

TOWERJAZZ

The Global Specialty Foundry Leader



TowerJazz (TSEM) Investor and Analyst Day

November 16, 2016 | New York

Safe Harbor

This presentation contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on management’s current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described in the forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, statements regarding expected (i) customer demand, (ii) utilization and cross utilization of our Fabs, (iii) growth in our end markets, (iv) market and technology trends, and (v) growth in revenues, cash flow, margins and net profits are all forward-looking statements. Actual results may differ materially from those projected or implied by such forward-looking statements due to various risks and uncertainties applicable to TowerJazz’s business as described in the reports filed by Tower Semiconductor Ltd. (“Tower”) with the Securities and Exchange Commission (the “SEC”) and the Israel Securities Authority (“ISA”), including the risks identified under the heading "Risk Factors" in Tower’s most recent filings on Forms 20-F and 6-K. No assurances can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what impact they will have on the results of operations or financial condition of TowerJazz.

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The Global Specialty Foundry Leader



Welcome and Introduction

Mrs. Noit Levy-Karoubi, VP Investor Relations

November 16, 2016

New York

Outline

1 Welcome and Introduction

2 Chairman Opening Remarks

3 CEO Keynote

4 Technology Offering Overview
and Growth Drivers

5 *Lunch Break*

Operational Excellence and
Sustainability of the Analog Market 6

Financial Performance:
Achievements, Strategy and Roadmap 7

Human Capital as Growth Enabler
and M&A Success 8

Customer Base Strength and Diversity 9

Closing 10

Our Leadership Team



Amir Elstein
Chairman of the Board



Russell Ellwanger
Chief Executive Officer

Our Leadership Team | Management Team



Dr. Itzhak Edrei
President



Oren Shirazi
CFO



Rafi Mor
COO



Yossi Netzer
SVP Corporate Planning



Dalit Dahan
SVP HR and IT



Nati Somekh
CLO



Ilan Rabinovich
SVP Quality and
Reliability



Guy Eristoff
TPSCo CEO

Our Leadership Team | TowerJazz Business, Sales and Operational Executives



Dr. Marco Racanelli
SVP and GM of
RF/High Performance
Analog and US A&D
Business Groups, NPB
Site Manager



Dr. Avi Strum
SVP and GM of CMOS
Image Sensor
Business Unit



Zmira Shternfeld-Lavie
SVP of Process
Engineering R&D and
GM of TOPS Business
Unit



Shimon Greenberg
VP and GM of Mixed-
Signal and Power
Management
Business Units



Ori Galzur
VP of VLSI Design
Center and Design
Enablement



Gary Saunders
SVP of Worldwide
Sales



Lilach Zinger
VP, Fab 1 (MH)
Operations Manager



Roni Schwartzman
VP, Fab 2 (MH)
Operations Manager



Dale Bogan
VP, Fab 3 (NPB)
Operations Manager



Dr. Gurvinder Jolly
VP, Fab 3 (NPB) Process
Engineering, US Integration
and TowerJazz Fellow



Chris Michael
Fab 9 (SA)
Managing Director,
Operations Manager

TOWERJAZZ

The Global Specialty Foundry Leader



Opening Remarks

Mr. Amir Elstein, Chairman of the Board

November 16, 2016

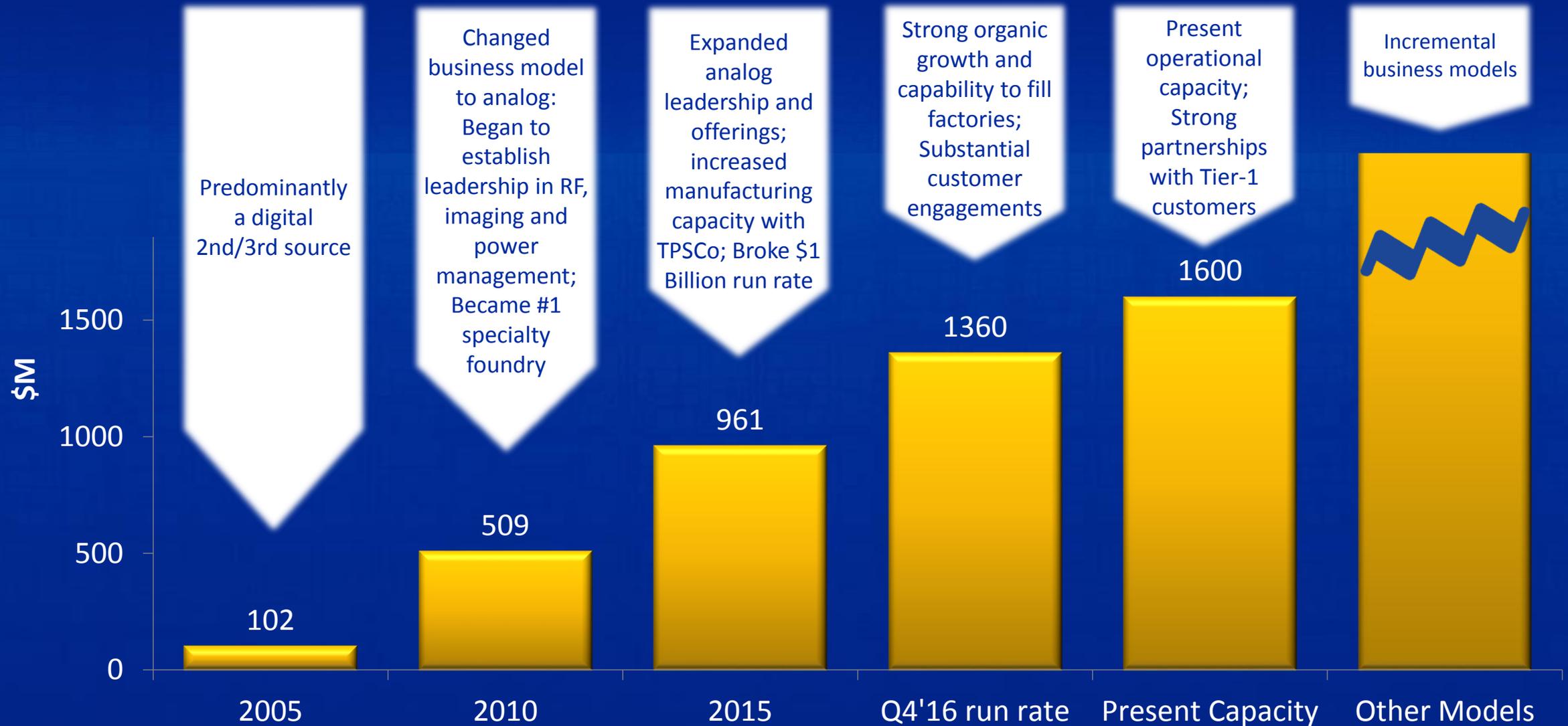
New York

Where We Were

Where We Are Today

Where We Are Going

Major Milestones



Where We Are Going

Continuing Company's proven successful business model driving **analog leadership** with low cost capacity expansion resulting in **growing revenue** (35% CAGR since 2013) with **proportional growth in margins, profit and free cash flow**, focusing on **shareholder value**.

TOWERJAZZ

The Global Specialty Foundry Leader



CEO Keynote

Mr. Russell Ellwanger, Chief Executive Officer

November 16, 2016

New York

TowerJazz: The Global Specialty Foundry Leader | A SNAPSHOT

Proven Analog Business Model

Fastest Growing Foundry
in the **world** with
Proportional Growth in
All Financial Metrics



Technology Leadership

Wide Range of
Advanced and
Differentiated
Specialty Analog
Offerings



Market Leadership

Well Positioned in the
Fastest Growing Markets
with **Long Term Customer**
Relationships and
Roadmap Alignment



Operational Excellence

High Worldwide
Manufacturing
Capabilities and
Flexibility



The Right Business and Financial Models

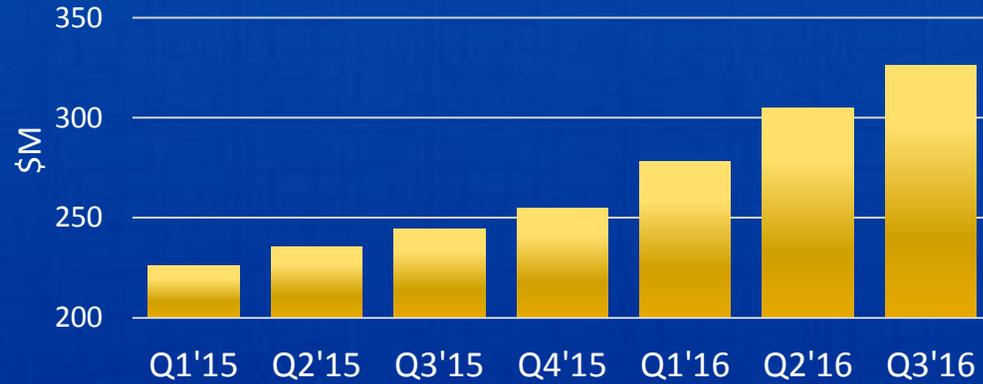
Continuous Quarterly Revenue Growth



* mid-range guidance

Key Financial Metrics

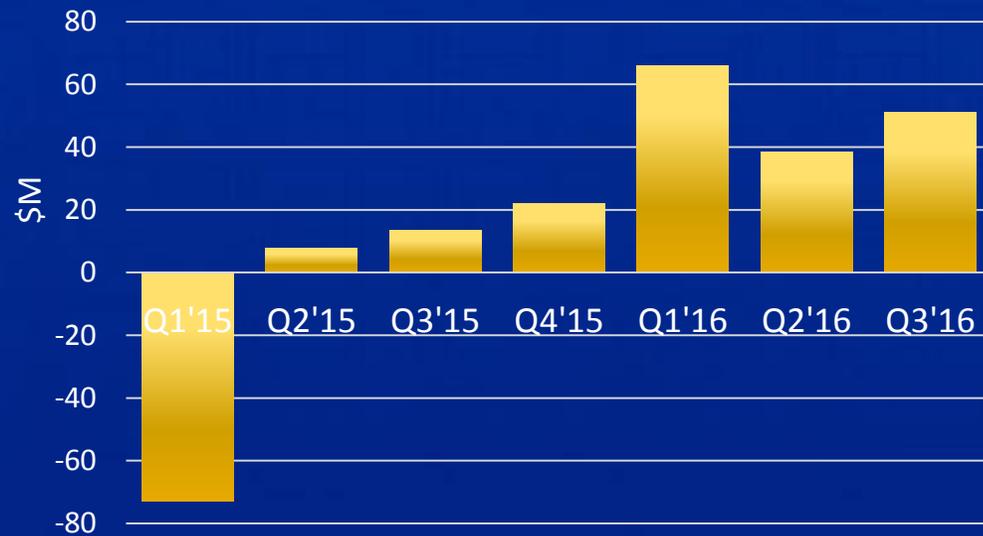
Revenue



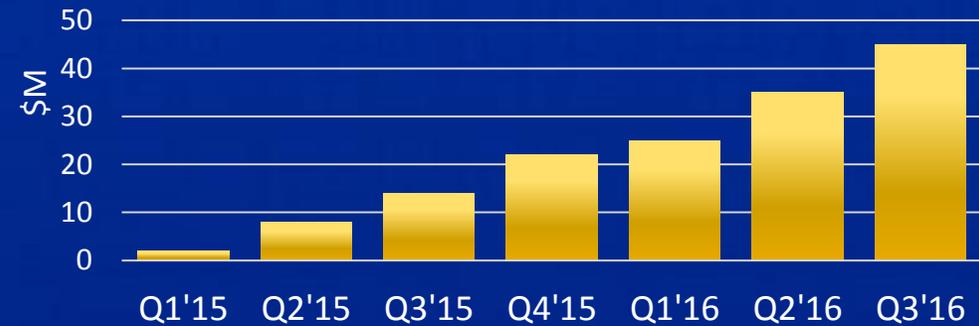
EBITDA



Net Profit



Net Profit (excluding one-time items)



Foundry Landscape

(\$M)	2005		2010		2015		Accumulated Growth
A	TSMC	8,217	TSMC	13,307	TSMC	26,439	222%
B	UMC	3,259	UMC	3,965	GlobalFoundries	4,990	341%
C	SMIC	1,171	GlobalFoundries	3,510	UMC	4,464	37%
D	PowerChip	1,587	PowerChip	2,424	SMIC	2,222	90%
E	Chartered	1,132	SMIC	1,555	PowerChip	1,268	-20%
1	Vanguard	353	TowerJazz	509	TowerJazz	961	842%
2	Dongbu	347	Vanguard	505	Vanguard	736	108%
3	HHNEC	313	Dongbu	495	Hua Hong Semi	650	108%
4	SSMC	280	SSMC	330	Dongbu HiTek	585	69%
5	He Jian	250	X-Fab	320	SSMC	460	64%
11	Tower	102					

Digital Deep Sub Micron

Specialty Analog

The fastest growing foundry in the world

Source: IC Insights, EE Times, Company Reports

Top Pure-Play Foundry Companies

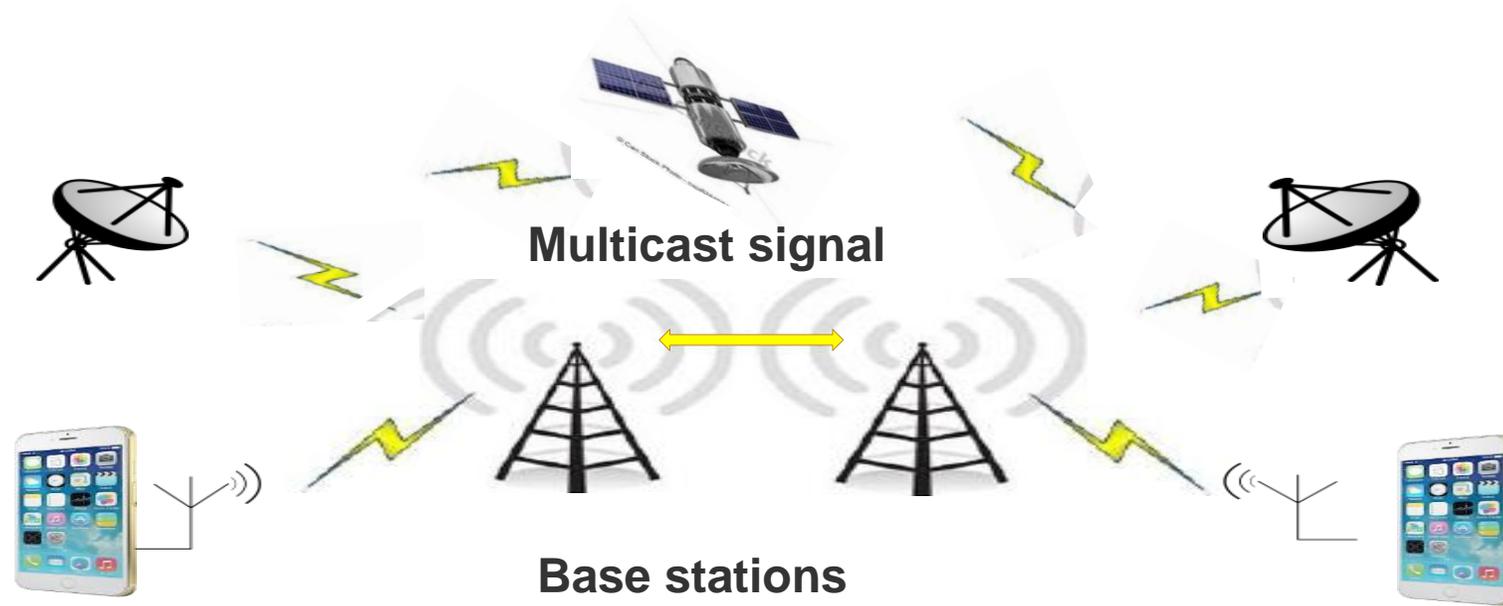
2016F Rank	2015 Rank	Company (Headquarters)	2014 Sales (\$M)	14/13 % Change	2014 Share of Total	2015 Sales (\$M)	15/14 % Change	2015 Share of Total	2016F Sales (\$M)	16/15 % Change	2016 Share of Total
1	1	TSMC (Taiwan)	24,975	25%	59%	26,439	6%	59%	28,570	8%	58%
2	2	GlobalFoundries (U.S.) ¹	4,355	6%	10%	5,019	15%	11%	5,645	12%	11%
3	3	UMC Group (Taiwan)	4,331	9%	10%	4,464	3%	10%	4,490	1%	9%
4	4	SMIC (China) ²	1,970	0%	5%	2,236	14%	5%	2,850	27%	6%
5	6	TowerJazz (Israel)	828	64%	2%	961	16%	2%	1,245	30%	3%
6	5	Powerchip (Taiwan)	1,291	9%	3%	1,268	-2%	3%	1,240	-2%	3%
7	7	Vanguard (Taiwan)	790	11%	2%	736	-7%	2%	780	6%	2%
8	8	Hua Hong Semi (China)	665	14%	2%	650	-2%	1%	700	8%	1%
9	9	Dongbu HiTek (S. Korea) ³	541	20%	1%	593	10%	1%	640	8%	1%
10	10	SSMC (Singapore)	480	-3%	1%	474	-1%	1%	470	-1%	1%

Source: IC Insights, company reports

“TowerJazz is expected to grow from \$505 million in sales in 2013 to \$1,245 million in 2016 (a 35% CAGR)” *(IC Insights, August update to 2016 McClean report)*

The Right Markets and Technology Offering

Our world is analog... TowerJazz connects it to the digital!



SiGe optical transceivers and mmWave backhaul

**Transferring a picture between two mobile phones
An example of the critical roles of analog chips**

Our world is analog... TowerJazz connects it to the digital!

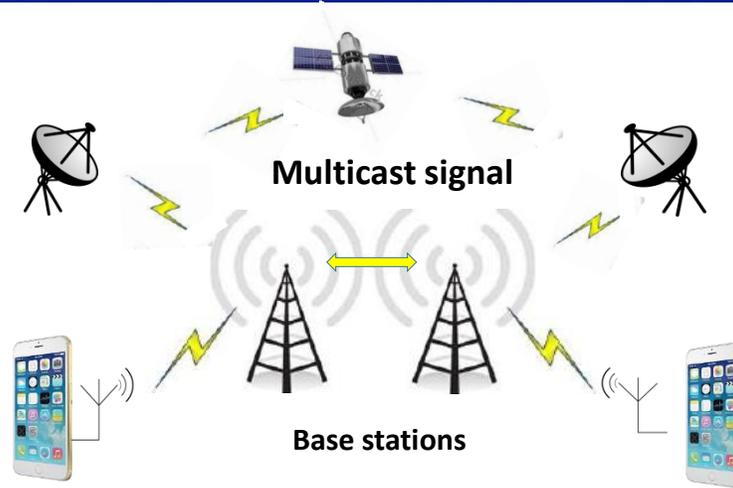
SiGe HBT power amplifiers;
RF Antenna switches;
Integrated on a chip FE modules: **ANALOG**

Processing and storing
the picture in NVM
(20 nm and below, not TowerJazz)

Ultra low noise SiGe RF amplifiers;
SOI Antenna switches;
RF CMOS: **ANALOG**

Processing and storing
the picture in NVM

PM and signal conditioning
for display: **ANALOG**



SiGe optical transceivers and
mmWave backhaul

**Transferring a picture
between two mobile phones
An example of the critical
roles of analog chips**



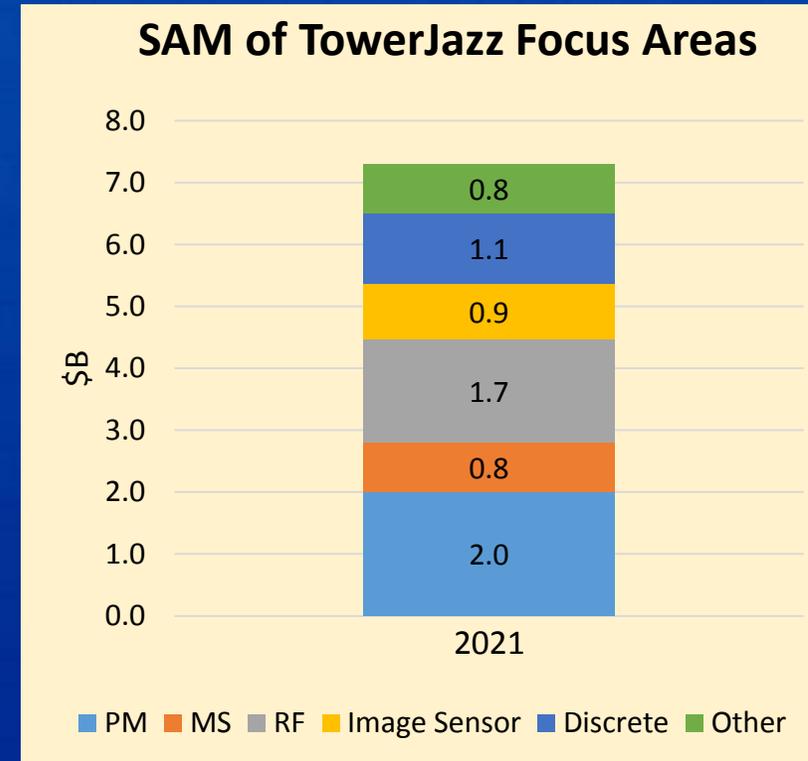
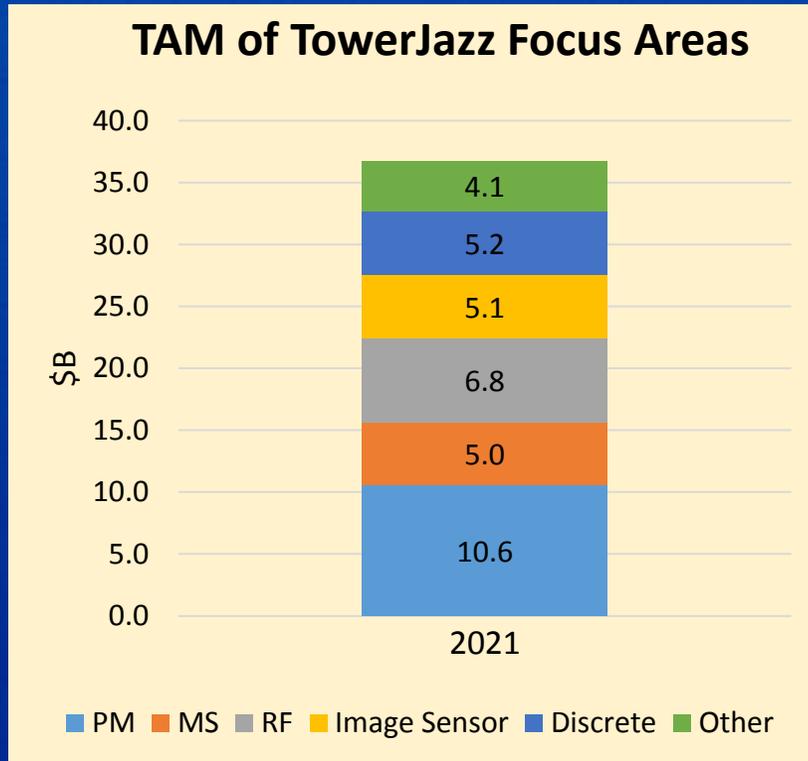
Picture acquisition: **ANALOG** to digital
using CMOS image sensors

Analog vs. Digital : Main Differences

	<i>Digital Moore's Law Foundries</i>	<i>Specialty Analog Foundries</i>
Capacity CapEx	High	Low
Technology CapEx	High	Low
Product Lifetime	Short	Long
Customer Engagement	Typically multi-source	Sole or limited source
Technology Differentiation	At leading edge only	Across process technologies
Segment Sizes	Large	High value specialty through mid-size
Process Technologies	CMOS	CIS, SiGe, BCD, BiCMOS, MEMS
Technology Nodes	65nm-16nm 10nm prototyping	350nm-65nm – SPECIALTY
	High speed data crunching and heavy storage	Real world interfacing to digital world

Our TAM and SAM:

Focus on Analog Power, CIS Imaging and RF End Market Application Viability



Source: 1. World Semiconductor Trade Statistics Organization
2. Internal and IDM data

Our present served applications represent ~\$7.5 billion of wafer based revenues opportunity and a total analog opportunity of ~\$40 billion in 2021

A large and exciting growth opportunity for TowerJazz

Market MEGATRENDS driven by Internet of Things

Key megatrends driving rapid growth in Analog/Mixed-Signal applications



GREEN EVERYTHING
Energy Efficiency

28% of
Revenues



WIRELESS EVERYTHING
Seamless Connectivity

31% of
Revenues



SMART EVERYTHING
Embedded Systems

16% of
Revenues

Analog/Mixed-Signal Applications

Power
Management

High-
Performance
Analog

Radio Frequency

Sensors
(Imaging, MEMS)

End-to-End View of Our RF Applications Markets

Mobile

Smartphones



IoT



Smart Homes

Smart Cars

Smart Cities

Infrastructure

Base Stations

Satellite Links

Fiber/Copper

Microwave
backhaul

Optical
Transport
Network

Network
Routers

Aggregation Hubs

Internet

Data Centers

Connections at <100 Mbps
Built in RF SOI, SiGe

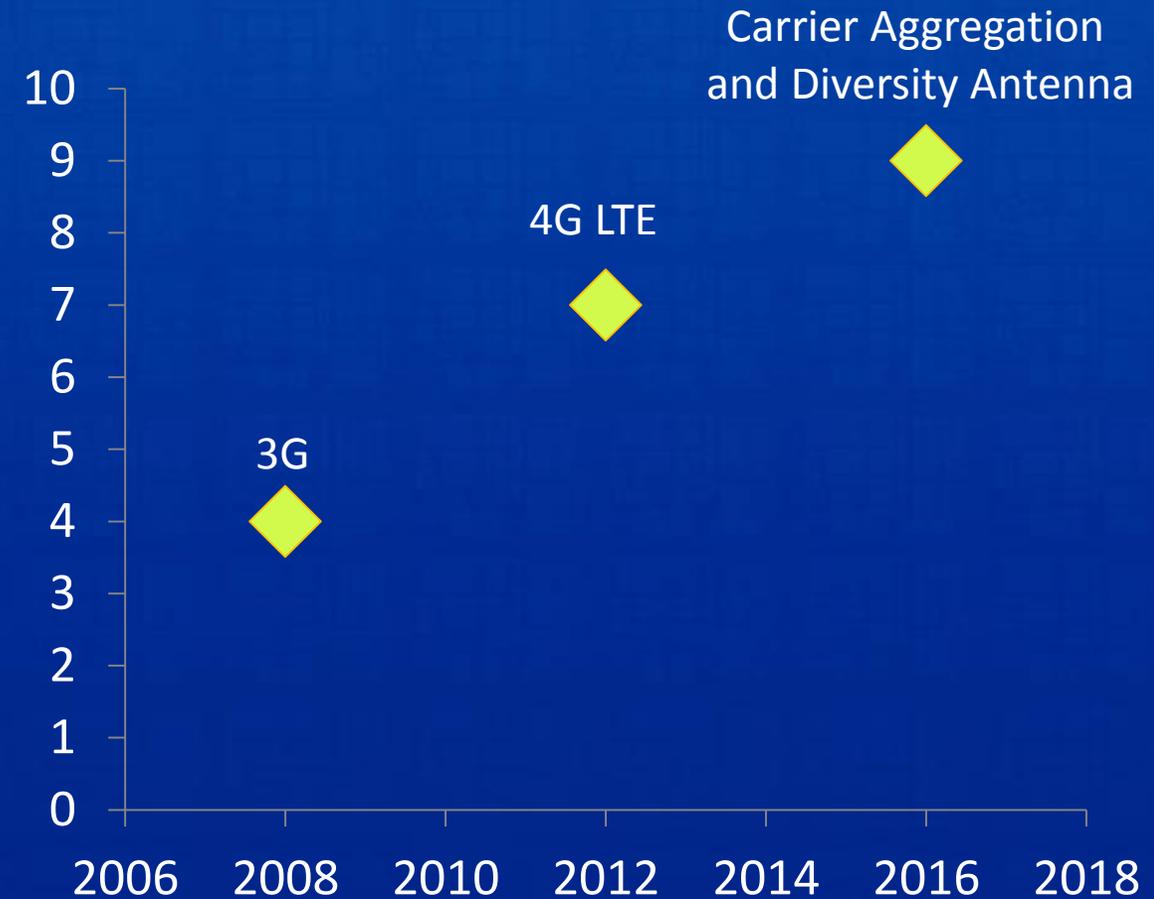
Connections Up to 100 Gbps
Built in High Speed SiGe

Mobile: Wireless Data Consumption Driving Analog Content in Smartphones

- Need for faster data rate leads to more front-end-module content per phone
- TowerJazz is a leader in wireless analog front-end-module foundry technology
 - RF SOI for switches, tuners, LNA
 - SiGe for PA, LNA
- Internet-of-things (IoT) and 5G (next gen wireless networks) provide additional large future opportunities

Continued content growth within a growth market

Number of Front-End-Modules in Smartphones



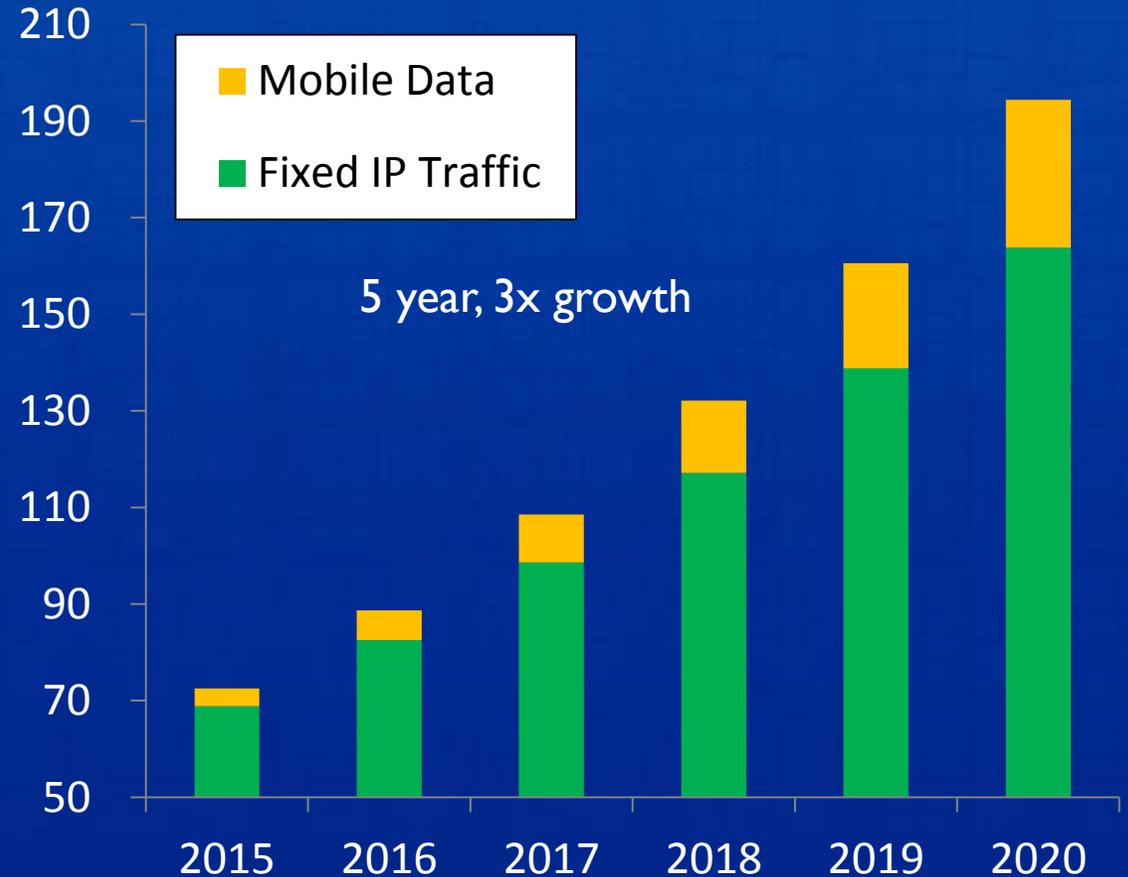
Source: count of FEMs identified by iFixit Teardown of iPhone

Infrastructure: Exploding Data Traffic Driving Analog Content in Infrastructure

- Data Traffic Growth* ('15 to '20)
 - Mobile 53% CAGR
 - Overall 22% CAGR
- Driving need for
 1. Higher data rates
 - High margin, faster network components
 2. More connections
 - Increasing total volume of our served Analog ICs

High volume and margin growth in a market where we enjoy > 60% share

Global Monthly Data Traffic in Billions of GBytes



* Source: CISCO VNI, 2016

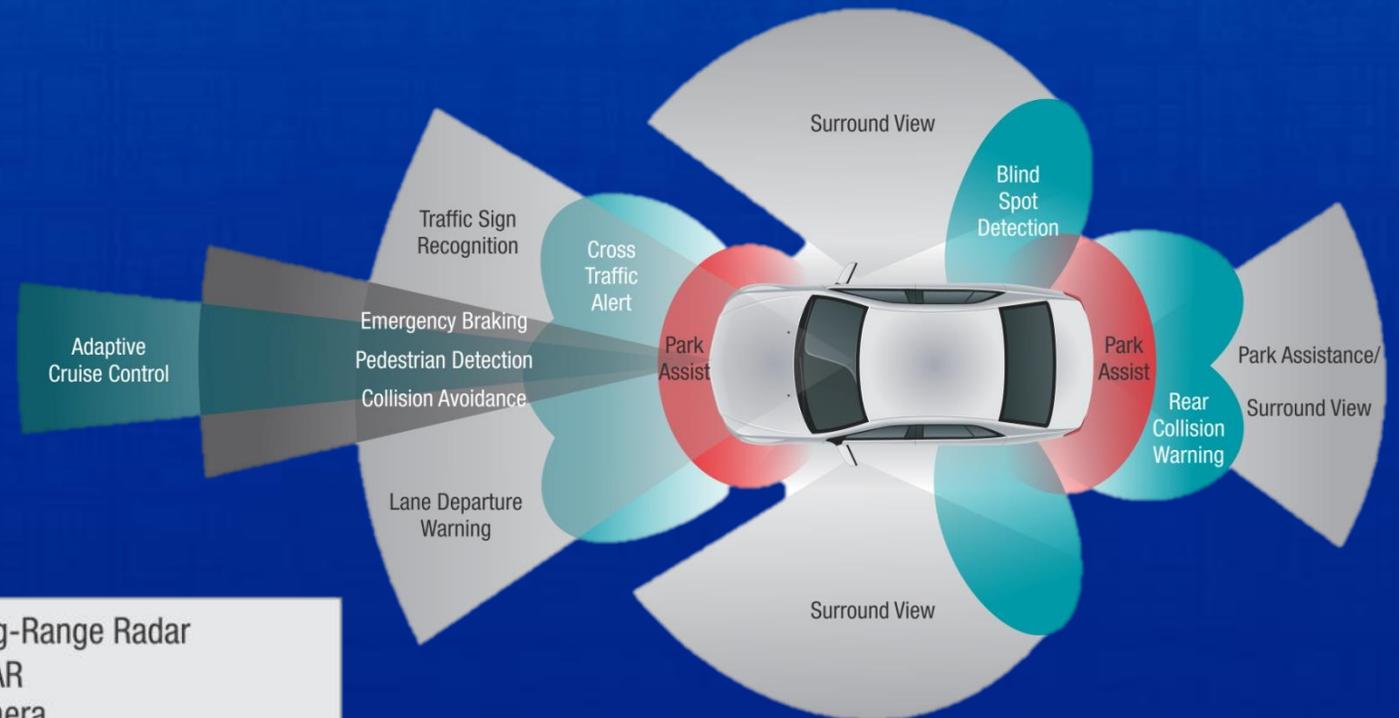
Fast growing markets – Automotive (RF and CIS)

Advanced Driver Assistance Systems (ADAS) and Autonomous Driving systems

- 360° coverage
- 6-8 cameras per car
- VGA moving to HD
- High Dynamic Range (HDR)
- Near IR vision
- LIDAR



“The global autonomous car market is expected to witness a CAGR of over 10% through 2035” (Markets and Markets)



- Long-Range Radar
- LIDAR
- Camera
- Short-/Medium Range Radar
- Ultrasound

CIS fast growing markets – Machine Vision

High speed cameras

CCD replaced by CMOS

Global shutter sensors

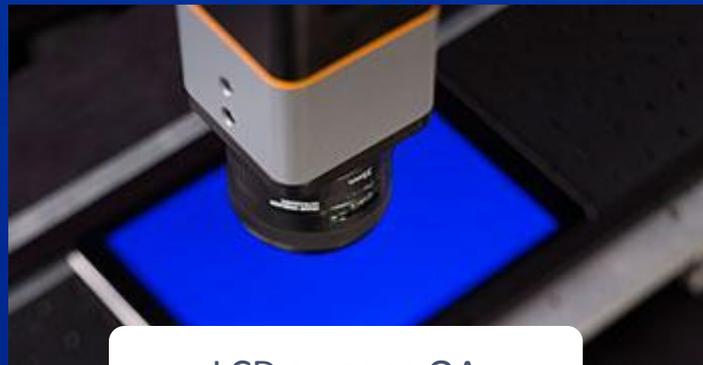
High resolution sensors



2D barcode scanner



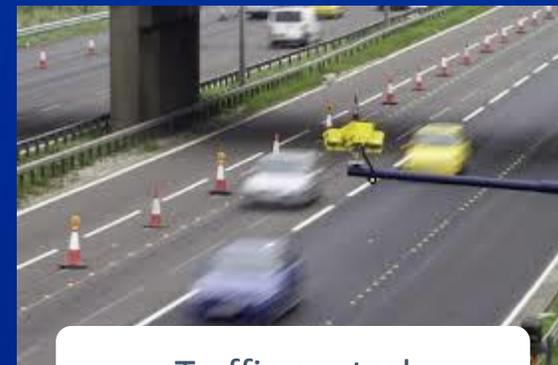
3D sensors



LCD screens QA



Food Inspection



Traffic control

Growing at a very fast pace with a CAGR of ~27% between 2016 and 2022 (MarketsandMarkets)

Power Management Growing Markets

Power Management ICs are needed in every electronic system to efficiently deliver the required voltages and currents while reducing the drain on the power grid and maximizing battery life



Leading the Foundry Arena with High-Performance Power Management Platforms

TowerJazz Value Proposition for the PM market

10 years of experience in designing and manufacturing

For multiple leading IDMs and Fabless



Leading edge 0.18um 8" platform & Discrete process

Available in 2 Fabs



Best in class RDSON LDMOS

Aggressive development roadmap



Embedded digital and memory

Modular and Flexible for any IC needs



Advanced Specialty Analog Technology Platforms with Broad Technology Portfolio



**RF
& HPA**



Power



CIS



**MS
CMOS**



**Aerospace
& Defense**



TOPS

End Market Diversification – Top Customers

	Power	Radio Frequency / High Performance Analog		CMOS Image Sensors	Others (A&D, Mixed-Signal, Sensors, Embedded Memory, ESD etc.)
	28%	22% mobile	9% Infrastructure	16%	25%
Customer 1	✓	✓	✓	✓	✓
Customer 2		✓	✓		
Customer 3	✓		✓		✓
Customer 4	✓				
Customer 5		✓	✓		✓
Customer 6		✓	✓		
Customer 7	✓			✓	✓
Customer 8	✓		✓		✓
Customer 9					✓
Customer 10	✓				
Customer 11-15	✓		✓	✓	✓

Revenue Build



Global Footprint



Strategy Behind M&As

1. Increase Served Market

- Acquire new technologies w/ established customer base
- Acquire new technologies which serves existing base

2. Increase Operational Capacity

- Acquiring capacity at substantial lower cost than organic growth

3. Create Geographic Alignment

- Improved customer alignment through local manufacturing (e.g. JDP execution)
- Operational optimization and reduced customer risk through flow cross qualification

TowerJazz M&A Model for Advanced Analog Capacity at Minimal Cost and Minimal Risk

- Acquire existing factories from system or device maker companies with
 - Long term loading agreements to cover first multiple years running costs
 - Available capacity for incremental business from day one
 - Employee base and expertise within our defined strategic core analog capabilities

TowerJazz Announces Completion and Kick-off of its Joint Venture with Panasonic Corporation

Joint Venture to include three Semiconductor Factories in Japan, Manufacturing of Panasonic and Additional Products

April 1, 2014

TowerJazz Completes Acquisition of Maxim's Fabrication Facility in San Antonio, Texas

Acquisition to expand TowerJazz's worldwide manufacturing capacity and capabilities; Supporting Company's excess customer demand

February 2, 2016

Industry Consolidations

- To date, the major consolidations have opened up greater opportunities for us because we were a trusted supplier of either the acquiring or the acquired company or both
- Examples of consolidations with TowerJazz press released relationships (there are additional):



***"Leadership and learning are
indispensable to each other"***

- John F. Kennedy

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Technology Offering Overview and Growth Drivers

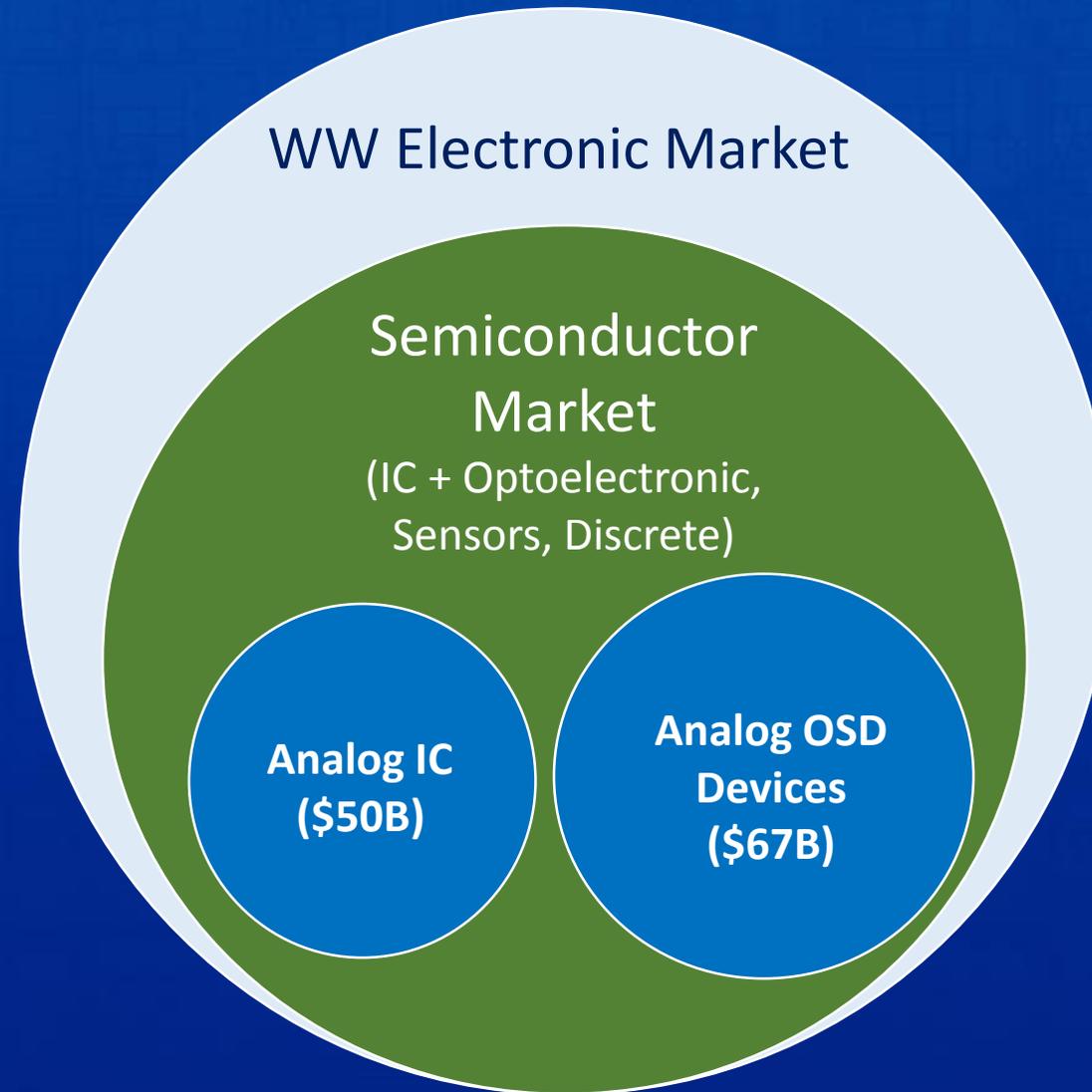
Dr. Itzhak Edrei, President

November 16, 2016

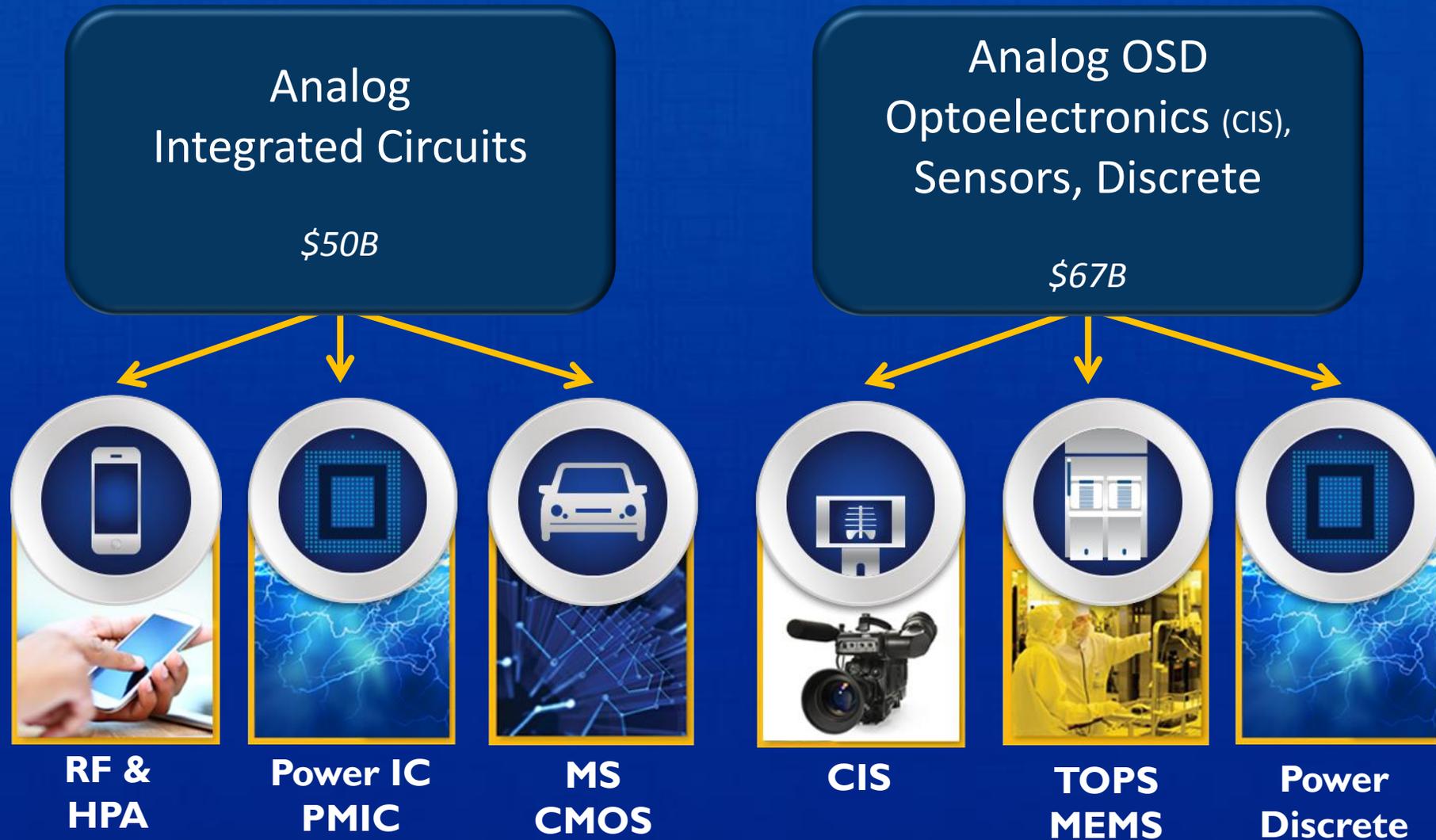
New York

The BIG Picture and Where We Are

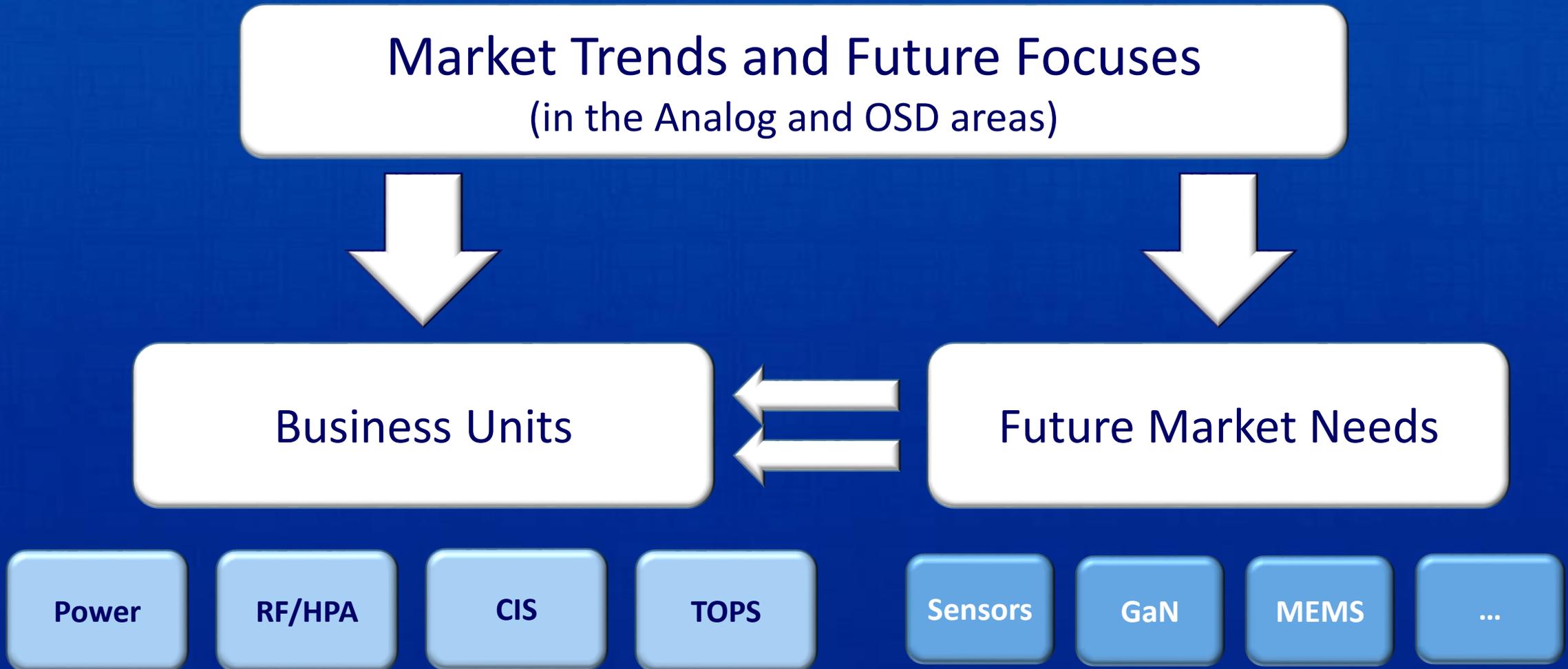
The Big Picture & where we are playing



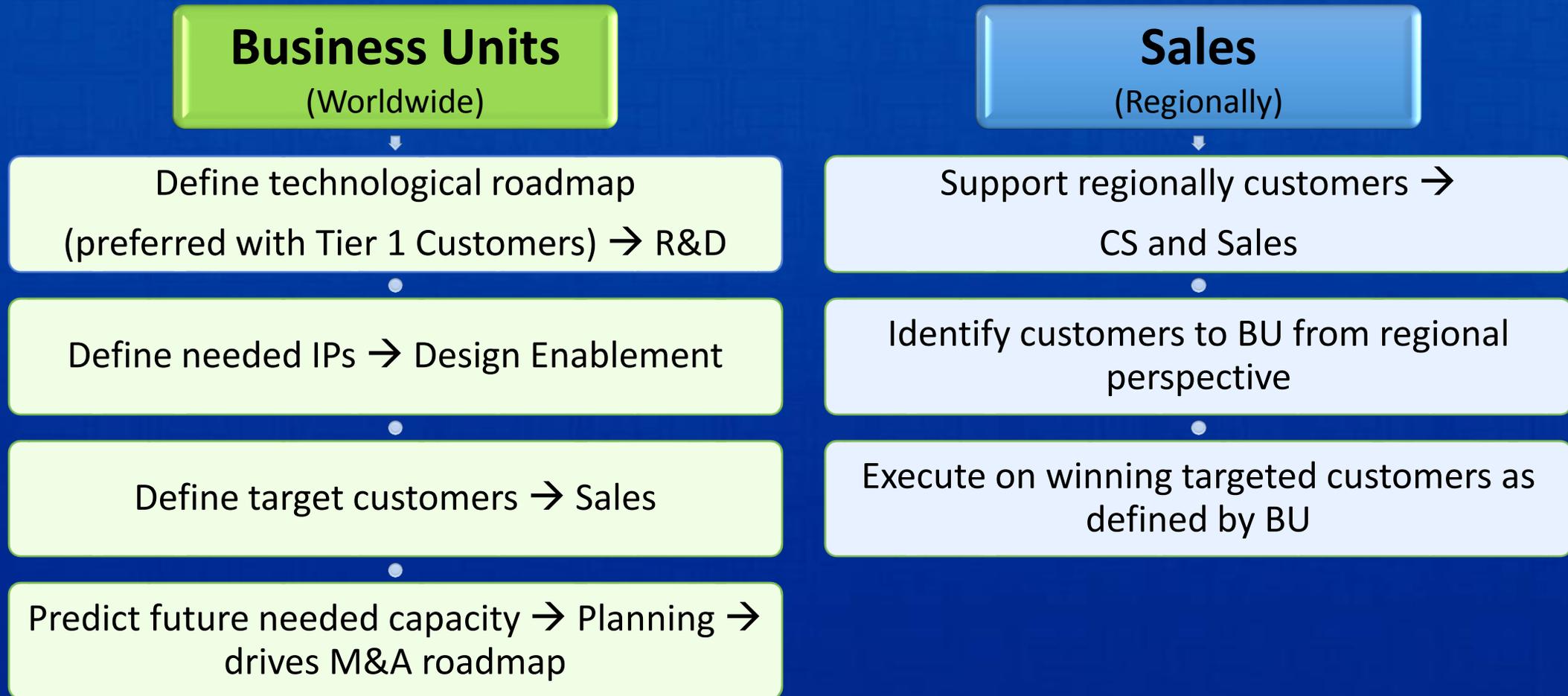
IC and O-S-D Markets



Alignment with and Fueling the Market



Business Units & Sales Working Methodologies



Our Sales path is technically driven with BU ownership
Sales major role is ensuring customer needs are met



**RF
& HPA**



Power



CIS



TOPS

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Technology Offering Overview and Growth Drivers – RF/HPA

Dr. Marco Racanelli, Senior Vice President and General Manager of RF/High Performance Analog Business Unit

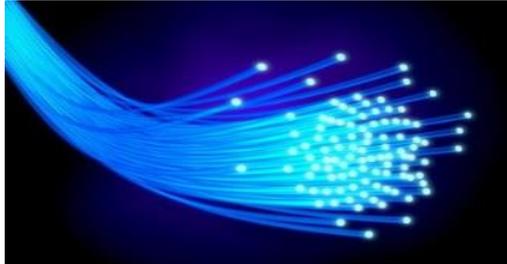
November 16, 2016

New York



Mobile
RF SOI and
SiGe

High Growth driven by
Smartphones and IoT



Infrastructure
HP SiGe

High Growth driven by video,
data internet traffic



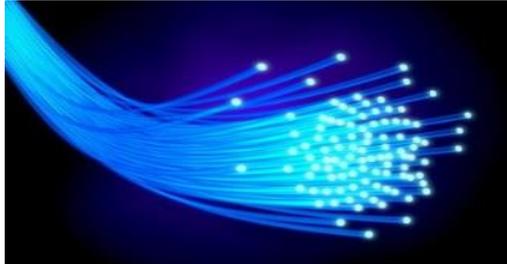
Other
SiGe

Emerging Applications driven by
radar and other high-frequency
applications, and **Traditional**
Analog Markets in HDD and analog
components



Mobile
RF SOI and
SiGe

High Growth driven by
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Other
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Emerging Applications driven by
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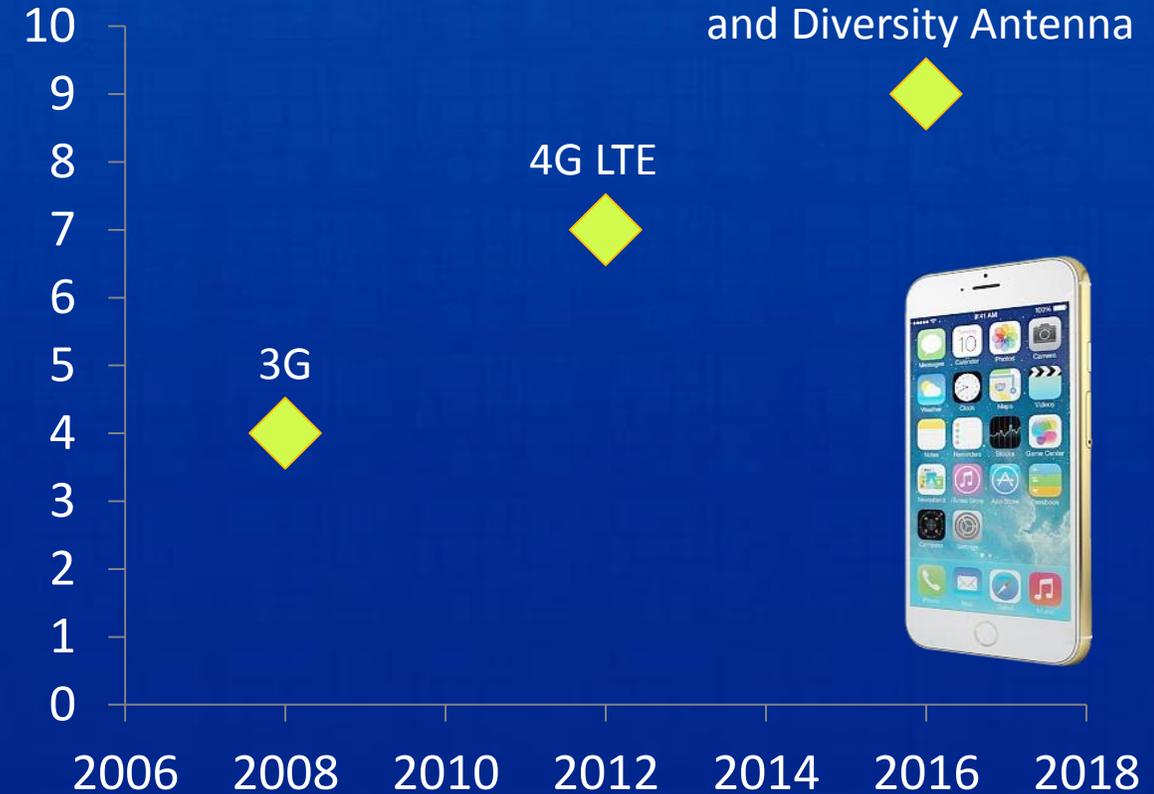
Mobile: Wireless Data Consumption Driving Analog Content in Smartphones

Number of Front-End-Modules in Smartphones



iPhone7 FEM content from ifixit:

- Skyworks 78100-20
- Skyworks 77363-1
- Skyworks 13702-20 Diversity Receive
- Skyworks 13703-21 Diversity Receive
- Avago AFEM-8065 PAM
- Avago AFEM-8055 PAM
- Avago LF1622 200157
- TDK EPCOS D5315
- Murata 339S00199 WiFi/BT



Source: count of FEMs identified by iFixit Teardown of iPhone

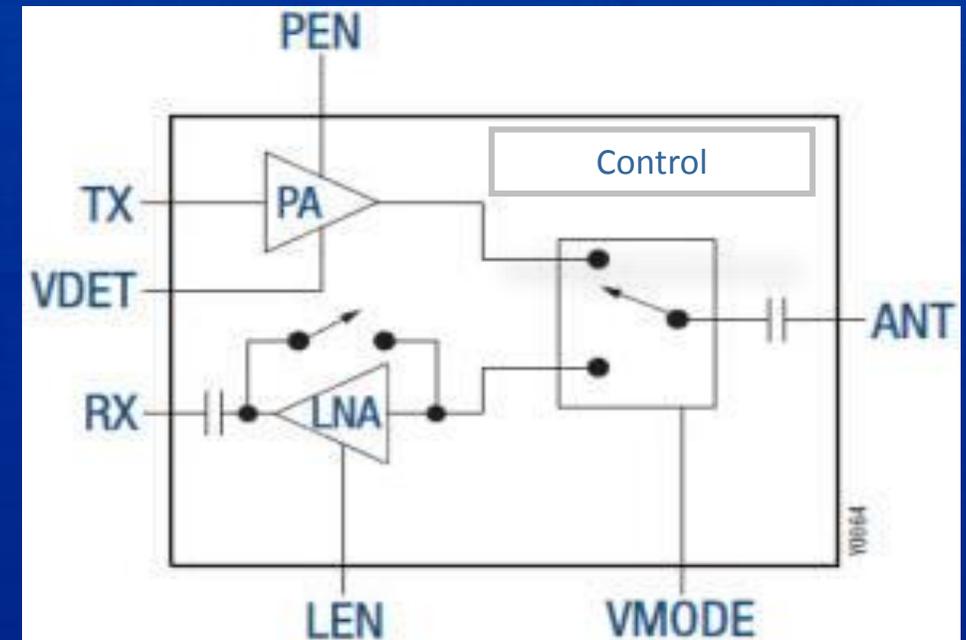
Wireless FEM content in iPhone 7

Each Front-End Module Contains RF ICs (Switch, LNA, PA, Control)



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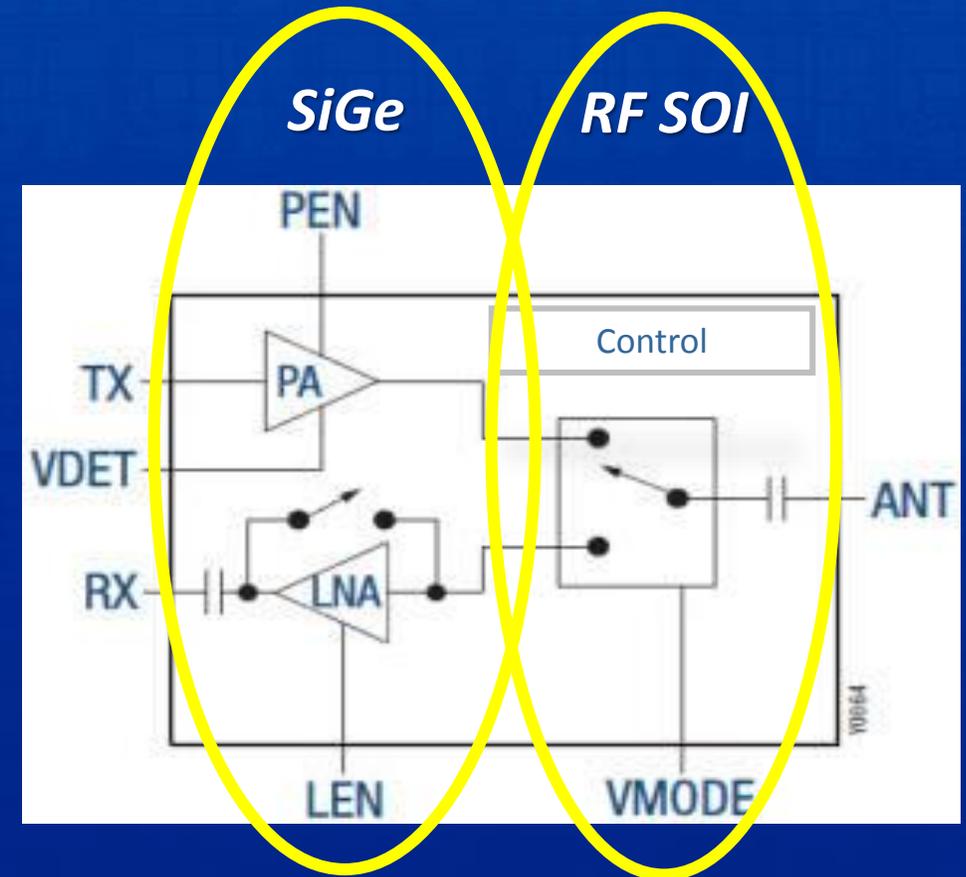
Wireless FEM content in iPhone 7

TowerJazz has a Leading Position in RF IC Technology (RF SOI, SiGe, RF CMOS)



iPhone7 FEM content from ifixit:

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TowerJazz RF SOI Technology Leadership Examples

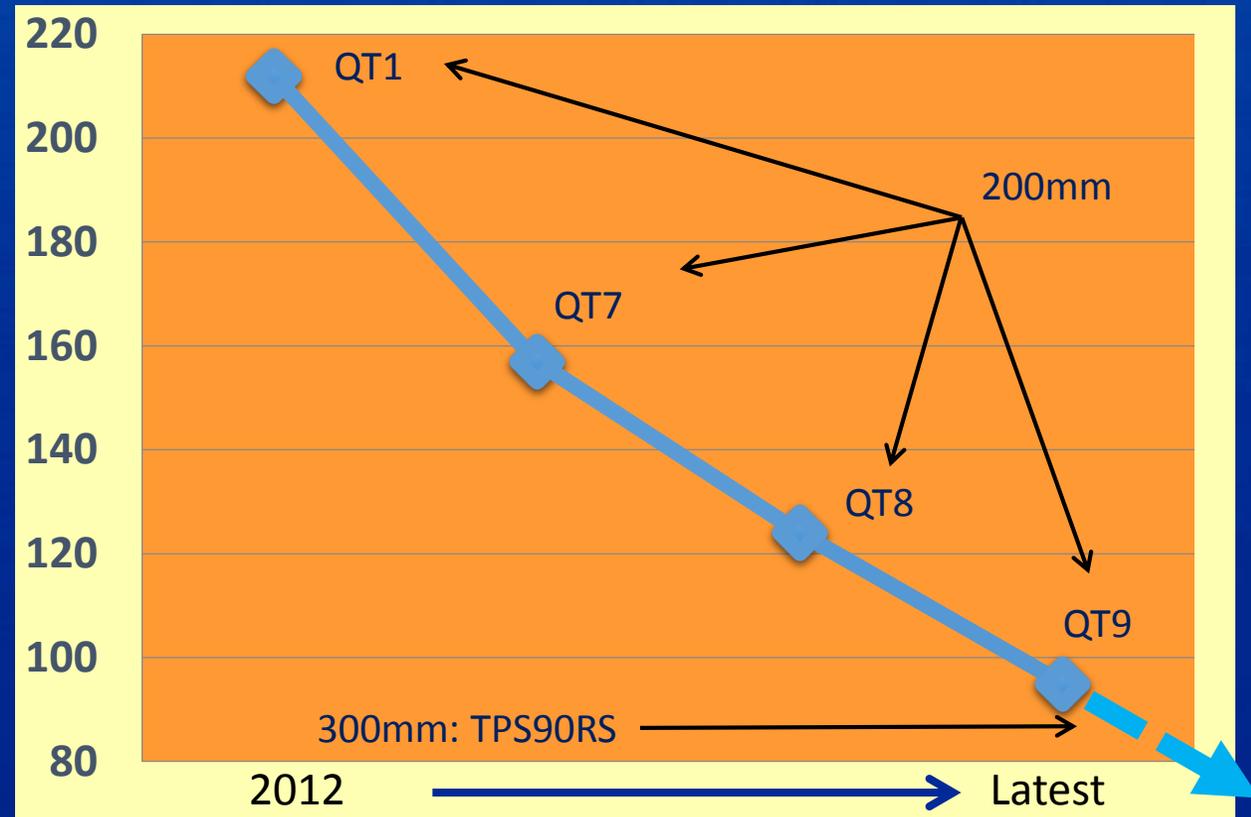
TowerJazz and TPSCo Announce Breakthrough RF Technology for Next-Generation 4G LTE Enabled Smartphones and IoT Applications

Begin sampling best-in-class sub-90fs Ron-Coff RF switch technology from TPSCo's 300mm factory



Lower Ron-Coff in RF Switch can improve Smartphone battery life and data rate

Ron x Coff (fs)



TowerJazz SiGe Power Amplifier Leadership Example

TowerJazz Begins Mass Production of a new Integrated SiGe-Based “Front-End Module on a Chip”

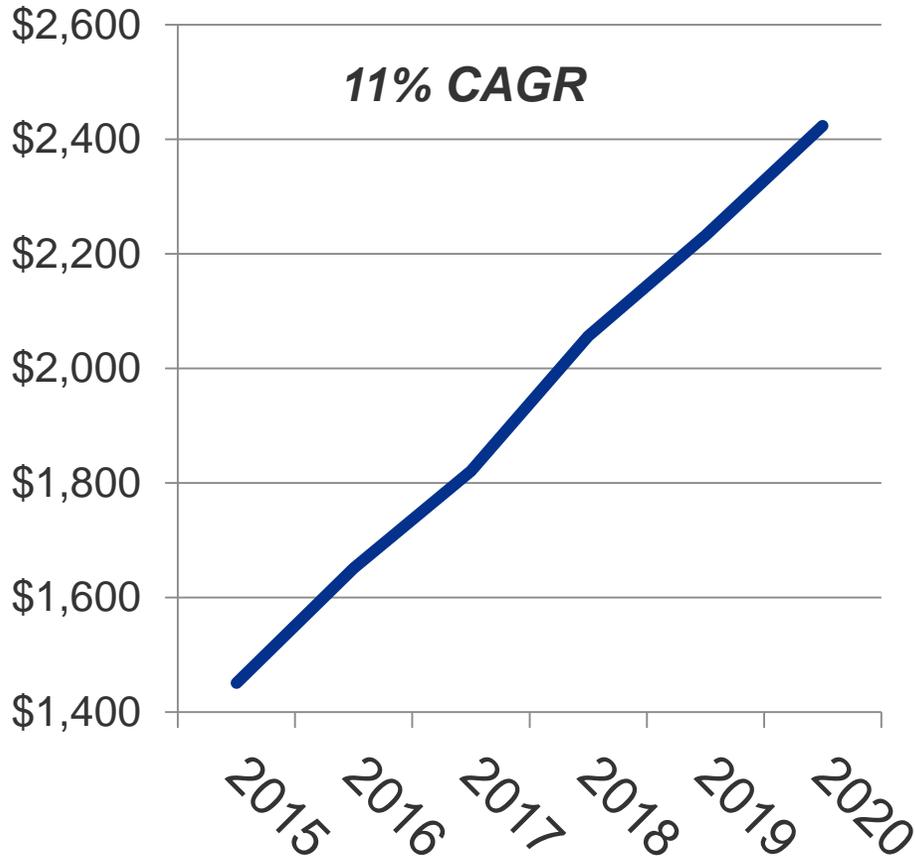
RF Platform Tailored to Meet the Challenges of the Internet of Things Enables power amplifiers, low noise amplifiers and switches on a single chip

TowerJazz to participate at the International Microwave Symposium (IMS) in San Francisco, CA on May 22-27, 2016 MIGDAL HAEMEK, Israel, and NEWPORT BEACH, Calif., May 17, 2016 — TowerJazz, the global specialty foundry leader, today announced volume production of a new RF technology capable of integrating a wireless front-end module (FEM) on a single chip, tailored to meet the challenges of Internet of Things (IoT) applications. Analysts estimate that the number of IoT connected devices will grow at a 15-20% growth rate annually, reaching up to 30 billion units by 2020. McKinsey Global Institute recently estimated that IoT could generate up to \$11 trillion in global value by 2025. The TowerJazz process enables integration of power amplifiers (PAs), switches, and low noise amplifiers as well as CMOS digital and power control on a single die. TowerJazz is delivering this product today for smartphones, tablets and wearables, and this technology also meets the more universal requirements of IoT applications by providing cost, power, performance, and form factor benefits vs. competing solutions. As an example, TowerJazz has partnered with industry leader, Skyworks Solutions, Inc., an innovator of high performance analog semiconductors connecting people, places and things, to deliver a first of its kind integrated wireless FEM using this technology.



“We are pleased that our long partnership with TowerJazz on SiGe BiCMOS for PA based products is now in volume production for key customers of Skyworks Solutions,” said Bill Vaillancourt, GM/VP Skyworks Connectivity Solutions

RF Switch and Controller



Source: Mobile Experts

Reasons for Growth

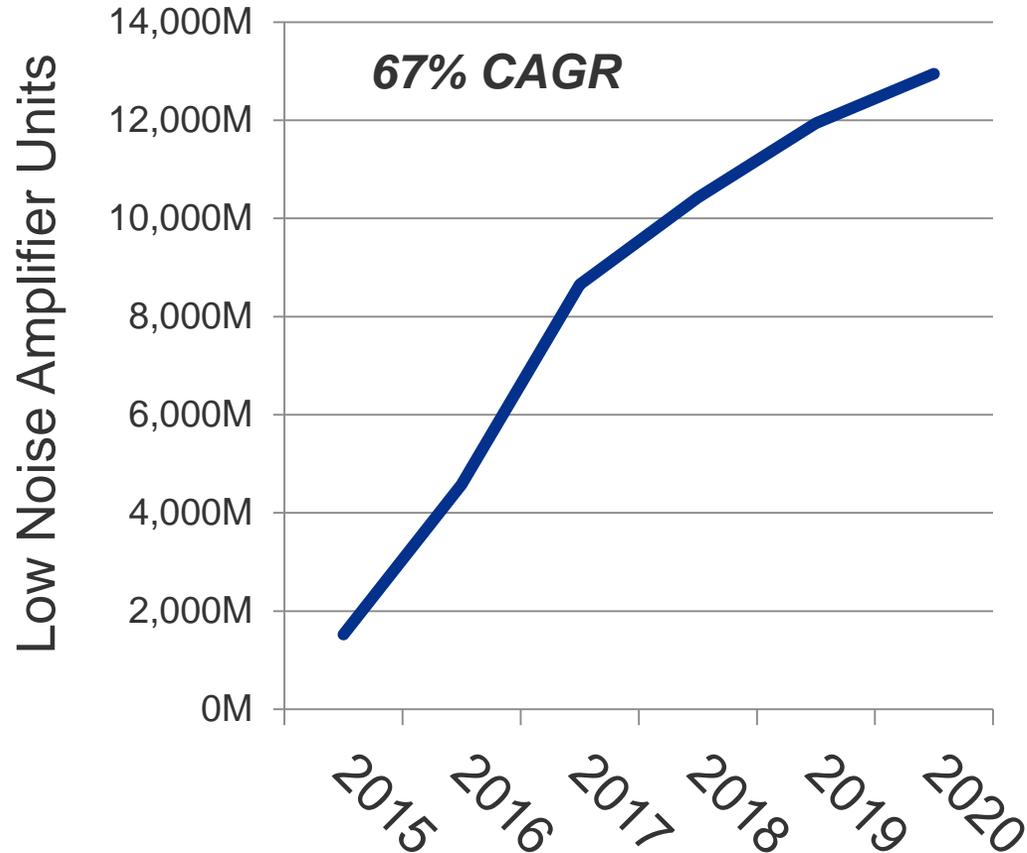
- Switch: connects specific band/receive/transmit to antenna
- Controller: communicates with baseband/processor
- More bands required to increase data rates year-over-year
- More bands require more switches/controllers per phone

TowerJazz Technology Used

- RF SOI for RF Switch
- RF CMOS for Controller

Opportunity to Exceed Market Growth

Low Noise Amplifier



Source: Mobile Experts

Reasons for Growth

- Main LNA coming off Transceiver
- Diversity Antenna (doubling the need)
- MIMO in the future (doubling the need again)
- GPS/WiFi LNA attach rate

Primary Technology Used for LNA

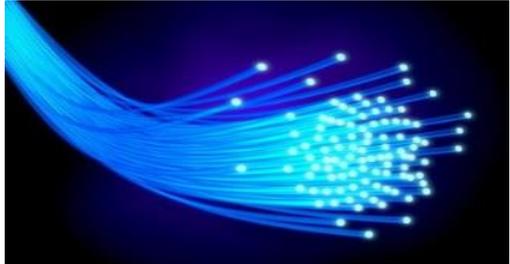
SiGe or RF SOI increasing share

PHEMT/CMOS decreasing share



Mobile
RF SOI and
SiGe

High Growth driven by
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Infrastructure
HP SiGe

High Growth driven by video,
data internet traffic

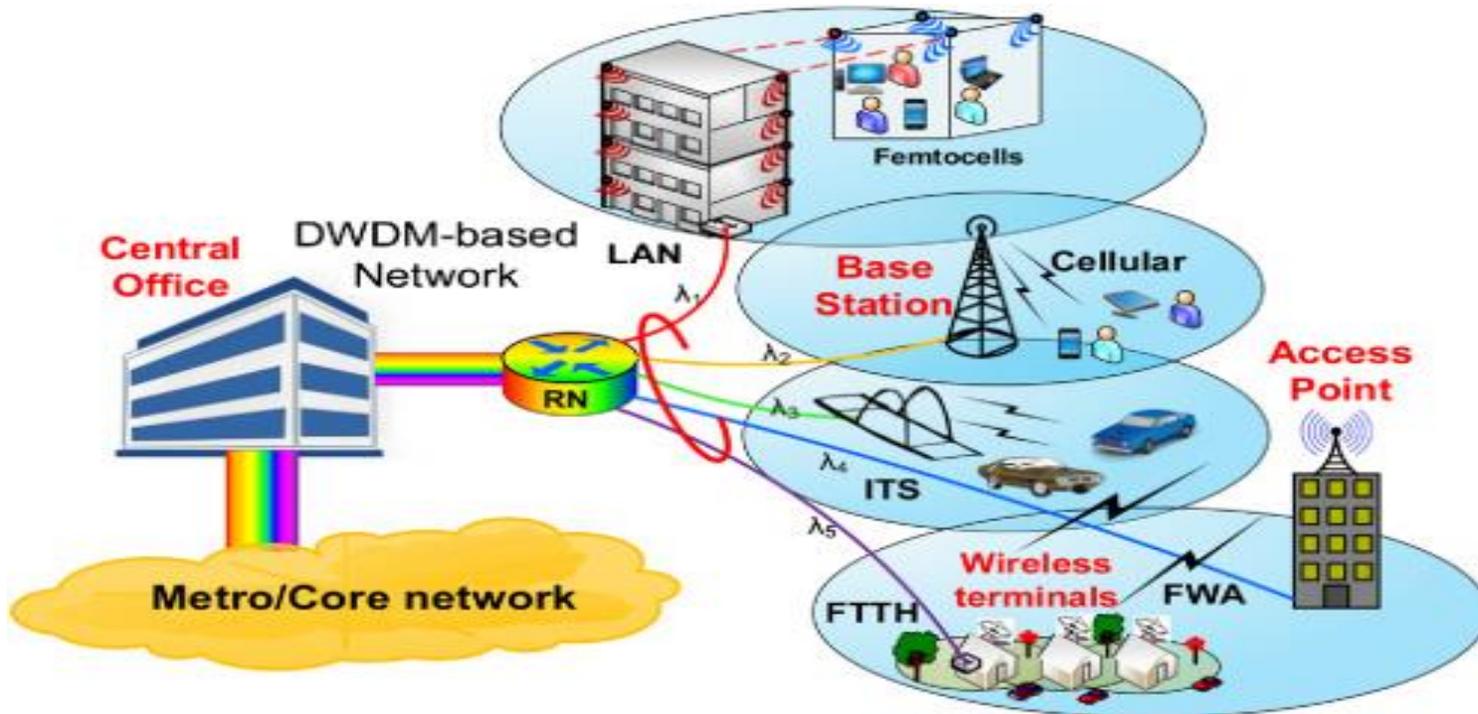


Other
SiGe

Emerging Applications driven by
radar and other high-frequency
applications, and Traditional
Analog Markets in HDD and analog
components

Optical Fiber Data Transport

Data Networks



Data Centers

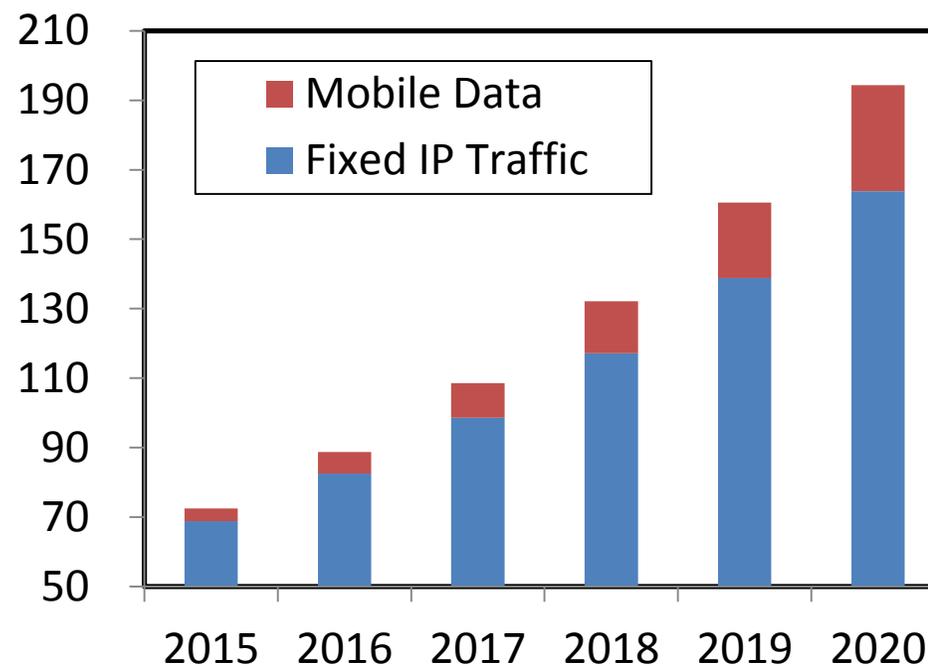


SiGe Terabit Platform

TowerJazz Announces its SiGe Terabit Platform Enabling High Speed Wireline Communications

MIGDAL HA'EMEK, Israel and NEWPORT BEACH, Calif., April 5, 2016— TowerJazz, the global specialty foundry leader, today announced its SiGe Terabit Platform targeting high-speed wireline communications for the terabit age. Wireline data traffic is increasing dramatically, with traffic at Google famously increasing by 50 times over the last six to seven years, or at 75 percent per year. Estimates vary, but experts agree on double digit CAGRs and a 2020 market for high speed optical components in excess of \$9 billion. TowerJazz addresses this market through a family of customized foundry silicon-germanium (SiGe) BiCMOS technologies and is today announcing availability of its highest performance process to date: S4.

Global Monthly Data Traffic in Billions of GBytes



Source: CISCO VNI, 2016

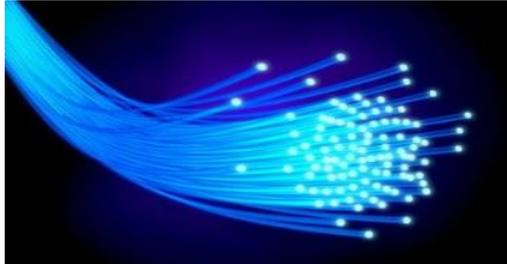
TowerJazz customers include the who's-who for components that carry the world's high-speed data traffic ...





Mobile
RF SOI and
SiGe

High Growth driven by
Smartphones and IoT



Infrastructure
HP SiGe

High Growth driven by video,
data internet traffic



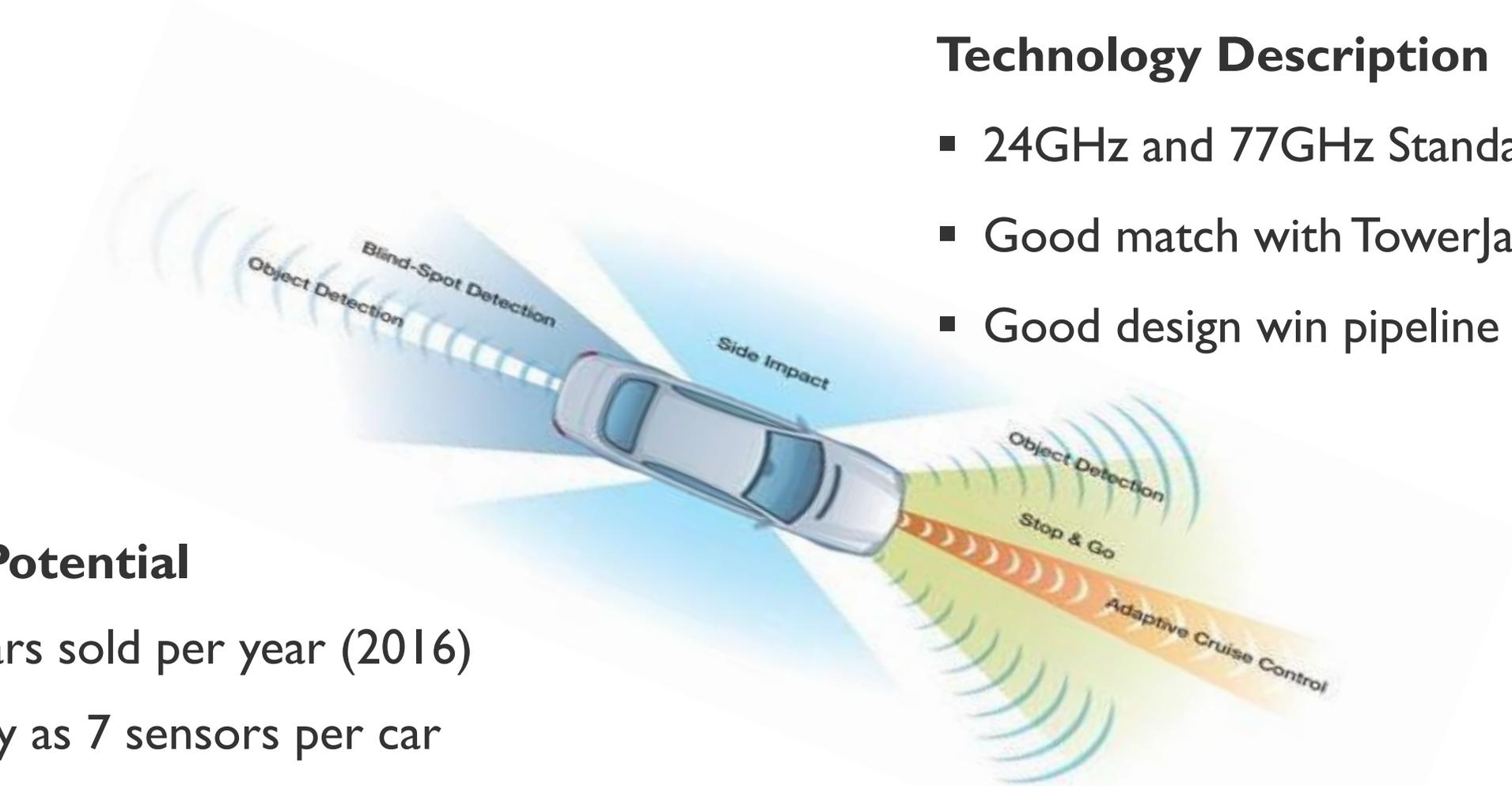
Other
SiGe

Emerging Applications driven by
radar and other high-frequency
applications, and **Traditional
Analog Markets** in HDD and analog
components

Example: Automotive Radar for Collision Avoidance

Technology Description

- 24GHz and 77GHz Standards
- Good match with TowerJazz SiGe
- Good design win pipeline



Market Potential

- 74M Cars sold per year (2016)
- As many as 7 sensors per car
- \$170 million opportunity at 20% adoption rate

Example: Hard Disk Drive PreAmp

Technology Description

- PreAmp to read/write disk is built in c-SiGe
- TowerJazz has recently developed a competitive c-SiGe Technology



Market Potential

- Greater than \$200 million silicon market
- Cloud storage increase balancing PC decline in HDD to maintain market
- Little market share today for TowerJazz results in a large opportunity

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The Global Specialty Foundry Leader



Technology Offering Overview and Growth Drivers – Mixed-Signal and Power Management

Mr. Shimon Greenberg, Vice President and General Manager of Mixed-Signal & Power Management Business Unit

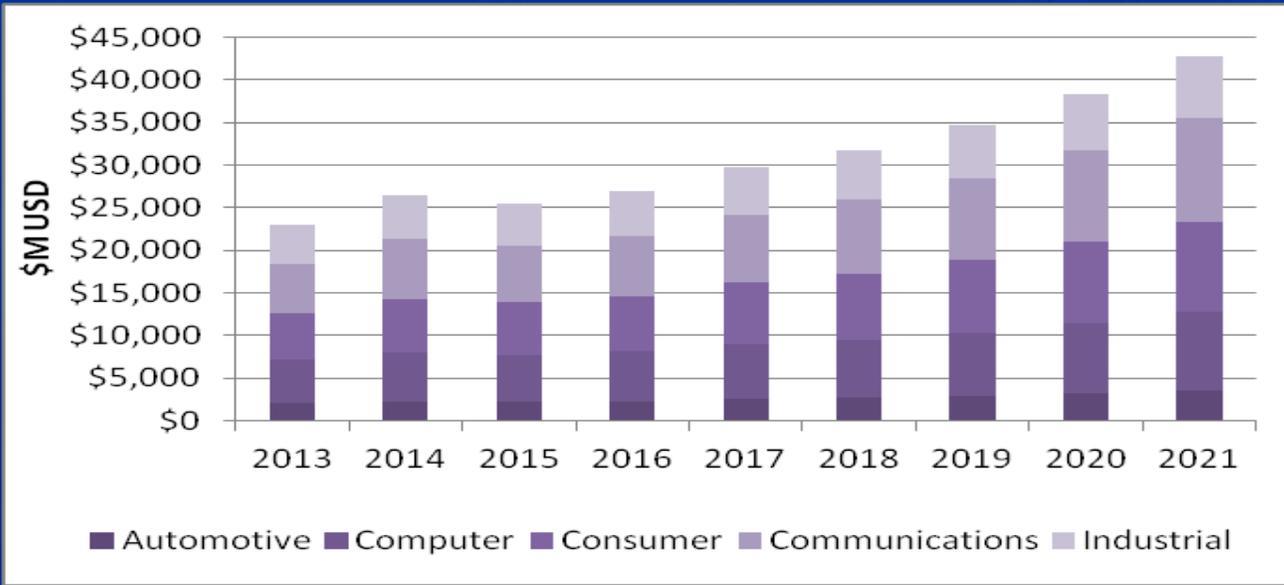
November 16, 2016

New York

Power Management IC Market

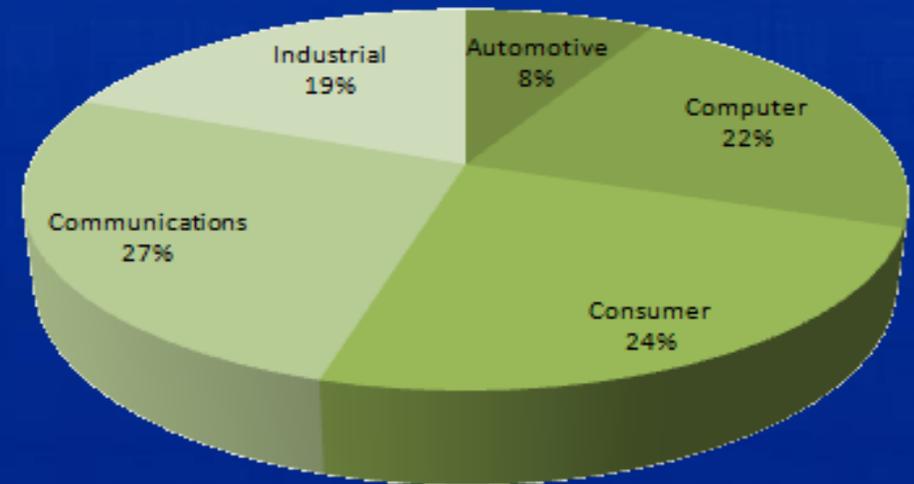
- Power Management (PM) ICs - in **EVERY** electronic system
- PM IC market is expected to continuously grow
- Efficiency (Rdson) driven market: cost / performance enabler

Worldwide Power Management Market Revenue Forecast



Source: Databeans Estimates

2016 WW Power Management Revenue by Market Segment

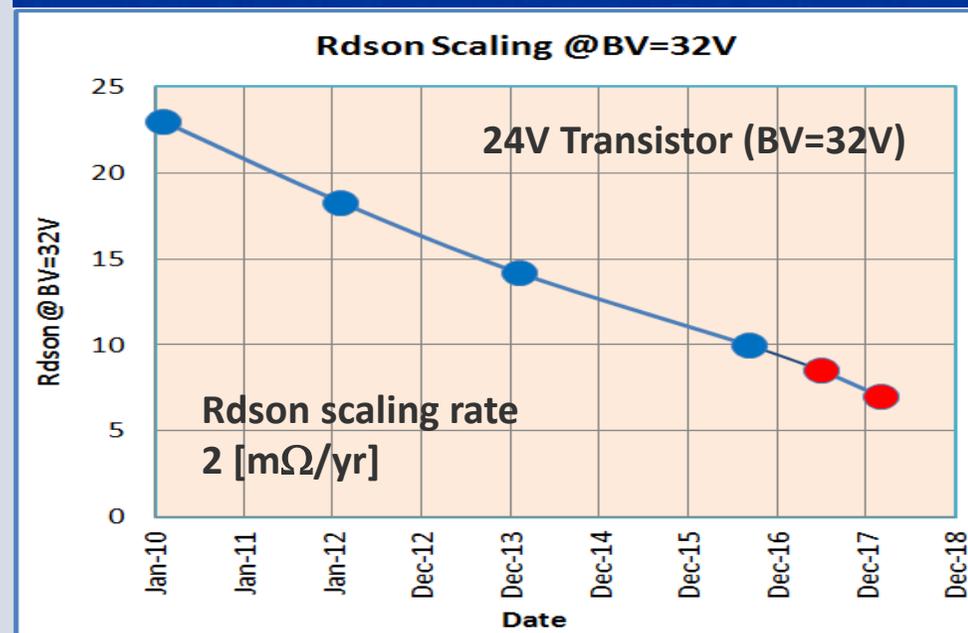
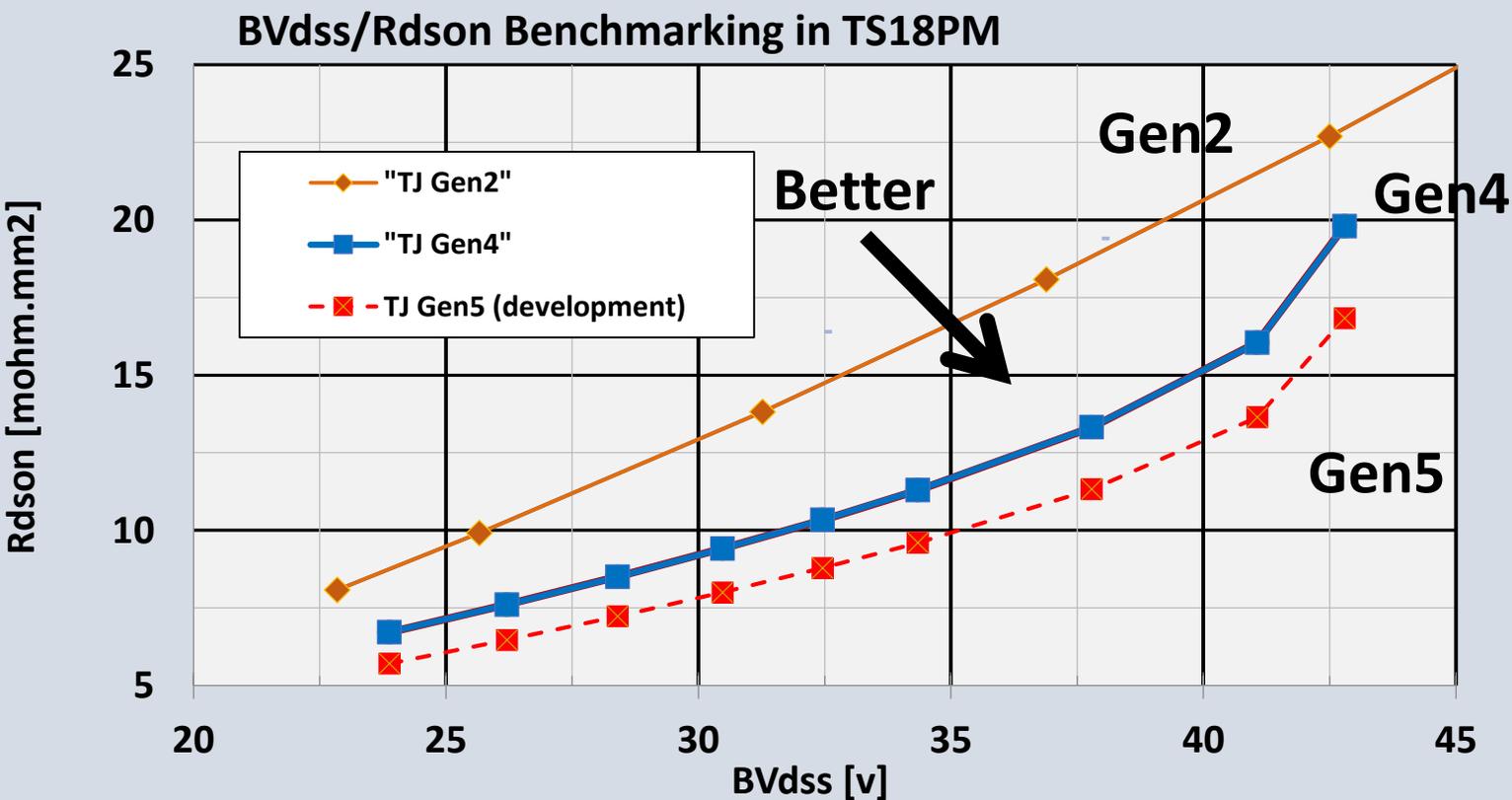
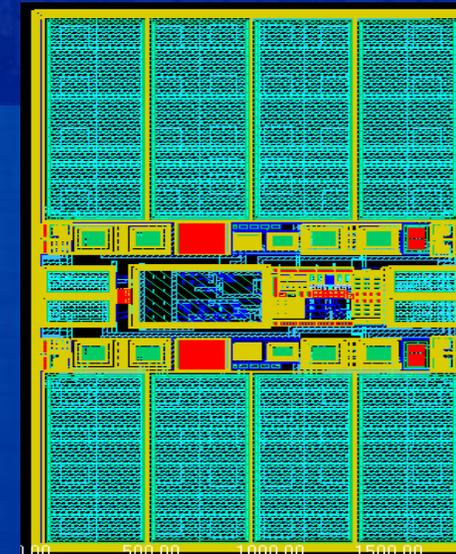


TowerJazz is the Rdson leader

TowerJazz Value Proposition Example - Rdson

- Rdson is the Figure of Merit for Integrated Power ICs
- Aggressive Rdson Roadmap to maintain leadership position
- Our Gen5 planned to be the industry benchmark

Gen 4



Gaining Market Share with Best-in-Class Power IC Platform

Low Voltage

1.8V / 5V–60V

PMIC, DC/DC, Audio,
Display/Motor Drivers, POE



Medium Voltage

80V–200V

Automotive, Industrial, Medical



High Voltage

200V–700V

AC/DC, LED Lighting, IGBT and MOSFET
Drivers



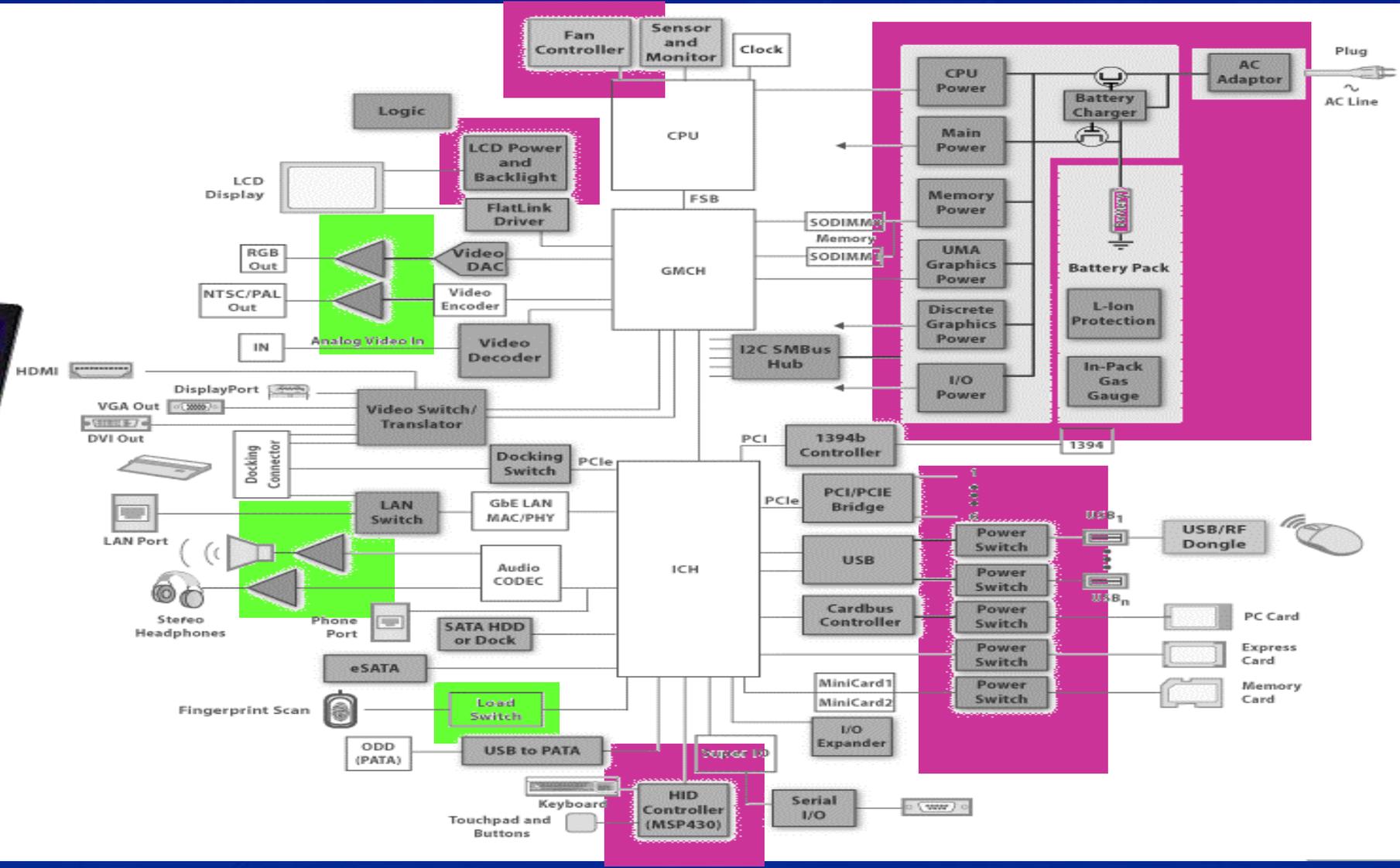
Example of our growing market – Laptop/ tablets

Power Products

Handle
High Voltage OR
High Current OR
Both



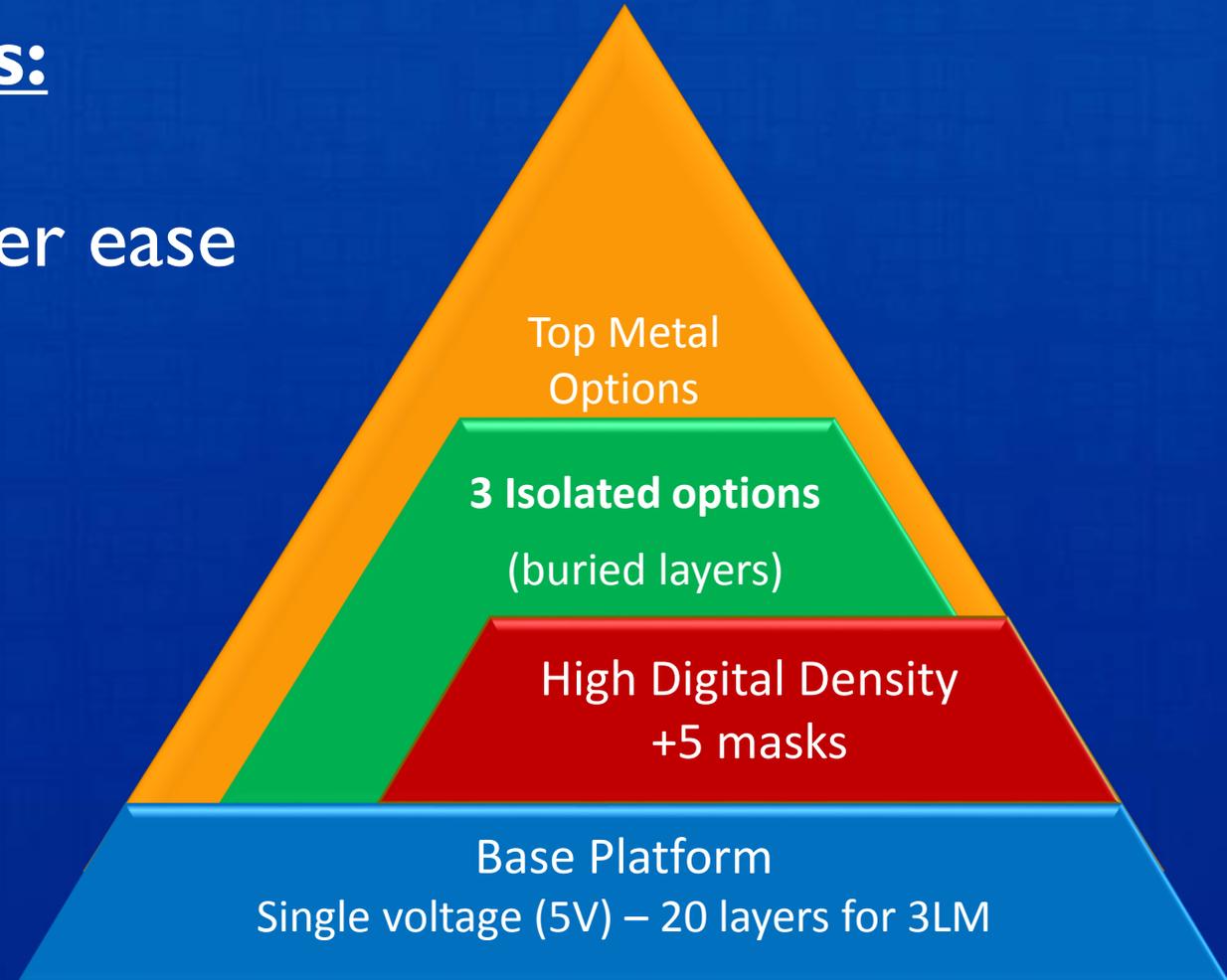
ICs
Integrate Power and
Control
Discrete
Power Transistors



TowerJazz Power Management – Modular Platform

Modular platform provides:

- Modular design for customer ease
- Development simplicity
- Fab cost efficiency



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Technology Offering Overview and Growth Drivers – CMOS Image Sensors

Dr. Avi Strum, Senior Vice President and General Manager, CMOS Image Sensor Business Unit

November 16, 2016

New York

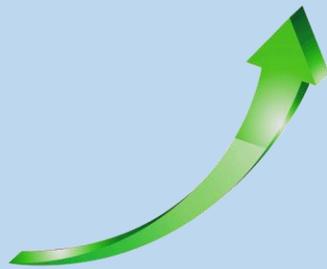
CIS market segments and trends

Automotive



**ADAS and
Autonomous
driving**

Industrial / Machine Vision



**IoT and food
automation**

Medical



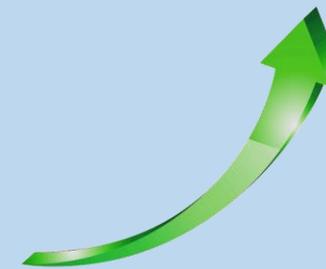
Technology shift

High end photography and Cinematography



**Market share
increase**

3D, Gesture control, AR/VR



**Disruptive new
market**

Security



IoT

CIS fast growing markets – Machine Vision

High speed cameras

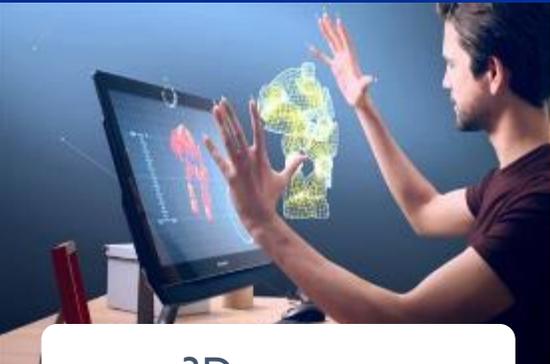
CCD replaced by CMOS

Global shutter sensors

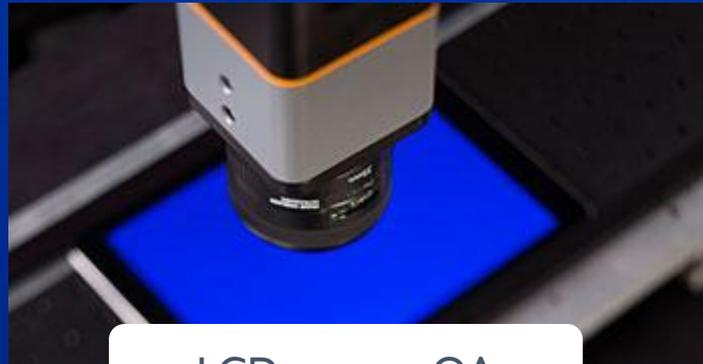
High resolution sensors



2D barcode scanner



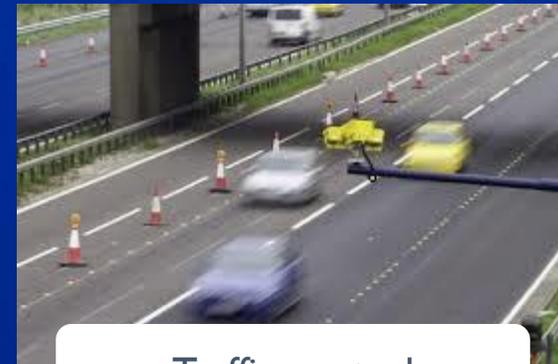
3D sensors



LCD screens QA



Food Inspection



Traffic control

Growing at a very fast pace with a CAGR of ~27% between 2016 and 2022 (MarketsandMarkets)

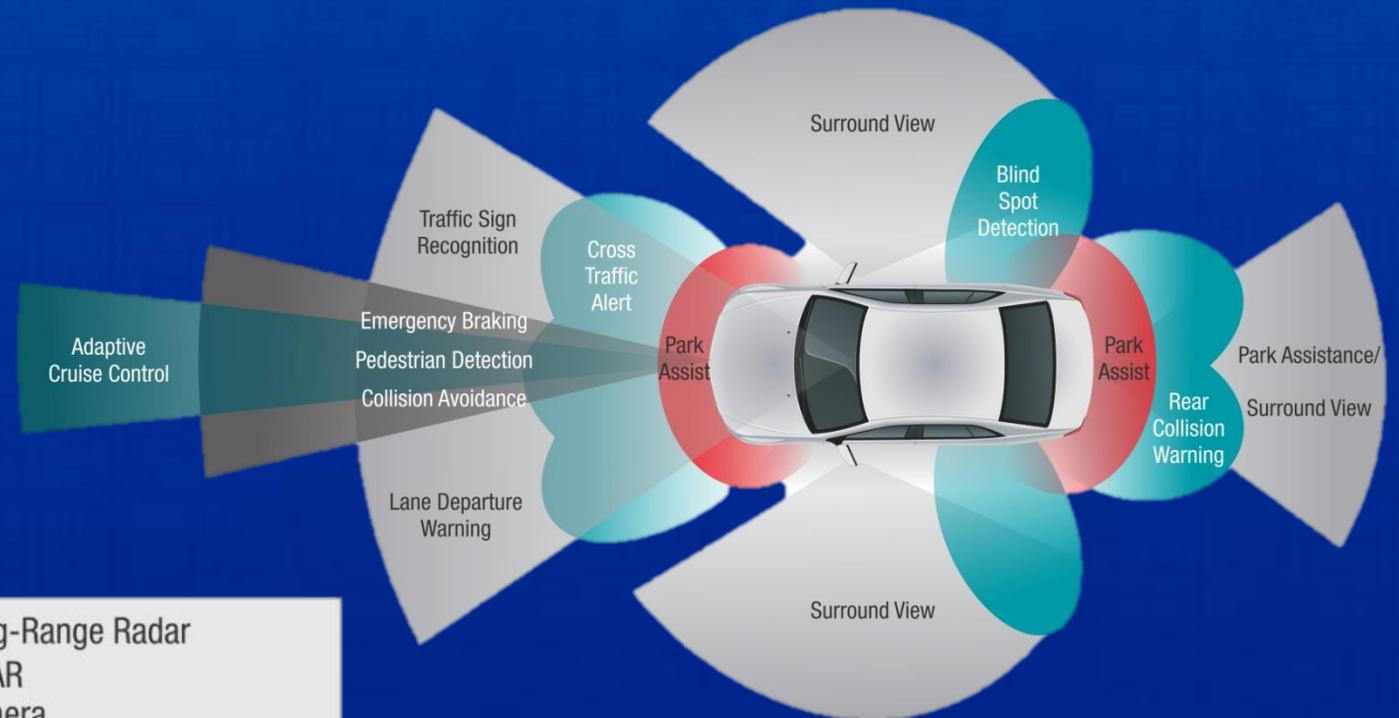
Fast growing markets – Automotive

Advanced Driver Assistance Systems (ADAS) and Autonomous Driving systems

- 360° coverage
- 6-8 cameras per car
- VGA moving to HD
- High Dynamic Range (HDR)
- Near IR vision
- LIDAR



“The global autonomous car market is expected to witness a CAGR of over 10% through 2035” (Markets and Markets)



- Long-Range Radar
- LIDAR
- Camera
- Short-/Medium Range Radar
- Ultrasound

CIS fast growing markets - Security

- Camera at every street corner
- Major market in China – 45% of total WW market in Revenue
- Face recognition required – hence high resolution
- VGA → HD → FHD → QHD → 4K video
- High sensitivity at low light conditions is required



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Technology Offering Overview and Growth Drivers – Transfer, Optimization and Development Process Services

Mrs. Zmira Shternfeld-Lavie, Senior Vice President of Process Engineering R&D General Manager of TOPS Business Unit

November 16, 2016

New York

Transfer Optimization and Develop Process Services

Transferring process flows to and from TowerJazz fabs

Researching and developing new processes



Highly experienced and professional transfer team

Established methodologies

Capabilities to run and manage different transfers in parallel

IP secure culture

3 TOPS Business Models

**High Volume
Process Transfer**

**Unique Process
Transfers**

**External Services
– Special Models**

IDM

- 'Fab-lite' strategy
- Greater capacity above internal fabs
- Double source policy
- Fab closure

Fabless

- With strong process IP
- R&D center to volume

Special Models

- Technology licensing and management

3 TOPS Business Models

High Volume
Process Transfer

IDM

- 'Fab-lite' strategy
- Greater capacity above internal fabs
- Double source policy
- Fab closure

Unique Process
Transfers

Fabless

- With strong process IP
- R&D center to volume

External Services
– Special Models

Special Models

- Technology licensing and management



High Volume Process Transfer

- Target: 15-20% long-term guaranteed fab loading
- Must be a win win



	Customer Benefits	TowerJazz Benefits
Operational	Fast and successful transfer	Long-term utilization stability
Financial	Enables fab-lite business model	Lowered fab fixed cost model
Business/ Technology	<ul style="list-style-type: none"> • Secured process IP • Technical flexibility • Future generation developments 	True partnership enabling many additional opportunities

3 TOPS Business Models

High Volume
Process Transfer

Unique Process
Transfers

External Services
– Special Models

IDM

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Fabless

- With strong process IP
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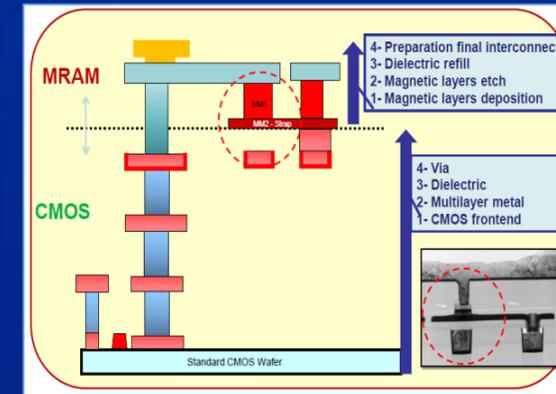
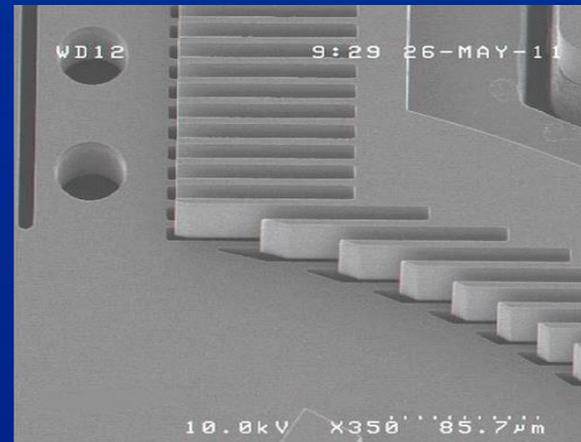
Special Models

- Technology licensing and management



Unique/ Proprietary Transfer and Development

Customer Benefits	TowerJazz Benefits
Unique process tools and processes to be served for its devices	First to market Customer investment in unique tools
Experienced team – first time success and fast time to market	New markets (Sensors, MEMS, GaN)
IP protection	Exclusivity



3 TOPS Business Models

High Volume
Process Transfer

Unique Process
Transfers

External Services
– Special Models

IDM

- 'Fab-lite' strategy
- Greater capacity above internal fabs
- Double source policy
- Fab closure

Fabless

- With strong process IP
- R&D center to volume

Special Models

- Technology licensing and management

India

China
(potential)

External Services – Technology Licensing and Management

Customer Benefits	TowerJazz Benefits
Full project support of technology and management	Capacity independent revenue growth – no depreciation
Cradle to cradle success	High margin entry point into emerging markets



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Technology Offering Overview and Growth Drivers – Design Enablement

Mr. Ori Galzur, Vice President of VLSI Design Center and Design Enablement

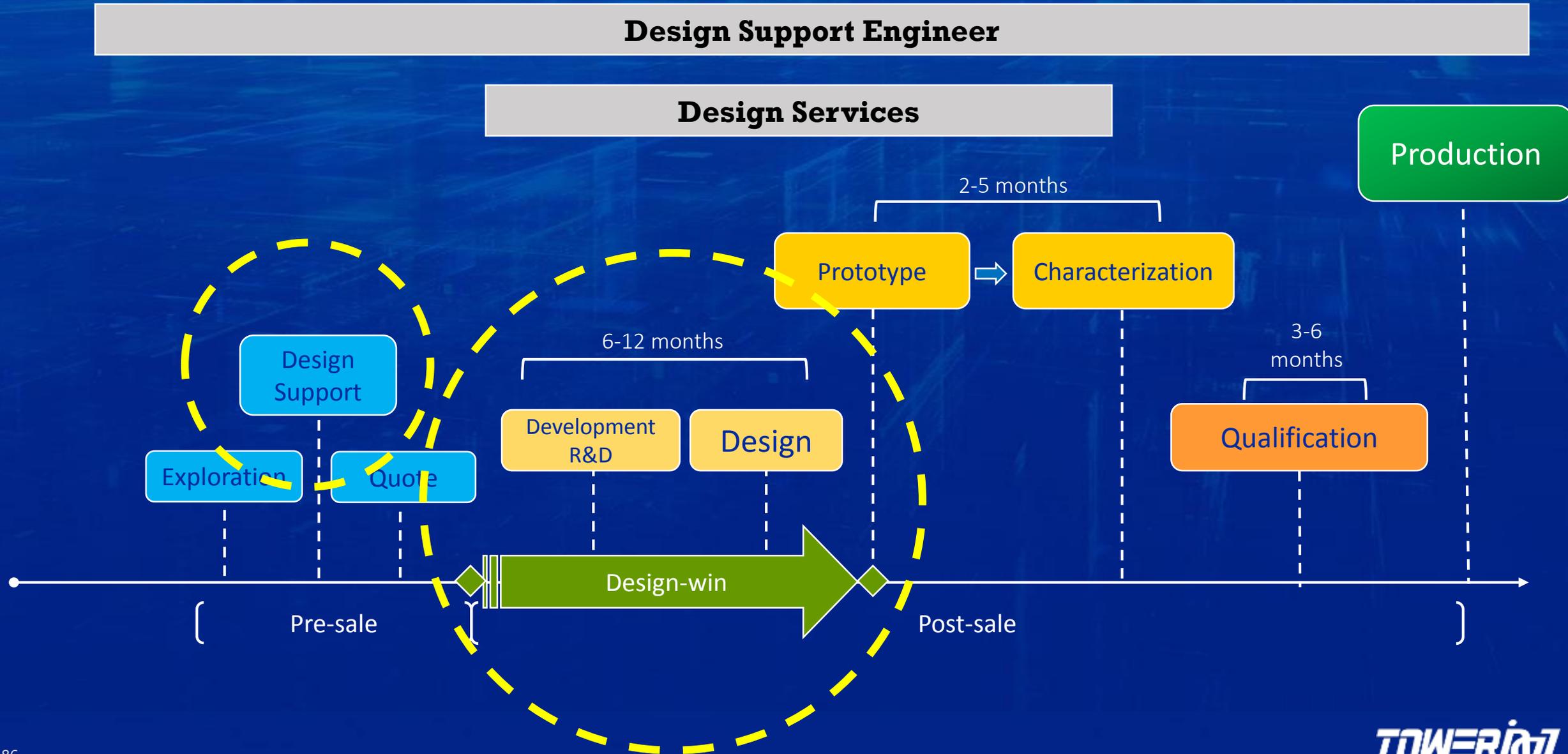
November 16, 2016

New York

Design Enablement – what do we sell?

- TowerJazz sells technical platforms, creating several families of integrated circuits applications
- Our customers must design to our process flows/ platforms
- Our worldwide Design Center purpose is to provide our customers with an “environment” to enable their first time design success

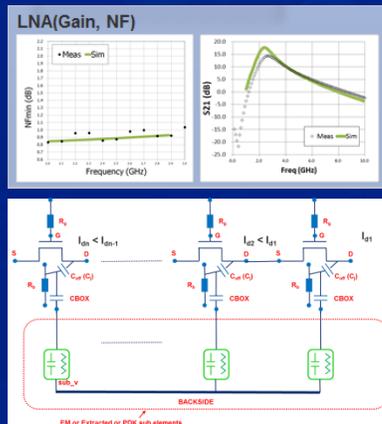
Typical Customer Cycle: From Design to Production



Our focus on Design Enablement

Accuracy

- Silicon Accurate Modeling
- Substrate Extraction



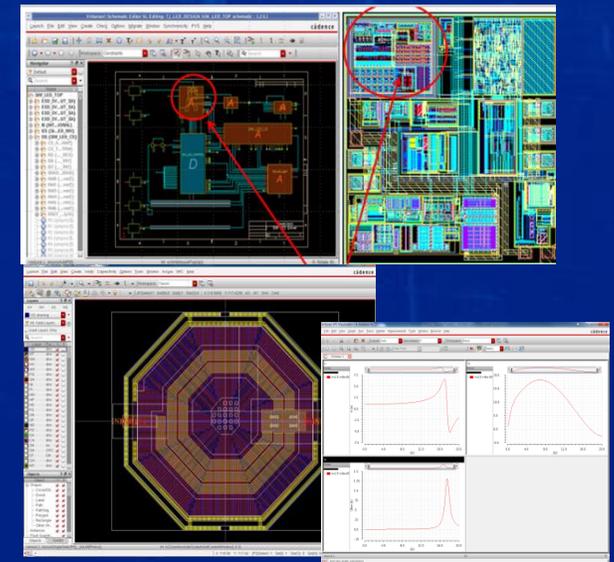
Robustness

- Robust ESD
- Mix Signal checking
- Advanced Verification



Efficiency

- Rich Active & Passive Device library
- Toolbox & Reference Flows
- IP & EDA vendor Partnership



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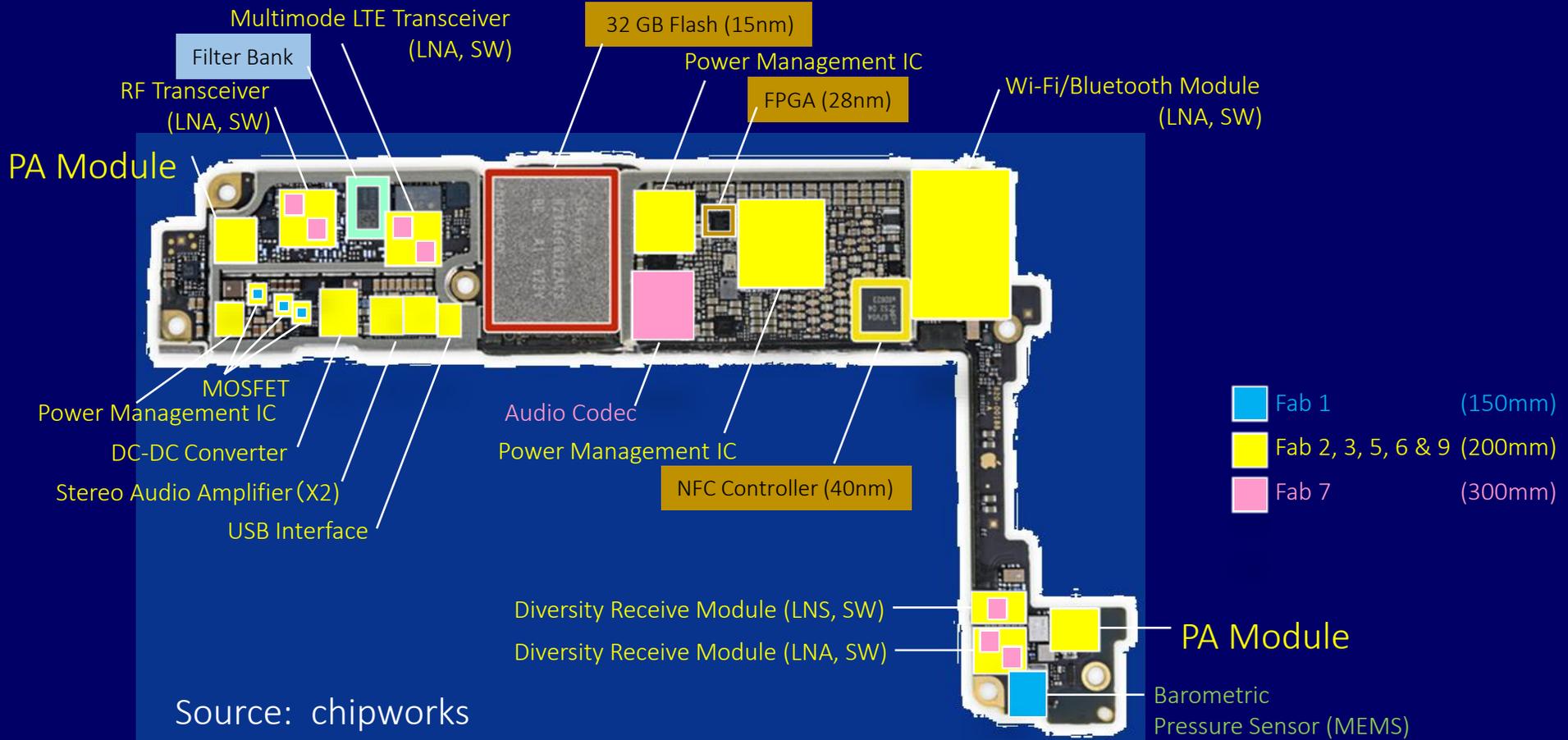
The Long Term Viability of TowerJazz Fabs

Mr. Guy Eristoff, TPSCo CEO

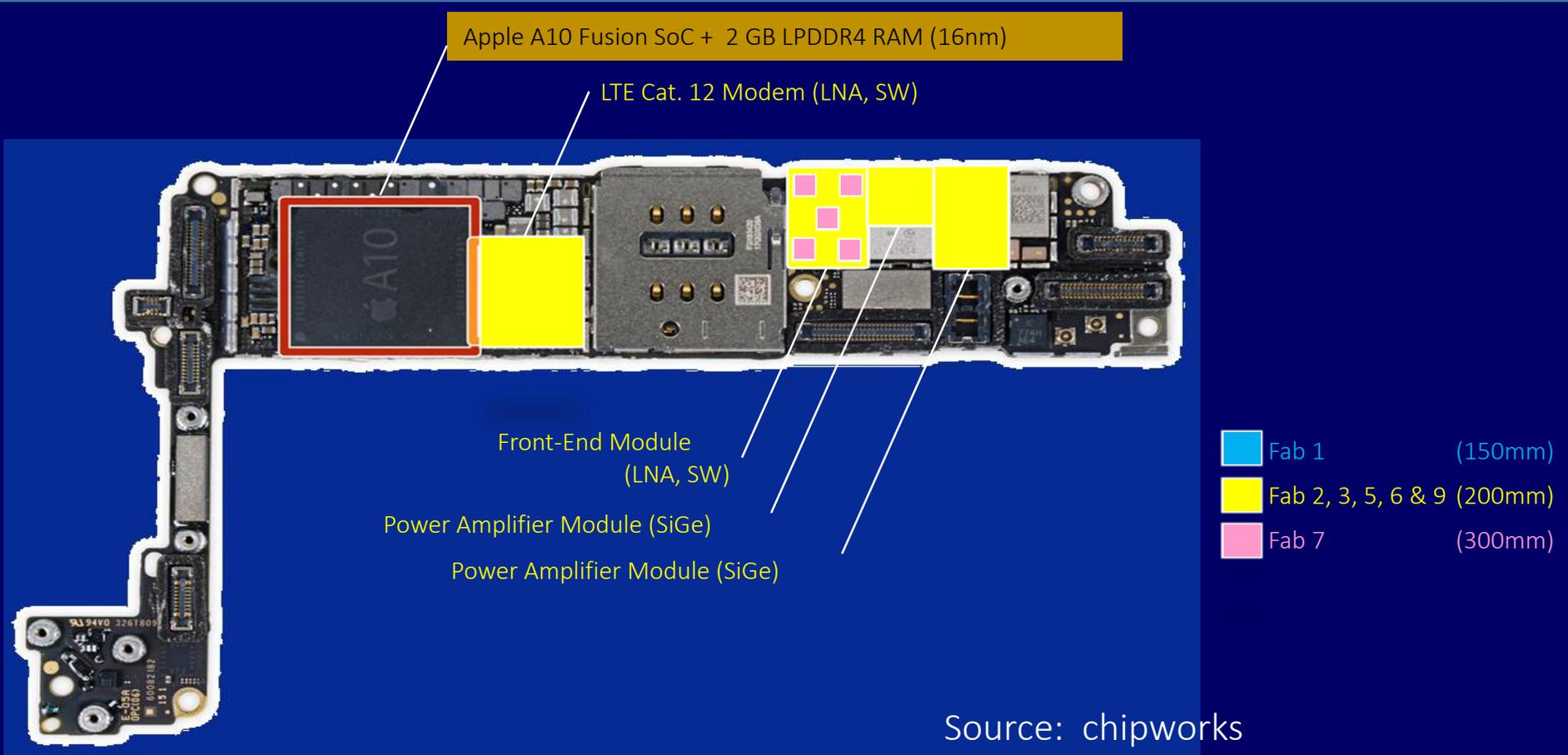
November 16, 2016

New York

A Familiar Product: The iPhone 7 Main Board (Side 1)



A Familiar Product: The iPhone 7 Main Board (Side 2)



23 of 27 IC-type components are manufactured at technology nodes served by current TowerJazz fabs, 85%!

TowerJazz Fan End Market Application Viability

End Market Application		Fab	Fab 1	Fab 2	Fab 3	Fab 5	Fab 6	Fab 7	Fab 9		
		Capable	Qualified	Wafer(mm)	150	200	200	200	200	300	200
		Location	MH	MH	NPB	Tonami	Arai	Uozu	Texas		
PM	DISC	Discrete Power MOS									
		Power / Battery Management									
RF		RF SiGe									
		RFSOI									
		RFCMOS 5GHz									
		RFCMOS >100GHz									
CIS		CIS Medical									
		CIS DSLR									
		>5Mp CIS Mobile									
		CIS Computing									
		CIS Security Camera									
	CIS Automotive										

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Operational Excellence

Mr. Rafi Mor, Chief Operational Officer

November 16, 2016

New York

High Quality and Flexibility of Worldwide Manufacturing Capabilities

Over 2.3 million wafers per year!



Migdal HaEmek, Israel

- 6", 150mm
- CMOS, CIS, Power, Discrete
- 1 μ m to 0.35 μ m



Migdal HaEmek, Israel

- 8", 200mm
- CMOS, CIS, Power, Discrete, MEMS
- 0.18 μ m to 0.13 μ m Cu



Newport Beach, USA

- 8", 200mm
- CMOS, CIS, MEMS, RF Analog
- 0.5 μ m to 0.13 μ m



San Antonio, USA

- 8" (200mm)
- Power, RF Analog
- 0.18 μ m
- AI BEOL



Arai, Japan

- 8", 200mm
- Analog, CIS
- 0.13 μ m to 0.11 μ m
- Thick Cu RDL



Tonami, Japan

- 8", 200mm
- Power, Discrete, NVM, CCD
- 0.35 μ m to 0.15 μ m



Uozu, Japan

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

Operational Excellence – Our Target: Exceed Customer Expectations

Capacity & Utilization

Target High Asset utilization of $\geq 85\%$

Cross qualify major process flows between Fabs to increase operational flexibility.

OSD & Cycle Time

Drive benchmark on OSD and Cycle time

Target OSD $>98\%$ and Cycle time <2 DPL at 0.18u Technology.

Cost Savings

Must produce parts at the absolute lowest possible cost

OEE improvement projects on BN, Qualify alternative materials and Parts, Reduce material usage, Lower price on same materials.

Quality: Plant Yield Die Yield & RMA

CPk > 1.67 , Plant Yield $>97.5\%$, RMA $<0.2\%$, typical Die Yield $>95\%$.

Support Automotive customers. ISO Certified for : Quality- ISO 9001 ; Environmental- 14001; IP Security- BS/ISO 27001; Safety- OHSAS 18001; Automotive – ISO 16949

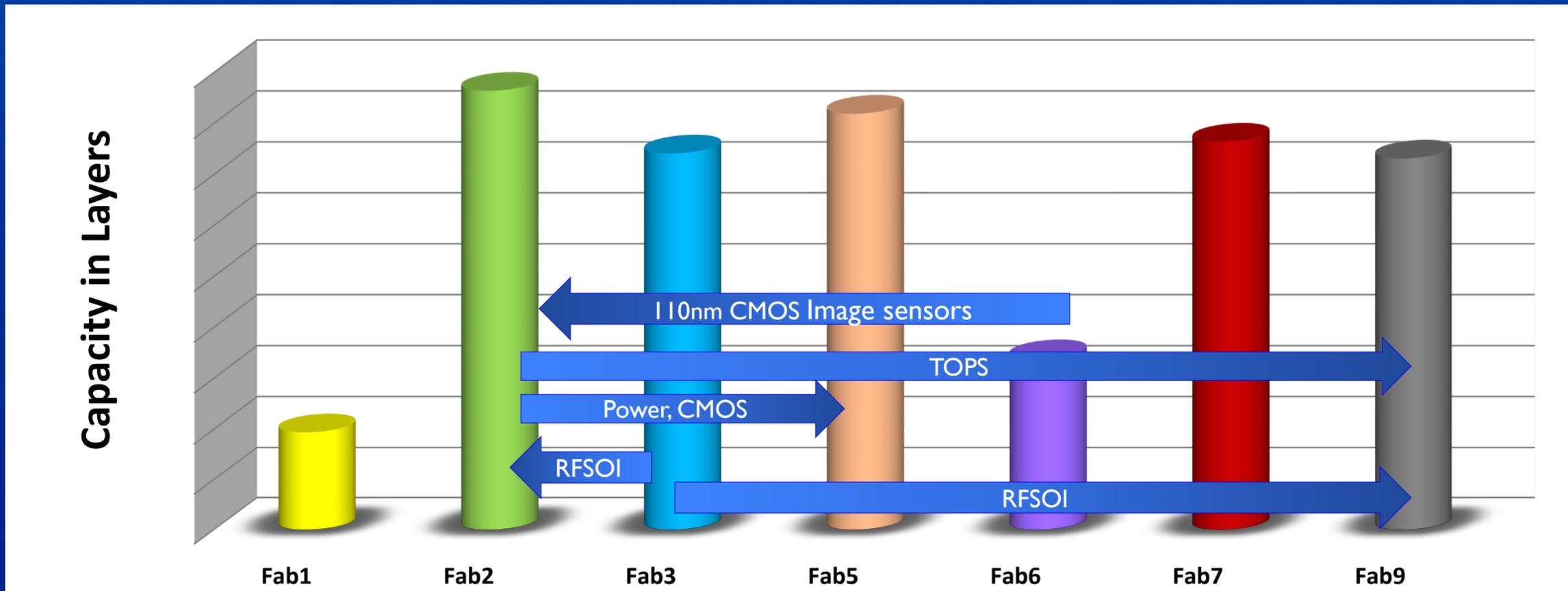
New Technologies Ramp to Mass Production

Align the technological Roadmap with major customers

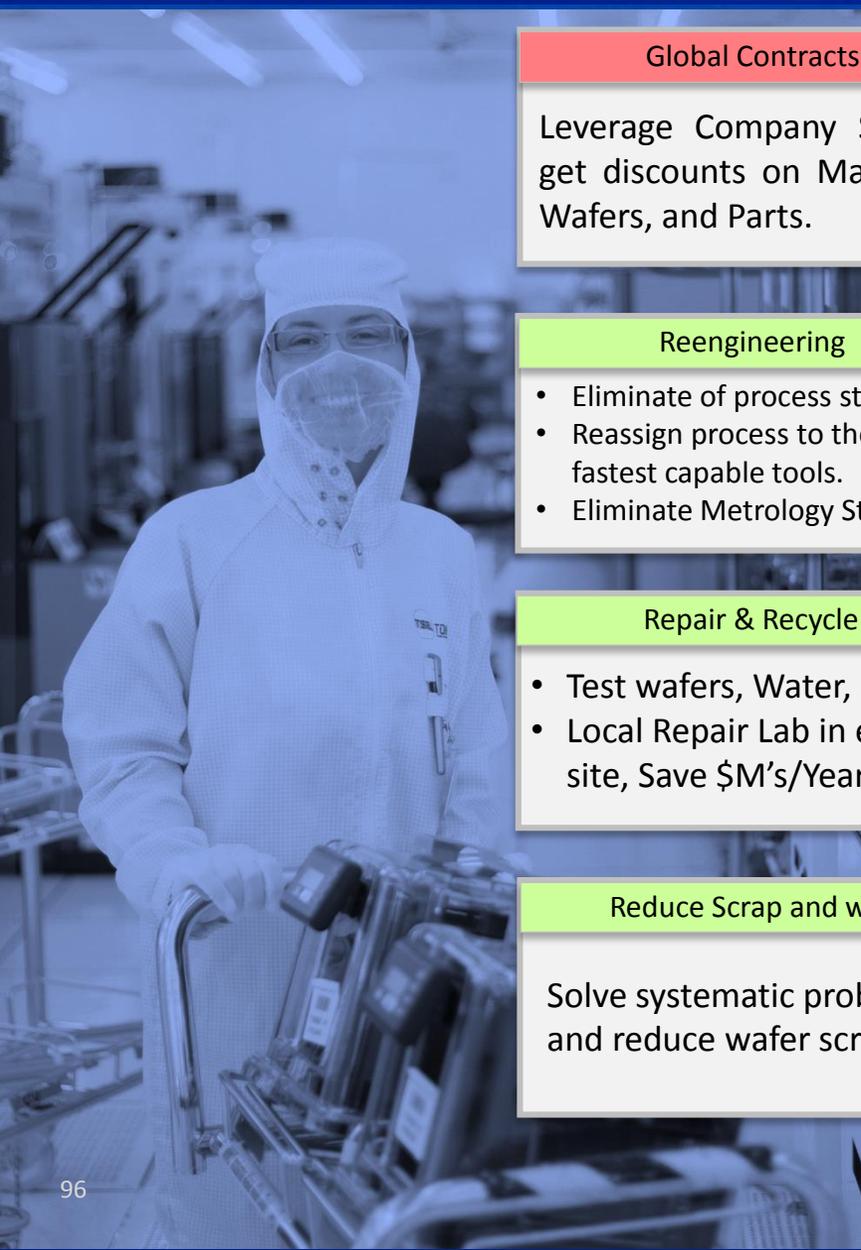
Transfer new technologies from the R&D to the Fabs and Ramp into mass production with the Quality mentioned above.

TJ Capacity – 2.3M Wafers / Year (8" equivalent) can generate \$1.6B of revenue

Cross qualify to utilize all Fabs at >85% , Serve the increasing customer demand and increase TowerJazz revenues and margins



Operational Excellence - Manufacturing Efficiency



Global Contracts

Leverage Company Size to get discounts on Materials, Wafers, and Parts.

Long term Contracts

Alternative Power & Bulk Gases suppliers.

Centralized capex purchasing

Package deals with OEM and 2nd hand vendors

Shared Resources

Move the best experts from site to site according to the need.

Reengineering

- Eliminate of process steps.
- Reassign process to the fastest capable tools.
- Eliminate Metrology Steps

Negotiation Power due to increased Size

Leverage Global Presence

Shared best practices.

Global Process / Equipment / IE Teams meetings to share Best practices.

Repair & Recycle

- Test wafers, Water, etc.
- Local Repair Lab in every site, Save \$M's/Year

Lean Methodology to eliminate waste

Expand Capabilities

Shared Equipment

- Move Tools from site to site and avoid capex purchase.
- Sales non utilized tools.

Reduce Scrap and waste

Solve systematic problems and reduce wafer scrap.

Automation-Dashboard

Improve visibility & standardization

Automation-Scheduler

Optimize wip management increase Fab throughput, OSD and CT

OEE Improvement

- Tools availability
- Redundancy between tools
- Process throughput
- 100% operational efficiency.

The Best Salesperson is a High Yielding Wafer that Shipped on Time

- **High Assets Utilization:** Offload to utilize all Fabs at >85%, serve the increasing customer demand and increase TJ revenue and margins
- **Reduced Lead time:** To shorten Time to Market for new products → fuel our future growth
- **Cost Reduction:** OEE Improvement to reduce Capex investment. COGS Savings to increase Margins
- **Perfect Quality:** Zero Field Returns, high yields - to retain existing customers and win new products



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Financial Performance: Achievements, Strategy and Roadmap

Mr. Oren Shirazi, Chief Financial Officer

November 16, 2016

New York

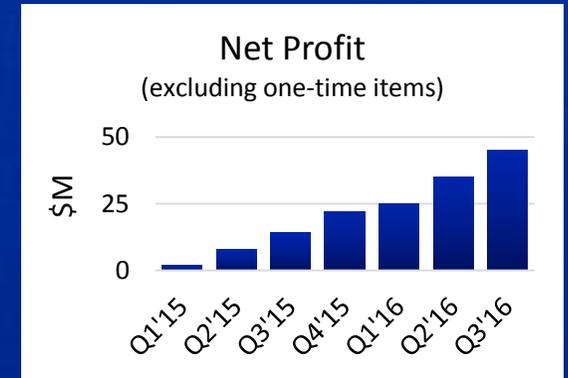
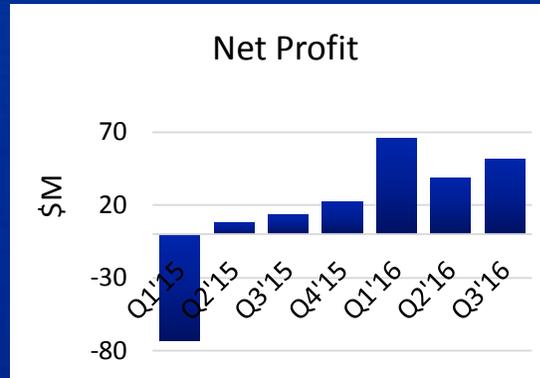
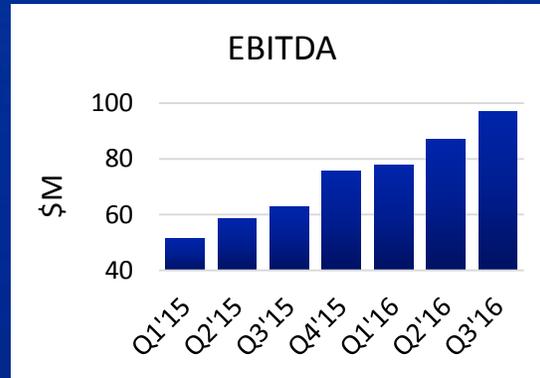
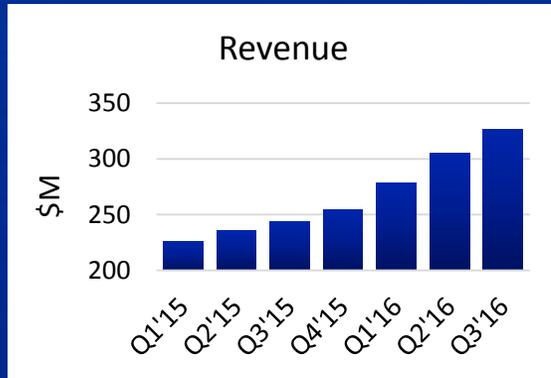
Q3 2016 Financial Results: Growth Across the Board

Revenue	\$326.2M	34% YoY growth
EBITDA	\$96.8M	54% YoY increase
Net Profit	\$51.2M	3.8X Up YoY
EPS (diluted)	\$0.52	3.2X Up YoY
Cash from Operations	\$86.4M	70% YoY increase
Free Cash Flow	\$31.5M	3.1X Up YoY

Financial Results Main Achievements

- **Continuous Profitable Growth**

- 11 sequential quarters with year over year quarterly revenue growth
 - Constant increase in organic and third party business
- Ongoing increase in EBITDA and Net Profit

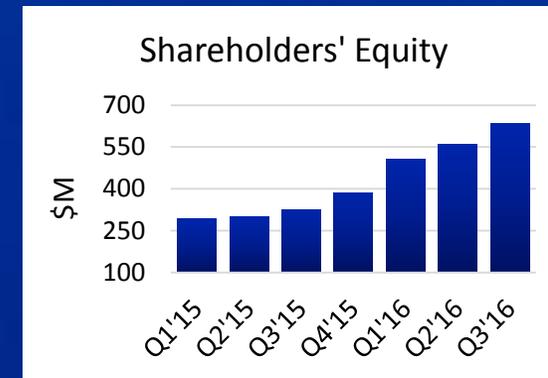
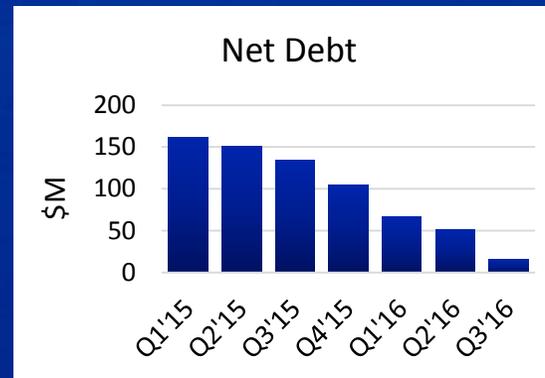
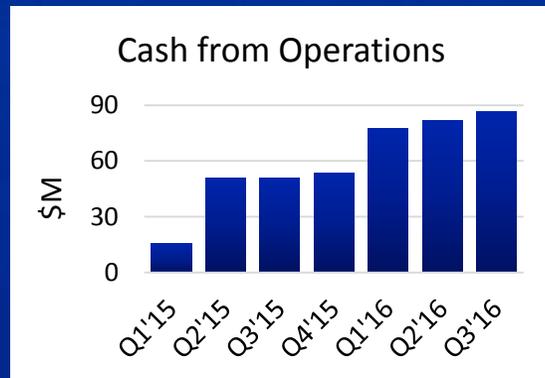


Enabled ...

Financial Results Main Achievements (Cont.)

- **Strong Balance Sheet and Cash Creation Model**

- Sequential cash from operations and free cash flow growth
- Decreased net debt level with on-going cash balance increase
- Increased shareholders' equity



Financial Performance Analysis

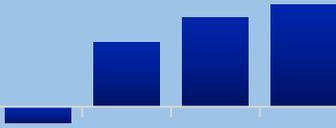
	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16	Q3'16 vs. Q1'15 Δ
Revenue (\$M)	226	236	244	255	278	305	326	+ 100
EBITDA (\$M)	51	59	63	76	78	87	97	+ 46
Net Profit (\$M)	(73)	8	14	22	66	38	51	+ 124
Net Profit excl. one-time items* (\$M)	2	8	14	22	25	35	45	+ 43
Shareholders' Equity (\$M)	292	300	325	386	504	559	636	+ 344
Cash On Hand (\$M)	134	143	155	206	245	311	363	+ 229
Debt, net of cash (\$M)	162	150	134	105	66	51	16	+ 146
Net Debt/ Annual EBITDA (@Q*4)	<0.8X	<0.7X	<0.6X	<0.4X	<0.3X	<0.2X	<0.1X	

* One time items included: (i) for Q3'16, \$6 million tax income related to Japanese affiliate (TJP) closure; (ii) for Q2'16, \$7 million non-cash financing expenses relating to the early repayment of the Israeli banks' loans and \$10 million net gain from the acquisition of the San Antonio fab; (iii) for Q1'16, \$41 million net gain from acquisition of the San Antonio facility; (iv) for Q1'15, \$85 million non-cash financing expenses, mainly related to bonds F conversion and \$11 million tax non-cash income from statute of limitations expiration

Cap Table | As of September 30, 2016



Main Financial Targets and Focus – 2016 financial targets

	Target (announced in Q1'16)	Status
Margins improvement: Higher margin mix – supported by cross qualification and offloading activities	Operating margin from 8% for FY 2015 to double digit throughout 2016 with H2>H1	On track – Q3'16 at 15%
Net profit continuous increase- realization of capacity increase	TPSCo 3 rd party ramp to reach \$25M by Q4'16	On track
	Maintain and grow positive net profit	
Free cash flow state of mind	Growing free cash flow	 <p>Q4'15 Q1'16 Q2'16 Q3'16</p>

Present Capacity Financial Model

\$M	Q3'16 Annualized	Incremental Model	Total
Revenue	1,305	295	1,600
Gross Profit	324	165	489
R&D	62	5	67
SG&A	67	0	67
EBITDA	387	160	547
Net Profit	160	101	261
Cash from operations	344	121	465
Cap-Ex	168	0	168
FCF	176	121	297

From current run rate to \$1.6B annual run rate at maximal revenue from existing capacity

After taxes and TPSCo minority; Q3 Net Profit excludes \$11M income recorded in tax line and other income line

Q3'16 Annualized Cap-Ex assumes sustainable Cap-Ex run-rate of \$42M/Q, excluding customer pre-payment funding for Cap-Ex

FCF = Cash from operations less Cap-Ex

Corporate Financial Targets and Focus

- Gross margin increase to 30% and Operating Profit to 22%
 - ASP increase through improved mix
 - Optimized cost structure
 - Cross qualification actions between fabs which experience excess demand to other manufacturing facilities with available capacity
- Reduce Op-Ex percentage from revenues to 8%
 - Existing R&D and SG&A structure can support \$1.6B organization
 - Maximize global strength with worldwide synergies of support & other functions
 - Execute saving measures and improve efficiency
- Free Cash Flow growth to \$297M, Cash From Operations to \$465M and Net Profit to \$261M
 - Execute all the above
 - Existing Cap-Ex structure can support \$1.6B organization
 - Invest in Cap-Ex for growth only upon:
 - Proof of mid to short term ROI
 - Cross qualification products manufactured between fabs

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Human Capital as Growth Enabler and M&A Success

Mrs. Dalit Dahan, SVP Human Resources

November 16, 2016

New York

Our Worldwide Employee Base: Our Strength

- 4,500 employees worldwide
 - Our employees are our greatest **strength**
 - We recognize their **capability, dedication, loyalty** and **passion** as a primary factor in our company's achievements
- We are an **equal opportunity** employer
 - Our employee base is comprised of individuals from various cultures, backgrounds
 - We have a strong focus on gender equality
- Our culture emphasizes **respect, recognition** and **opportunity**
 - We **inspire** and **reward** outstanding achievements and innovation.

Leadership Commitment: Enabling Change and Accelerated Growth

- Retaining strong talent is a critical element for our business success
 - High expertise – knowledge, skills and attitude – one of our core values
 - Innovation within a collaborative environment

Our Corporate Values: the base of the yearly evaluation/ merit process



We constantly strive to understand our customers' needs and refine our processes to enable their success.

We pursue flexible and win-win solutions.

We align with our customers on long-term roadmaps and milestones to achieve the best time to market.

We respect and protect our customers' confidential information and intellectual property.

We strive to achieve the highest standard of excellence in all areas.

We deliver services and products with best-in-class quality.

We continuously benchmark and improve our capabilities.

We are trustworthy in our internal and external engagements and treat individuals with respect at all times.

We nurture an open environment for communication and encourage teamwork.

We do not compromise our integrity or business ethics.

We invest in developing the knowledge and skills of our employees and conduct a work environment that promotes a "can do" attitude.

We encourage rapid cycles of learning and reward creative and innovative technical, operational and business solutions.

We require personal responsibility, accountability and assumption of ownership for success.

Data Driven and Results Oriented

We encourage aggressive targets and reward achieving those goals

We ensure that all our activities are data driven and relate to a specific set of objectives and defined criteria.

We value decisiveness and ownership.

Leadership Commitment: Enabling Change and Accelerated Growth

- Retaining strong talent is a critical element for our business success
 - High expertise – knowledge, skills and attitude – one of our core values
 - Innovation within a collaborative environment
- High-potential – high-performance focus
 - Recognize talent leaders (stars)
 - Provide multiple learning and development platforms and programs
 - IE Program
 - (TJ)² – TowerJazz Technology Journal
 - Internal collage
 - Sponsoring advance degree
 - Global assignments
 - LEAD
 - Mentoring
- Aggressive goals, accountability, recognition principles

M&A Success

- Retain the key talent in every site
- Embrace the differences - take the best from every geography
- Respect and empower the local culture
- Create involvement and allow influence on decisions
 - Each site has proactive role in technical offerings
- Create flexible processes
- Identify and reward stars



Community Contribution – Social Responsibility

Our community service charter is:

“Educational and vocational development with a focus on gender equality and minority integration”

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
- Donate and deliver toys, books and other items to people in need during the Holidays



Global Awareness Investigation and Action (GAIA) Project

We are now in our 7th 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.



TOWERJAZZ

The Global Specialty Foundry Leader



Customer Base Strength and Diversity

Mr. Gary Saunders, SVP of Worldwide Sales

November 16, 2016

New York

Who Are Our Customers?

IDMs (Integrated Device Manufacturers)

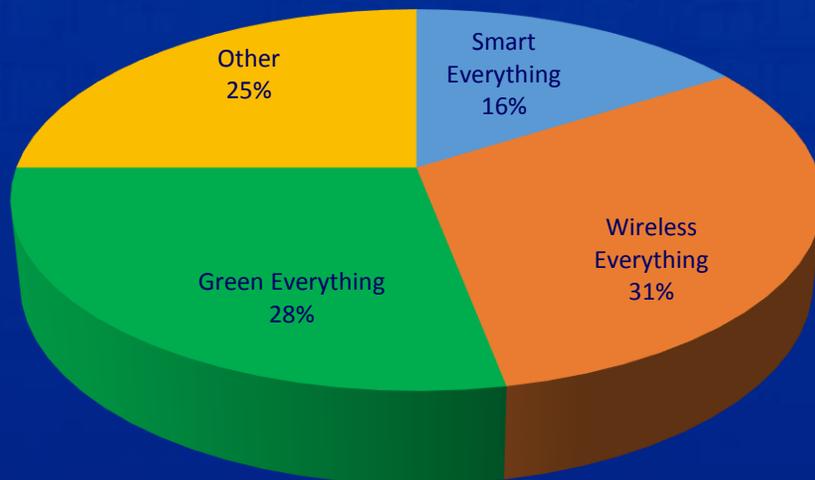
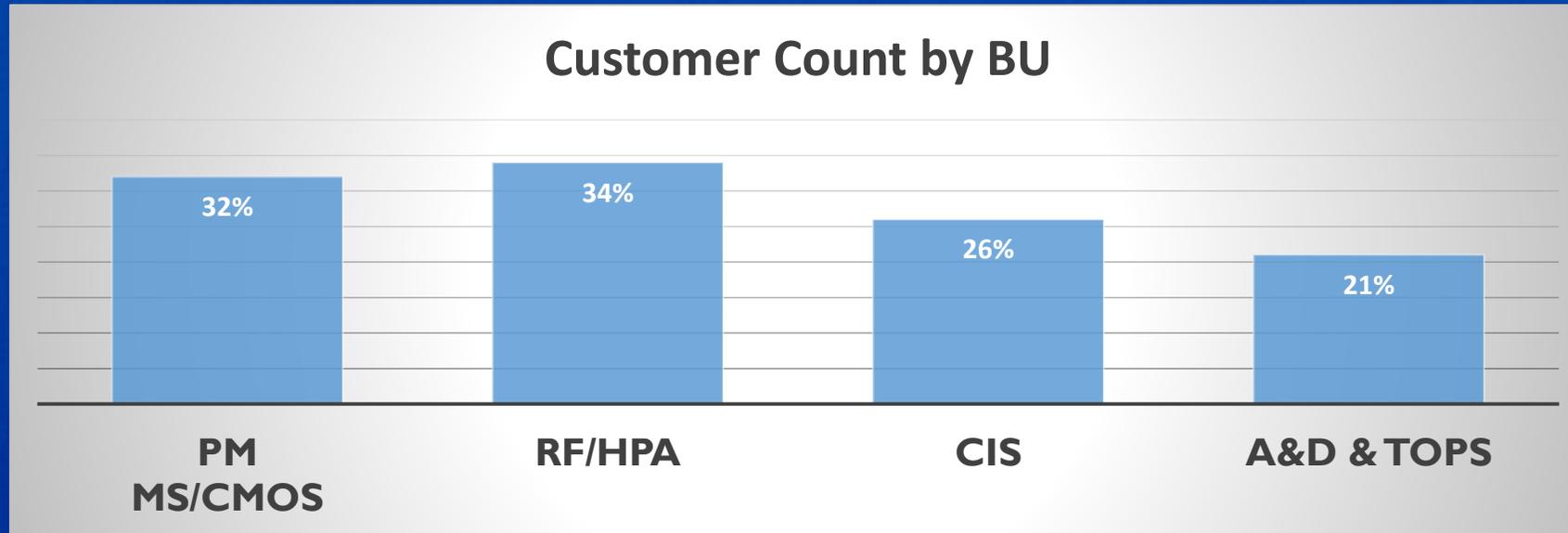
- Semiconductor companies which design, manufacture, and sell integrated circuits.
- TowerJazz provides products outside the IDMs manufacturing core capabilities, and enables fab-lite models.
 - BRCM, Maxim, Qorvo, Skyworks: RF HPA
 - On Semi, Siliconix: Power Management
 - Intel, On Semi: CIS
 - Fairchild, Infineon (IR), Vishay: TOPS

Fabless Companies

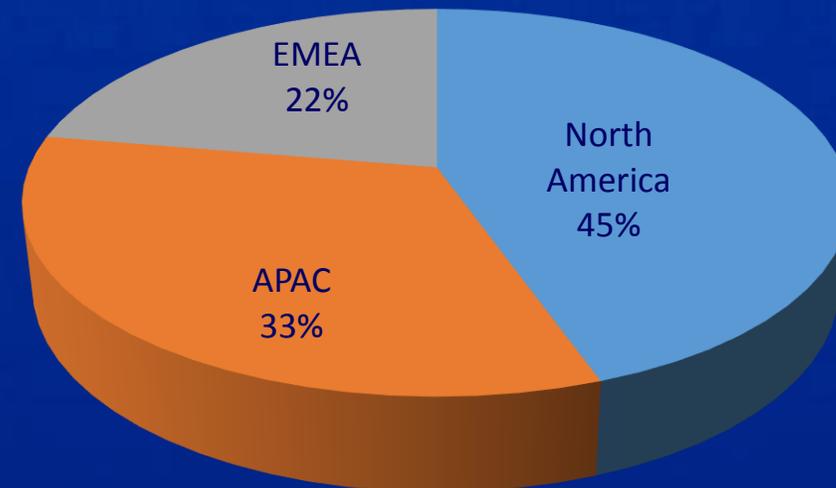
- Semiconductor companies which have no internal silicon manufacturing capabilities.
- TowerJazz provides products and specialty flows enabling the end market applications of our fabless customers.
 - MACOM, Marvell, Semtech: RF HPA
 - Active Semi, Semtech: Power Management
 - CMOSIS, PixelPlus: CIS
 - Crocus, Semtech: TOPS

Our customer engagement model drives long term, often exclusive, partnerships

TowerJazz Serves Over 300 Customers Globally



Revenue by Industry Megatrend

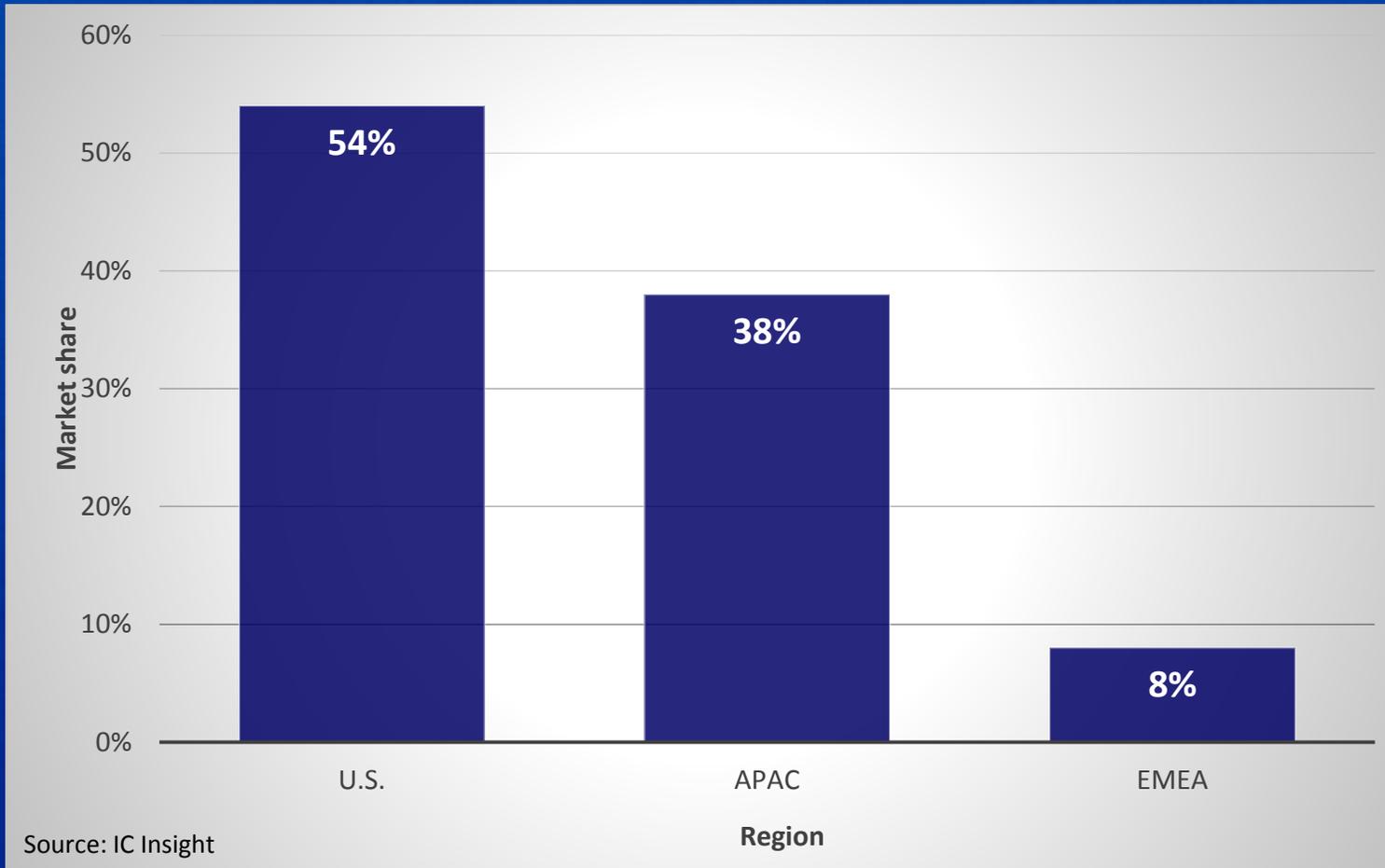


Customer Count by Region

End Market Diversification – Top Customers

	Power	Radio Frequency / High Performance Analog		CMOS Image Sensors	Others (A&D, Mixed-Signal, Sensors, Embedded Memory, ESD etc.)
	28%	22% mobile	9% Infrastructure	16%	25%
Customer 1	✓	✓	✓	✓	✓
Customer 2		✓	✓		
Customer 3	✓		✓		✓
Customer 4	✓				
Customer 5		✓	✓		✓
Customer 6		✓	✓		
Customer 7	✓			✓	✓
Customer 8	✓		✓		✓
Customer 9					✓
Customer 10	✓				
Customer 11-15	✓		✓	✓	✓

Worldwide IC Company Revenue Breakdown by Headquarters Location



We align regionally to the worldwide breakdown of revenue market share

Our corporate revenue is not disproportionately leveraged in any region

We fully and actively participate in the worldwide TAM

TowerJazz regional revenue breakdown:

US - 58%, APAC - 36%, EMEA - 6%

The strength of our customer base

AIROHA

FLIR

maxim
integrated™

QORVO™

VISHAY®

BROADCOM®

GENORAY

MACOM™

SKYWORKS™
BREAKTHROUGH SIMPLICITY

Panasonic

CAVENDISH KINETICS

Himax

NASA

Infineon

SEMTECH

CMOSIS
image sensors

intel®

ON Semiconductor®
FAIRCHILD™

SAMSUNG

MARVELL®

CROCUS Technology
Blossoming future

e2v

PIXELPLUS

3PEAK

MAXLINEAR

The strength of our customer base



★ Top 25 Semiconductor Co's 2015 (IHS)

★ Top 10 Analog IC's Co's 2015 (IC Insights)

★ Top 12 CIS Vendors 2015 (Yole Development)

★ "The Power 30" 2015 (powerelectronics.com)

Summary

- Our customers are the **analog leaders** in RF, Power and Imaging, driving the industry's megatrends: Green, Wireless, and Smart Everything.
- As the leading specialty foundry, our customer engagement model drives long term, often exclusive, **partnerships**.
- We align our product roadmaps and R&D investment with the industry's leaders, thus ensuring our continued **technology leadership**.
- The **strength and diversity** of our global customer base, and markets we serve, provides a secure foundation for future growth.

TOWERJAZZ

The Global Specialty Foundry Leader



Closing

Mr. Russell Ellwanger, Chief Executive Officer

November 16, 2016

New York

The Epiphanies from Observing Life

- Focusing on developing our skills to the utmost
- Combined with pristine execution

Will always yield self predictive excellent results!

TowerJazz: The Global Specialty Foundry Leader | A SNAPSHOT

Proven Analog Business Model

Fastest Growing Foundry
in the **world** with
Proportional Growth in
All Financial Metrics



Technology Leadership

Wide Range of
Advanced and
Differentiated
Specialty Analog
Offerings



Market Leadership

Well Positioned in the
Fastest Growing Markets
with **Long Term Customer**
Relationships and
Roadmap Alignment



Operational Excellence

High Worldwide
Manufacturing
Capabilities and
Flexibility



TOWERJAZZ

The Global Specialty Foundry Leader



Thank You!

For more information please contact: Noit Levy-Karoubi, VP IR, noit.levi@towerjazz.com