

**Macronix International Co., Ltd.  
Second Quarter 2021 Results**

**July 27, 2021**



**MACRONIX  
INTERNATIONAL Co., LTD.**

# Safe Harbor Statement

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**

**2021Q2 Financial Results**

**Paul Yeh**

**Business Update**

**C.Y. Lu**

**Remarks and Q&A**

**C.Y. Lu**

## 2Q21 Record High Sales Driven by Strong Demands Across the Board

	2021Q2 Reviewed	2021Q1 Reviewed	2020Q2 Reviewed
Revenue (billion NT\$)	NT\$ 11.4	NT\$ 9.6	NT\$ 9.3
Gross margin %	39.1%	34.3%	35.0%
Operating margin %	20.2%	12.1%	15.0%

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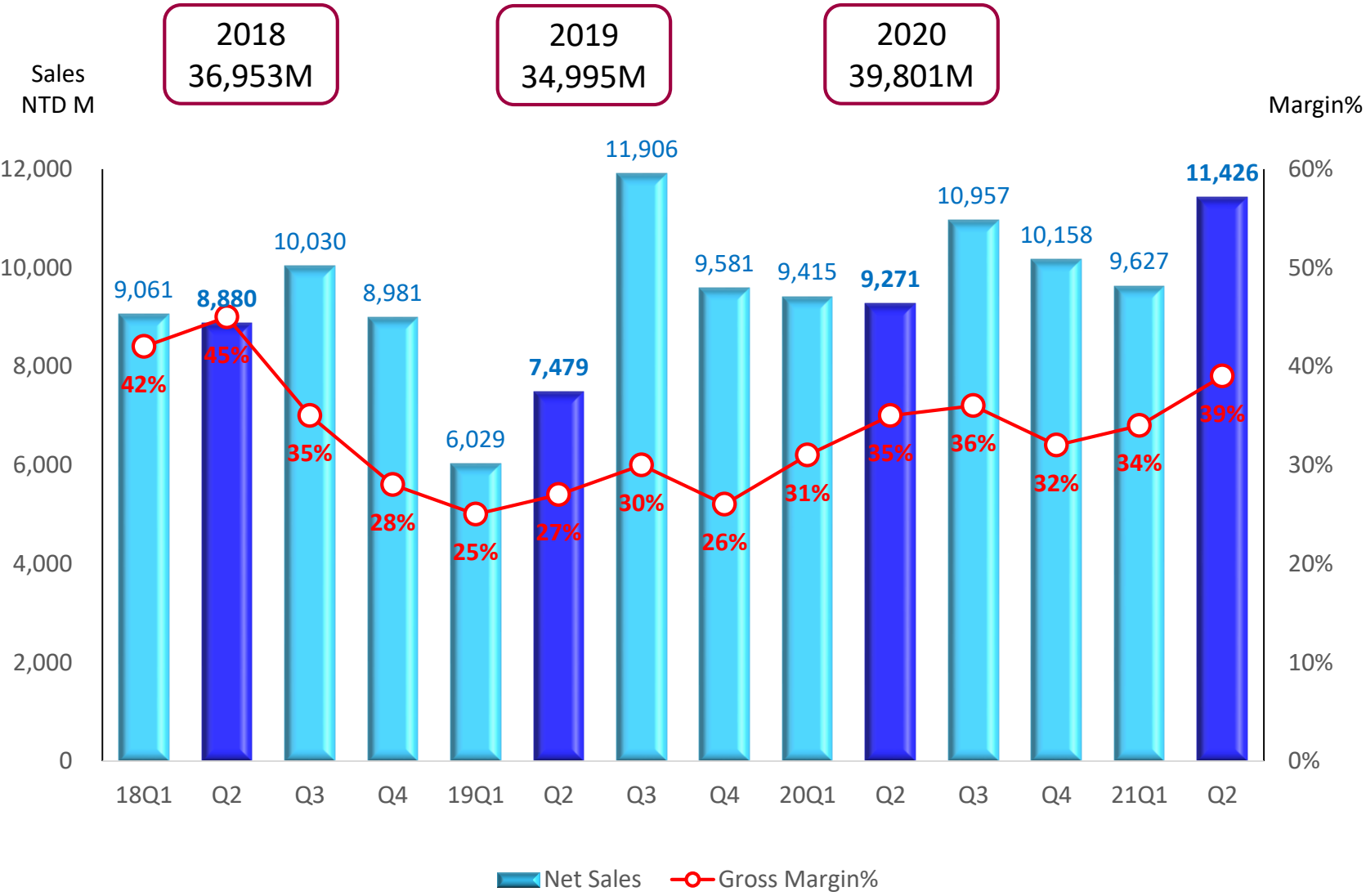
## Margin Expansion with Solid EBITDA Driven by Improved Product Mix

Unit : NTD Million (except EPS)	2021/Q2 Reviewed	2021/Q1 Reviewed	2020/Q2 Reviewed	QoQ Change	YoY Change
Net Sales	11,426	9,627	9,271	19%	23%
Gross Profit	4,466	3,301	3,243	35%	38%
Gross Margin%	39.1%	34.3%	35.0%	4.8ppt	4.1ppt
Operating Expenses	(2,160)	(2,133)	(1,850)	1%	17%
Operating Income	2,305	1,168	1,393	97%	66%
Operating Margin%	20.2%	12.1%	15.0%	8.1ppt	5.2ppt
Net Non-Operating Income (Loss)	(131)	(177)	8		
Income Before Taxes	2,174	991	1,400	119%	55%
Income Taxes Expense	(248)	(75)	(71)		
Net Income	1,925	916	1,330	110%	45%
Basic EPS (NT\$)	1.04	0.50	0.72		
EBITDA	3,289	2,097	2,394		
Weighted avg outstanding million shares	1,844	1,844	1,838		

# 1H21 Revs. Up 13% Y/Y with 380 Bps Margin Expansion

Unit : NTD Million (except EPS)	2021/H1 Reviewed	2020/H1 Reviewed	YoY Change
Net Sales	21,054	18,686	13%
Gross Profit	7,766	6,188	25%
Gross Margin%	36.9%	33.1%	3.8ppt
Operating Expenses	(4,293)	(3,629)	18%
Operating Income	3,473	2,559	36%
Operating Margin%	16.5%	13.7%	2.8ppt
Net Non-Operating Income (Loss)	(308)	68	
Income Before Taxes	3,165	2,627	20%
Income Taxes Expense	(323)	(75)	
Net Income	2,842	2,552	11%
Basic EPS (NT\$)	1.54	1.39	

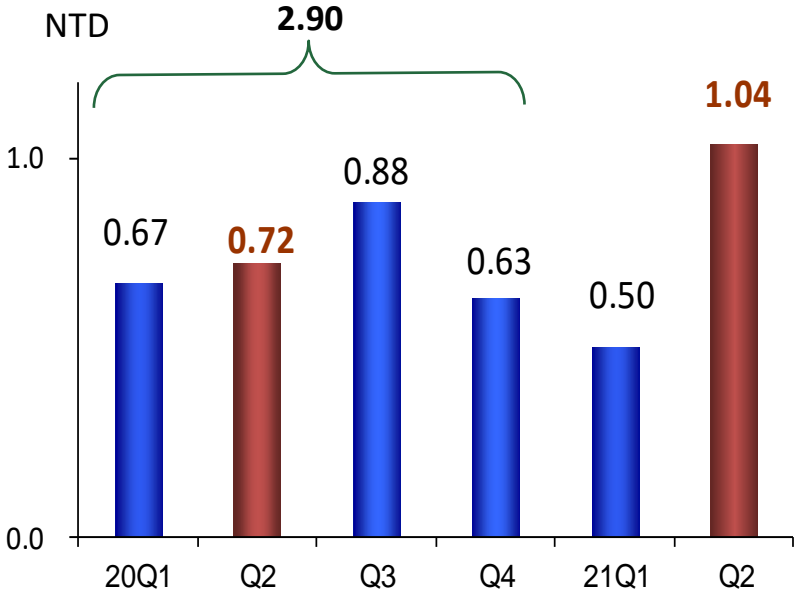
# Robust Sales Momentum



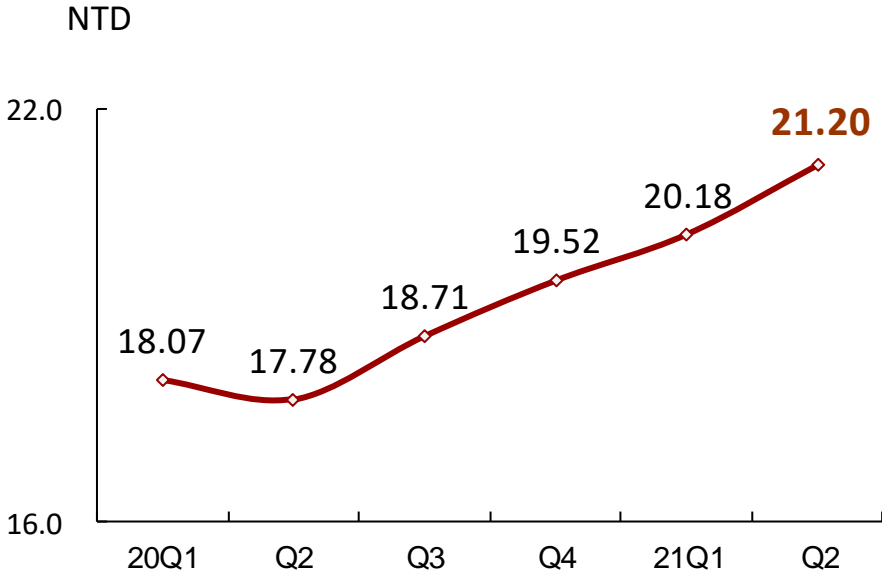
# Compelling Valuation

	2021Q2	2020Q2
Basic EPS -- NT\$	1.04	0.72
Book Value -- NT\$	21.20	17.78

## Basic EPS



## Book Value



# Strong Balance Sheet with a Healthy Cash Position

Unit: NTD Million (except BV)	2021/06/30 Reviewed	2021/03/31 Reviewed	2020/06/30 Reviewed
Cash	11,796	10,370	9,890
Inventory(Net)	14,009	13,238	11,518
Property, Plant and Equipment	30,428	30,838	29,639
Total Assets	66,883	64,634	60,893
Interest bearing debt - short term	4,847	5,565	3,711
Interest bearing debt - long term	8,059	8,110	9,584
Total Liabilities	27,571	27,212	27,918
Debt Ratio (%)	41.2%	42.1%	45.8%
Shareholders' Equity	39,311	37,422	32,975
Book Value -- NT\$	21.20	20.18	17.78

# Growing FcF

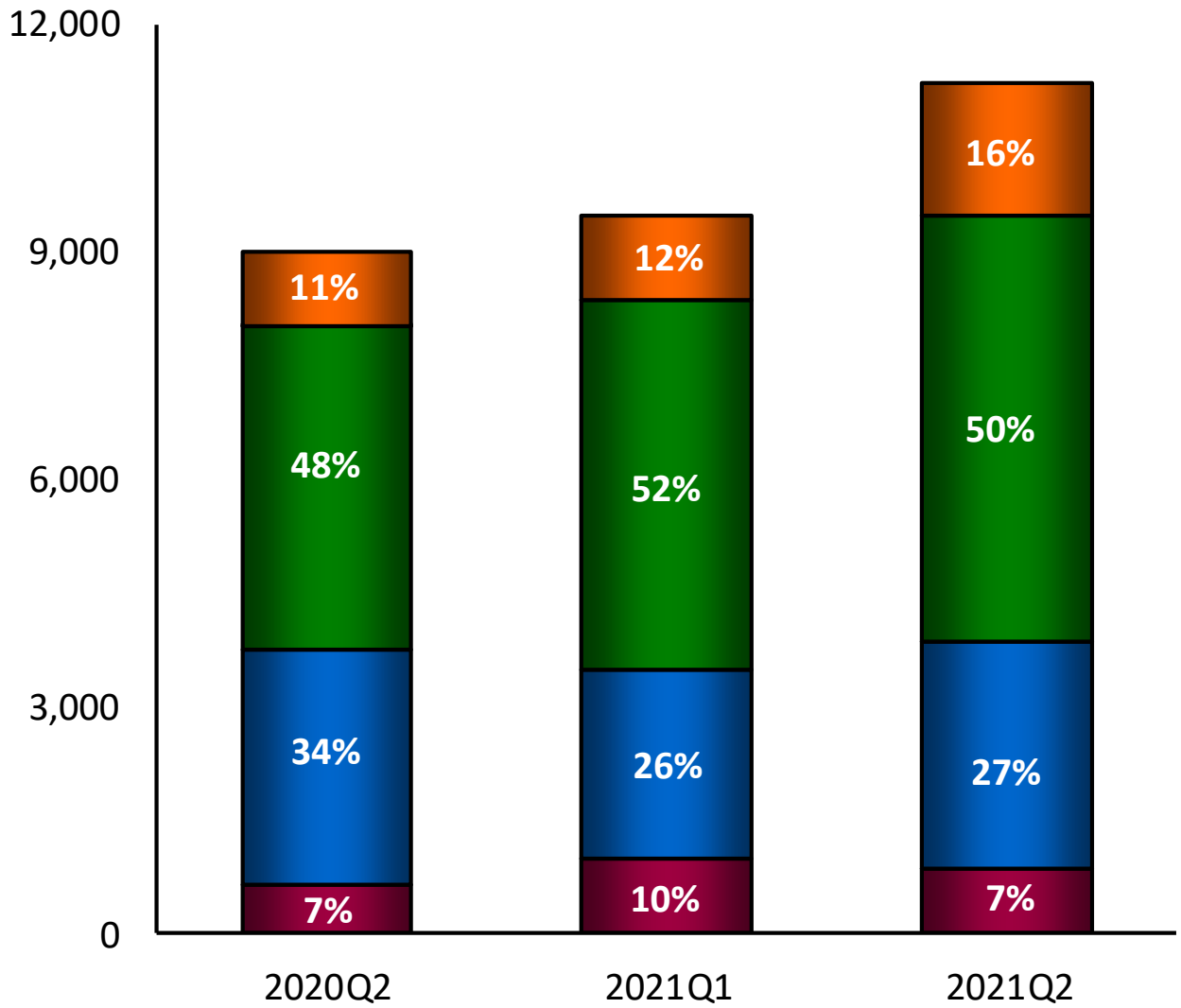
Unit: NTD Million	2021/Q2 Reviewed	2021/Q1 Reviewed	2020/Q2 Reviewed
Cash Flow from Operating	2,851	2,005	2,255
Depreciation & Amortization	1,056	1,036	935
Cash Flow from Investing	(453)	(594)	(873)
Capital Expenditures	(520)	(531)	(894)
Cash Flow from Financing	(875)	(2,592)	(501)
Net Change*	1,426	(1,510)	831
Ending Balance	11,796	10,370	9,890
Free Cash Flow**	2,332	1,474	1,361

\*Net change includes the effect of exchange rate changes

\*\*Free Cash Flow=Cash Flow from Operating - Capital Expenditures

# Quarterly Sales Breakdown by Products (Parent Company)

Unit: NTD Million



	QoQ Change	YoY Change
NAND	+57%	+82%
NOR	+16%	+32%
ROM	+20%	-4%
FBG	-15%	+33%

\* FBG (foundry business group)

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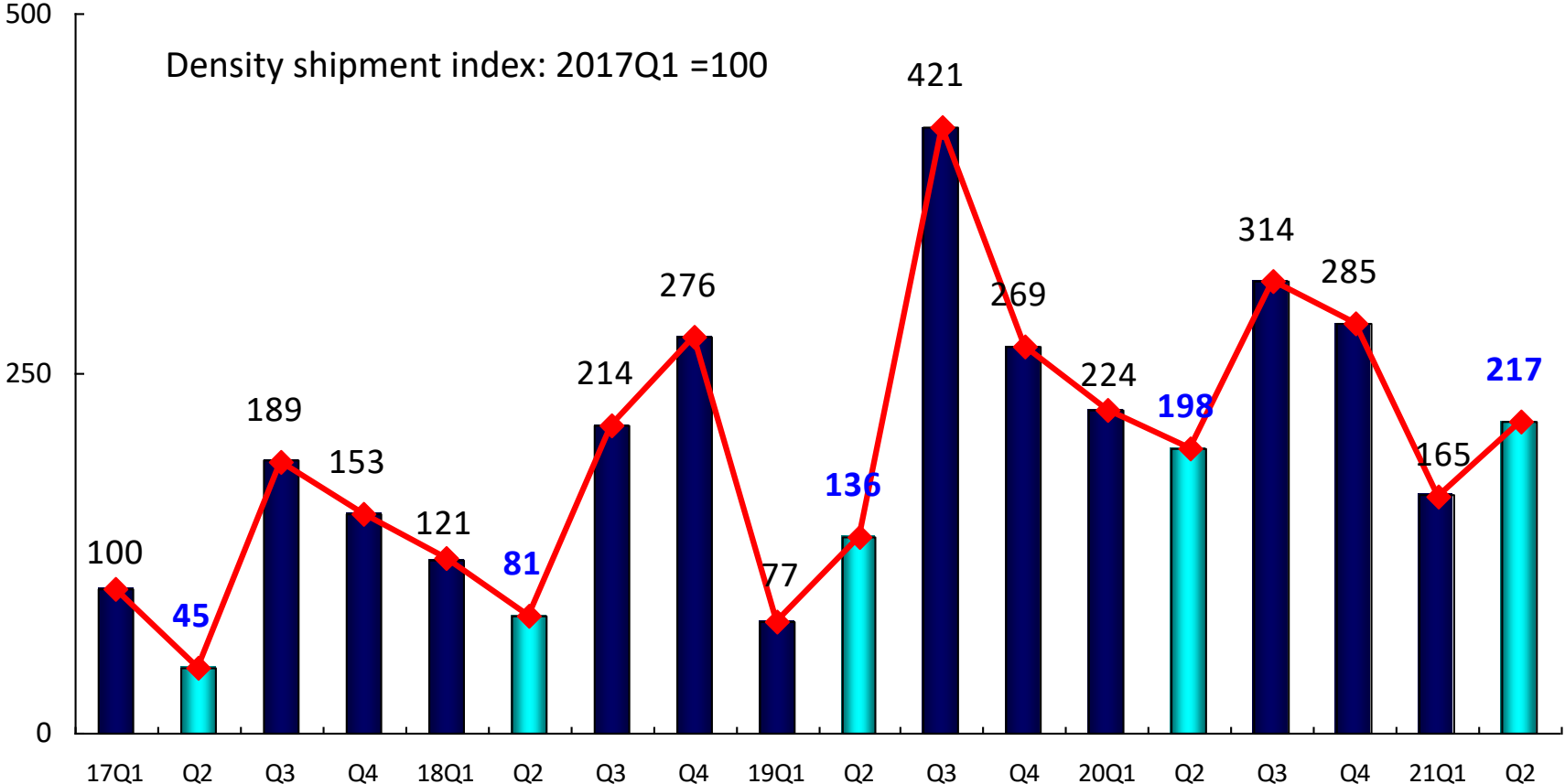
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# Business update - ROM

## ➤ ROM business

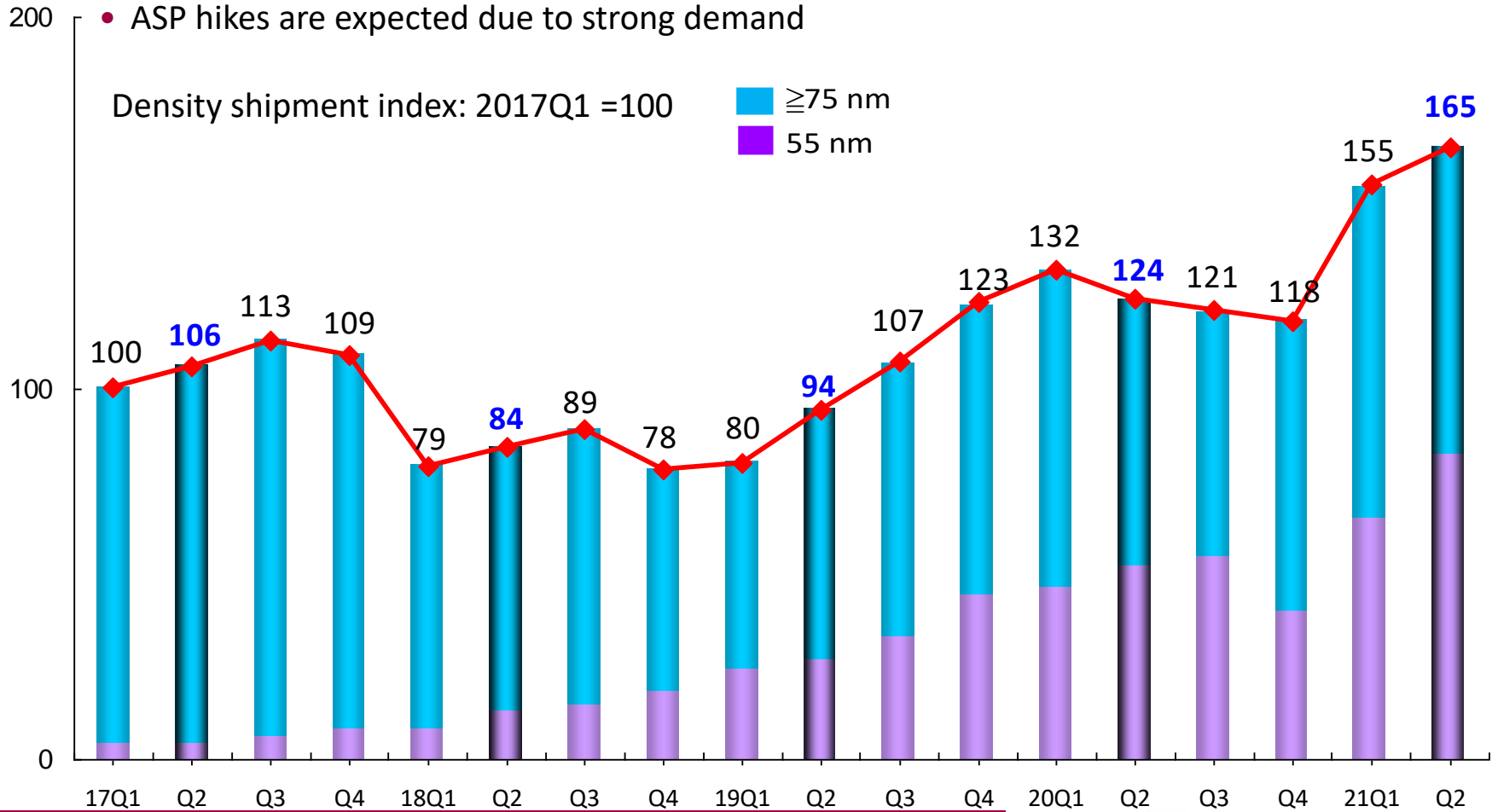
- 2Q21 density shipments surged 32% Q/Q, despite the typical season low



# Business update - NOR

## ➤ NOR business

- 2Q21 density shipments continued to remain record high
- 55nm represented 50% of density shipment in 2021Q2
- Enhancement version for 55nm NOR has been sampled with an additional 16% output
- ASP hikes are expected due to strong demand



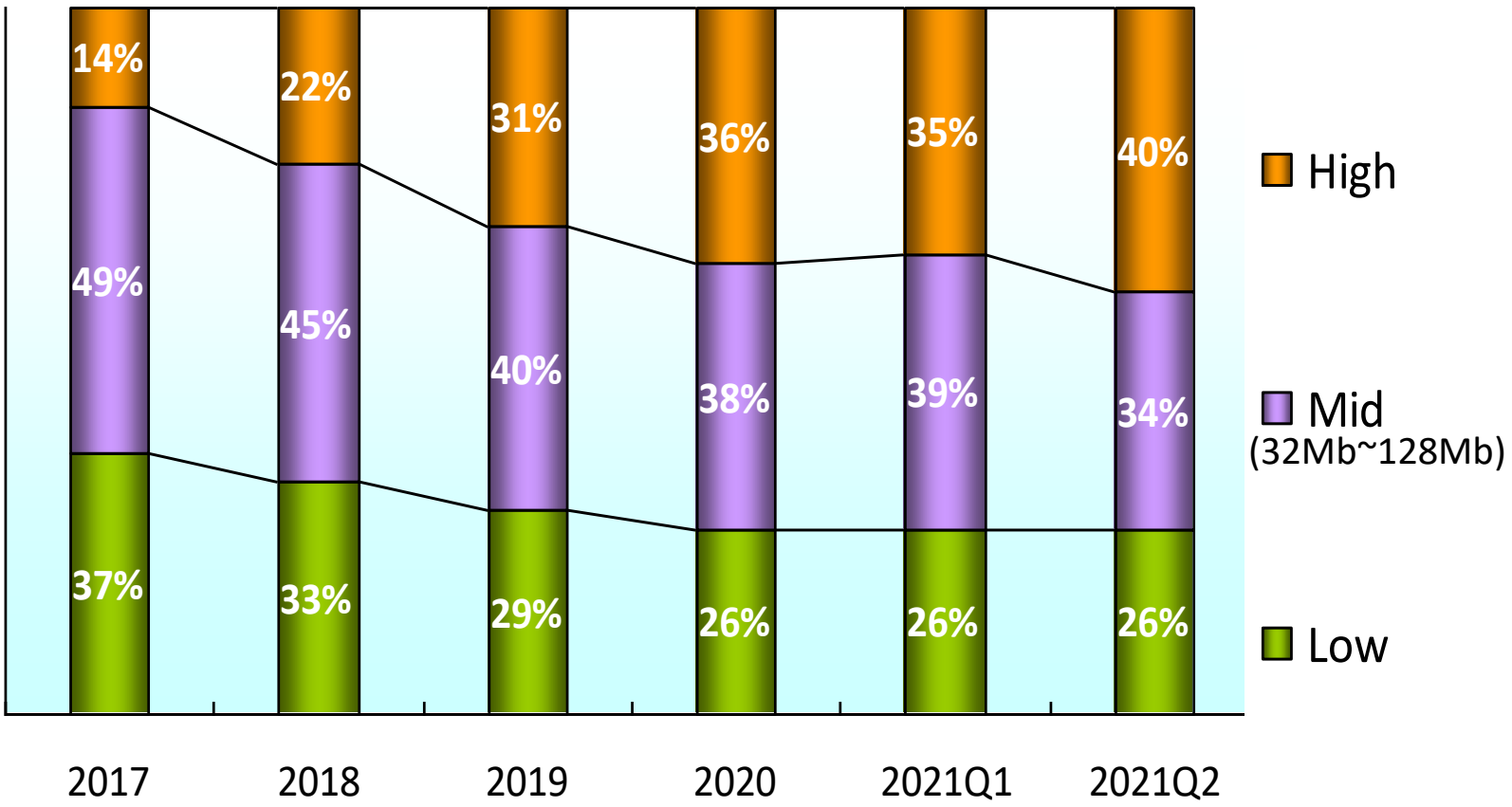
# Business update – NOR breakdown (Parent Company)

## ➤ NOR business

- High-density NOR, the key growth driver

NTD %

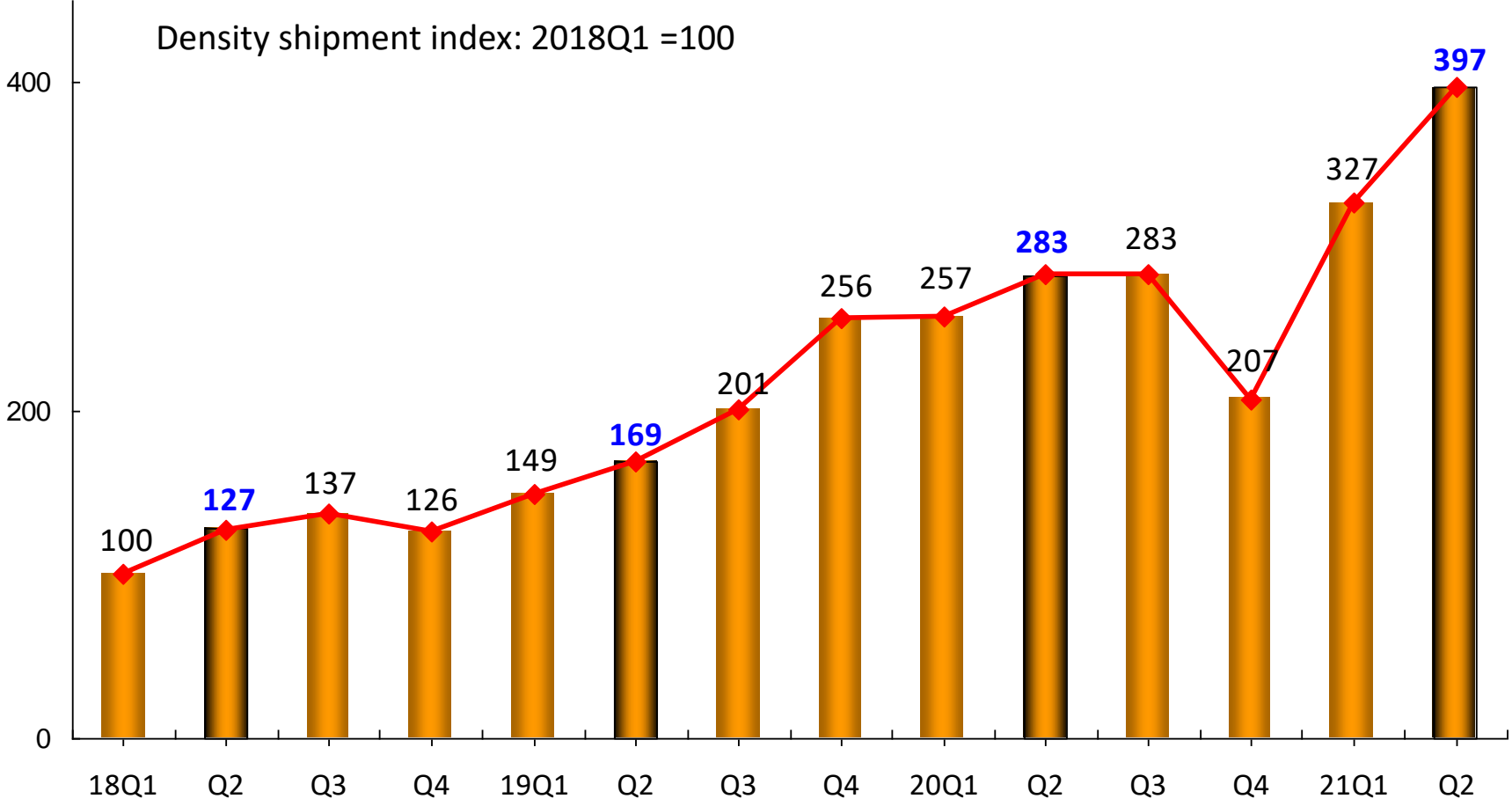
### NOR breakdown by density



# Business update – high density NOR (Parent Company)

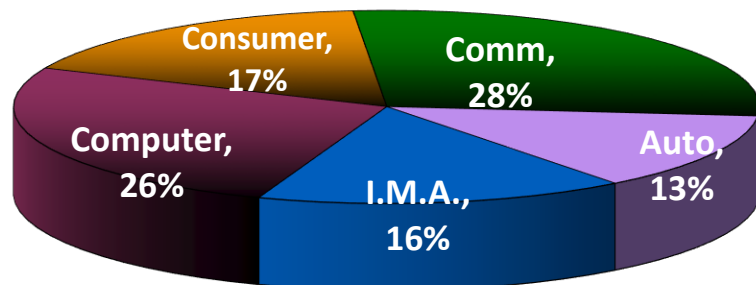
## ➤ High density NOR business

- Robust demands driven by Server, Data Center, 5G, and Automotive

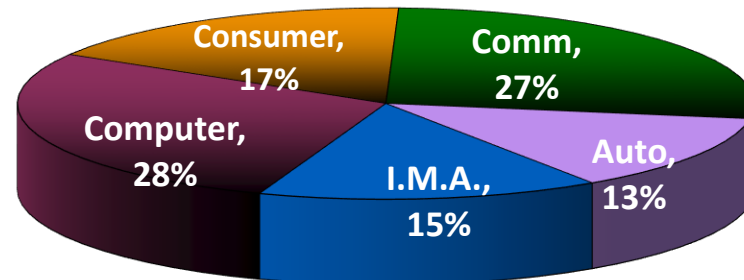


# Business update NOR – Well Positioned in IMA and Auto Spaces

## 2021Q1 NOR revenue breakdown



## 2021Q2 NOR revenue breakdown



\* **Comm:** including handsets

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

## 2021Q2 NOR revenue comparison

### Computer

+24% QoQ

+57% YoY

### Consumer

+14% QoQ

+77% YoY

### Communication

+12% QoQ

-5% YoY

### Automotive

+14% QoQ

+51% YoY

### I.M.A

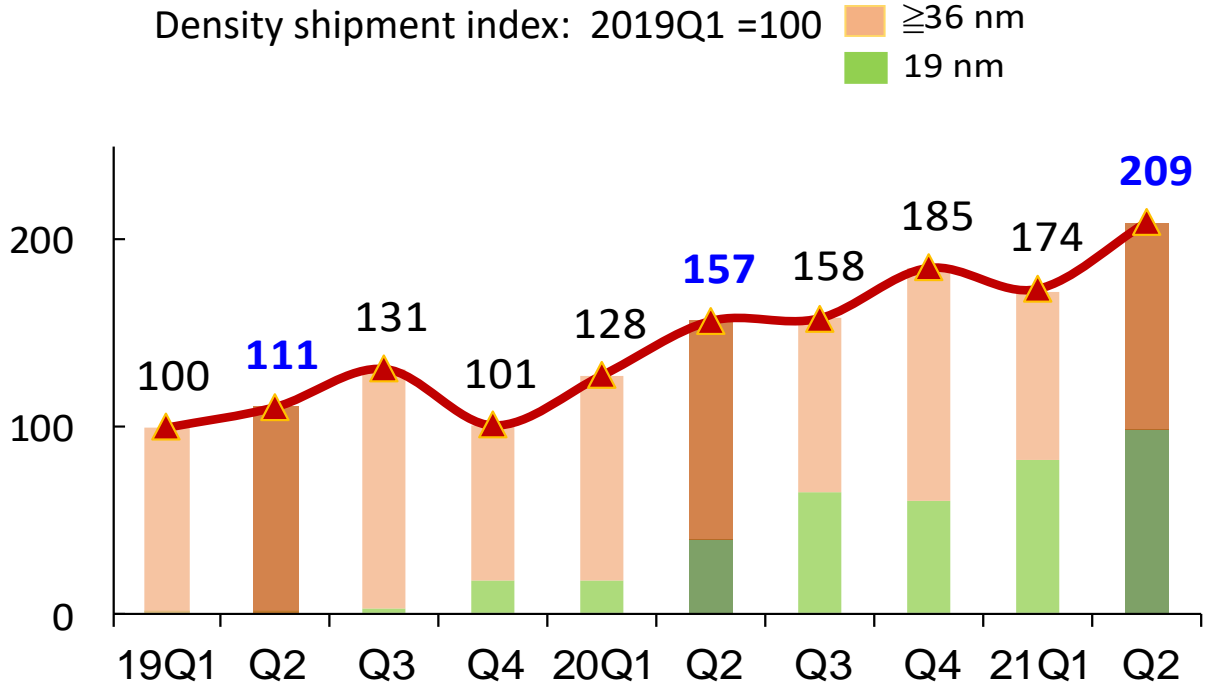
+11% QoQ

+40% YoY

# Business update – SLC NAND (Parent Company)

## ➤ SLC NAND business

- 19nm represented 47% of density shipment in 2021Q2
- Strong demands mainly on STB, TV, Server, and Surveillance



## ➤ Capex plan & technology migration

- NTD 41.5B investment for Fab5(12") for capacity expansion for new 3D NAND and advanced NOR
- Advanced NOR will lead paradigm shift to more high density and high quality, driven by more advanced applications
- Increasing to maximum capacity
- Disciplined Capex plans will be implemented in multiple phases based on new technology and new products availability

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



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