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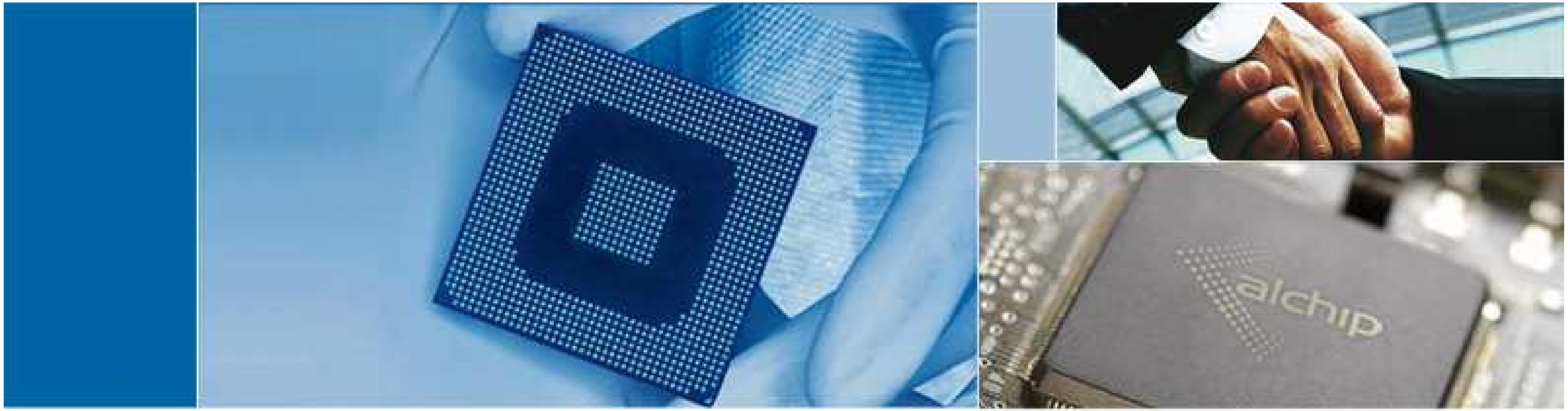



# Alchip Technologies

## 4Q2014 Institutional Investor Meeting

# Safe Harbor Disclaimer

This presentation contains forward-looking statements, including statements about business outlook and strategy, and statements about historical results that may suggest trends for our business. These statements are based on estimates and information available to us at the time of this presentation and are not guarantees of future performance. Actual results could differ materially from our current expectations as result of many factors, including: our financial performance, including our net revenue, cost of revenue, operating expenses and ability to sustain profitability; our planned capital expenditures; our ability to expand our customer base; our ability to expand our product and service offerings; the impact of seasonality on our business; our ability to remediate the material weaknesses and significant deficiencies in our internal control over financial reporting; our ability to stay abreast of modified or new laws applying to our business; and our spending of the net proceeds from this offering. Except as required by law, we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise.

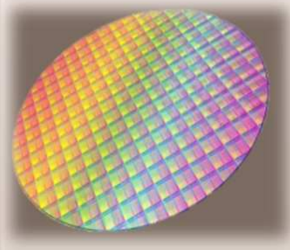
# Corporate Snapshot

- Founded: February 2003
- **Chairman: Kingying Kwan, CEO: Johnny Shen**
- **Business: ASIC design service and manufacturing**
- Employee: 245
- Capital: 634.8 million NT dollars

# Business Model

Traditional ASIC Model

Captive
IP
Fab
PKG



IDM

DESIGN

PROTOTYPING

MFG

Fabless ASIC Model

Alchip

alchip
SYNOPSYS ARM ANALOG BITS
cadence MIPS TECHNOLOGIES tci
tsmc TOSHIBA SMIC
FUJITSU
ASE GROUP SONY Sigurd
KYEC 京元電子 The Testing Industry Benchmark
Amkor Technology

**Alchip** provides **Best-in-Class** solutions

# Value and Strengths

## Strength

### Cutting Edge SoC Design

- First Asia Pacific ASIC supplier start 28nm production
- First ASIC supplier with 20nm product on the market
- First 16nm FinFET Plus product on the market
- Unique; self-developed design Flow methodology
- Ability to customized circuit design

+

### Leader of the Industry

**2012:** 28nm design
**2014:** 20nm product
**2015:** 16nm product

## Value

### Short TAT & high successful rate

- Only one-month needed for simple design
- Three-month for complicated designs
- Typically six-month cycle time from Kick-off to Chip-out
- 100% one-time silicon success

+

### Cost Advantage

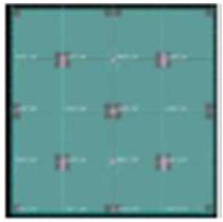
- Lower costs to traditional IDM suppliers.
- Strong bargain power to suppliers
- Short TAT leads to lower human costs

# Super Computer

## *Grape （2006）*

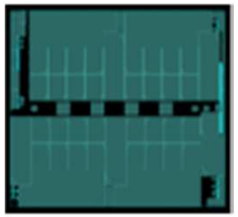
IBM + 東京大学 THE UNIVERSITY OF TOKYO

- 超級電腦晶片晶片含512個CPU，6千萬門邏輯閘，運算次數達到:2peta-flops (15次方)
- 在台積電90奈米製程上第一個進入量產的產品

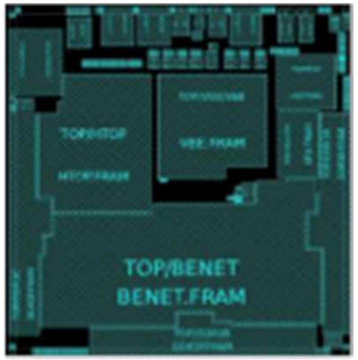


## 天河 *（2008迄今）*

- 超級電腦晶片晶片含2048個八核心處理器，超過6千萬門邏輯閘，800MHz頻率速度
- 天河一號，二號，三號均與世芯電子合作
- 下一代16nm專案正在設計中



# 4K 電視FRC晶片




- TSMC 40nm LP, 1P9M
- 30.4 M gates
- 9.7mm* 10mm
- 528MHz
- FCBGA

1st Silicon Success!

1st Silicon Success!

- TSMC 40nm LP,
  1P8M+ RDL
- 46.4M gates
- 11.76mm* 10.48mm
- 466MHz
- FCBGA

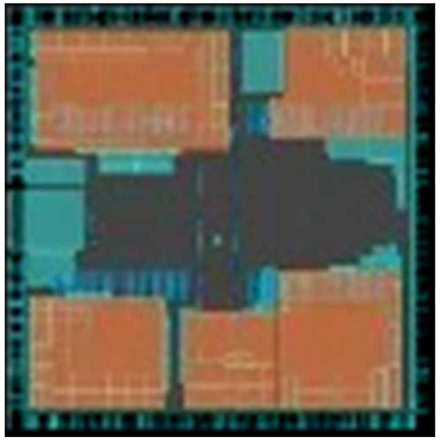
1st Silicon Success!

- TSMC 40nm LP,
  1P8M+ RDL
- 43.4M gates
- 101.6784mm$^2$
- 400MHz
- FCBGA

# *Amusement machine and bitcoin Miner*

YAMAHA

**Graphic Chip for Amusement Machine**



- ***TSMC 28nm HPM,***
- ***CoC technology***
- ***CortexA9/SATA/MIPI/ DDR3/LVDS Tx***

KnCMiner ***– Bitcoin Mining IC***

- ***3 generations***
- ***TSMC 28nm/20nm/16nm***

**design→production in 4-6 months**

**2013 Jupiter 28nm HPM**

**2014 Neptune 20nm**

**2015 Solar 16nm FinFET+**

# *ISP for Mobile devices*

altek
The Imaging Expert

## ISP for Mobile Devices

- ***TSMC 40nm HPM***
- ***Production in 1Q14***


## Trend to separate image signal processing from AP?

- ***Performance enhancement for not only photo shooting but also the whole set***
- ***Will see other mobile device, Pad, to apply standalone ISP***
- ***Two H company already applied such design to it's flagship models***

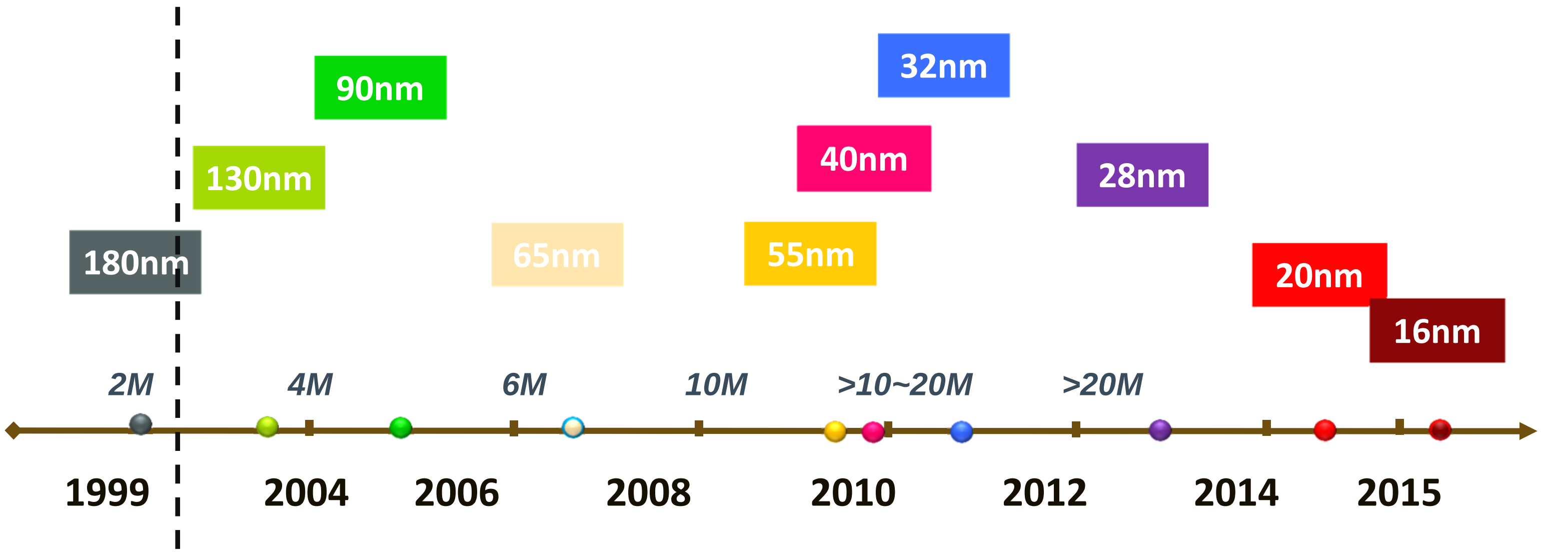
# Advanced Technology Readiness

**270+**

**Tape-Outs**

*(100% one pass silicon success)*

- *Leading process technology node*




*SoC Integration (Average Gate Count)*

# Quarterly P&L Performance

| US$'000 | 1Q14 | 2Q14 | 3Q14 | 4Q14 | QoQ (%) |
|---|---|---|---|---|---|
| Sales | 27,749 | 44,043 | 43,269 | 39,752 | -8.1 |
| COGs | 20,977 | 36,744 | 35,228 | 30,409 | -13.7 |
| Gross Profit | 6,772 | 7,299 | 8,041 | 9,343 | 16.2 |
| Operating Expense | 4,672 | 4,944 | 5,115 | 5,434 | 6.2 |
| Operating Profit | 2,100 | 2,356 | 2,926 | 3,909 | 33.6 |
| Net Non-Operating | (45) | 61 | 140 | -1,564 | -1217.1 |
| Pre-tax Profit | 2,055 | 2,417 | 3,066 | 2,345 | -23.5 |
| Tax | 301 | 439 | 117 | 2,058 | 1659.0 |
| Net Profit | 1,754 | 1,978 | 2,949 | 287 | -90.3 |
| EPS (NT$) | 0.98 | 1.10 | 1.62 | 0.15 | -90.7 |

(EPS is based on con-current shares and exchange rates)

# Yearly P&L Performance

| US$'000 | 2012 | YoY (%) | 2013 | YoY(%) | 2014 | YoY(%) |
|---|---|---|---|---|---|---|
| Sales | 90,336 | 2.6 | 87,021 | 3.7 | 154,814 | 77.9 |
| COGs | 70,043 | 4.9 | 61,494 | -12.2 | 123,358 | 100.6 |
| Gross Profit | 20,293 | -4.6 | 25,527 | 25.8 | 31,456 | 23.2 |
| Operating Expense | 18,668 | 5.1 | 19,260 | 3.2 | 20,165 | 4.7 |
| Operating Profit | 1,625 | -53.6 | 6,267 | 286.7 | 11,292 | 80.2 |
| Net Non-Operating | -882 | 14.4 | -1,441 | 29.4 | -1,409 | -2.2 |
| Pre-tax Profit | 743 | -72.8 | 5,126 | 589.7 | 9,883 | 92.8 |
| Tax | 426 | -20.4 | 1,433 | 236.1 | 2,914 | 103.4 |
| Net Profit | 317 | -85.6 | 3,692 | 1066 | 6,969 | 88.7 |
| EPS (NT$) | 0.17 | | 2.05 | | 3.77 | |

(EPS is based on con-current shares and exchange rates)

# 4Q14 Operation Recap

## *Revenue QoQ declined on seasonality*

- Production demand of consumer product JP & KR
- 40nm TV tuner shipments for Sony had transfer back to Sony in December

## *Gross margin grow 4.9ppt to 23.5%*

- Higher NRE percentage of revenue mix
- Recognized 16nm milestones

## *Non-operating loss*

- Written-off mask of US$1.35M

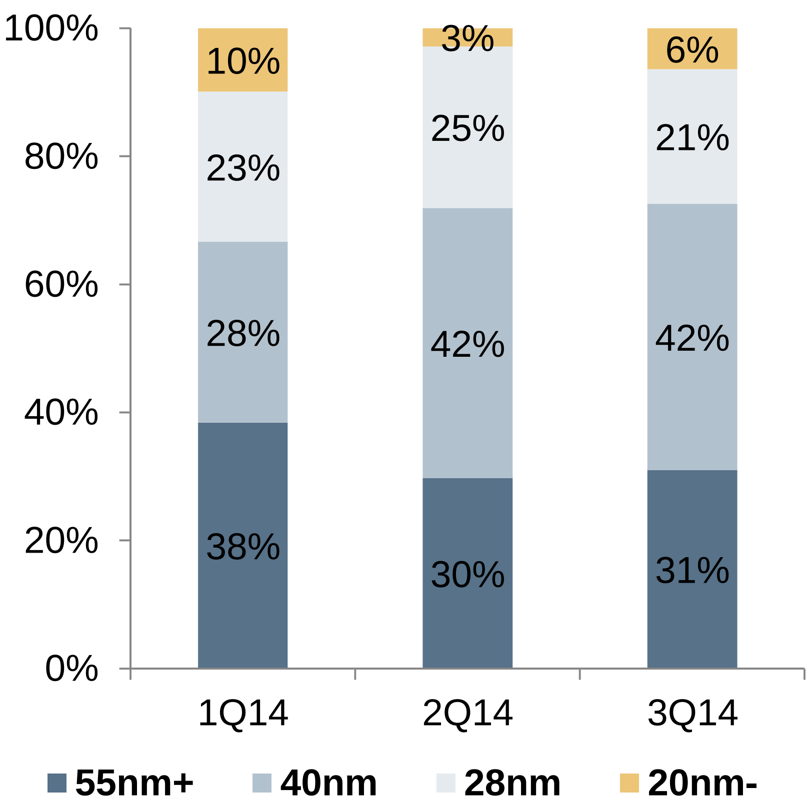
## *High tax expense*

- Tax duty recovery for JP subsidiary for about 1.0M
- Cancellation of China tax benefit

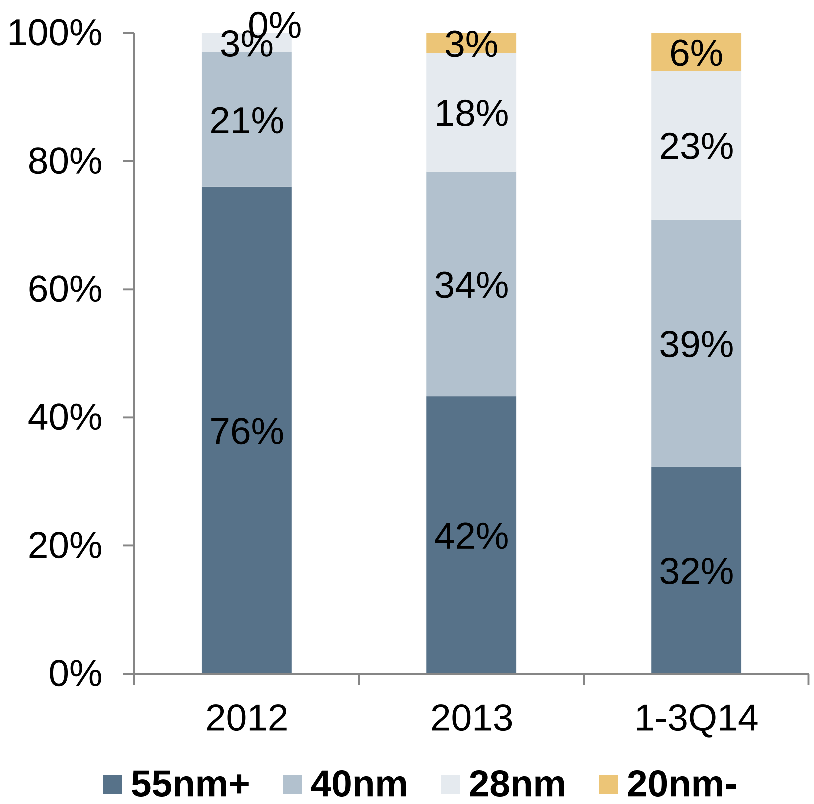
Advance nodes means 55nm or more advance nodes

# Revenue breakdown by technology nodes

## Quarterly Breakdown



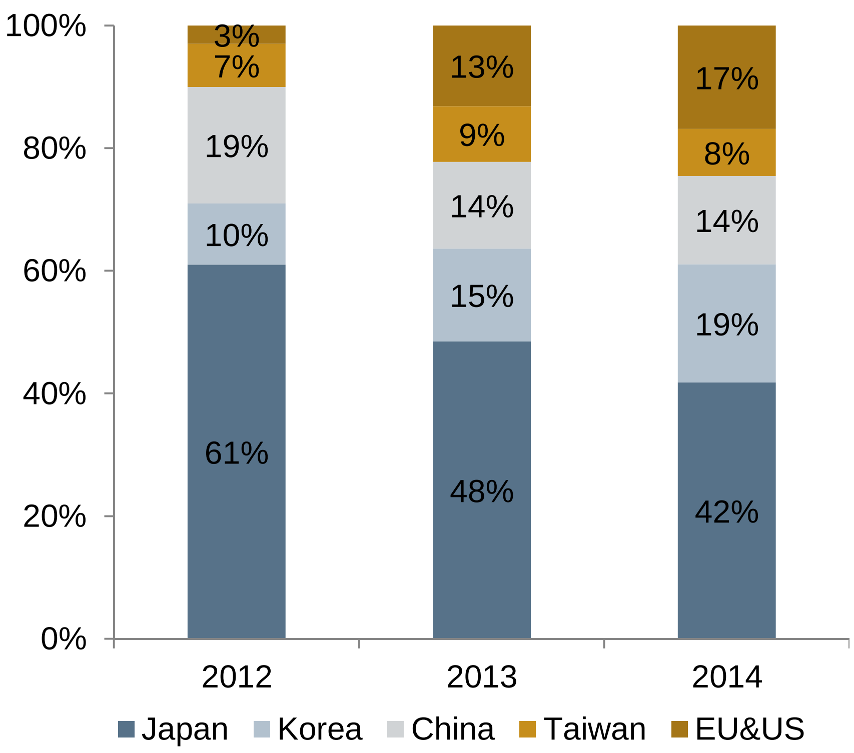

## Yearly Breakdown



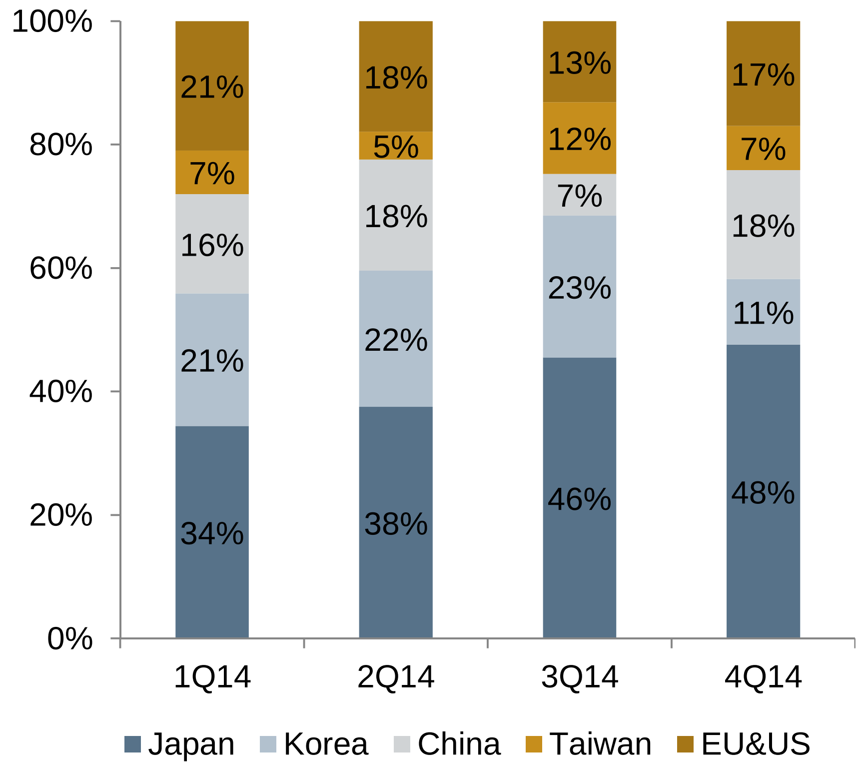

Advance nodes means 55nm or more advance nodes

# Geographical Breakdown

## Quarterly breakdown




## Yearly Breakdown



# 1H15 Outlook

## *1Q is traditionally weakest season*

- Revenue performance could be lackluster on seasonality
- 40nm TV tuner shipment stopped plus ISP shipment for mobile device has not amplified
- Expect flat YoY revenue

## *Expect 1Q15 Gross margin will significantly decrease QoQ*

- Lower revenue scale and lower NRE mix
- Several NRE milestones postponed to 2Q

## *Expecting significantly rebound of 2Q revenue QoQ*

- Shipment to amplify for mobile device ISP
- Several new NRE projects kick-off in 2Q15

## *Expecting great gross margin improvement in 2Q*

- Expand revenue scale and higher NRE mix

# 2015 Outlook

## *Consumer Electronic Products*

- Revenue for TV is expected to decline YoY due to (1) 40nm tuner shipments ended, (2) Sony 4K TV FRC shipment declines.
- ISP shipment for mobile device in mass production. Shipment expected to amplify starting in 2Q15
- Expect revenue for other consumer electronic products be flat YoY

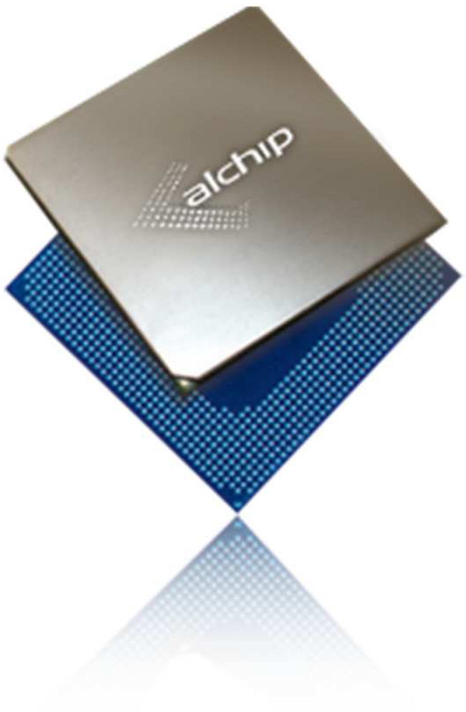
## *Niche products*

- Amusement machine chip shipment to JP customer expected to delay to end of 2Q on Yen depreciation to Dollar
- 16nm Bitcoin shipment expected to start in 1Q. The total contribution from bitcoin application expect to grow

# 2015 Outlook (continue)

## *New customers and new products*

- Won three new system customers in JP. Project NREs will start to contribute starting from 1Q15
- Win new projects from JP Telecom customer
- Expect wining new project from JP customer, which is TV related




# Thanks !

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