

**Macronix International Co., Ltd.**  
**Fourth Quarter 2016 Results**  
**February 14, 2017**



**MACRONIX**  
**INTERNATIONAL Co., LTD.**

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# Disclaimer

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The presentation and discussion contain certain forward-looking statements with respect to the results of operation, financial condition and current expectation. The forward-looking statements are subject to known and unknown uncertainties and risks that could cause actual results to differ materially from those expressed or implied by such statements.

Such risks and uncertainties include but are not limited to the impact of competitive products and pricing, timely design acceptance by our customers, timely introduction of new technologies, ability to ramp new products into volume, industry wide shifts in supply and demand for semiconductor products, industry overcapacity, availability of manufacturing capacity, financial stability in end markets, and other risks.

The forward-looking statements in this release reflect the current belief of Macronix as of the date of this release and Macronix undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such date.

# Agenda

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**Welcome**

**C.Y. Lu**

**2016Q4 Financial Results**

**Paul Yeh**

**Business Update**

**C.Y. Lu**

**Remarks and Q&A**

**C.Y. Lu**

# Financial Highlights

	2016Q4 Actual	2016Q3 Actual	2016 Actual	2015 Actual
Revenue	NT\$6.8B	NT\$ 7.1B	NT\$ 24.1B	NT\$ 20.9B
Gross margin %	32%	31%	24%	12%
Operating margin %	9%	10%	-2%	-24%

- ✓ Due to seasonality, revenue decreased by 5% QoQ; but increased by 21% YoY
- ✓ Gross margin sequentially increased by 1ppt due to higher utilization rate
- ✓ OP margin was sequentially flat
- ✓ Revenue increased by 15% resulted from higher demand in all product lines
- ✓ Gross margin increased by 12ppt due to better product mix and lower cost
- ✓ OP margin improved by 22% because of higher gross profit and reduced expense
- ✓ Steady improvement with sustainable profitability

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## Quarterly Consolidated Statements of Comprehensive Income

Unit: NTD Million (except EPS)	2016/Q4	2016/Q3	2015/Q4	QoQ	YoY
				Change	Change
Net Sales	6,766	7,092	5,599	(5%)	21%
Gross Profit	2,163	2,176	467	(1%)	364%
Gross Margin%	32%	31%	8%	1ppt	24ppt
Operating Expenses	(1,545)	(1,500)	(2,002)	3%	(23%)
Operating Income	618	676	(1,535)	(9%)	(140%)
Operating Margin%	9%	10%	(27%)	(1ppt)	36ppt
Net Non-Operating Income (Loss)	1	(41)	(129)		
Income Before Taxes	619	635	(1,664)	(3%)	(137%)
Income Taxes Expense (benefit)	(83)	2	2	(3,877%)	(3,917%)
Net Income	702	633	(1,666)	11%	(142%)
Other Comprehensive Income	(22)	187	(210)	(112%)	(90%)
Comprehensive Income	680	820	(1,876)	(17%)	(136%)
Net Income(Loss) Attributable to :					
Shareholders of the Parent	703	633	(1,663)	11%	(142%)
Noncontrolling Interests	(1)	(0)	(3)		
EPS* (NT\$)	0.20	0.18	(0.47)	11%	(143%)
EBITDA	1,189	1,219	(120)		
Weighted Avg Outstanding Million Shares	3,554	3,550	3,522		

# Annually Consolidated Statements of Comprehensive Income

Unit: NTD Million (except EPS)	2016	2015	YoY Change
Net Sales	24,125	20,928	15%
Gross Profit	5,836	2,512	132%
Gross Margin%	24%	12%	12ppt
Operating Expenses	(6,194)	(7,516)	(18%)
Operating Income	(358)	(5,004)	(93%)
Net Non-Operating Income (Loss)	(113)	823	
Income Before Taxes	(471)	(4,181)	(89%)
Income Taxes Expense (benefit)	(224)	15	
Net Income	(247)	(4,196)	(94%)
Other Comprehensive Income	(77)	(323)	(76%)
Comprehensive Income	(324)	(4,519)	(93%)
Net Income(Loss) Attributable to :			
Shareholders of the Parent	(243)	(4,188)	(94%)
Noncontrolling Interests	(4)	(8)	(54%)
EPS* -- NT\$	(0.07)	(1.19)	(94%)
EBITDA	1,875	2,021	
Weighted Average Outstanding Million Shares	3,554	3,522	

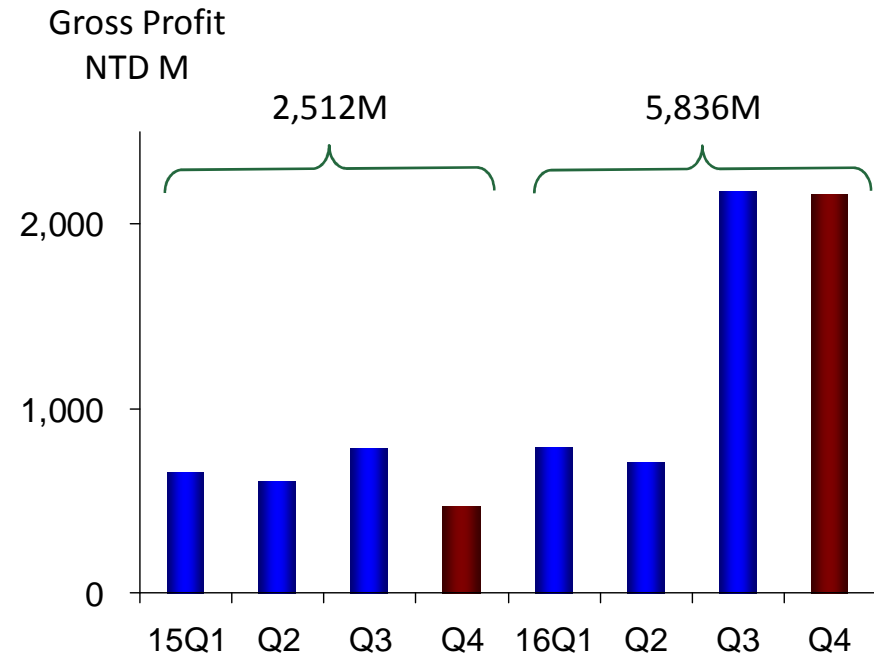
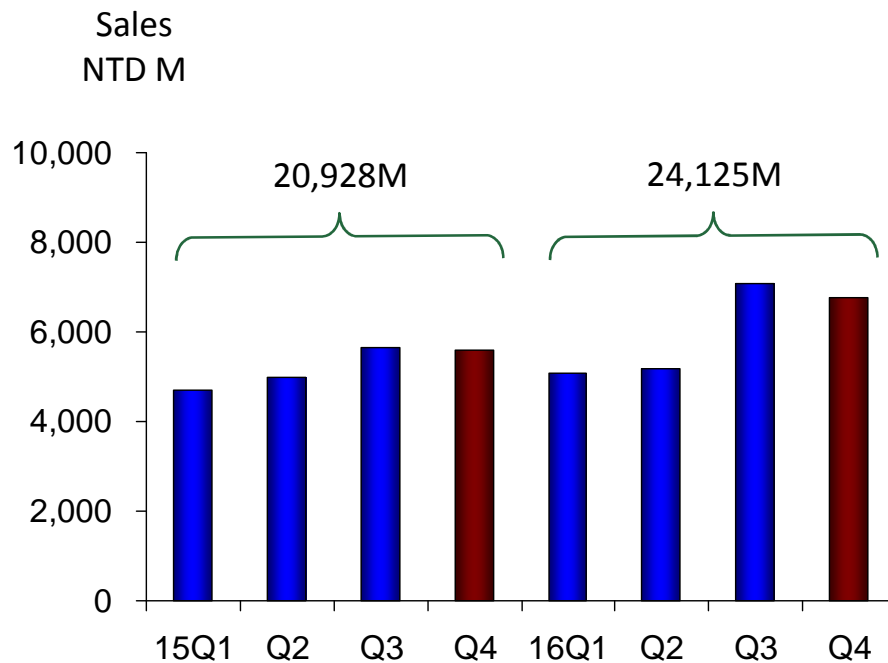
# 2016Q4 Financial Highlights

2016Q4 Sales = NTD 6,766M  
+21% YoY

2016 Sales = NTD 24,125M  
+15% YoY

2016 Q4 GP = NTD 2,163M  
+364% YoY

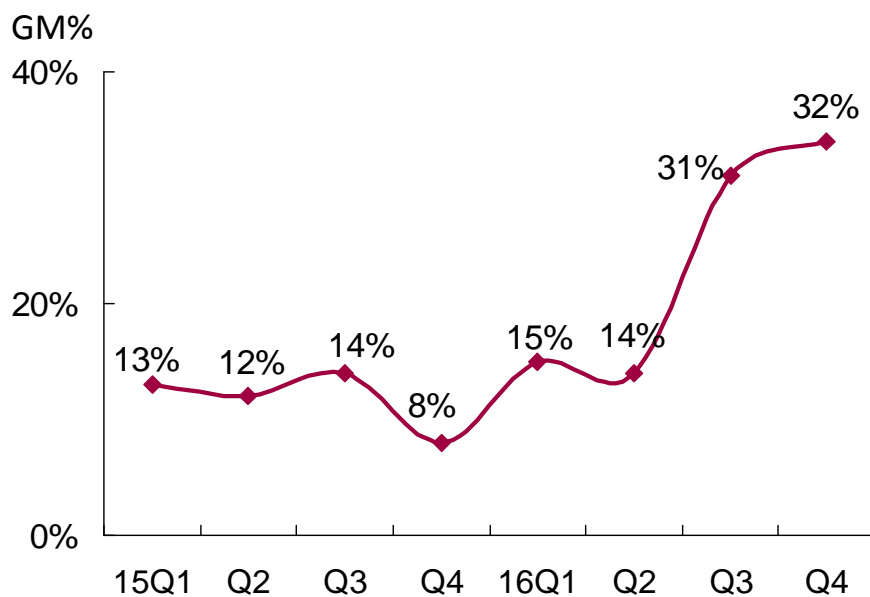
2016 GP = NTD 5,836M  
+132% YoY



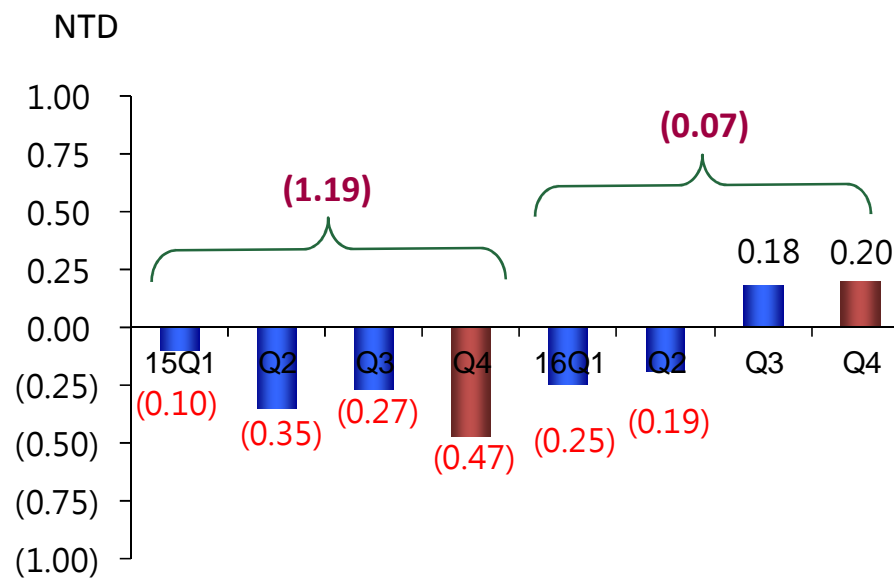
# 2016 Financial Highlights

	2016	2015
Gross Margin (%)	24%	12%
EPS -- NT\$	(0.07)	(1.19)

## Gross Margin (%)



## EPS



## Quarterly Consolidated Balance Sheet / Cash Position

Unit: NTD Million

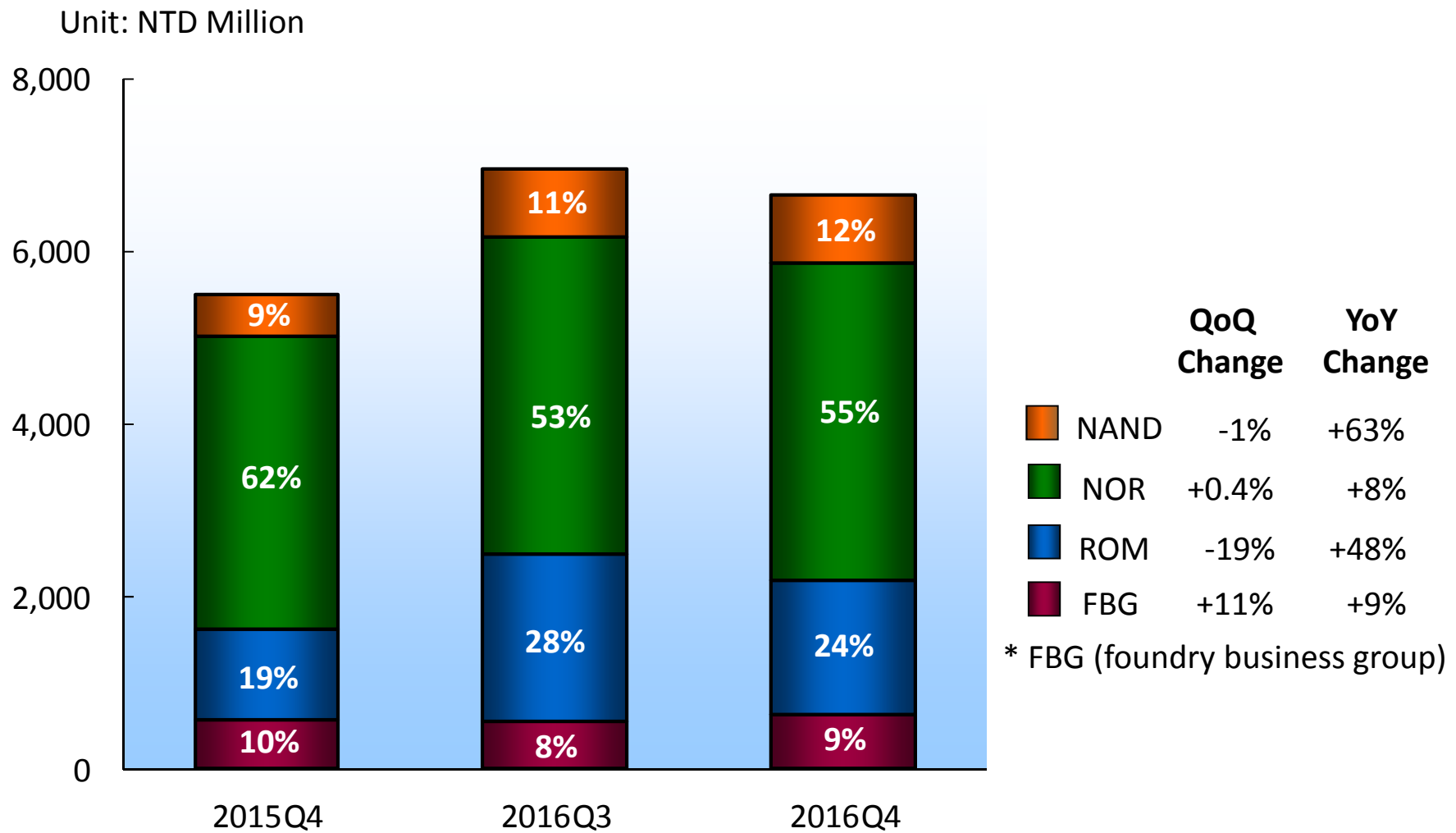
	2016/12/31	2016/09/30
Cash	6,368	5,393
Inventory(Net)	7,087	6,761
Property, Plant and Equipment	15,500	15,820
Total Assets	35,545	35,373
Interest bearing debt - short term	4,681	5,641
Interest bearing debt - long term	5,636	6,642
Total Liabilities	17,225	17,796
Shareholders' Equity	18,320	17,577
Debt Ratio (%)	48.5%	50.3%
Book Value -- NT\$	5.07	4.87
Quarterly Highlight	2016/Q4	2016/Q3
Depreciation & Amortization	506	510
Capital Expenditures	(115)	(245)
Cash Flow from Operating	2,988	1,214

# Annual Consolidated Balance Sheet / Cash Position

Unit: NTD Million

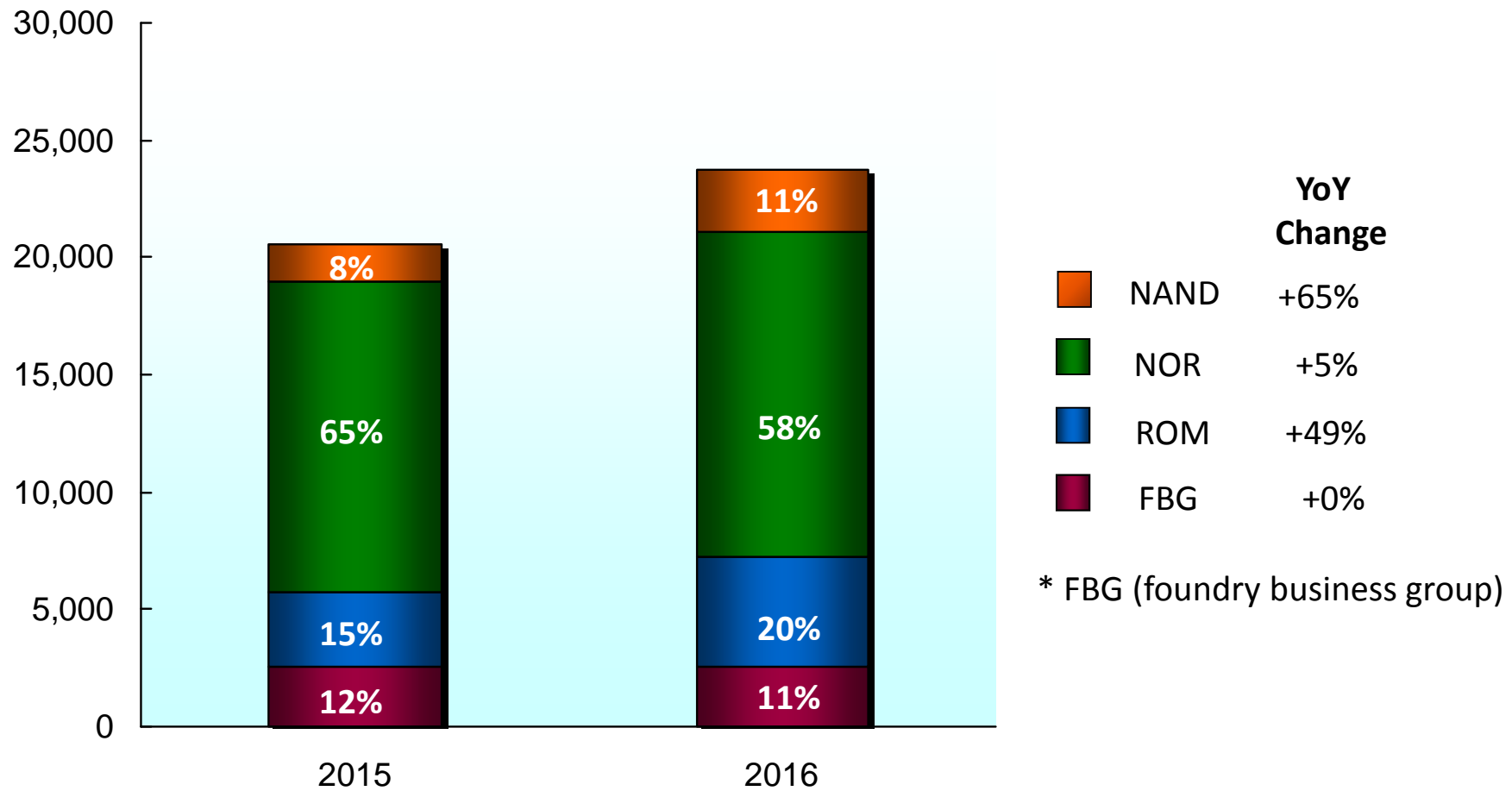
	2016/12/31	2015/12/31
Cash	6,368	5,593
Inventory(Net)	7,087	9,334
Property, Plant and Equipment	15,500	16,596
Total Assets	35,545	37,628
Interest bearing debt - short term	4,681	6,224
Interest bearing debt - long term	5,636	7,862
Total Liabilities	17,225	19,199
Equity	18,320	18,429
Debt Ratio	48.5%	51.0%
Book Value -- NT\$	5.07	5.10
Annual Highlight	2016	2015
Depreciation & Amortization	2,041	5,901
Capital Expenditures	(923)	(1,461)
Cash Flow from Operating	5,421	1,703

# Quarterly Sales Breakdown by Products (Parent Company)

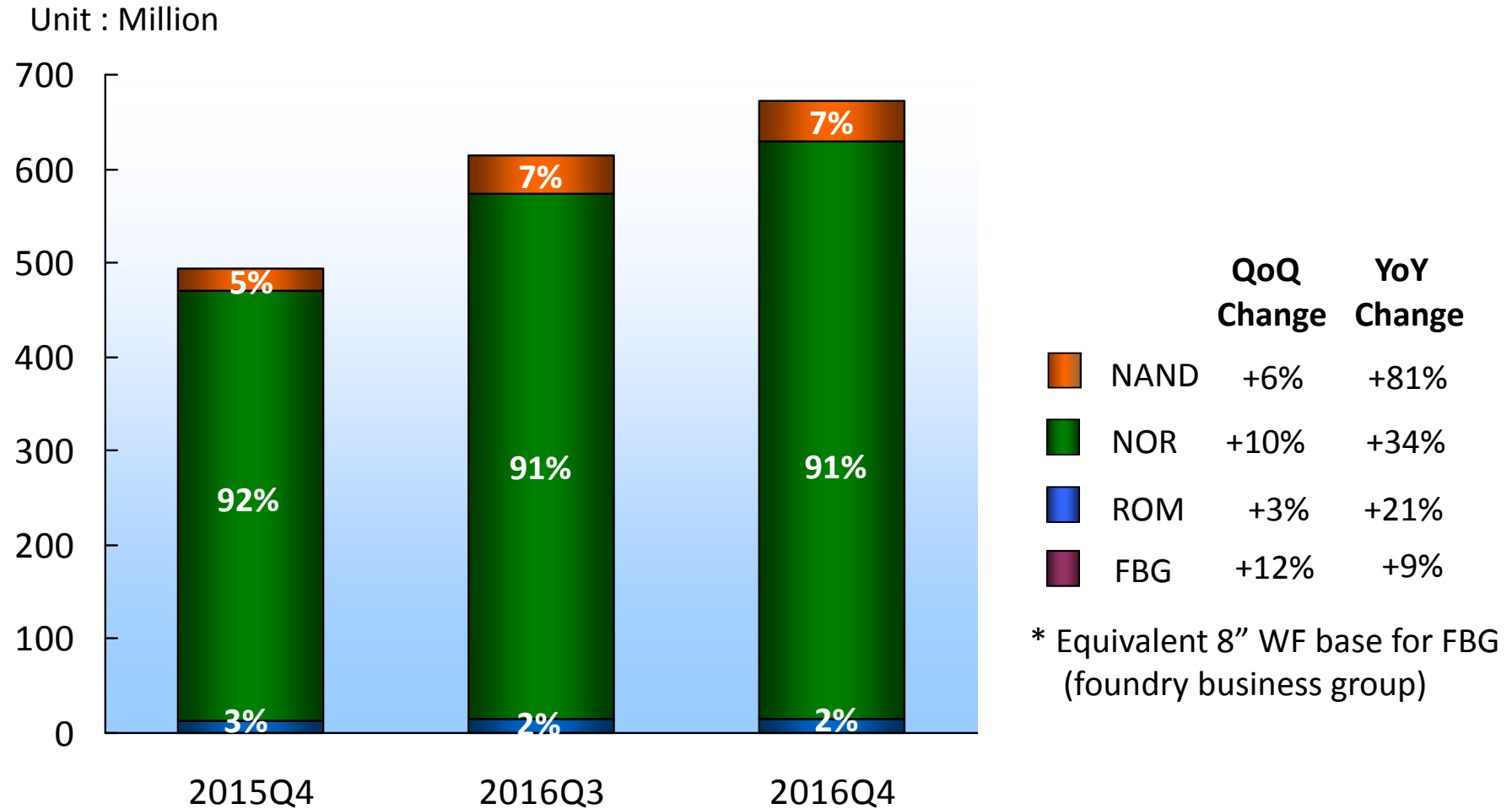


# Annual Sales Breakdown by Products (Parent Company)

Unit: NTD Million

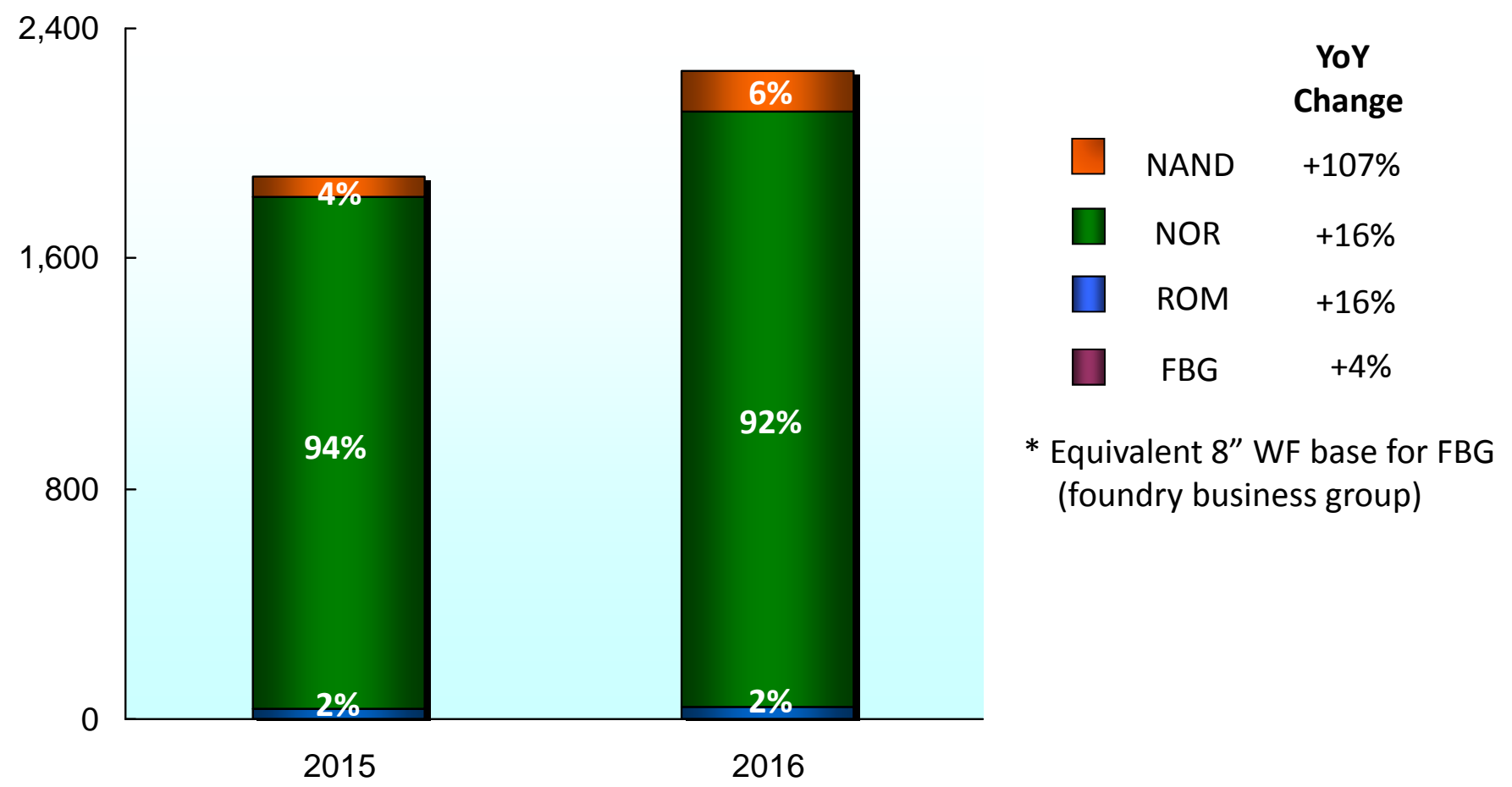


# Quarterly Quantity Breakdown by Products (Parent Company)



# Annual Quantity Breakdown by Products (Parent Company)

Unit : Million



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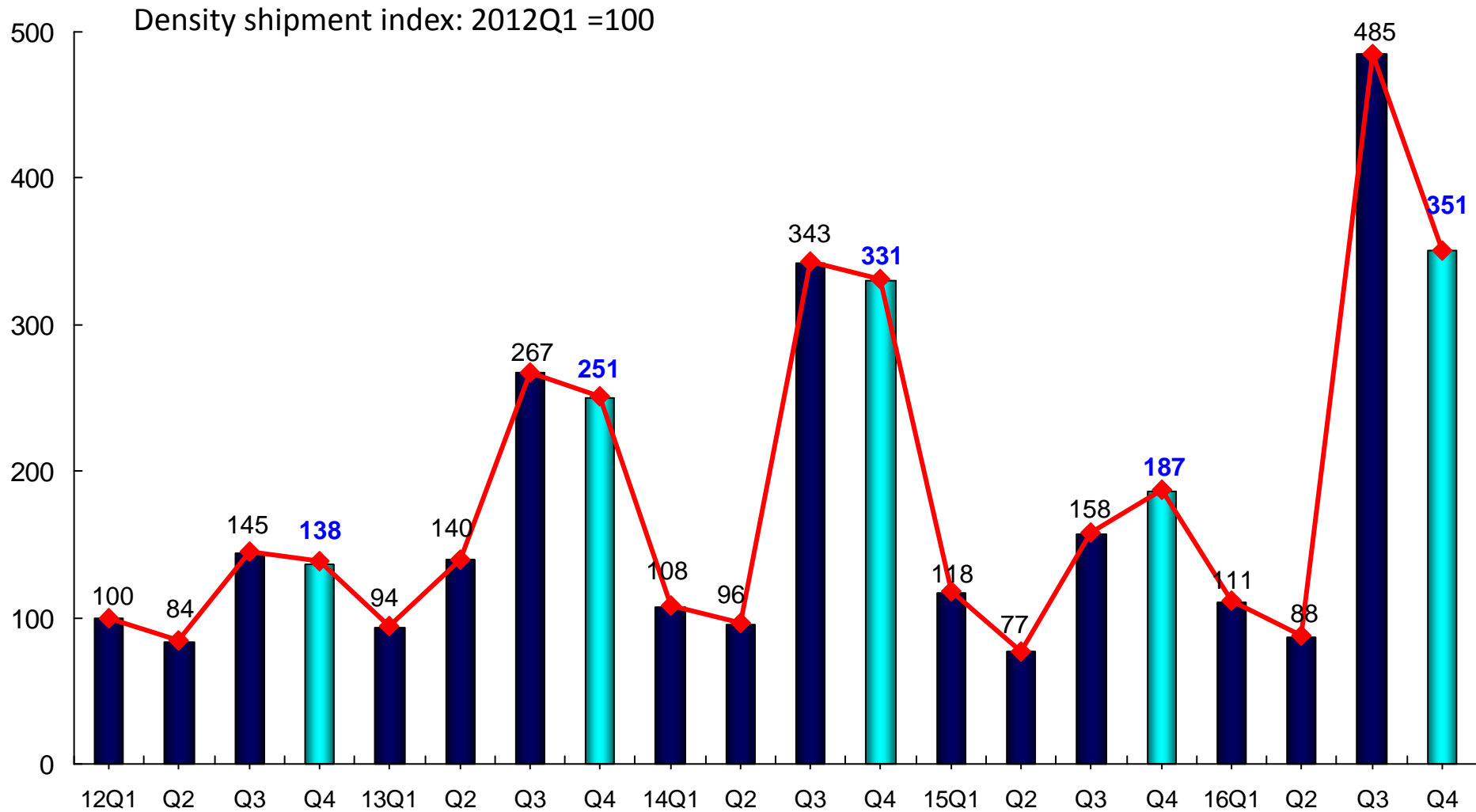
**Business Update**

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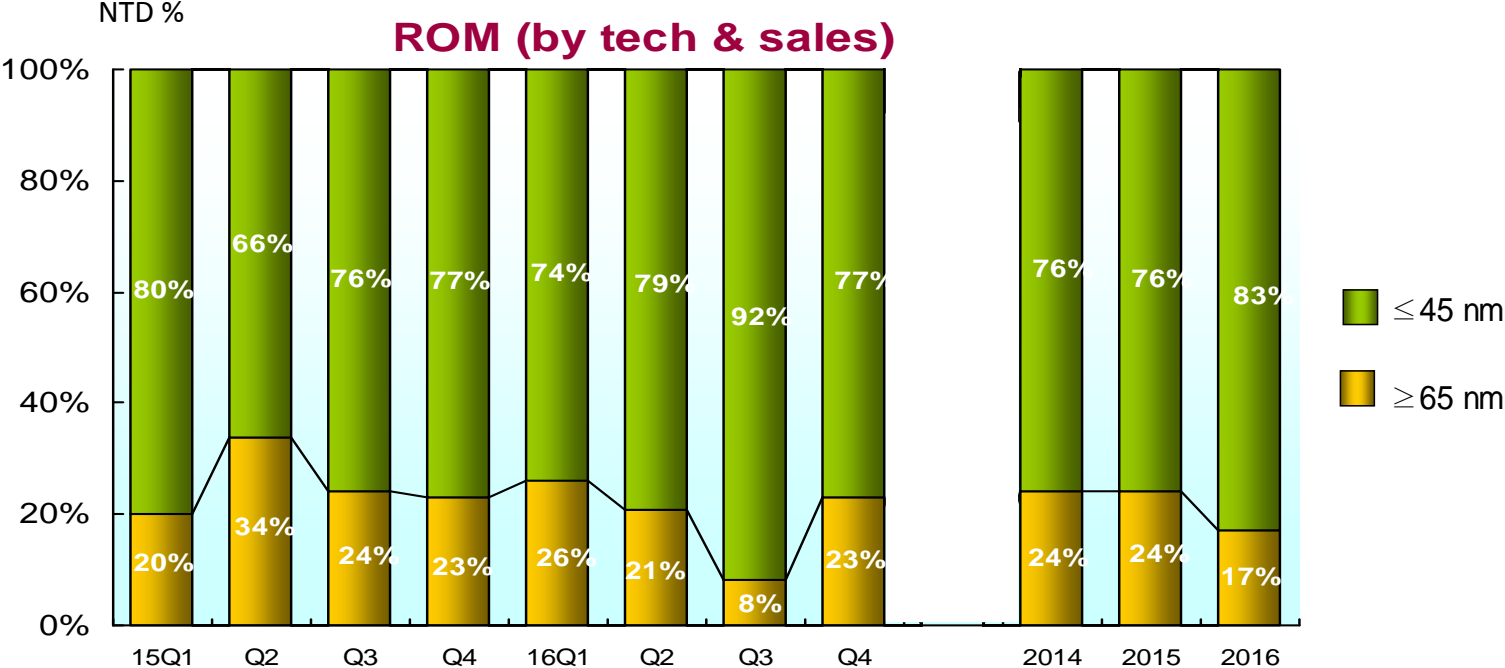
# Business update - ROM equivalent density shipment



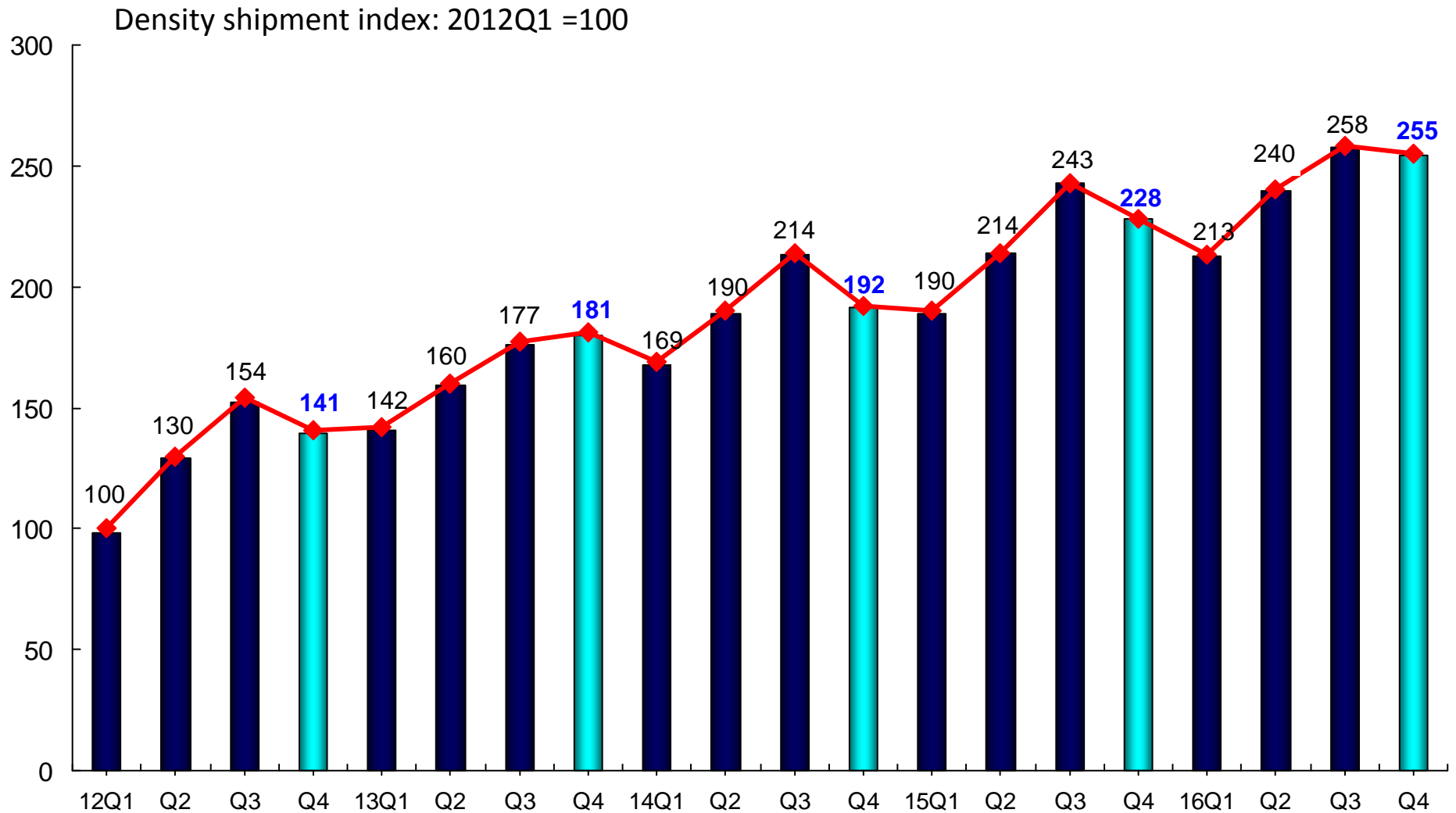
# Current status of ROM memory business

➤ **ROM business**

- ≤45nm products represented 77% of ROM business in 2016Q4
- More shipment of ≥65nm technology in 2016Q4 due to product mix
- Strong demand from key customer results in high fab utilization rate in 2016



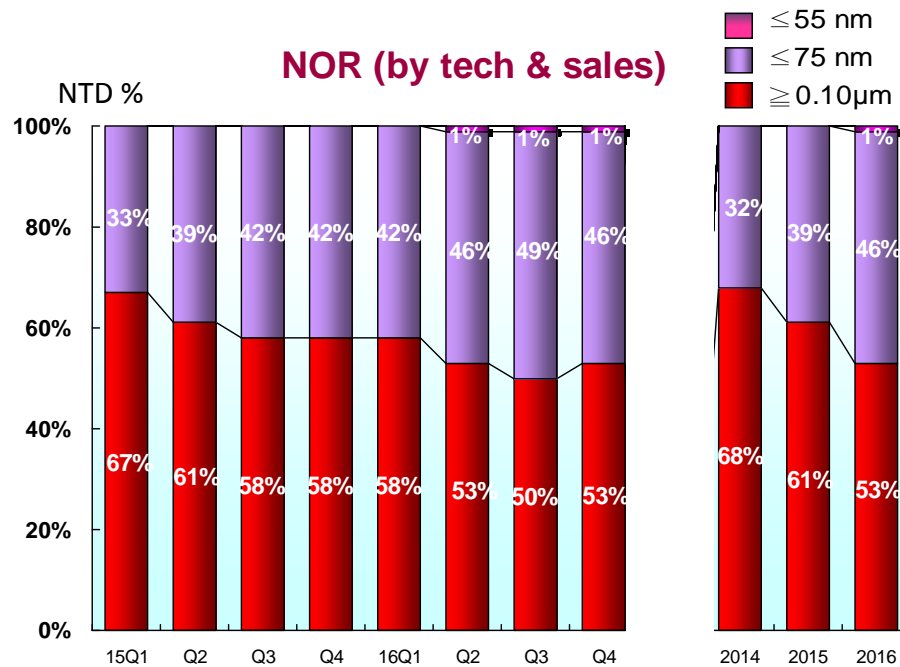
# Business update – NOR equivalent density shipment



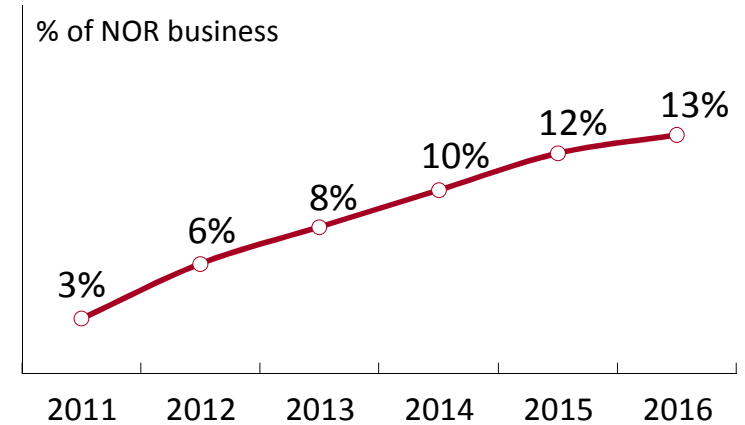
# Current status of NOR memory business

## ➤ NOR flash business

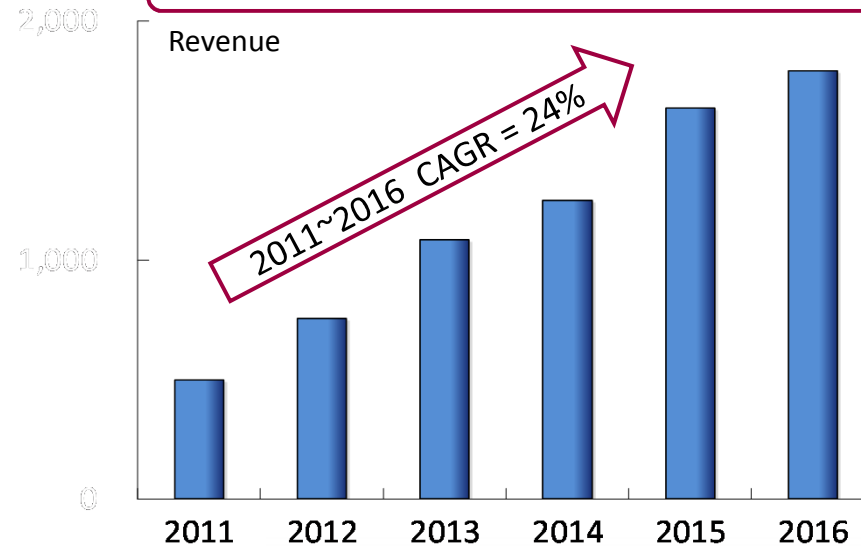
- ≤75nm products represented 47% of NOR business in 2016Q4
- With the best product quality in industry, Macronix quickly gains market shares in automotive segment and big global brand customers
- Macronix provides the best solution to meet customers' demand of switching from embedded to SiP NOR
- Increasing demand due to rising trend of "smart" systems



## Rev contribution form automotive segment

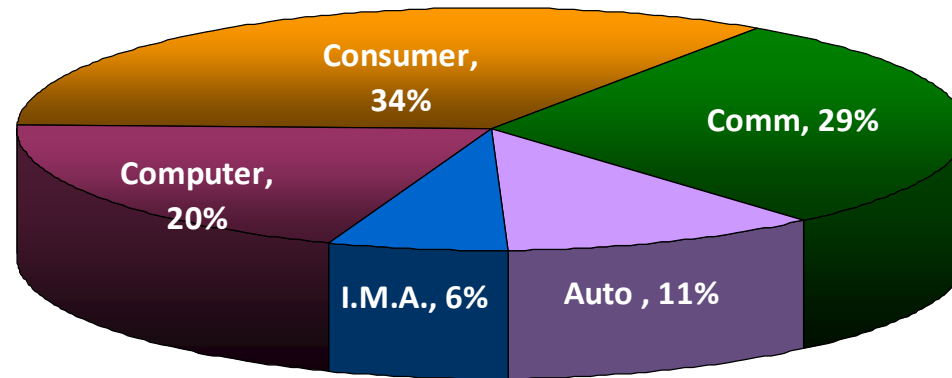


## Speedy growth in automotive segment



# Business update – NOR flash breakdown

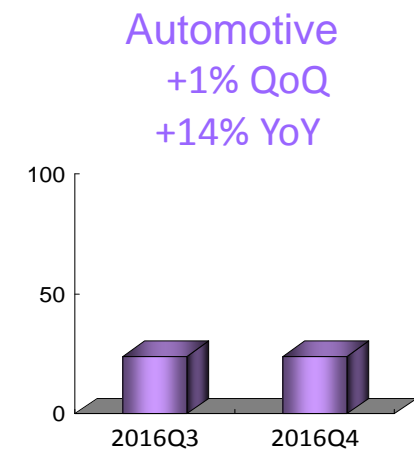
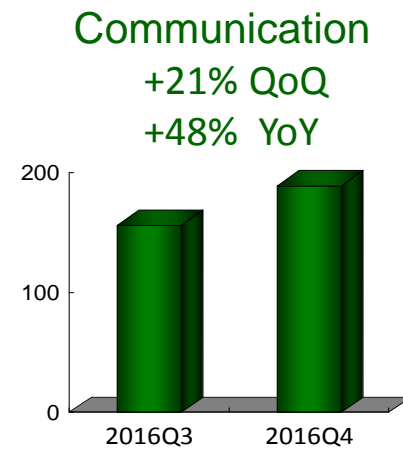
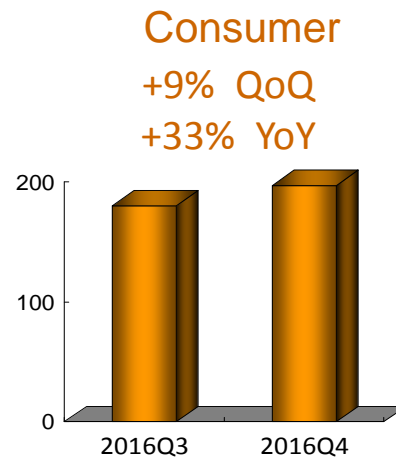
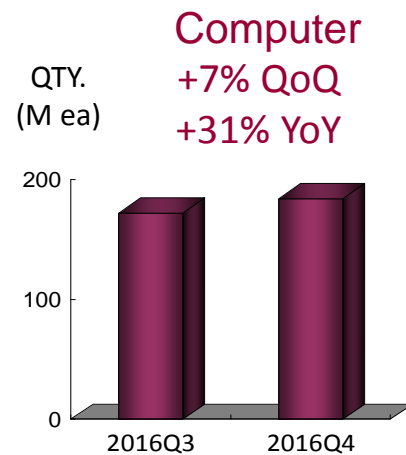
## 2016Q4 NOR Revenue breakdown



\* **Comm**: including handsets

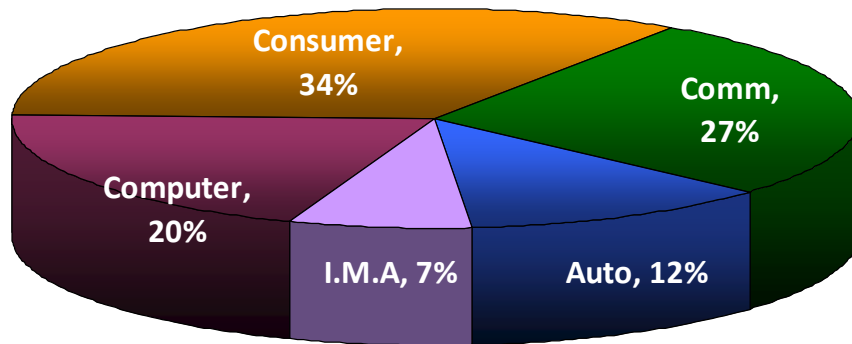
\* **I**(Industrial), **M**(Medical), **A**(Aerospace-defense)

## 2016Q4 NOR QTY

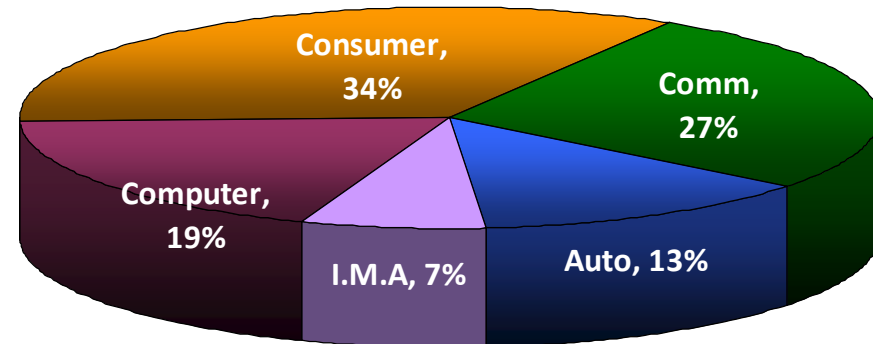


# Business update – NOR flash breakdown

2015 NOR Revenue breakdown



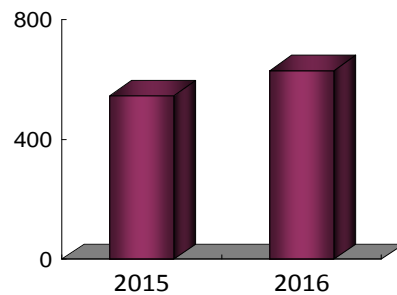
2016 NOR Revenue breakdown



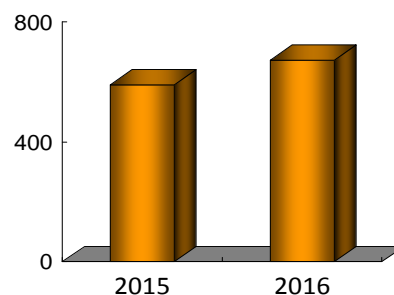
2015 vs. 2016 NOR Qty breakdown

**Computer**  
+15% YoY

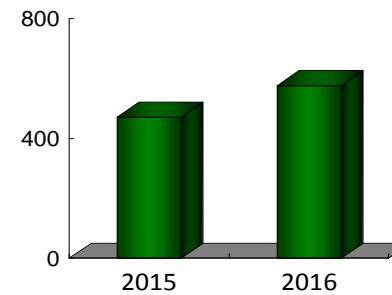
QTY.  
(M ea)



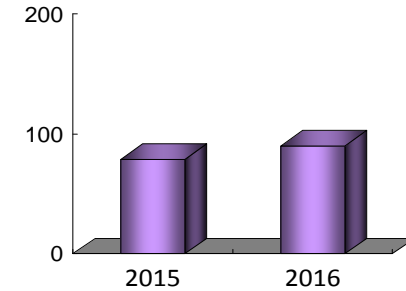
**Consumer**  
+14% YoY



**Communication**  
+22% YoY



**Automotive**  
+14% YoY

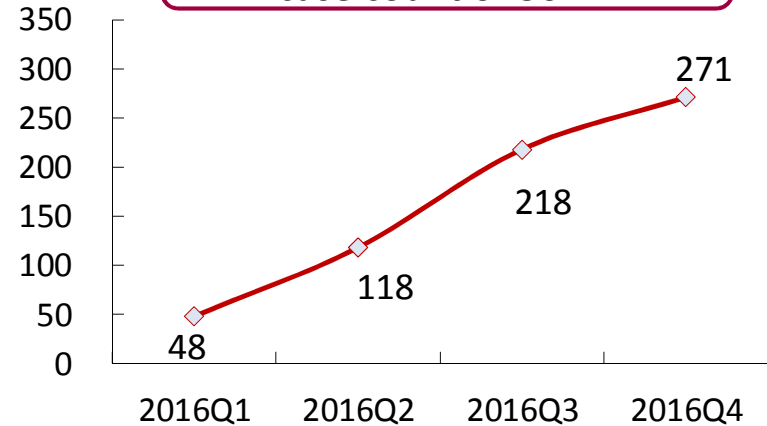


# Business update – SLC NAND breakdown & outlook

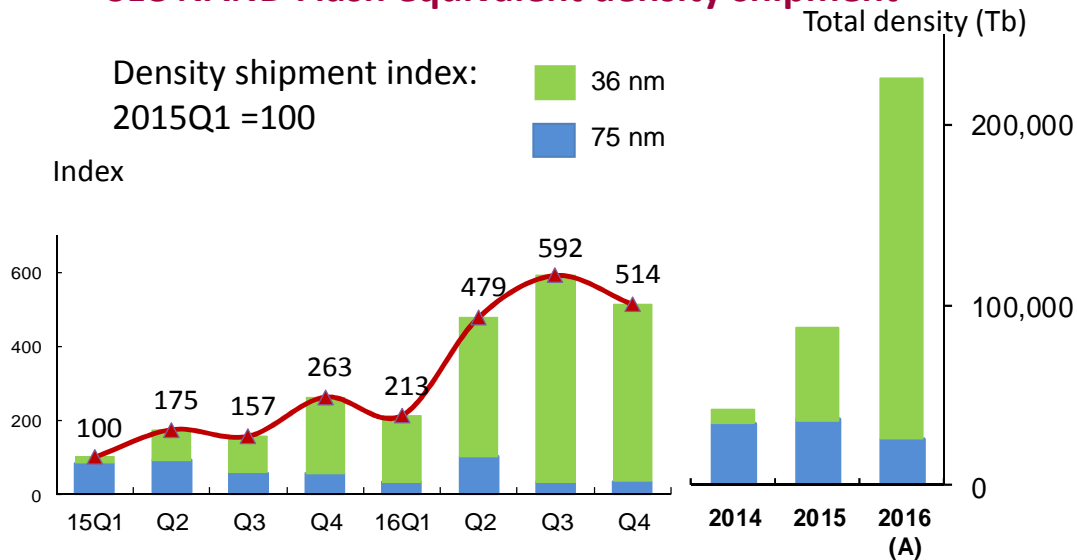
## ➤ SLC NAND flash business

- Passed AEC-Q100 qualification, Macronix's products are proven the best-in-class quality and performance
- With outstanding product quality, Macronix is gaining business from global major customers

Accumulative design-win case count of 36nm

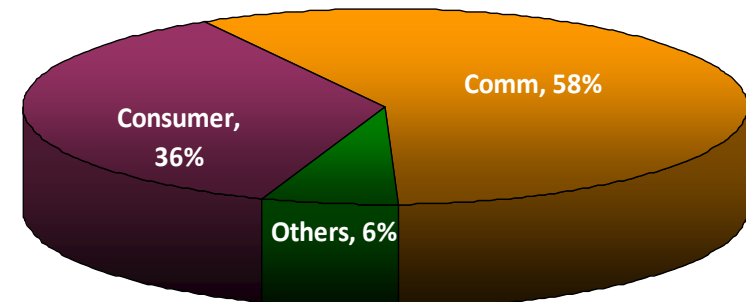


## SLC NAND Flash equivalent density shipment



## 2016Q4 NAND

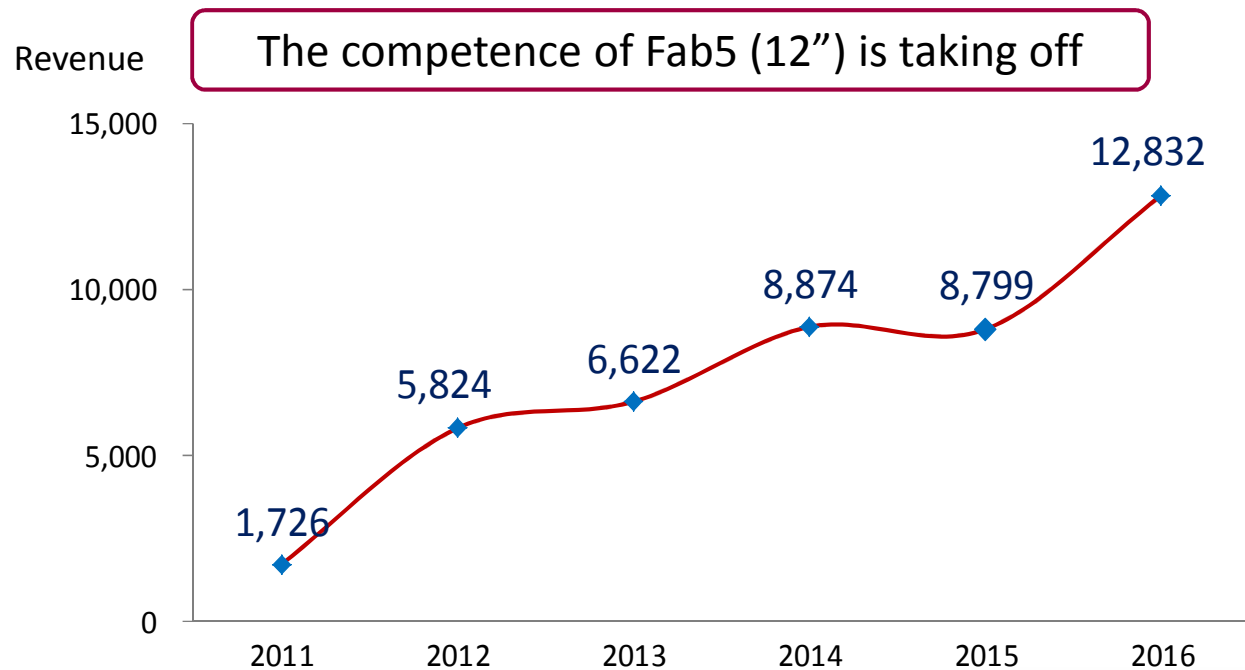
### Revenue breakdown



# 2017 capex plan

## ➤ Prudent investment in production

- Full fab utilization; BB ratio is over 1 for four consecutive months and lead time is getting longer
- Projected capex of NTD2.35B in 2017 for advanced technology and productivity improvement
- The competency of Fab 5 (12" fab) is performing



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For more information regarding Macronix  
<http://www.macronix.com>



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