIONAL PHOTOGRAPHY

Still DSLR and MLC cameras, cinematography and broadcasting video cameras



### MEDICAL X-RAY

Intra and extra oral dental sensors (panoramic, cephalographic and dental CT) as well as medical surgery and NDT sensors



### INDUSTRIAL & HIGH SPEED

For automated factory control, food industry control, 2D barcode readers, traffic cameras and many more



### AUTOMOTIVE & SECURITY

High end HD, FHD, SHD and even 4K sensors for high end high resolution security. High dynamic range rear, front and side outside automotive cameras as well as internal gesture recognition



### 3D GESTURE CONTROL

Time of Flight (ToF) and structured light sensors for gaming, 3D printing, drones, augmented reality (AR) and virtual reality (VR) as well as many more applications

## FOCUS FOR 2016

In 2016, TowerJazz expects to see new products coming from its TPSCo facility in the high end photography and the high end security markets, served by the Uozu, Japan 12" 65nm fab, and small pixel (high resolution machine vision sensors) coming from the 110nm fab in Arai, Japan.

TowerJazz sees significant trends in the future for CIS technology. One major growth area is in the dental and medical large sensor market, replacing current image intensifier tubes and amorphous silicon technologies. Another area of growth is in the security and automotive markets, driven by the requirement for cameras at each street corner and eight to ten cameras per car for a 360 degree view. Last but not least, major growth is expected in 3D gesture control cameras; most laptops will be equipped with 3D cameras in the future.



# POWER MANAGEMENT



Power platforms available at TowerJazz provide wide application coverage from mobile markets to computer and other consumer markets to automotive and power restricted wearables.

TowerJazz's power platform offers maximum flexibility, enabling customers to create cost-effective products at any desired level of integration and achieve first-pass success for faster time-to-market. The integration of Non-Volatile Memory (NVM) provides significant differentiation and cost effectiveness for enhanced power management solutions.

The company offers solutions that enable high integration of the most sophisticated power controls and best in class efficiency for the always needed higher end-product power ratings.

The advantages of TowerJazz's power platform includes its low R<sub>dson</sub> offering which enables the highest efficiencies in

the market, adding smartness to the systems (the ability to integrate high density logic cores) and the ability to supply positive and negative voltages in the same part which is important in wireless charging, audio, automotive and other applications.

TowerJazz's industry leading Bipolar-CMOS-DMOS (BCD) process is used in complex power management chips, including driver ICs, battery and portable power management, power control for PCs, Class-D audio amplifiers, and other consumer, communications and computing applications. Customizable technology (5V to 80V) provides design optimization and the lowest die size at any given breakdown voltage.

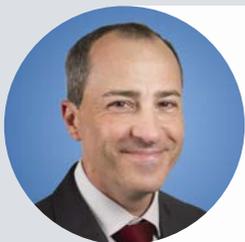
## 2015 ACHIEVEMENTS & COLLABORATIONS

TowerJazz has been expanding its advanced 0.18-micron power management process (TS18PM) offering 30% improvement in R<sub>dson</sub> which directly translates into efficiency improvement, lower power consumption, and reduction in size. This platform targets more than 40% of today's power market, including computer, wireless, industrial, and automotive applications.

One of the end applications utilizing TowerJazz's TS18PM platform is a touch screen controller which enables special capabilities of sensing multi-fingers touch and a digital pen (stylus). Recently, this advanced digital pen technology was acquired by Microsoft for use with its Surface products.



Source: Microsoft News Center



**“Our investment in power technology has begun to pay off this year with a strong ramp of marquee products in Migdal Haemek, the start of production in our second factory in TPSCo, and a large number of design wins due to our best-in-class foundry BCD offering providing strong momentum for growth in 2016 and beyond.”**

**Dr. Marco Racanelli**

Senior Vice President & General Manager of RF/High Performance Analog & Power Business Groups  
General Manager of US A&D Business Group, Newport Beach Site Manager

## NEWS ANNOUNCEMENTS

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

07/29/15— TowerJazz Ramps Mass Production of Touch Screen Controller Developed by N-trig for Digital Pen

11/17/15— TowerJazz Announces Availability of its Next-Generation Power Management Platform Enabling up to 30% Efficiency Boost and Form Factor Reduction

## MAIN APPLICATIONS

TowerJazz power platforms address the market's need for higher integration, more features and control, and the constant demand for higher efficiency.



### SMARTPHONES, TABLETS AND WEARABLES

Primary growing markets for TowerJazz's power management technology are wireless charging and portable power in smartphones, tablets and wearables.

According to market research firm, IHS Technology, the mobile market is predicted to grow at 6.5% CAGR for mid and high end handsets over the next three years with TowerJazz's SAM (serviceable available market) estimated at \$2 billion in wafers. The demand for power management in mobile devices, though constantly growing, must continuously improve power usage and even reduce it with the constant addition of functionalities in every new generation of products. These needs are being addressed by highly integrated and efficient power platforms which are constantly improving to match the market needs for the best performing controllers.

### AUTOMOTIVE AND INDUSTRIAL

Moving forward, SOI technology will expand TowerJazz's reach into other untapped markets and sockets in both automotive and industrial markets. Specific markets include motor drivers for various products such as drones, power tools, and large stacks of batteries for automotive.

The majority of TowerJazz's IP will be interchangeable between its technologies which creates easier market penetration. For example, TowerJazz's 80V platform targets power management integrated circuit (PMIC) applications in the mobile space, wearables, notebooks and power management DC-DC in telecom and other consumer applications, as it offers high levels of functional integration, integrated memory and very efficient power stage. The technology is also suitable for DC-DC applications and electronic control units (ECUs) in automotive applications.

## FOCUS FOR 2016

In portable markets, TowerJazz has won several designs due to the ability to integrate complex digital functions alongside with analog. In 2016, TowerJazz expects to further expand in these markets with the newest flavors of technology and specific devices being developed that will allow further penetration in the market.

In addition, TowerJazz's technology can withstand positive and negative biasing in the same design which is needed for some of the wireless charging solutions in the market. This unique technology will be the basis for the start of a new family of designs.

TowerJazz's power technology is also attractive to customers in a wide range of automotive and industrial designs that vary from feature controllers in vehicles to very sensitive battery management solutions for electric vehicles. SOI technology that TowerJazz is currently developing will be a nice addition and extension to the offering extending it to 200V.

# THREE MEGATRENDS FUELING THE INTERNET OF THINGS (IoT); IMPLICATIONS FOR THE SEMICONDUCTOR ECOSYSTEM

Russell C. Ellwanger and Amol M. Kalburge, TowerJazz

## INTERNET OF THINGS (IoT)

The Internet of Things (IoT) refers to humans, machines and the environment communicating using various sensor enabled semiconductor devices.

Three years ago, we observed that three global megatrends are driving long term social, economic and technological growth: **Green Everything, Wireless Everything and Smart Everything**. We also observed that these three megatrends are encouraging greater innovation and collaboration across the semiconductor ecosystem by delivering optimal application specific product performance through heterogeneous integration of analog interface technologies such as wireless, digital power management, and sensing.

As an increasing number of devices are built incorporating such analog interface technologies, it becomes easier and cheaper to connect them to each other over the internet, creating an enormous and efficient network of things, or Internet of Things (IoT). The scale of the IoT is simply mind-boggling: estimates vary, but by 2025 there could be as many as 100 billion IoT devices worldwide, with a combined global economic impact of as much as \$11 trillion. This is an unprecedented opportunity for the semiconductor ecosystem. This is an unprecedented opportunity for TowerJazz!

## IoT OPPORTUNITIES FOR TOWERJAZZ

### HIGH RELIABILITY

IoT related designs require high reliability, low power and low cost foundry technologies.

### SPECIALTY REQUIREMENTS

IoT demands diverse silicon chips with integrated sensors, memories, processors, energy harvesting blocks, communication means, interfaces and security systems.

### EXTENDED MARKETS

The markets of mobile applications, power management, and data processing will be extended through the growth of IoT connected devices, opening new business opportunities for TowerJazz.

## THREE MEGATRENDS FUELING THE INTERNET OF THINGS (IoT); IMPLICATIONS FOR THE SEMICONDUCTOR ECOSYSTEM (CONTINUED)



Everything in the future will require some level of digital power management capability for greater efficiency and portability. Green performance—raw device performance/energy consumed—will be far more important than just the raw performance. To improve green performance, “things” will need to incorporate detailed monitoring, measuring and controlling circuitries that would transmit and receive data continuously so that power consumption can be optimized in the ON and OFF state.



In the not too distant future, almost everything will be connected to everything wirelessly. Current wireless technologies such as wireless LAN, LTE, Zigbee, GPS, NFC, and Bluetooth already offer connectivity in most places. Further convergence of communication standards will drive even greater seamless connectivity in the near future.



As electronics become an even more integral part of our lives, and not only for entertainment, but also for critical situations to protect humans, assets or the environment from harm, they must become smart and self-reliant. Smart electronics are able to “sense” the stimuli and make decisions based on pre-determined (or ad-hoc) criteria and respond with minimal latency. We believe that an increasing number of systems will become smart by incorporating multiple sensory technologies and will impart intelligence to the network they are connected to.

## IMPLICATIONS FOR THE SEMICONDUCTOR ECOSYSTEM PLAYERS

### Fabless/IDMs:

For the past several decades, Moore’s Law was the engine for innovation in the semiconductor industry. Fabless and IDM companies were able to take advantage of predictability in digital silicon technology advancement to create enormous economic and technological value. But Moore’s Law has now hit a wall due to fundamental limits of physics and economics. As a result, Fabless/IDM companies are relying more on “More-than-Moore” or specialty technologies—primarily analog, RF, Power/BCD, and sensing (optical, thermal, mechanical and magnetic)—to drive innovation and value in their product portfolios. Indeed, these analog-intensive technologies continue to complement core digital technologies that are becoming more and more limited to computing and storage functions.

### Design Enablement/EDA:

Convergence of multiple heterogeneous technologies calls for enrichment of design enablement offerings and capabilities from foundries and EDA vendors. The EDA software providers must develop tools and software platforms that enable seamless integration of digital and analog intensive technologies. Foundry PDKs must offer a strong foundation and standard building blocks for the base digital CMOS technology and provide advanced and modular features for designing and simulating RF, high voltage, sensors and/or novel packaging technologies.

### Foundries:

Thanks to Moore’s Law, digital CMOS focused foundries have enjoyed a nice sustained growth rate over the past several decades. But with Moore’s Law stalled, analog focused foundries are earning their place in the sun with their highly differentiated specialty technology offerings. Developing capabilities in specialty technologies takes many years, even decades, of experience and investment. Specialty foundries must integrate organic capabilities with inorganically acquired disruptive capabilities to provide customers a single seamless portfolio of technologies. TowerJazz has successfully demonstrated this foundry model by becoming the first specialty foundry to cross the \$1B run-rate.

## Summary

Green Everything, Wireless Everything, and Smart Everything are the three global megatrends that are fueling the Internet of Things revolution. These megatrends will have profound impact on the entire semiconductor ecosystem. Players like TowerJazz and our customers that exploit a broad range of analog-intensive technologies, integrated with cost effective digital technologies, are poised to thrive in this ecosystem.

<sup>1</sup> R.C Ellwanger and A. M. Kalburge, “Three Global Megatrends and the Implications for the Semiconductor Ecosystem,” Global Semiconductor Alliance Forum Vol. 20 (2), 11 (2013)

<sup>2</sup> <http://www.huawei.com/minisite/gci/en/index.html>

<sup>3</sup> <http://www.mckinsey.com/business-functions/business-technology/our-insights/the-internet-of-things-the-value-of-digitizing-the-physical-world>

# AEROSPACE & DEFENSE



TowerJazz, through its Newport Beach facility (Jazz Semiconductor), supplies strategic, on-shore foundry services for critical U.S. Aerospace and Defense (A&D) applications through its industry and segment expertise.

As the world's largest specialty foundry and fastest growing foundry in the industry, TowerJazz leverages its resources and infrastructure to support the current industry trends with ITAR, as well as "Trusted" fabrication through its U.S. subsidiary, Jazz Semiconductor Trusted Foundry (JSTF).

As the only on-shore pure play foundry that offers the widest range of technologies, TowerJazz provides features developed and focused to support A&D customers for government, military, and defense requirements, including large die ROICs, imagers, MEMS and millimeter wave devices, among others.

TowerJazz's U.S. customer base for A&D applications is primarily confidential; it is comprised of top government prime contractors, DOD agencies, DARPA and other government agencies, various national laboratories, leading universities, and a large number of other key mid/small/start-up customers supporting the A&D community.



## MAIN APPLICATIONS

The main applications that TowerJazz's A&D offerings are used for include IR detectors and components, visible and near-IR image sensors, other sensors and detectors, phased arrays, beam formers, radar, high speed communications, high speed data transmissions, and transfer and receive systems, among others. These applications are used in defense systems, weather and surveillance radar, space exploration satellites, computer network and communication systems, and common data transmit and receive devices.

## 2015 ACHIEVEMENTS & COLLABORATIONS

Recent activities to further support aero/military customers include the DMEA (Defense Microelectronics Activity) Accreditation of Jazz Semiconductor Trusted Foundry (JSTF), and implementation of new technologies that may be developed by A&D customers for applicability in the aero/military market, including CMOS image sensors, ROICs, and new capabilities for infrared (IR) camera components.

## NEWS ANNOUNCEMENTS

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				02/12/15 — TowerJazz and FLIR Systems Partner to Deliver Next Generation Commercial Infrared Technology		05/14/15 — TowerJazz and UCSD Demonstrate First 5G 256-Element 60 GHz Silicon Wafer-Scale Phased Array Transmitter		07/08/15 — TowerJazz and Anatrix Develop RadHard RF ASIC; Reaches Flight Qualification			

## FOCUS FOR 2016

Looking toward the future, TowerJazz sees trends in three-dimensional integrated circuits (3D ICs), silicon-based MEMS switches, migration of visible/near-IR image sensors to silicon/CMOS and solid state platforms, and very large/wafer-scale phased arrays—all of which TowerJazz's A&D technologies are well positioned to support. These applications are used to continue improving performance

(clearer and sharper images for all detectors and sensors), and to provide faster, more accurate, smaller, more mobile, and lower power systems—all for the benefit and protection of homeland security interests, the general population, and last but not least, Department of Defense (DoD) forces and support teams.



"In 2016, given the continued focus and maturity of our 130nm technology node—in both CMOS and SiGe—we look forward to increasing penetration in our existing customer base as well as attracting new customers. With this, combined with our existing suite of world class foundry offerings, we will continue to forecast an expected growth at a rate of 15% for our A&D business."

**Dr. Marco Racanelli**  
Senior Vice President & General Manager of RF/High Performance Analog & Power Business Groups  
General Manager of US A&D Business Group, Newport Beach Site Manager



# TRANSFER, OPTIMIZATION AND DEVELOPMENT PROCESS SERVICES (TOPS™)

The TowerJazz TOPS business unit (BU) targets integrated device manufacturers (IDMs) that have fablight outsourcing strategies, capacity shortage with internal fabs, double source policies, and fab closures for cost reduction activities.

The TOPS BU also works with fabless companies that have process IP looking for a manufacturing site, process developed at an R&D center that will be transferred and optimized to production at TowerJazz fabs as well as those needing to develop from R&D to production and those wanting to develop process IP, process module or flow in TowerJazz fabs.

The main customer applications currently supported by TOPS are discrete FETS for power applications, non-volatile memory (NVM), and magnetic memories, although TOPS can accommodate any customer flow. The fab lite strategy seems to be a dominant trend for TOPS' customers – with 5" & 6" fab closures (at many customers), consolidation of

fabs, and cost reduction by moving to 8" wafers. In most TOPS engagements with top tier IDMs, after the initial base platforms are transferred and qualified, additional advanced platforms are co-developed at TowerJazz sites as these fabs possess more advanced processing tools and technology capabilities than the IDM's factory. These flows are long-life, sole source flows. The second most dominant trend is overflow capacity since companies are reluctant to spend major capex and moving to a foundry is much more economically feasible.

TowerJazz uses established methodologies and well-defined success criteria which leads to first time success and record time to production.

## TOPS™ CUSTOMERS

### IDMS

- 'Fablight' outsourcing strategy
- Capacity shortage with internal fabs
- Double source policy
- Going through fab closure for cost reduction activities

### FABLESS COMPANIES

- With process IP looking for manufacturing site
- Process was developed at R&D centers and will be transferred and optimized to production at TowerJazz fabs

### DEVELOP FROM R&D TO PRODUCTION

- Develop process IP, process module or flow in TowerJazz fabs



"2015 was a great year for the TOPS BU; many projects were completed and ramped to mass production in our Israel and Japan fabs. In 2016, we foresee continued growth with all our customers in each of our fabs including our recently acquired San Antonio fab."

Mrs. Zmira Shternfeld-Lavie  
Senior Vice President of Process Engineering R&D  
General Manager of Transfer, Optimization and Development Process Services Business Unit (TOPS™)

## 2015 ACHIEVEMENTS & COLLABORATIONS

This year was very busy for the TOPS BU with aggressive ramping of several large customer transfers in parallel in TPSCo's Tonami, Japan fab as well as the start of high volume production after a fast ramp for one of TowerJazz's key customers in Israel.

## FOCUS FOR 2016

In the TOPS BU, the team is working on ramping to mass production new technologies of Tier 1 customers, both in TowerJazz's fabs and in TPSCo. With the existing production customers, the TOPS BU is also increasing production volume and processing an increasing number of prototypes for new products.

# DESIGN ENABLEMENT

TowerJazz provides a design enablement platform that complements its sophisticated technology and enables its customers with a quick and accurate design cycle.

The company's design enablement provides design kits, intellectual property (IP) and dedicated design support so its customers succeed with first-time working silicon and fast time-to-market. TowerJazz has deep partnerships with all the major electronic design automation (EDA) vendors and IP providers to supply its customers with the most comprehensive and up-to-date design solutions available in the market. In addition, partnering with EDA vendors enables interoperability across a wide variety of software tools, so its mutual customers can benefit from the "best-of-breed" products for their particular application and EDA budgets.

TowerJazz provides silicon verified and highly scalable device models for up front design optimization and robust physical design tools for rapid synthesis of schematics concepts into the final blueprints used to manufacture customer parts. The company's unparalleled customer support at every stage of the design flow ensures confidence in designs at near zero risk. TowerJazz process design kits (PDKs) include unique electrostatic discharge (ESD) parameterized-cells (P-Cells) and a special electrical rule checker (ERC) for ESD rules.

## 2015 ACHIEVEMENTS & COLLABORATIONS

TowerJazz has continued to focus its latest design enablement efforts in the emerging power management area as well as the RF/HPA (high performance analog) and silicon-on-insulator (SOI) areas to provide design enablement platforms that complement its advanced technologies. A particular focus has been to enable the most reliable and robust integrated circuits (ICs) or chips for its customers by providing highly refined and customized tools that check the ICs are operating within safe electrical limits (safe operating area or SOA checks). This, in turn helps TowerJazz customers meet the ever demanding reliability specifications from their end customers.

In 2015, TowerJazz announced collaboration with multiple partners to consistently improve the design process for its customers and participated in industry design conferences to showcase its manufacturing capabilities. For instance, TowerJazz and Dolphin Integrated announced a solution to address the low power requirements of the fast growing IoT market, TowerJazz implemented Mentor Graphics' Calibre Auto-Waiver to reduce tapeout cycle time, and TowerJazz participated at IC CAD in China to support its fast growth and showcase its manufacturing capacity in the Asia Pacific region.



**"2015 was a momentous year for our Design Enablement team. We delivered best in class design kits for our RF, power management, and CIS platforms with particular focus on enabling reliable products. We look forward to continue delivering quick and accurate design services to our customers while ensuring their success."**

**Mr. Ori Galzur**  
Vice President of VLSI Design Center & Design Enablement

## WORLDWIDE DESIGN CENTER

TowerJazz's Worldwide Design Center services help customers to accelerate the design-to-silicon process and enhance first-time silicon success. Chipmakers can augment their own design resources with the design capabilities that are specialized for TowerJazz's manufacturing

technologies. Design support can assist in all or part of the design flow. The company's in-depth knowledge of the fab and processes provide a substantial advantage when implementing state-of-the-art designs that reach the boundaries of technology.

TowerJazz's IP and engineering services can augment its customers' team efforts with key IP blocks, providing the specific skills and expertise critical to successful implementation. TowerJazz also operates an Authorized Design Center (TADC) program that has specialized design capabilities to create customer IC designs.



## FOCUS FOR 2016

TowerJazz consistently enhances its IP portfolio to further enable its customers to concentrate on their design core while taking advantage of a clean and easy IP integration. Moving forward into 2016, TowerJazz will continue to focus on providing unparalleled design services and support for its worldwide customers.

# RESEARCH AND DEVELOPMENT

## AN ENVIRONMENT OF INNOVATION

TowerJazz has created an innovation environment cultivated by the knowledge and skills of highly educated and experienced R&D staff in all its fabs, worldwide. Each of the sites has specific experience, being the center of knowledge for the company, such as RF & MEMS in Newport Beach (CA); CMOS image sensors, NVM and power devices in Migdal

Haemek (Israel); and automotive chips, scaled down CMOS and CMOS with embedded features in TPSCo's Japanese fabs.

## 2015 ACHIEVEMENTS & COLLABORATIONS

In 2015, R&D projects were supported by both internally allocated budgets and by governmental and international programs, in all TowerJazz Business Units (BUs).



- Radio frequency (RF) and high performance analog (HPA) innovation projects were focused on furthering TowerJazz's RF CMOS SOI technology in the fields of antenna switches, power amplifiers and high speed SiGe devices.
- R&D activities in the field of power management were focused on the development of novel features, such as original non-volatile memories (NVMs), specialized patented silicon high-voltage devices, and GaN devices for future production platforms.
- TowerJazz's CMOS image sensor BU performed extensive studies in the fields of IR sensors for gesture recognition, fast global shutter image sensors and back-side illuminated imagers.
- The CMOS and TOPS BUs made significant progress in feasibility studies of semiconductor sensors and MEMS devices (gas sensors, magnetic field sensors, radiation sensors, etc.)

The R&D team fostered collaboration between sites for R&D activities in parallel with the company's manufacturing strategy that included technology transfers between the sites. Combining the experience of R&D engineers from diverse fields brought up novel ideas that opened breakthrough business opportunities for TowerJazz customers.

## GRANT AND PROJECT WINS

TowerJazz won several prestigious international grants, in particular the European Union H2020 project "GREAT" –STT MRAM memories integrated with sensors and RF devices for Internet of Things (IoT) applications. Several R&D projects, in particular the field thermal imager technology, with special focus on infrared and high speed communications continue and were run in collaboration with US Defense Agencies.

## PRESS ANNOUNCEMENTS

Several R&D achievements were announced demonstrating the leadership position of TowerJazz in a broad range of technological areas. For example, RF MEMS tuners developed together with Cavendish-Kinetics, next generation FLIR infrared detectors for Apple and Android products, and back-side illuminated images for UV range developed together with GPixel, among others.

## PATENTS

TowerJazz was granted 15 patents and filed about 20 new patent applications. The protected technologies include RF SOI switches, SiGe Bipolar devices, semiconductor sensors (image sensors and others), MEMS, and NVM memories with enhanced reliability, just to name a few.

## TALKS AND PUBLICATIONS

TowerJazz gave 10 invited talks at international conferences and regional seminars, such as BCTM (Boston), SOI Conference (Shanghai), and EMRS (France). Numerous research papers were published in prestigious international journals, including IEEE EDL, Microelectronics Reliability, among others. TowerJazz experts participated in international scientific committees, including several IEEE and European Union boards.

Internally, the R&D team prepared issues of the TowerJazz Journal, featuring about 35 referred technical papers. The team maintained its internal Technical Forum for its senior technical leaders, and began TowerJazz Education Seminars (TES) to mentor and foster young engineering talent at each site. In addition, special forums on the IoT were held, due to its emerging importance. Company R&D roadmaps were also discussed at TowerJazz Global Symposium (TGS) sessions.



**Dr. Yakov Roizin**  
TowerJazz Fellow & Director  
of Emerging Technologies



**Dr. David Howard**  
Executive Director  
& TowerJazz Fellow

## FOCUS FOR 2016

The TowerJazz R&D roadmap is aligned with the current demands and business outlooks of its customers. Main R&D activities are focused on developing new technologies to support next generation products designed by fabless semiconductor companies and/or IDMs.

# COMMUNITY CONTRIBUTION



TowerJazz continues to uphold its charter of increasing diversity and gender equality throughout the company's different sites. As such, TowerJazz supports a wide range of health, education, social and community activities that affect and involve its employees and the community's well-being. In 2015, TowerJazz participated in numerous activities to support projects and organizations in the neighboring communities of its facilities.

## GLOBAL AWARENESS INVESTIGATION AND ACTION (GAIA) PROJECT

TowerJazz is now in its seventh year working with Dr. Stuart Fleischer, the American International School in Israel and Tel Aviv University, in support of the Global Awareness Investigation and Action (GAIA) project which focuses on environmental research and awareness. This project extends to multiple high schools in Israel of various ethnic and religious backgrounds, and in Europe, as well.

In June 2015, a NASA sounding rocket was launched carrying two student research projects from the American International School in Israel. These experiments carried out in microgravity conditions were fostered and mentored by a team of engineers and scientists from TowerJazz. The research payload was collected upon splashing down in the Atlantic and returned to the students for analysis.



Photo Credit: NASA

In addition to going into space, several projects funded by TowerJazz were also launched on the ground in Israel. The students of Jisr Az Zarka began a micro-economic project converting trash into treasure. Students are designing handbags, backpacks, belts, wallets and more out of throwaway chip bags. These items will go on sale to support a greater community clean-up plan that they are developing.

TowerJazz has also become the first corporate sponsor to provide additional sanctuaries for Israeli endangered plants. The Kfar HaYarok School in Ramat HaSharon has been working with the Israel Nature and Parks Authority, Tel Aviv University and the Israeli National Seed Bank. The expansion will allow more species of plants to be protected and grown in larger numbers. A sanctuary is also now being built for endangered amphibians.

TowerJazz helped to fund a children's book about a local bird called "Yoni the Chickadee." This book creates awareness about invasive species and the damage to local indigenous species and will be published in both Hebrew and Arabic. An expected 5,000 young students will learn about Yoni in 2016.

TowerJazz also hosted an event again this year called, "GAIA Girls Love Science" at the Migdal Haemek facility to generate awareness and interest in pursuing science as a career. These girls, who attend the American International School in Israel, come from the U.S. China, South Korea, India, Germany, Israel, and Nigeria.



## SOCIAL RESPONSIBILITY

TowerJazz contributes to the communities surrounding its factories by promoting education, donating goods and funding programs/services. The Company and its employees:

- Tutor kids in youth clubs and volunteer in recreational activities
- Fund an educational program for children with learning disabilities
- Participate in teaching English to the youth, improving their communication skills
- Collaborate with environmental organizations and retirement institutions to help renovate buildings, prepare food packages and participate in blood drives
- Contribute to "Operation Santa Claus" and "Senior Santa & Friends" in Newport Beach, CA to donate and deliver toys, books and other items to people in need during the Holidays.





## Q4 AND FISCAL YEAR 2015 FINANCIAL RESULTS PRESS RELEASE

### TowerJazz Provides 2016 Growth Outlook; Built upon 2015 Notable Increases in Record Revenues with the Associated Margins and Net Profit

***Fourth Quarter 2015 Results: Record Revenue of \$255 million, Record EBITDA of \$76 million, Strong Net Profit of \$22 million***

**MIGDAL HAEMEK, ISRAEL – February 24, 2016** – TowerJazz (NASDAQ: TSEM & TASE: TSEM) today reports results for the fourth quarter and full year of 2015 ended December 31, 2015.

#### Highlights

- Record results for the fourth quarter of 2015:
  - Revenues at a record of \$255 million, crossing the \$1 billion annual run rate, with 8% growth as compared to the fourth quarter of 2014, including 21% organic growth (i.e excluding revenues from Panasonic);
  - Net profit of \$22 million in the fourth quarter, compared with \$0.6 million in the fourth quarter of 2014 and \$14 million in the prior quarter;
  - EBITDA of \$76 million, representing growth of 35% compared to the fourth quarter of 2014 and 20% quarter over quarter ;
- Record revenues for the full year of 2015 of \$961 million, 16% year over year growth, including 27% organic growth (i.e excluding revenues from Micron and Panasonic);
- Cash and short-term deposits balance as of December 31, 2015 of \$206 million as compared to December 31, 2014 cash balance of \$187 million. Net debt is \$105 million as of December 31, 2015, representing \$213 million lower net debt year over year;
  - December 31, 2015 net debt to EBITDA ratio below 0.4X;

- During the first quarter of 2016, completed the acquisition of Maxim's fab in San Antonio, Texas, expanding worldwide manufacturing capacity by additional 28,000 wafers per month with 15 year committed supply agreement with Maxim. This is in addition to the existing foundry relationship between the companies;
- Expects revenues for the first quarter of 2016 to be \$276 million with an upward or downward range of 5%, representing 22% year over year increase and 8% quarter over quarter growth.

#### Fourth Quarter Results Overview

Revenues for the 2015 fourth quarter were a record \$255 million, reflecting 8% growth as compared with the fourth quarter of 2014 and 4% higher than the immediately preceding quarter.

GAAP gross profit for the fourth quarter of 2015 was \$65 million, with 25% gross margins and an increase of 69% as compared with \$38 million gross profit in the fourth quarter of 2014, with 16% gross margins and an increase of 17% as compared with \$55 million gross profit in the immediately preceding quarter, with 23% gross margins.

GAAP operating profit was \$34 million for the fourth quarter of 2015, 21% increase as compared with \$28 million reported in the fourth quarter of 2014 and 43% increase as compared with \$24 million operating profit in the immediately preceding quarter.

GAAP net profit for the fourth quarter of 2015 was \$22 million, or \$0.28 basic earnings per share, demonstrating increased sustainable GAAP net profit, as compared with \$14 million or \$0.18 earnings per share in the immediately preceding quarter and \$0.6 million, or \$0.01 earnings per share in the fourth quarter of 2014.

On a non-GAAP basis, as described and reconciled in the tables below, gross profit for the fourth quarter of 2015 was \$104 million, reflecting a 41% gross margin, an increase of 24% as compared with \$84 million gross profit reported for the fourth quarter of 2014. On a non-GAAP basis, net profit for the quarter was \$70 million or \$0.88 basic earnings per share, as compared with \$46 million or \$0.83 per share reported in the fourth quarter of 2014, and as compared with \$58 million or \$0.74 per share reported in the immediately preceding quarter.

EBITDA totaled to approximately \$76 million or 30% EBITDA margin, a 35% increase as compared with \$56 million or 24% EBITDA margin in the fourth quarter of 2014 and a 20% sequential increase as compared with \$63 million or 26% EBITDA margin in the immediately preceding quarter.

Cash and short-term deposits on December 31, 2015 are \$206 million, as compared with \$155 million as of September 30, 2015. The main cash activities during the fourth quarter of 2015 were comprised of the following: \$55 million cash generated from operations, excluding interest payments of \$1.6 million; \$4 million received from exercise or warrants and options; a receipt of \$71 million long-term loan by TPSCo from JA Mitsui bank and Sumitomo Mitsui Trust bank; investments of \$58 million in fixed assets, net; \$18 million of debt principal payments to banks and bondholders; and \$1.6 million dividend payment to Panasonic by TPSCo.

Shareholders' equity as of December 31, 2015 was \$386 million, nearly 2X higher as compared with \$196 million as of December 31, 2014 and an increase of 19% as compared with \$325 million as of September 30, 2015. Current ratio increased to 2.1X, as compared with 1.3X as of December 31, 2014 and 1.6X as of September 30, 2015. Net debt amounted \$105 million as of December 31, 2015, reflecting a net debt to EBITDA ratio of below 0.4X, as compared with net debt of \$318 million as of December 31, 2014.

#### **Full Year 2014 Financial Results**

Revenues for 2015 were a record \$961 million, representing 16% growth, as compared with \$828 million revenues in 2014.

GAAP gross profit for 2015 was \$205 million, more than 3X as compared with gross profit of \$64 million in 2014. Net loss for the year on a GAAP basis was \$30 million, or \$0.40 loss per share, and included \$110 million of non-cash financing expenses, net, mainly attributed to accretion and amortization non-cash costs resulting from the successful accelerated conversion of Series F debentures during 2015. GAAP net profit in 2014 was \$4.3 million, which included the gain from the acquisition of TPSCo in the net amount of \$166 million and \$56 million Nishiwaki fab restructuring and impairment costs.

EBITDA for 2015 was \$249 million, an increase of 62% compared with \$154 for 2014.

Net profit on a non-GAAP basis, for the full year of 2015 was \$231 million, or \$3.11 basic earnings per share, 81% higher than \$128 million or \$2.46 earnings per share, in 2014.

As many of the Company's investors are located in Israel and in Europe and are familiar with and use International Financial Reporting Standards rules ("IFRS") the Company is voluntarily providing certain financial information on an IFRS basis. Net profit under IFRS was approximately \$43 million for the year ended December 31, 2015 as compared with approximately \$30 million loss under US GAAP, and basic earnings per share was \$0.58 under IFRS as compared with \$0.40 basic loss per share under US GAAP. The main difference between US GAAP and IFRS accounting principles as relates to the Company's statement of operations for this reporting period is the different treatment of financial instruments affecting financing expenses, net. For the comparable year ended December 31, 2014, net profit under IFRS was approximately \$25 million as compared with approximately \$4 million under US GAAP, and basic earnings per share was \$0.48 per share under IFRS as compared with \$0.08 per share under US GAAP.

Cash and short-term deposits on December 31, 2015 are \$206 million, as compared with \$187 million as of December 31, 2014. The main cash activities during the year were comprised of the following: \$208 million cash generated from operations, excluding interest payments of \$12 million; \$14 million received from exercise or warrants and options; a receipt of \$71 million long-term loan by TPSCo from JA Mitsui bank and Sumitomo Mitsui Trust bank; investments of \$166 million in fixed assets, net; \$70 million of debt principal payments to banks and bondholders; and \$25 million Nishiwaki's employees termination payments in connection with its cessation of operations.

#### **Business Outlook**

TowerJazz expects revenues for the first quarter of 2016 ending March 31, 2016 to be \$276 million, with an upward or downward range of 5%, representing approximately 22% year over year revenue growth as compared with the first quarter of 2015 and 8% growth as compared with the fourth quarter of 2015. This expected growth is partially attributed to the inclusion of revenues from the San Antonio fab, having commenced in the beginning of February 2016.

#### **Chairman and CEO Commentaries**

**Mr. Russell Ellwanger, Chief Executive Officer of TowerJazz,** commented, "We are most enthusiastic to enter 2016 having achieved above \$1 billion of annualized revenue run rate, and having (i) demonstrated sustainable and growing net profits commencing the second quarter of the past year and (ii) a forward looking business model of profit margin growth utilizing cost covered available capacity to support the continued high customer demand."

**Ellwanger continued,** "Built upon the strong revenue and margins growth, we launched a number of strategic technological and operational initiatives. Among those we previously announced were 300mm advanced roadmaps activities for CMOS image sensors and RF products and the recent acquisition of the San Antonio fab from Maxim, which allows us to increase our manufacturing capacity while enhancing our existing customer relationship with this world leader. These and other such activities add to and build upon a strong foundation enabling continued growing performance, as reflected in our guidance for the first quarter of 2016."

**Mr. Amir Elstein, TowerJazz Chairman of the Board,** concluded: "2015 was a noteworthy year, presenting continuous increase in revenues and profitability, and even more important, setting the stage for future growth by adding significant manufacturing

capacity and advance leading technological offerings, in order to better serve our customers. Our stated vision is to be the world leader in specialty foundry solutions. With a strong and growing customer base, which includes long term tier-1 partners and with meaningful activities fueling our design wins pipeline, I believe that in 2016 we will continue this path, successfully delivering on our strategy to build an increasingly profitable, fast growing and world leading specialty semiconductor foundry.”

*The Company presents its financial statements in accordance with U.S. GAAP. Some of the financial information in this release, including in the financial tables below, may be considered “non-GAAP financial measures” under Regulation G and related reporting requirements promulgated by the Securities and Exchange Commission as they apply to our company. These non-GAAP financial measures are calculated excluding one or more of the following: (1) depreciation and amortization; (2) compensation expenses in respect of equity grants to directors, officers and employees; (3) Nishiwaki Fab restructuring costs and impairment; (4) TPSCo pre-merger costs; (5) financing expenses, net, other than interest accrued, such that non-GAAP interest expenses and other non-cash financial expenses, net, include only interest accrued during the reported period, whether paid or payable; (6) gain from acquisition; and (7) income tax expense, such that non-GAAP income tax expense includes only taxes paid during the reported period on a cash basis. Non-GAAP financial measures should be evaluated in conjunction with, and are not a substitute for, GAAP financial measures. The tables also present the GAAP financial measures, which are most comparable to the non-GAAP financial measures as well as reconciliation between the non-GAAP financial measures and the most comparable GAAP financial measures. As applied in this release, the term Earnings Before Interest Tax Depreciation and Amortization (EBITDA) consists of profit or loss, according to U.S. GAAP, excluding Nishiwaki Fab restructuring costs and impairment, TPSCo pre-merger costs, gain from acquisition, interest and other financing expenses (net), taxes, non-controlling interest, depreciation and amortization and stock based compensation expenses. EBITDA is akin to non-GAAP operating profit, which is reconciled in the tables below. EBITDA is not a required GAAP financial measure and may not be comparable to a similarly titled measure employed by other companies. EBITDA and the non-GAAP financial information presented herein should not be considered in isolation or as a substitute for operating profit, net profit or loss, cash flows provided by operating, investing and financing activities, per share data or other profit or cash flow statement data prepared in accordance with GAAP and is not necessarily consistent with the non-GAAP data presented in previous filings. Net debt, as presented in this report, is comprised of the outstanding principal amount of banks loans (in the amounts of approximately \$246 million and \$194 million as of December 31, 2015 and December 31, 2014, respectively) and the outstanding principal amount of debentures (in the amounts of approximately \$65 million and \$311 million as of December 31, 2015 and December 31, 2014, respectively), less cash, cash equivalents and interest bearing deposits (in the amounts of approximately \$206 million and \$187 million as of December 31, 2015 and December 31, 2014, respectively).*

*The Company uses US GAAP in the preparation of its financial statements. As many of the Company’s investors and analysts are located in Israel and in Europe and are familiar with and use IFRS, the Company has included on a voluntary basis in this release certain financial information on an IFRS basis in addition to US GAAP financials. IFRS differs in certain significant aspects from U.S. GAAP. Net profit under IFRS was approximately \$43 million for 2015 and net profit for 2014 was approximately \$25 million with the main difference between US GAAP and IFRS accounting principles as relates to the Company’s statement of operations for this reporting period being the different treatment of financial instruments affecting non-cash financing expenses, net.*

## **About TowerJazz**

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiary Jazz Semiconductor, Inc. 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, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides a world-class design enablement platform 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 additional facilities in Japan (two 200mm and one 300mm)

through TowerJazz Panasonic Semiconductor Co. (TPSCo), established with Panasonic Corporation of which TowerJazz has the majority holding. Through TPSCo, TowerJazz provides leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies, including the most advanced image sensor technologies. For more information, please visit [www.towerjazz.com](http://www.towerjazz.com) or [www.tpsemico.com](http://www.tpsemico.com).

## **CONTACTS:**

### **Noit Levi | TowerJazz**

+972 4 604 7066 | [Noit.levi@towerjazz.com](mailto:Noit.levi@towerjazz.com)

### **Gavriel Frohwein | GK Investor Relations**

(646) 688 3559 | [towerjazz@gkir.com](mailto:towerjazz@gkir.com)

*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 and you should not place any undue reliance on such forward-looking statements. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) over demand for our foundry services and/or products that exceeds our capacity; (ii) maintaining existing customers and attracting additional customers, (iii) demand in our customers’ end markets, (iv) high utilization and its effect on cycle time, yield and on schedule delivery which may cause customers to transfer their product(s) to other fabs, (v) operating results fluctuate from quarter to quarter making it difficult to predict future performance, (vi) impact of our debt and other liabilities on our financial position and operations, (vii) our ability to successfully execute acquisitions, integrate them into our business, utilize our expanded capacity and find new business, (viii) fluctuations in cash flow, (ix) our ability to satisfy the covenants stipulated in our agreements with our lenders, banks and bond holders, (x) pending litigation, including the putative shareholder class actions that were recently filed against the Company, certain officers, its directors and/or its external auditor in the US and Israel, following a short sell thesis report issued in January 2016 by a short-selling focused firm, which the Company believes contains false and misleading information about the Company’s strategy, business model and financials; (xi) our majority stake in TPSCo and acquisition of T.J.T, (xii) in the course of the operations cessation, dissolution and closure of T.J.P within the scope of restructuring our activities and business in Japan, settling any future claims or potential claims from suppliers or other third parties, (xiii) meeting the conditions set in the approval certificates received from the Israeli Investment Center under which we received a significant amount of grants in past years, (xiv) receipt of orders that are lower than the customer purchase commitments, (xv) failure to receive orders currently expected, (xvi) possible incurrence of additional indebtedness, (xvii) effect of global recession, unfavorable economic conditions and/or credit crisis, (xviii) our ability to accurately forecast financial performance, which is affected by limited order backlog and lengthy sales cycles, (xix) may have obsolete inventory if forecasted demand exceeds actual demand when we manufacture products before receipt of customer orders, (xx) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results and future average selling price erosion, (xxi) to execute debt re-financing, restructuring and/or fundraising to enable the service of our debt and other liabilities, (xxii) operating our facilities at high utilization rates which is critical in order to cover a portion or all of the high level of fixed costs associated with operating a foundry, and our debt, in order to improve our results, (xxiii) the purchase of equipment to increase capacity, the timely completion of the equipment installation, technology transfer and raising the funds therefor, (xxiv) the concentration of our business in the semiconductor industry, (xxv) product returns, (xxvi) our ability to maintain and develop our technology processes and services to keep pace with new technology, evolving standards, changing customer and end-user requirements, new product introductions and short product life cycles, (xxvii) competing effectively, (xxviii) use of outsourced foundry services by both fabless semiconductor companies and integrated device manufacturers; (xxix) achieving acceptable device yields, product performance and delivery times, (xxx) our dependence on intellectual property rights of others, our ability to operate our business without infringing others’ intellectual property rights and our ability to enforce our intellectual property against infringement, (xxxi) retention of key employees and recruitment and retention of skilled qualified personnel, (xxxii) exposure to inflation, currency exchange and interest rate fluctuations and risks associated with doing business locally and internationally and fluctuations in the market price of our traded securities, (xxxiii) issuance of ordinary shares as a result of conversion and/or exercise of any of our convertible securities may depress the market price of our ordinary shares and may impair our ability to raise future capital, (xxxiv) meeting regulatory requirements worldwide, including environmental and governmental regulations; and (xxxv) business interruption due to fire and other natural disasters, the security situation in Israel and other events beyond our control such as power interruptions.*

*A more 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 our business is included under the heading “Risk Factors” in Tower’s most recent filings on Forms 20-F 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. Future results may differ materially from those previously reported. The Company does not intend to update, and expressly disclaims any obligation to update, the information contained in this release.*

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**

(dollars in thousands)

	December 31, 2015	September 30, 2015	December 31, 2014
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash, cash equivalents and interest bearing deposits	\$205,575	\$155,348	\$187,167
Trade accounts receivable	110,065	122,686	99,166
Other receivables	7,376	7,263	5,759
Inventories	105,681	104,396	87,873
Other current assets	18,030	23,731	14,119
Total current assets	446,727	413,424	394,084
<b>LONG-TERM INVESTMENTS</b>	11,737	12,050	11,896
<b>PROPERTY AND EQUIPMENT, NET</b>	459,533	430,477	419,111
<b>INTANGIBLE ASSETS, NET</b>	34,468	36,718	42,037
<b>GOODWILL</b>	7,000	7,000	7,000
<b>OTHER ASSETS, NET</b>	6,759	7,220	10,018
<b>TOTAL ASSETS</b>	<u>\$966,224</u>	<u>\$906,889</u>	<u>\$884,146</u>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
<b>CURRENT LIABILITIES</b>			
Current maturities of loans and debentures	\$33,259	\$49,224	\$119,999
Trade accounts payable	91,773	111,917	98,632
Deferred revenue and customers' advances	23,373	14,752	5,478
Other current liabilities	62,714	76,765	76,216
Total current liabilities	211,119	252,658	300,325
<b>LONG-TERM DEBT</b>	256,875	206,801	267,087
<b>LONG-TERM CUSTOMERS' ADVANCES</b>	21,102	21,110	6,272
<b>EMPLOYEE RELATED LIABILITIES</b>	14,189	15,786	16,699
<b>DEFERRED TAX LIABILITY</b>	69,744	76,197	75,278
<b>OTHER LONG-TERM LIABILITIES</b>	7,609	9,730	22,924
Total liabilities	580,638	582,282	688,585
<b>TOTAL SHAREHOLDERS' EQUITY</b>	385,586	324,607	195,561
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<u>\$966,224</u>	<u>\$906,889</u>	<u>\$884,146</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED SOURCES AND USES REPORT**

(dollars in thousands)

	Year ended December 31, 2015	Three months ended December 31, 2015	Three months ended September 30, 2015	Three months ended December 31, 2014
Cash at beginning of the period	\$187,167	\$155,348	\$142,503	\$195,116
Cash from operations, excluding interest payments	207,584	54,779	54,689	41,218
Exercise of warrants and options, net	14,424	4,168	4,602	5,654
Long-term loan received by TPSCo	70,592	70,592	—	—
Investments in property, equipment and other cap-ex	(165,655)	(58,137)	(39,579)	(26,569)
Debt repayment—principal	(69,689)	(18,006)	(3,000)	(15,980)
Debt repayment—interest	(12,371)	(1,599)	(3,867)	(12,708)
Nishiwaki cessation—employee termination related, net	(24,907)	—	—	436
TPSCo dividend to Panasonic	(1,570)	(1,570)	—	—
Cash at end of the period	<u>\$205,575</u>	<u>\$205,575</u>	<u>\$155,348</u>	<u>\$187,167</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**

*(dollars in thousands, except per share data)*

	Three months ended		
	December 31,	September 30,	December 31,
	2015	2015	2014
	GAAP	GAAP	GAAP
<b>REVENUES</b>	254,602	244,181	235,289
<b>COST OF REVENUES</b>	190,072	188,798	197,197
<b>GROSS PROFIT</b>	64,530	55,383	38,092
<b>OPERATING COSTS AND EXPENSES</b>			
Research and development	15,704	15,980	14,378
Marketing, general and administrative	15,478	15,348	15,525
Nishiwaki Fab restructuring costs and impairment, net	(991)	—	(20,228)
	30,191	31,328	9,675
<b>OPERATING PROFIT</b>	34,339	24,055	28,417
<b>INTEREST EXPENSE, NET</b>	(2,366)	(3,567)	(7,817)
<b>OTHER NON CASH FINANCING EXPENSE, NET</b>	(12,751)	(5,312)	(17,156)
<b>OTHER INCOME (EXPENSE), NET</b>	70	(247)	15
<b>PROFIT BEFORE INCOME TAX</b>	19,292	14,929	3,459
<b>INCOME TAX BENEFIT (EXPENSE)</b>	4,779	(927)	740
<b>PROFIT BEFORE NON CONTROLLING INTEREST</b>	24,071	14,002	4,199
<b>NON CONTROLLING INTEREST</b>	(1,992)	(451)	(3,575)
<b>NET PROFIT</b>	\$22,079	\$13,551	\$624
<b>BASIC EARNINGS PER ORDINARY SHARE</b>	\$0.28	\$0.18	\$0.01
Weighted average number of ordinary shares outstanding - in thousands	79,607	77,370	55,647
<b>DILUTED EARNINGS PER ORDINARY SHARE</b>	\$0.25	\$0.16	\$0.01
Net profit used for diluted earnings per share	\$22,079	\$13,551	\$624
Weighted average number of ordinary shares outstanding — in thousands, used for diluted earnings per share	88,970	86,837	66,471

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**

*(dollars in thousands, except per share data)*

	Year ended December 31,	
	2015	2014
	GAAP	GAAP
<b>REVENUES</b>	\$960,561	\$828,008
<b>COST OF REVENUES</b>	755,196	764,220
<b>GROSS PROFIT</b>	205,365	63,788
<b>OPERATING COSTS AND EXPENSES</b>		
Research and development	61,669	51,841
Marketing, general and administrative	62,793	58,783
Nishiwaki Fab restructuring costs and impairment, net	(991)	55,500
Merger related costs	—	1,229
	123,471	167,353
<b>OPERATING PROFIT (LOSS) (a)</b>	81,894	(103,565)
<b>INTEREST EXPENSES, NET</b>	(13,179)	(33,409)
<b>OTHER NON CASH FINANCING EXPENSE, NET (b)</b>	(109,930)	(55,404)
<b>GAIN FROM ACQUISITION, NET</b>	—	166,404
<b>OTHER INCOME (EXPENSE), NET</b>	(190)	(140)
<b>LOSS BEFORE INCOME TAX (a)</b>	(41,405)	(26,114)
<b>INCOME TAX BENEFIT</b>	12,278	24,742
<b>LOSS BEFORE NON CONTROLLING INTEREST (a)</b>	(29,127)	(1,372)
<b>NON CONTROLLING INTEREST</b>	(520)	5,635
<b>NET PROFIT (LOSS) (a)</b>	\$(29,647)	\$4,263
<b>BASIC EARNINGS (LOSS) PER ORDINARY SHARE</b>	\$(0.40)	\$0.08
Weighted average number of ordinary shares outstanding - in thousands	74,366	51,798
<b>DILUTED EARNINGS PER ORDINARY SHARE (c), (d)</b>		\$0.07
Net profit used for diluted earnings per share (c), (d)		\$4,263
Weighted average number of ordinary shares outstanding —in thousands, used for diluted earnings per share (c), (d)		63,182

(a) The differences between the above profit (loss) results for the year ended December 31, 2015 as compared with the comparable period's results are mainly due to: (i) \$54 million increase in other non cash financing expenses, mainly due to accelerated accretion resulted from the conversion of debentures series F; (ii) \$166 million gain from the acquisition of TPSCo included in the year ended December 31, 2014; (iii) \$56 million costs related to Nishiwaki Fab cessation of operations recorded in the year ended December 31, 2014; and (iv) gross profit increase of \$142 million.

(b) Other non cash financing expense, net is comprised mainly of accelerated accretion and amortization resulted from the conversion of debentures series F.

(c) Fully diluted earnings per share calculation and presentation are not required under GAAP for periods with GAAP loss.

(d) Fully diluted share count is comprised as follows: 86 million outstanding shares as of the date of this release, 12 million possible shares underlying options and warrants, 3 million underlying capital notes and 6 million underlying convertible bonds (unless repayable with cash), totaling to 107 million.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**RECONCILIATION OF REPORTED GAAP TO NON-GAAP CONSOLIDATED STATEMENTS OF OPERATIONS**

*(dollars in thousands, except per share data)*

	Three months ended		Three months ended		Three months ended	
	Dec. 31, 2015	Sep. 30, 2015	Dec. 31, 2015	Sep. 30, 2015	Dec. 31, 2015	Sep. 30, 2015
	non-GAAP		Adjustments (see notes below)		GAAP	
REVENUES	\$254,602	\$244,181	\$ —	\$ —	\$254,602	\$244,181
COST OF REVENUES	150,322	150,575	39,750 (a)	38,223 (a)	190,072	188,798
GROSS PROFIT	<u>104,280</u>	<u>93,606</u>	<u>(39,750)</u>	<u>(38,223)</u>	<u>64,530</u>	<u>55,383</u>
OPERATING COSTS AND EXPENSES						
Research and development	14,224	15,777	1,480 (b)	203 (b)	15,704	15,980
Marketing, general and administrative	14,518	14,776	960 (c)	572 (c)	15,478	15,348
Nishiwaki Fab restructuring costs and impairment, net	—	—	(991)	—	(991)	—
	<u>28,742</u>	<u>30,553</u>	<u>1,449</u>	<u>775</u>	<u>30,191</u>	<u>31,328</u>
OPERATING PROFIT	75,538	63,053	(41,199)	(38,998)	34,339	24,055
INTEREST EXPENSE, NET	(2,366)	(3,567)	— (d)	— (d)	(2,366)	(3,567)
OTHER NON CASH FINANCING EXPENSE, NET (e)	—	—	(12,751)	(5,312)	(12,751)	(5,312)
OTHER INCOME (EXPENSE), NET	70	(247)	—	—	70	(247)
PROFIT BEFORE INCOME TAX	73,242	59,239	(53,950)	(44,310)	19,292	14,929
INCOME TAX BENEFIT (EXPENSE)	(1,107)	(1,195)	5,886 (f)	268 (f)	4,779	(927)
PROFIT BEFORE NON CONTROLLING INTEREST	72,135	58,044	(48,064)	(44,042)	24,071	14,002
NON CONTROLLING INTEREST	(1,992)	(451)	— (g)	— (g)	(1,992)	(451)
NET PROFIT	<u>\$70,143</u>	<u>\$57,593</u>	<u>\$(48,064)</u>	<u>\$(44,042)</u>	<u>\$22,079</u>	<u>\$13,551</u>
GROSS MARGIN	<u>41.0%</u>	<u>38.3%</u>			<u>25.3%</u>	<u>22.7%</u>
OPERATING MARGIN	<u>29.7%</u>	<u>25.8%</u>			<u>13.5%</u>	<u>9.9%</u>
NET MARGIN	<u>27.6%</u>	<u>23.6%</u>			<u>8.7%</u>	<u>5.5%</u>
BASIC EARNINGS PER ORDINARY SHARE	<u>\$0.88</u>	<u>\$0.74</u>			<u>\$0.28</u>	<u>\$0.18</u>

(a) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$39,064 and \$37,491 and stock based compensation costs in the amounts of \$686 and \$732 for the three months ended December 31, 2015 and September 30, 2015 respectively.

(b) Includes depreciation and amortization expenses (income) of fixed and other assets in the amounts of \$961 and (\$395) and stock based compensation costs in the amounts of \$519 and \$598 for the three months ended December 31, 2015 and September 30, 2015 respectively.

(c) Includes depreciation and amortization expenses (income) of fixed and other assets in the amounts of \$190 and (\$410) and stock based compensation costs in the amounts of \$770 and \$982 for the three months ended December 31, 2015 and September 30, 2015 respectively.

(d) Non-GAAP interest expense, net includes only interest on an accrual basis.

(e) Other non cash financing expense, net is comprised mainly of accelerated accretion and amortization resulted from the conversion of debentures series F.

(f) Non-GAAP income tax expense includes taxes paid during the period on a cash basis.

(g) Non-GAAP non-controlling interest does not include any adjustments relating to the company's 51% stake in TPSCo.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**RECONCILIATION OF REPORTED GAAP TO NON-GAAP CONSOLIDATED STATEMENTS OF OPERATIONS**

*(dollars in thousands, except per share data)*

	Three months ended December 31,		Three months ended December 31,		Three months ended December 31,	
	2015	2014	2015	2014	2015	2014
	non-GAAP		Adjustments (see notes below)		GAAP	
REVENUES	\$254,602	\$235,289	\$ —	\$ —	\$254,602	\$235,289
COST OF REVENUES	150,322	151,105	39,750 (a)	46,092 (a)	190,072	197,197
GROSS PROFIT	<u>104,280</u>	<u>84,184</u>	<u>(39,750)</u>	<u>(46,092)</u>	<u>64,530</u>	<u>38,092</u>
OPERATING COSTS AND EXPENSES						
Research and development	14,224	13,676	1,480 (b)	702 (b)	15,704	14,378
Marketing, general and administrative	14,518	14,623	960 (c)	902 (c)	15,478	15,525
Nishiwaki Fab restructuring costs and impairment, net	—	—	(991)	(20,228)	(991)	(20,228)
	<u>28,742</u>	<u>28,299</u>	<u>1,449</u>	<u>(18,624)</u>	<u>30,191</u>	<u>9,675</u>
OPERATING PROFIT	75,538	55,885	(41,199)	(27,468)	34,339	28,417
INTEREST EXPENSES, NET	(2,366)	(7,817)	— (d)	— (d)	(2,366)	(7,817)
OTHER NON CASH FINANCING EXPENSE, NET (g)	—	—	(12,751)	(17,156)	(12,751)	(17,156)
OTHER INCOME, NET	70	15	—	—	70	15
PROFIT BEFORE INCOME TAX	73,242	48,083	(53,950)	(44,624)	19,292	3,459
INCOME TAX BENEFIT (EXPENSE)	(1,107)	1,410	5,886 (e)	(670) (e)	4,779	740
PROFIT BEFORE NON CONTROLLING INTEREST	72,135	49,493	(48,064)	(45,294)	24,071	4,199
NON CONTROLLING INTEREST	(1,992)	(3,575)	— (f)	— (f)	(1,992)	(3,575)
NET PROFIT	<u>\$70,143</u>	<u>\$45,918</u>	<u>\$(48,064)</u>	<u>\$(45,294)</u>	<u>\$22,079</u>	<u>\$624</u>
GROSS MARGIN	<u>41.0%</u>	<u>35.8%</u>			<u>25.3%</u>	<u>16.2%</u>
OPERATING MARGIN	<u>29.7%</u>	<u>23.8%</u>			<u>13.5%</u>	<u>12.1%</u>
NET MARGIN	<u>27.6%</u>	<u>19.5%</u>			<u>8.7%</u>	<u>0.3%</u>
BASIC EARNINGS PER ORDINARY SHARE	<u>\$0.88</u>	<u>\$0.83</u>			<u>\$0.28</u>	<u>\$0.01</u>

(a) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$39,064 and \$46,082 and stock based compensation costs in the amounts of \$686 and \$10 for the three months ended December 31, 2015 and December 31, 2014 respectively.

(b) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$961 and \$398 and stock based compensation costs in the amounts of \$519 and \$304 for the three months ended December 31, 2015 and December 31, 2014 respectively.

(c) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$190 and \$213 and stock based compensation costs in the amounts of \$770 and \$689 for the three months ended December 31, 2015 and December 31, 2014 respectively.

(d) Non-GAAP interest expense, net includes only interest on an accrual basis.

(e) Non-GAAP income tax benefit (expense) includes taxes received (paid) during the period on a cash basis.

(f) Non-GAAP non-controlling interest does not include any adjustments relating to the company's 51% stake in TPSCo.

(g) Other non cash financing expense, net is comprised mainly of accelerated accretion and amortization resulted from the conversion of debentures series F.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**RECONCILIATION OF REPORTED GAAP TO NON-GAAP CONSOLIDATED STATEMENTS OF OPERATIONS**

*(dollars in thousands, except per share data)*

	Year ended December 31,		Year ended December 31,		Year ended December 31,	
	2015	2014	2015	2014	2015	2014
	non-GAAP		Adjustments (see notes below)		GAAP	
REVENUES	\$960,561	\$828,008	\$ —	\$ —	\$960,561	\$828,008
COST OF REVENUES	594,610	569,102	160,586 (a)	195,118 (a)	755,196	764,220
GROSS PROFIT	<u>365,951</u>	<u>258,906</u>	<u>(160,586)</u>	<u>(195,118)</u>	<u>205,365</u>	<u>63,788</u>
OPERATING COSTS AND EXPENSES						
Research and development	58,797	49,976	2,872 (b)	1,865 (b)	61,669	51,841
Marketing, general and administrative	58,608	55,057	4,185 (c)	3,726 (c)	62,793	58,783
Nishiwaki Fab restructuring costs and impairment, net	—	—	(991)	55,500	(991)	55,500
Merger related costs	—	—	—	1,229	—	1,229
	<u>117,405</u>	<u>105,033</u>	<u>6,066</u>	<u>62,320</u>	<u>123,471</u>	<u>167,353</u>
OPERATING PROFIT (LOSS)	248,546	153,873	(166,652)	(257,438)	81,894 (g)	(103,565)
INTEREST EXPENSES, NET	(13,179)	(33,409)	— (d)	— (d)	(13,179)	(33,409)
OTHER NON CASH FINANCING EXPENSE, NET (h)	—	—	(109,930)	(55,404)	(109,930)	(55,404)
GAIN FROM ACQUISITION, NET	—	—	—	166,404	—	166,404
OTHER (EXPENSE), NET	(190)	(140)	—	—	(190)	(140)
PROFIT (LOSS) BEFORE INCOME TAX	235,177	120,324	(276,582)	(146,438)	(41,405) (g)	(26,114)
INCOME TAX BENEFIT (EXPENSE)	(3,469)	1,563	15,747 (e)	23,179 (e)	12,278	24,742
PROFIT (LOSS) BEFORE NON CONTROLLING INTEREST	231,708	121,887	(260,835)	(123,259)	(29,127) (g)	(1,372)
NON CONTROLLING INTEREST	(520)	5,635	— (f)	— (f)	(520)	5,635
NET PROFIT (LOSS)	<u>\$231,188</u>	<u>\$127,522</u>	<u>\$(260,835)</u>	<u>\$(123,259)</u>	<u>\$(29,647) (g)</u>	<u>\$4,263</u>
BASIC EARNINGS (LOSS) PER ORDINARY SHARE	<u>\$3.11</u>	<u>\$2.46</u>			<u>\$(0.40)</u>	<u>\$0.08</u>
Weighted average number of ordinary shares outstanding - in thousands	<u>74,366</u>	<u>51,798</u>			<u>74,366</u>	<u>51,798</u>

(a) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$158,372 and \$194,365 and stock based compensation costs in the amounts of \$2,214 and \$753 for the year ended December 31, 2015 and December 31, 2014, respectively.

(b) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$967 and \$831 and stock based compensation costs in the amounts of \$1,905 and \$1,034 for the year ended December 31, 2015 and December 31, 2014, respectively.

(c) Includes depreciation and amortization expenses of fixed and other assets in the amounts of \$764 and \$829 and stock based compensation costs in the amounts of \$3,421 and \$2,897 for the year ended December 31, 2015 and December 31, 2014, respectively.

(d) Non-GAAP interest expense, net includes only interest on an accrual basis.

(e) Non-GAAP income tax benefit (expense) includes taxes received (paid) during the period on a cash basis.

(f) Non-GAAP non-controlling interest does not include any adjustments relating to the company's 51% stake in TPSCO.

(g) The differences between the above profit (loss) results for the year ended December 31, 2015 as compared with the comparable period's results are mainly due to: (i) \$54 million increase in other non cash financing expenses, mainly due to accelerated accretion resulted from the conversion of debentures series F; (ii) \$166 million gain from the acquisition of TPSCO included in the year ended December 31, 2014; (iii) \$56 million costs related to Nishiwaki Fab cessation of operations recorded in the year ended December 31, 2014; and (iv) gross profit increase of \$142 million.

(h) Other non cash financing expense, net is comprised mainly of accelerated accretion and amortization resulted from the conversion of debentures series F.



# CONTACT US

info@towerjazz.com

## TOWERJAZZ WORLD HEADQUARTERS

**Tower Semiconductor Ltd.**  
Ramat Gavriel Industrial Park  
20 Shaul Amor Avenue  
P.O. Box 619  
Migdal Haemek 23105 Israel

Phone: +972-4-6506611  
Fax: +972-4-6547788

## CORPORATE COMMUNICATIONS & INVESTOR RELATIONS

Phone: +972-4-6047066  
E-mail: noit.levi@towerjazz.com

## TOWERJAZZ WORLDWIDE DESIGN CENTER

Bet Shoham  
HaMahshev 1  
Beit Shoham, 2nd floor  
Netanya 42504  
Israel

Phone: +972-9-8636361  
Fax: +972-9-8652491

## TOWERJAZZ U.S. SUBSIDIARIES

**Jazz Semiconductor, Inc.**  
4321 Jamboree Road  
Newport Beach, California 92660  
USA

Phone: +1-949-435-8000  
Fax: +1-949-435-8757

### TowerJazz Texas

9651 Westover Hills  
San Antonio, TX 78251  
USA

Tel: +1 (210) 522-7000  
Fax: +1 (210) 522-7703

## TOWER SEMICONDUCTOR USA INC.

**North American Sales**  
2570 N. 1st. Street, Suite 480  
San Jose, CA 95131  
USA

Phone: 1-408-770-1324  
Fax: 1-408-770-1321

## THE NEW COMPANY ESTABLISHED BY TOWERJAZZ AND PANASONIC Hokuriku region, Japan

**TowerJazz Panasonic Semiconductor Co., Ltd. (TPSCo)**  
800 Higashiyama, Uozu City,  
Toyama 937-8585

**Inquire about our foundry service:**  
E-mail: Info\_Japan@towerjazz.com  
Phone (Japan): +81-3-5419-3049

**For other inquiries:**  
E-mail: info@tpsemico.com  
Phone (Japan): +81-765-22-5521

Please call between 9 a.m. and 5 p.m. (JST) during weekdays. We will be closed on national holidays, New Year holidays, and other company holidays.

Fax: +81-76-522-3161  
www.tpsemico.com

## WORLDWIDE SALES CONTACTS

Country	Phone	E-mail
Brazil.....	+5511 3586-5114/+5511 9114-5737 .....	Info_Brazil@towerjazz.com
China.....	+86-21-64738476 .....	Info_China@towerjazz.com
France.....	+33-141-442065/+33-699-411515 .....	Info_Europe_Rep@towerjazz.com
India.....	+91-80-2527-2030 .....	Info_India_Rep@towerjazz.com
Japan.....	+81-3-5419-3049.....	Info_Japan@towerjazz.com
Korea.....	+82-31-628-4830-1 .....	Info_Korea@towerjazz.com
Middle East/Israel .....	+972-4-650-6077 .....	Info_ME@towerjazz.com
Taiwan.....	+886-920-037-678 .....	Info_Taiwan@towerjazz.com
United Kingdom and Europe .....	+49-172-8989667 .....	Info_UK&Europe@towerjazz.com
UK/Ireland/Scandinavia.....	+44-1732-844-611 .....	Info_UKIS_Rep@towerjazz.com
USA.....	+1-408-770-1324 .....	Info_West@towerjazz.com Info_East@towerjazz.com Info_A&D@towerjazz.com



### Stay up-to-date on TowerJazz company milestones, technology news and financial updates!

Visit towerjazz.com to subscribe to our news and events email list.



**San Jose, CA, USA**  
Sales and Support Office



**San Antonio, TX, USA**  
8" Fab

**Virginia, USA**  
Sales and Support Office



**Newport Beach, CA, USA**  
8" Fab

**Brazil**  
Sales Rep Office



**Migdal HaEmek, Israel**  
8" Fab & 6" Fab

**UK & France**  
Sales Rep Offices



**Netanya, Israel**  
Worldwide Design Center



**Seoul, South Korea**  
Sales and Support Office

**Shanghai, China**  
Sales and Support Office

**Hsinchu, Taiwan**  
Sales and Support Office

**India**  
Sales Rep Office

**Nagaokakyo, Japan**  
TSJ HQ  
Sales and Support Office

**Tokyo, Japan**  
Sales and Support Office



**Arai, Japan**  
8" Fab



**Tonami, Japan**  
8" Fab



**Uozu, Japan**  
12" Fab

# TOWERJAZZ

The Global Specialty Foundry Leader