



The Global Specialty Foundry Leader

A circular inset image showing a microscopic view of a semiconductor die, displaying a grid of small, colorful, square-like structures.

Company Overview, Performance and Strategy

August 2015

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Annual Revenues — 2005–2015*



* Annualized based on Q1&Q2'15 actual, Q3'15 mid-range guidance and Q4'15 company's target

Competitive landscape – McClean Report (04.2015)

#1 Specialty Foundry

The fastest growing foundry in the world 2014/13

Leading Pure-Play Foundry Companies

2014 Rank	2013 Rank	Company (Headquarters)	2012 Sales (\$M)	12/11 % Change	2012 Share of Total	2013 Sales (\$M)	13/12 % Change	2013 Share of Total	2014 Sales (\$M)	14/13 % Change	2014 Share of Total
1	1	TSMC (Taiwan)	16,951	19%	55%	19,935	18%	56%	24,976	25%	59%
2	2	GlobalFoundries (U.S.)	4,013	26%	13%	4,122	3%	12%	4,355	6%	10%
3	3	UMC Group (Taiwan)	3,730	-1%	12%	3,959	6%	11%	4,350	10%	10%
4	4	SMIC (China) ¹	1,542	17%	5%	1,962	27%	5%	1,970	0%	5%
5	5	Powerchip (Taiwan) ²	0	N/A	0%	1,182	N/A	3%	1,282	8%	3%
6	8	TowerJazz (Israel)	639	5%	2%	505	-21%	1%	828	64%	2%
7	6	Vanguard (Taiwan)	582	12%	2%	713	23%	2%	790	11%	2%
8	7	Hua Hong Semi (China) ³	572	N/A	2%	585	2%	2%	685	17%	2%
9	9	Dongbu HiTek (S. Korea) ⁴	526	5%	2%	452	-14%	1%	541	20%	1%
10	12	X-Fab (Europe)	259	-7%	<1%	290	12%	<1%	330	14%	<1%

Q2 Financial Highlights

Q2 Revenues

\$236 million

RECORD REVENUES!

■ Strong Revenue growth

- Q2 Record revenues of \$236 million (35% organic y-o-y growth)
- Q3 Mid range guidance of \$244 million

■ Substantial Margins increase

- **GAAP net profit** with sustainable business model
- Non-GAAP gross margin of 37% (up from 27% in Q2 '14)
- EBIDTA of \$59M (77% y-o-y increase); Non-GAAP Net Profit of \$54M

■ Strong Balance Sheet and financial ratios

- Shareholders' equity of \$300M
- Net debt reduced to \$150M (vs. ~\$400M as of June 30, 2014)
- Cash on hand as of June 30, 2015 of \$143M

2015 and Beyond..

- Quarter over quarter growth throughout 2015
- Annual revenue run rate of \$1 billion in Q4'15
- Non-GAAP gross margin target increase to 40% in Q4'15
(as compared to 27% post TPSCo creation)
- 2017 non-GAAP gross margin target hitting 50%

What do we do?

The Global Specialty Analog Foundry



The Global Specialty Analog Foundry

Fabless



The Global Specialty Foundry Leader

Specialty Analog IC Manufacturing

- Proprietary Process Technology
- Analog-Accurate Design Kits

IDM



ON Semiconductor



WE NEVER COMPETE WITH OUR CUSTOMERS

Specialty Foundry Advantages



	Digital Moore's Law Foundries	Specialty Analog Foundries
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	Many niches through mid-size
Process Technologies	CMOS	SiGe, BiCMOS, MEMS, CIS
Technology Nodes	65nm-22nm	350nm-130nm

Analog Market Opportunity



DIGITAL FOUNDRY MARKET

LOGIC/MEMORY

Apps Processor
+ DRAM
NAND Flash
NOR Flash
Quad Baseband

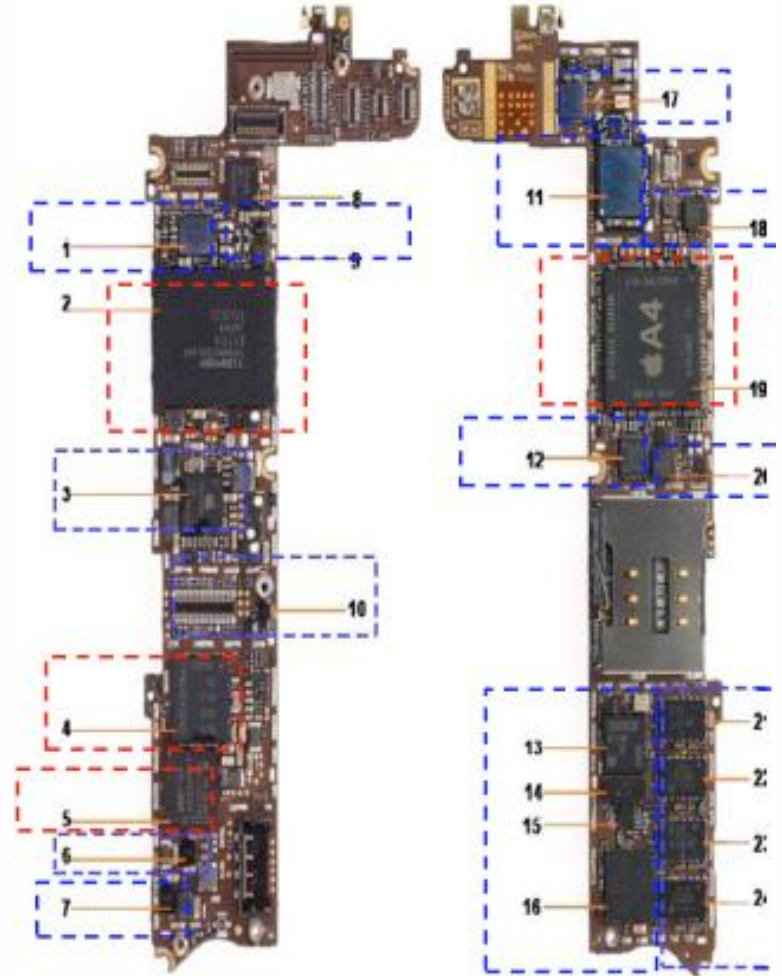
4 CHIPS

SPECIALTY FOUNDRY MARKET

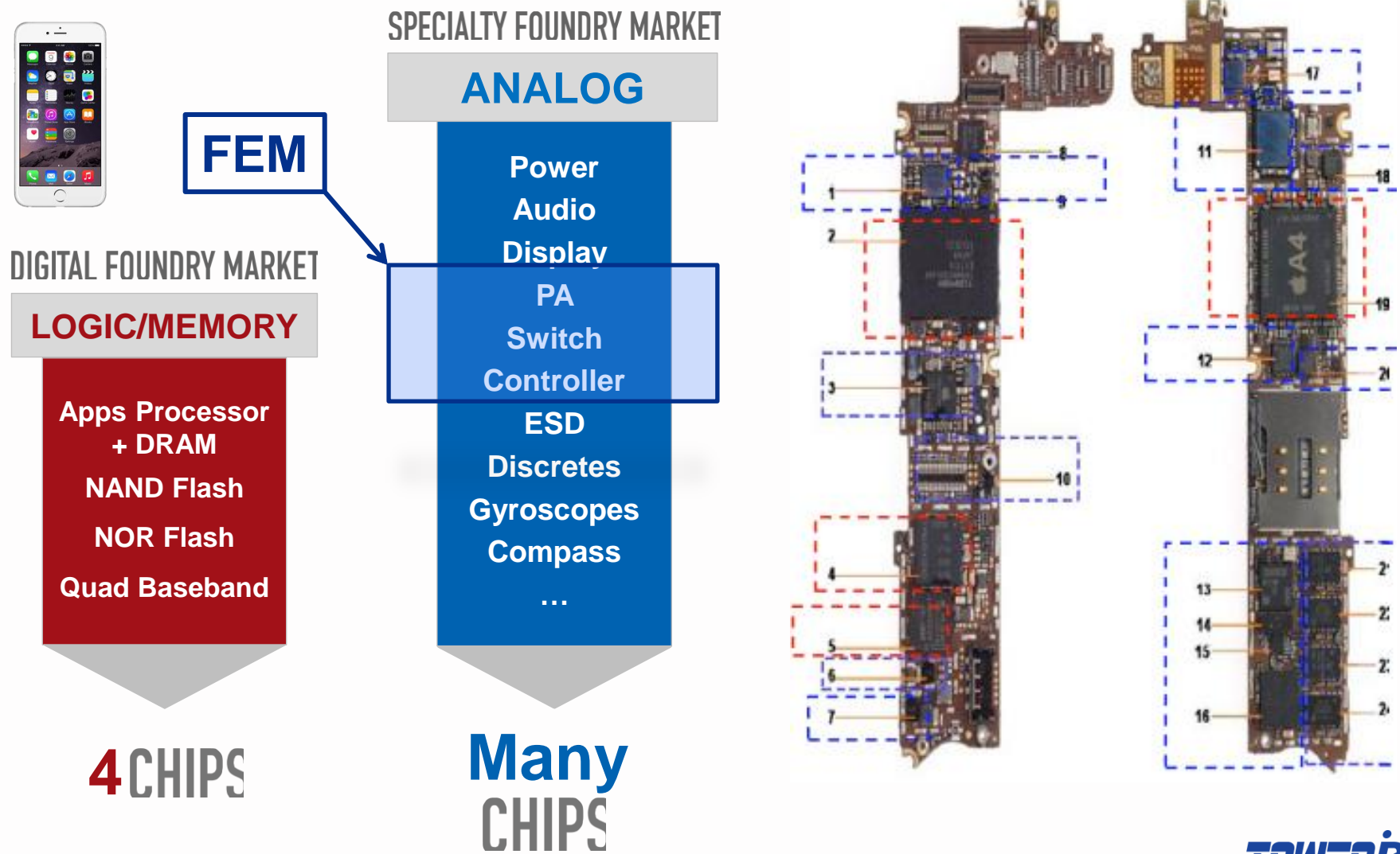
ANALOG

Power
Audio
Display
PA
Switch
Controller
ESD
Discretes
Gyroscopes
Compass
...

Many
CHIPS



Analog Market Opportunity



FEM content from ifixit teardown:

- Skyworks 77802-23 Low Band LTE PAD
- Skyworks 77803-20 Mid Band LTE PAD
- Skyworks 77356-8 Mid Band PAD
- Avago A8020 High Band PAD
- Avago A8010 Ultra High Band PA + FBARs
- RF Micro Devices RF5159 Antenna Switch Module
- Murata 339S0228 Wi-Fi Module

TowerJazz FEM Solutions:

RF SOI (Switches), SiGe (LNA/PA), RF CMOS (control)



Market Growth Prospect

- FEM content per phone growing with each generation
- Technology shift (GaAs to SOI/SiGe/CMOS) continues
- TowerJazz technology is in a leading position

TOWERJAZZ



Midgal HaEmek, Israel

**6", 150mm, 16K w/m
CMOS, CIS, Power,
Discrete
1 μ m to 0.35 μ m**



Midgal HaEmek, Israel

**8", 200mm, 43K w/m
CMOS, CIS, Power,
Discrete, MEMS
0.18 μ m to 0.13 μ m Cu**



Newport Beach, USA

**8", 200mm, 24K w/m
CMOS, CIS, MEMS,
RF Analog
0.5 μ m to 0.13 μ m**

TPSCo



Arai, Japan

**8", 200mm, 14K w/m
Analog, CIS
0.13 μ m to 0.11 μ m
Thick Cu RDL**



Tonami, Japan

**8", 200mm, 51K w/m
Power Discrete,
NVM, CCD
0.35 μ m to 0.15 μ m**



Uozu, Japan

**12", 300mm, 20K
w/m (8" equiv.)
CMOS, CIS, RF
65nm to 45nm**



A Revolutionary Foundry Concept

- **3 manufacturing facilities** in Japan - TowerJazz holds 51% ownership
- Available capacity of **~1 million wafers per year** (8 inch equivalent)
- Revenues for TowerJazz of approximately **\$400M/Yr** with longer term ability to add \$250M to \$300M of annual 3rd party revenue
- Panasonic committed to acquire from TPSCo for at least five years
- **State of the art 300mm** analog technology fab with **65/45nm** and best-in class 65nm CMOS image sensor and RF SOI development
- **60 3rd Party Foundry Customer** development projects
- **Fairchild mass production** start; a process transfer of multiple devices for industrial and consumer markets

Core TowerJazz Analog Specialty Offering

TowerJazz Business Units – Specialty Technology Leader



**RF
& HPA**



Power



CIS



**MS
CMOS**



**Aerospace
& Defense**



TOPS

RF HPA Markets and Solutions



Wireless Front-Ends
RF SOI and SiGe LNA/PA

High Growth driven by
Smartphones and IoT



Wireline Front-Ends
High Performance SiGe

High Growth driven by
video, data internet traffic



mmWave
High Performance SiGe

Emerging Value driven by
radar and other high-
frequency applications



High Performance Analog
Complementary BiCMOS

Steady Volume driven by
cloud-based HDD and
analog component market

Power Markets and Solutions



Display, Audio, Touch, Power Management

0.18um BCD Technology

High Volume driven by consumer device growth



Automotive & Communication

0.18um BCD + NVM and digital

High Value driven by more integrated power



LED Lighting

700V Power Technology

Emerging Market in low energy lighting for power semiconductors



Industrial & Infrastructure

High Power Modules

High Power motor drivers

Specialty CIS Markets and Solutions



Professional Photography

- Best in class pixels
- Low dark current
- Accurate stitching



X-Ray

- Excellent flexible pixels
- Stitching for 1 DPW
- Very high yields



Industrial

- Special fast pixels
- Unique features: Bathtub
- Network of leading customers



Automotive & 3D

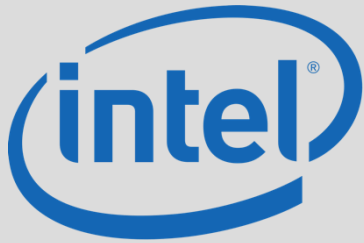
- Unique near IR sensitive pixels
- High QE
- Very fast pixels
- High DR



Recent Customer Announcements



- TowerJazz and FLIR Systems Partner to Deliver Next Generation Commercial Infrared Technology



- TowerJazz Begins Mass Production of IR Sensor used by Intel in one of its new 3D Sensing Solutions



- TowerJazz Announces Successful Transfer of Fairchild Semiconductor's Discrete Devices to TowerJazz Panasonic Semiconductor's Japan Fab

Actions Being Taken to Meet Strong Customer Demand

1. **Qualifying TPSCo** on several specialty platforms from Fab2
 - Enables offloading between our worldwide fabs
 - Opens capacity in Fab2 and can provide additional substantial 2016 revenue in TPSCo
2. **Investing in capacity**
 - \$15-20 million for each fab (Fab2 and Fab3)
 - Mainly to address the growing RF SOI needs
3. **Customer funded capacity**
 - Based on prepayment and capacity reservations agreements
 - Enabling our customer to secure capacity for their long term needs
4. **M&A opportunities** for additional capacity
 - Business model to include committed revenue by the seller

Summary

Well Positioned in Growth Markets

- RF SOI and SiGe for wireless smartphone, IoT, and data networks
- CMOS Image Sensor and 3D Gesturing
- Power management and conversion
- Strong available capacity in TPSCo and investing in additional capacity

Driving Strong Financial Performance

- Q2 record revenues of \$236 million, with 35% organic y-o-y growth
- Q2 record EBITDA of \$59 million, 77% year over year growth
- Net debt reduced from ~\$400M in Q2'2014 to ~\$150M presently
- Expecting continuous quarter over quarter growth during 2015

TOWERjazz

www.towerjazz.com