

# Megawin Technology Co., Ltd.

## Institutional Investor Conference (H2 2023)

Code: 3122

Date: Nov. 8, 2023

Spokesperson:

Alex Liao

Director, Operation & Marketing Div.

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# Safe Harbor Notice

Megawin's statements of its current expectations are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.

Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

# Overview

## ■ Established

June, 1999

## ■ Chairman & CEO

Kenny Wen

## ■ Employees

81 (Taiwan: 70 & China: 11)

## ■ Capital

NTD 396 millions

## ■ Business

Development, design, and sale  
microcontrollers  
(a MCU-based IC design house)

## ■ Main products

ARM Cortex-M0/M3 MCU,  
8051 MCU,  
USB MCU,  
LDO/BLDC Series



-  **Operation Performance & Financial Results**
-  **Product Application & Business Outlook**
-  **Q & A**



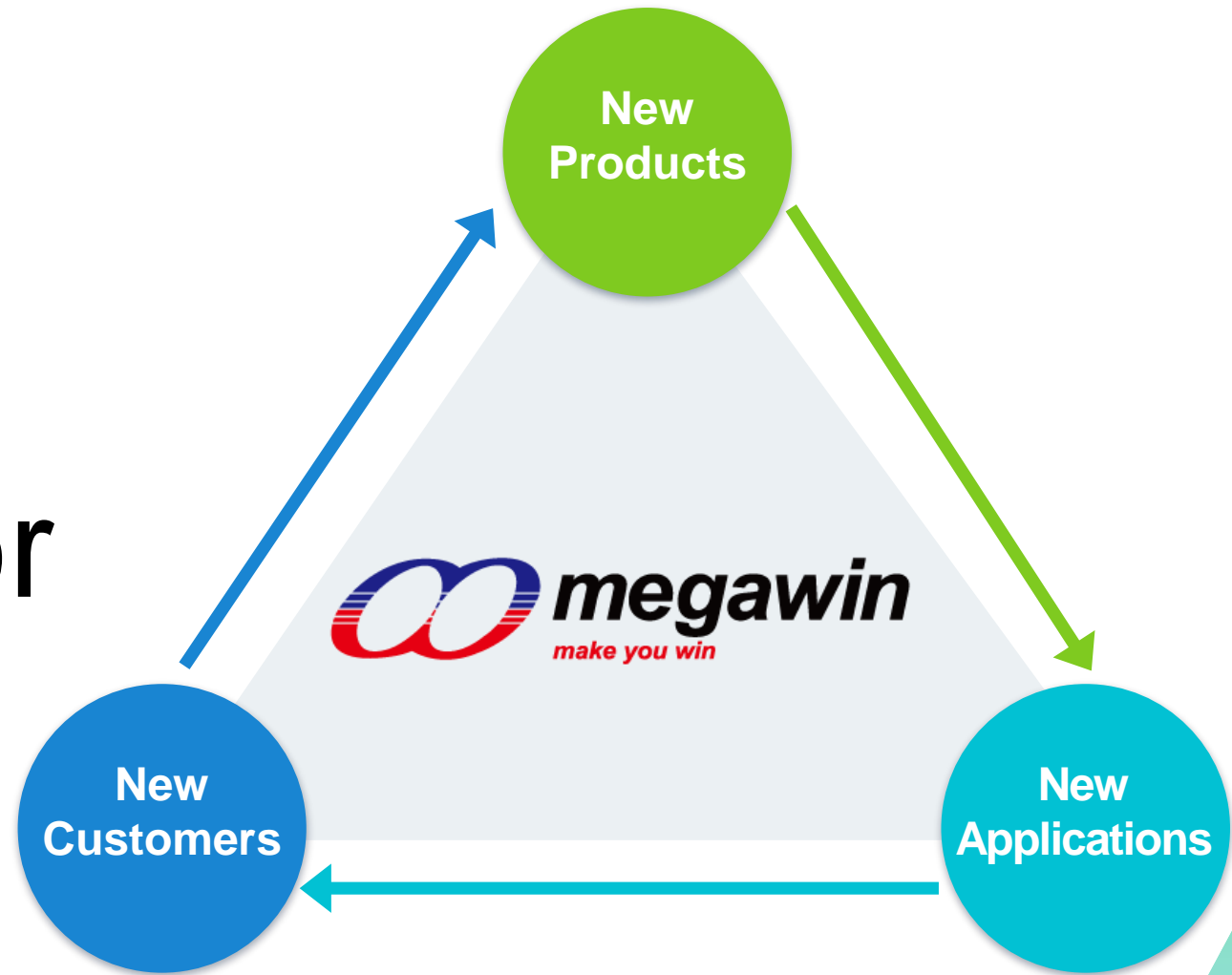
# Agenda





# I. Operation Performance & Financial Results

# Key Growth Drivers for Revenue



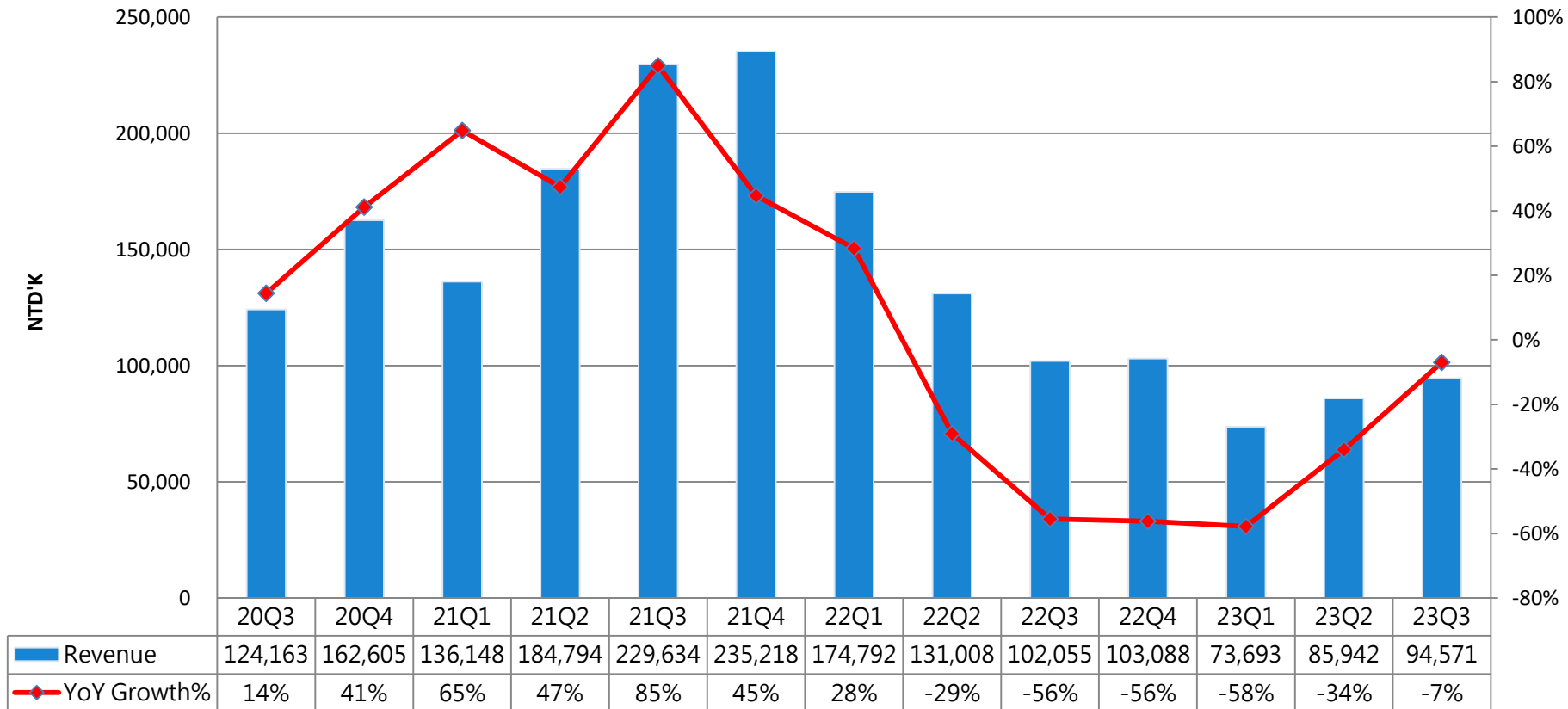
## Total Solution

Provide total solution for customers

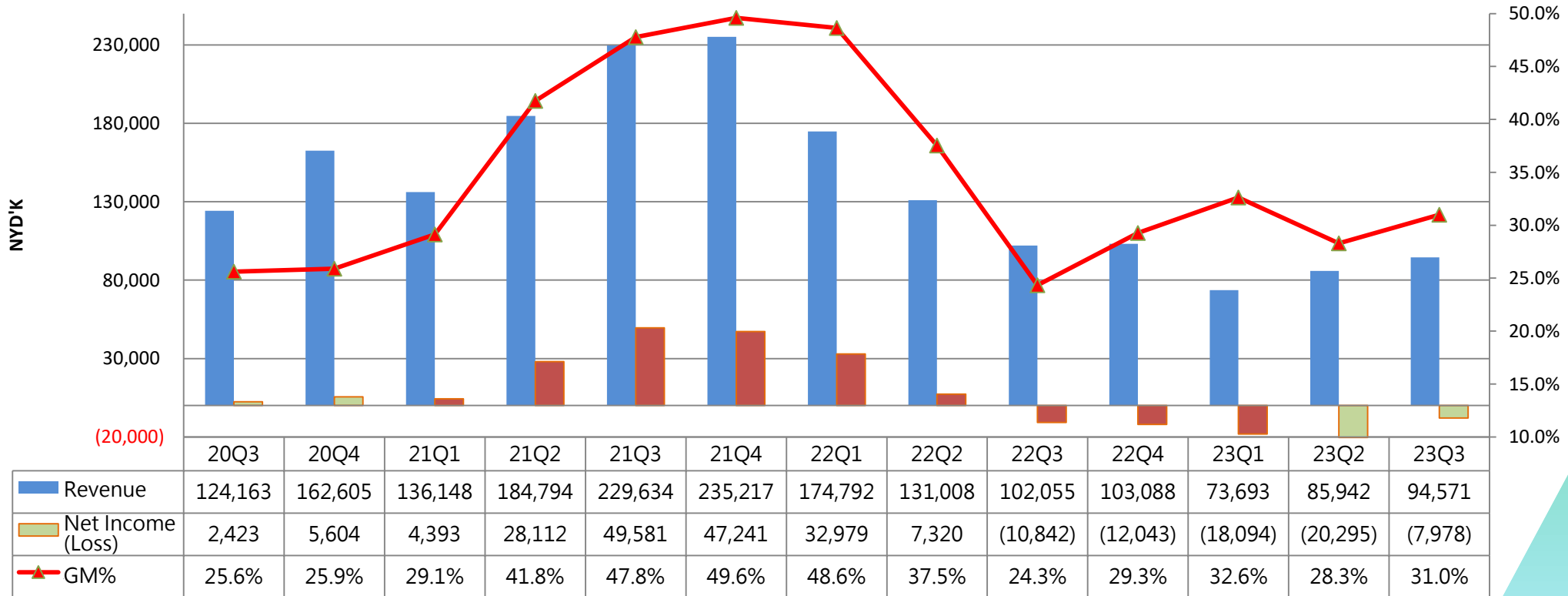
## Best Cost-Performance Ratio

Achieve the best cost-performance ratio

# Quarterly Revenue & Growth Rate

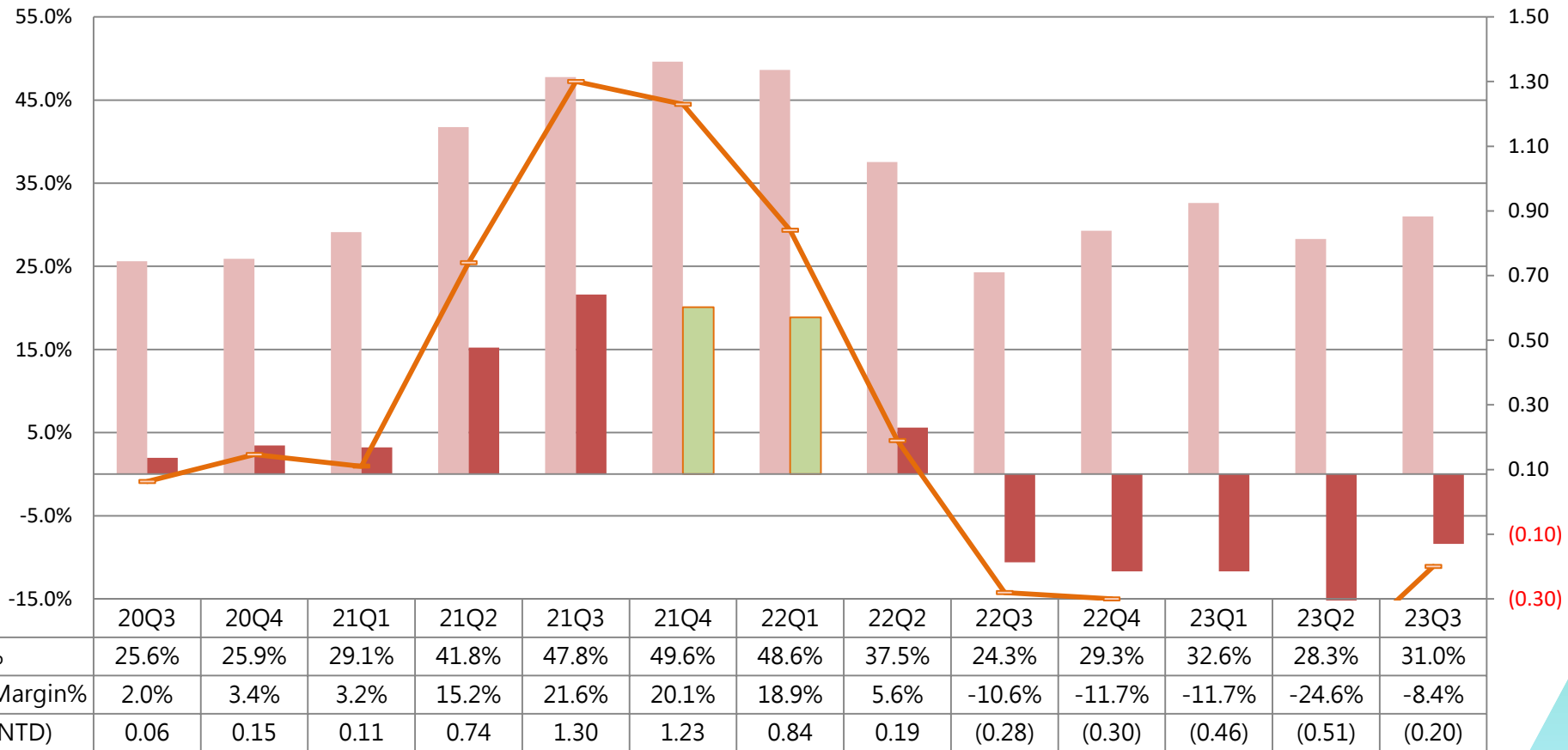


# Operating Results (1/2)





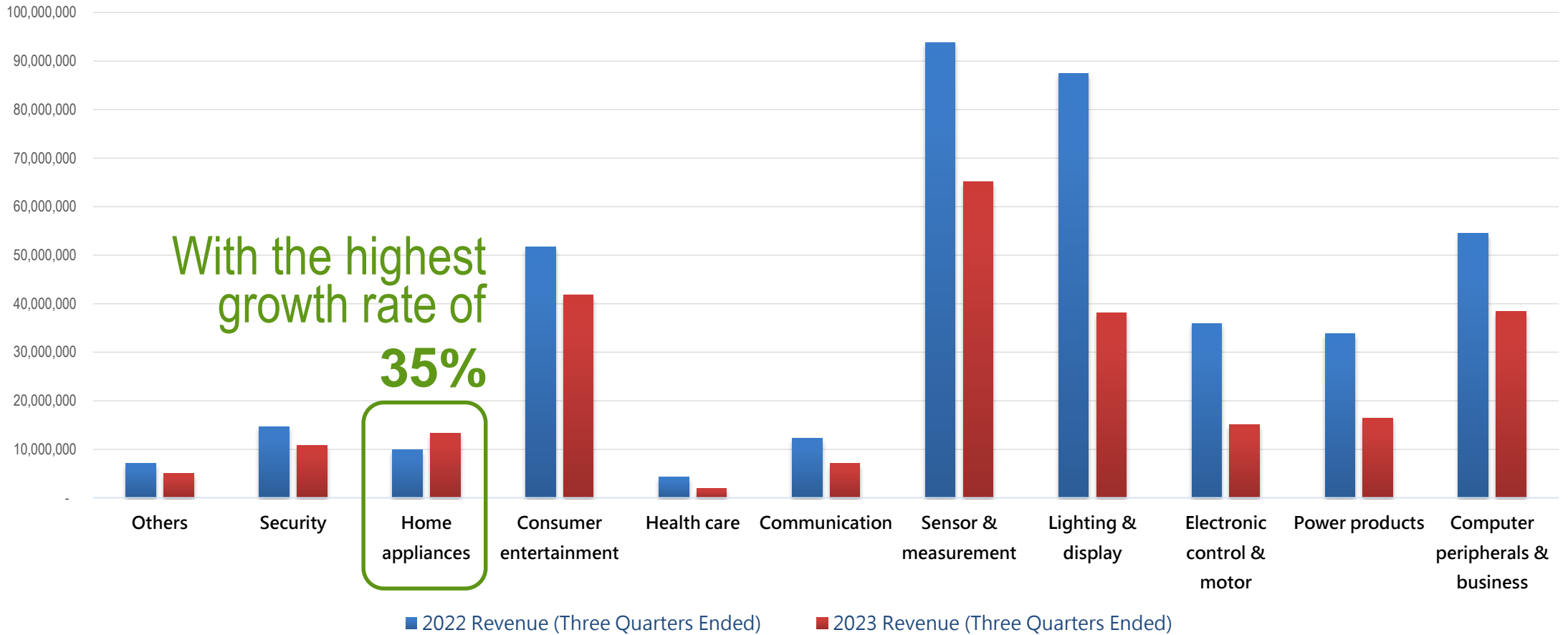
# Operating Results (2/2)



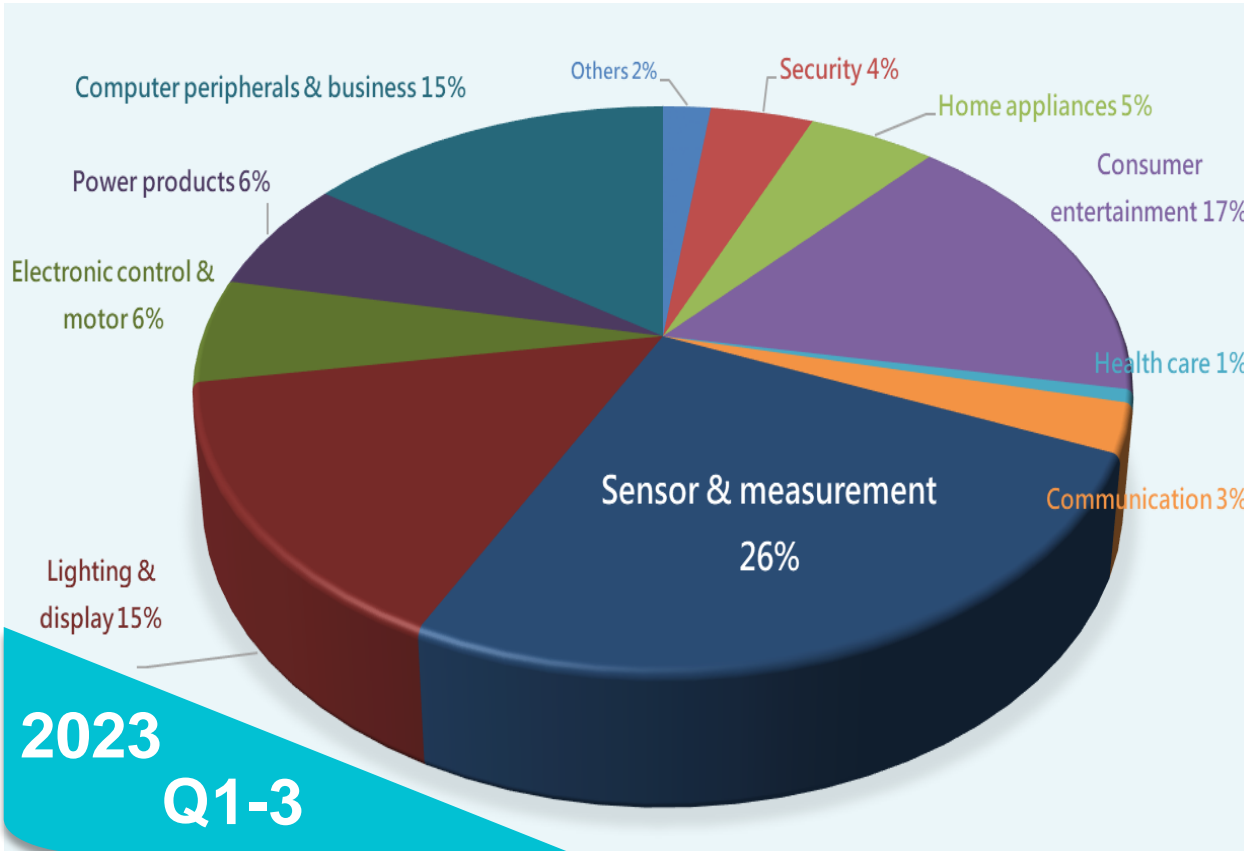
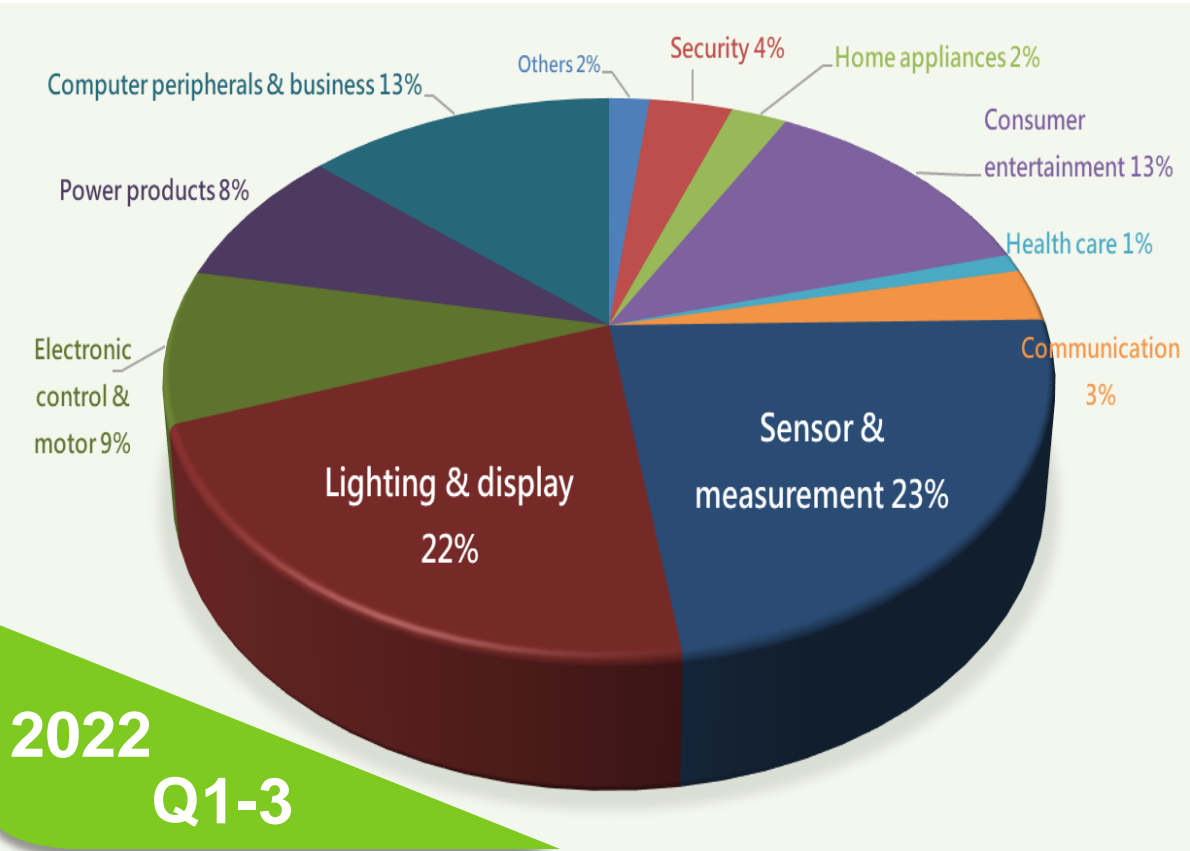


## II. Product Application & Business Outlook



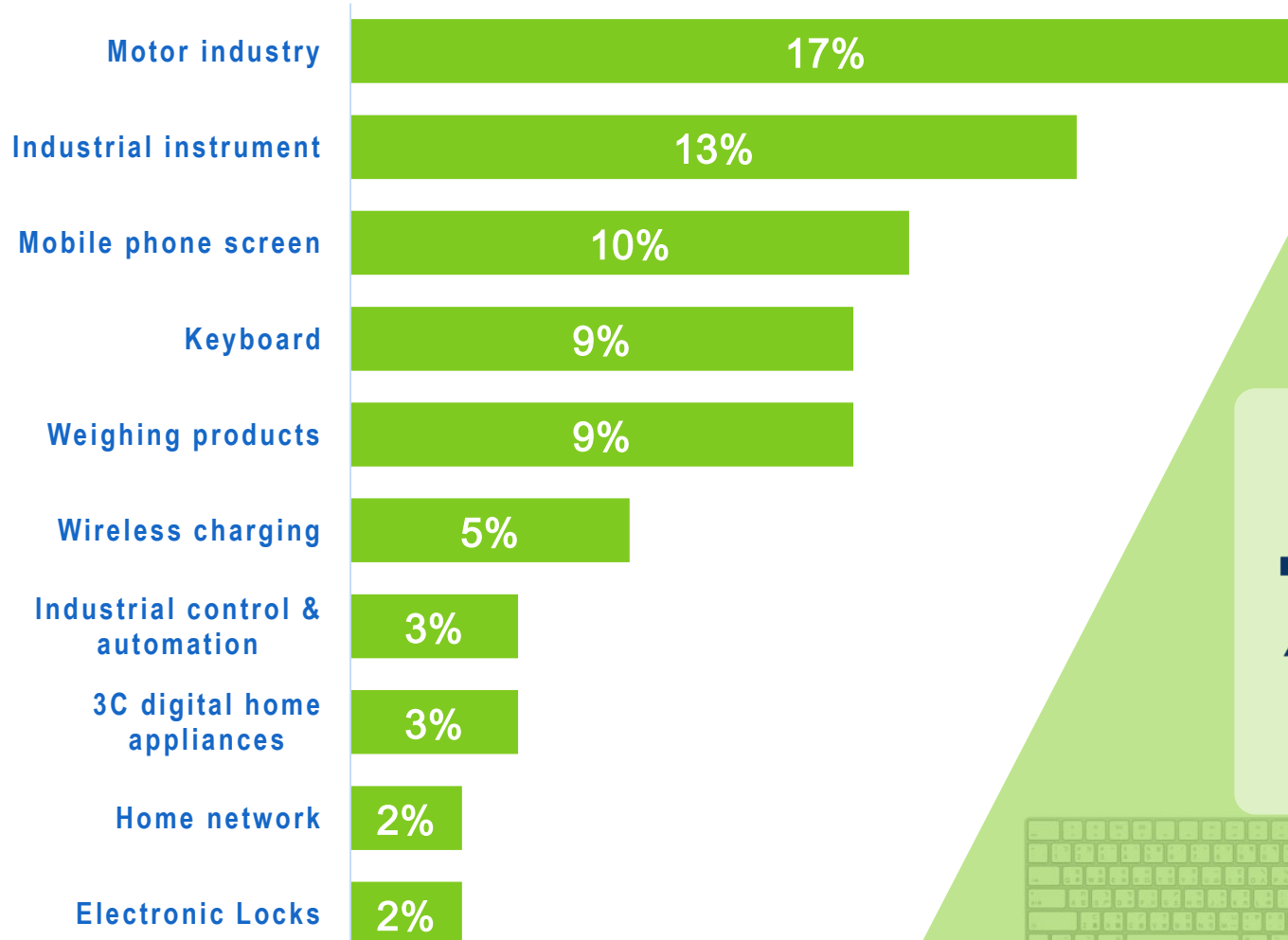
# 2023 Q1-Q3 MCU Growth Analysis by Industry







# MCU Breakdown by Industry



# 2023 Megawin Top 10 Applications



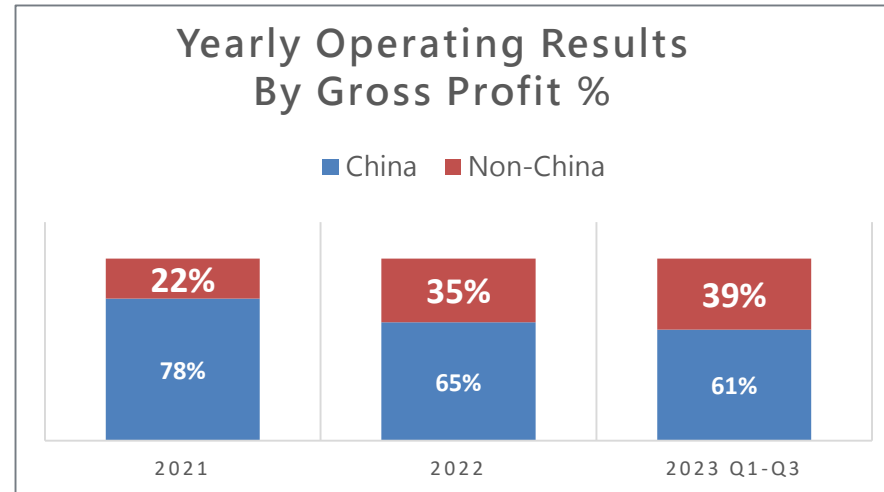
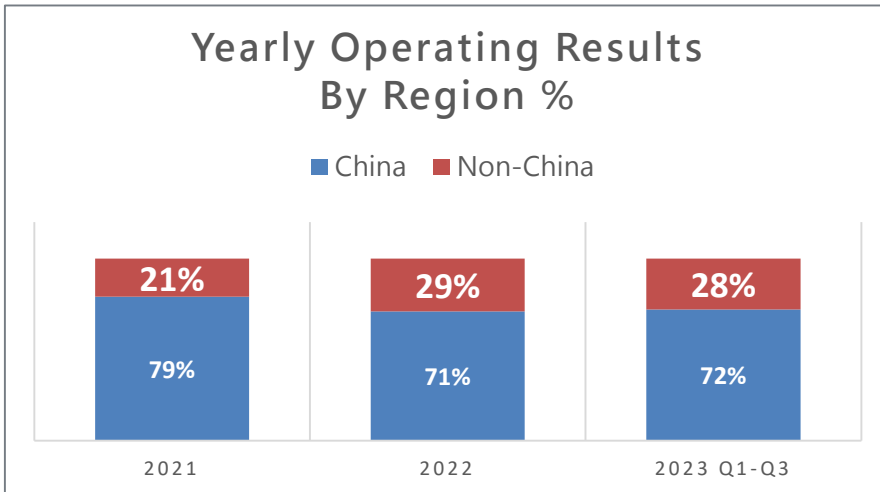
Accounted for  
**72%** of the  
total revenue



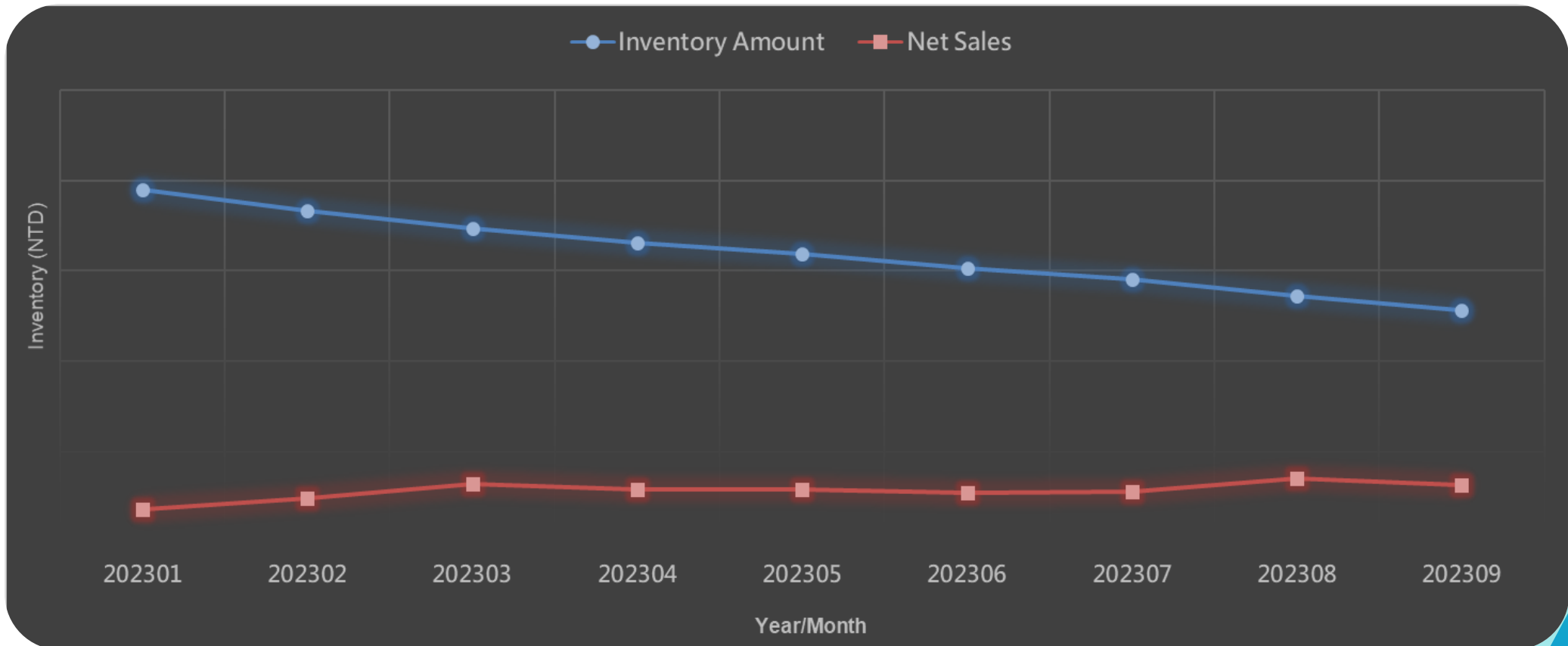
# Continue to Cultivate Overseas Markets



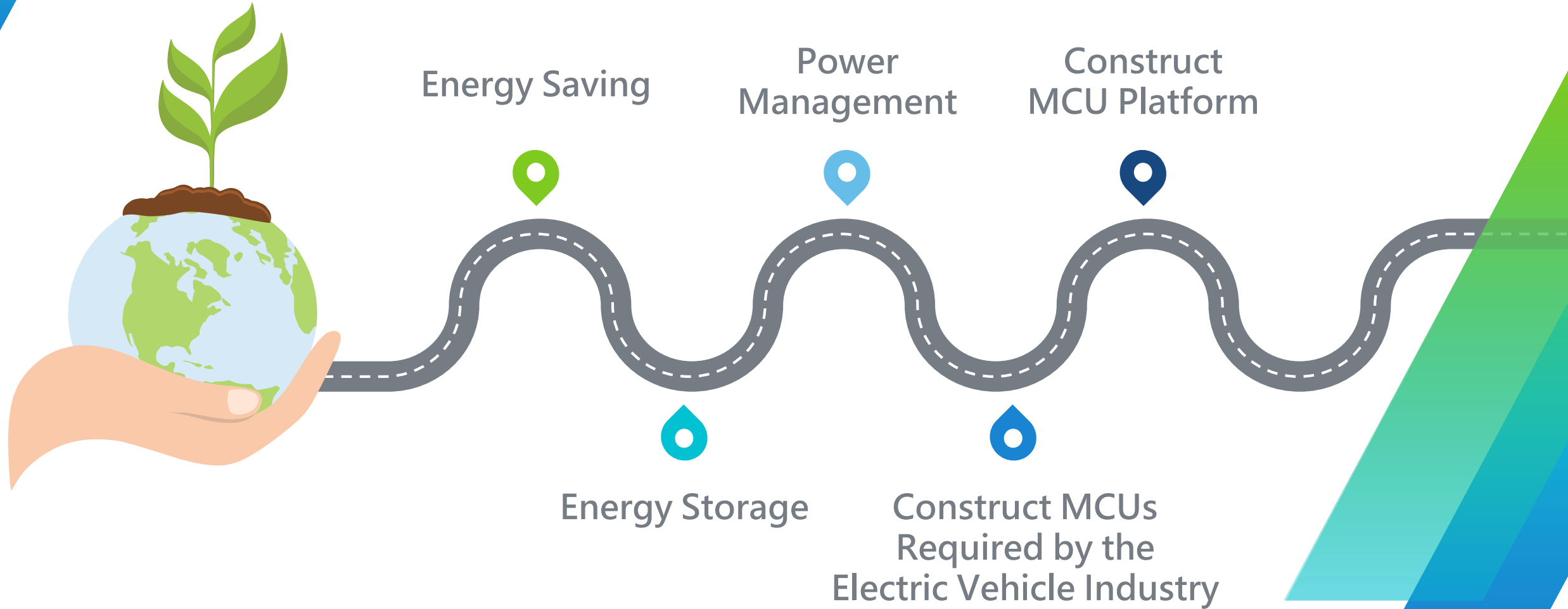
- Opened up the Japanese market last year, successfully entered industrial instruments and smart curtain applications
- Entered Japan's beauty equipment application in Q3 this year
- Gradually enters the white goods, security, and motor-related product markets in European countries.



# Inventory Status



# Megawin Product Vision





# AEC-Q100 (Grade 2) Certified

Widely used in various automotive applications

**MGEQ1C064AD48**  
Car standard chip officially launched

- High reliability
- High stability
- High immunity



**Latest News**

# MGEQ1C064AD48 Applications



Power Seat



Dashboard



Wireless Charging



Power Tailgate



Dynamic Taillights



Windshield Wipers



Windows Control



Automotive Lighting

# 1. Energy Saving

- Responding to green energy and carbon reduction, sustainable development, and MCU power consumption reduction (Super low power)
  - ✓ Extensive intelligence is the driving force for ULP MCU market growth
- Ultra-Low-Power MCU (ULP MCU)
  - ✓ Cooperate with foundry to develop ultra-low-power consumption technology (Device module, STD cell, PDK)
  - ✓ Has been developed for more than two years and is expected to have results in Q4 2024
- ULP MCU Applications
  - ✓ Wearable device
  - ✓ Portable electronics
  - ✓ Personal medical equipment
  - ✓ Home automation
  - ✓ Smart sensor

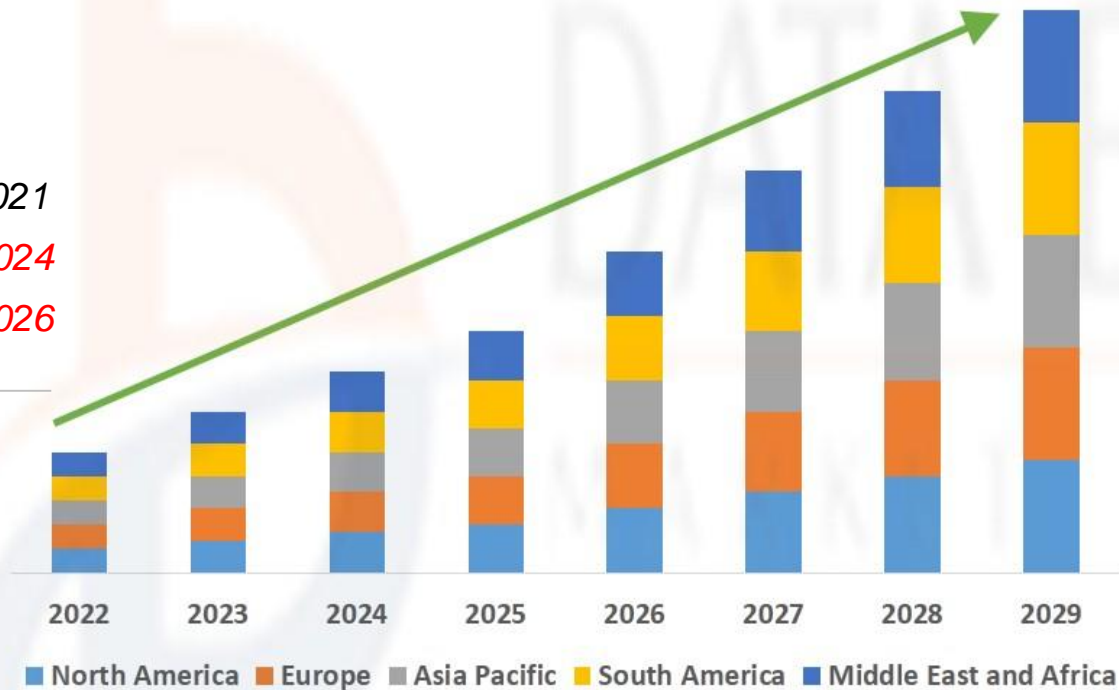
# 1.1. ULP MCU Market Size

Global Ultra-Low-Power Microcontroller Market is Expected to Account for **USD 9,221.87 Million by 2029**

According to MarketsandMarkets:

Global ULP MCU TAM

- ✓ Already over \$4.2 billion in 2021
- ✓ Will grow to **\$12.9 billion in 2024**
- ✓ Will jump to **\$100 billion by 2026**



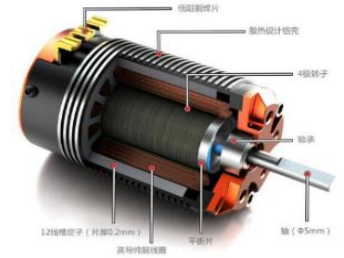
Global Ultra-Low-Power Microcontroller Market, By Regions, 2022 to 2029



DATA BRIDGE MARKET RESEARCH

Source: Data Bridge Market Research Market Analysis Study 2022  
DMCA Protected © Data Bridge Market Research - All Rights Reserved.

# 1.2. Brushless DC Motor (BLDC)



- In order to improve the performance of BLDC itself, it is necessary to integrate with SoC system electronic control IC; Enables motors to run more efficiently and reduce energy consumption at lower cost
- Improve motor efficiency (80% to 90%); market as a **system module**
  - ✓ Develop motor controller architecture (F/W)
  - ✓ Develop MOSFET (Developed by the invested company, Chip1 Co., Ltd.)
  - ✓ Develop high-voltage drive (Isolator)
  - ✓ Integrate IGBT, SiC
- The market size of BLDC motors is growing year by year, driving up the demand for MCU drive control chips
  - ✓ Global market size: USD17.3 billion in 2020, estimated to grow to USD27.2 billion in 2027, with a CAGR of 6.6% (Note1)
  - ✓ China's market size: 2018-2023 market size CAGR is 15%. The growth rate of the Chinese market exceeds that of the global market (Note2)

Note 1: Quoted from Grand View Research statistics

Note 2: Quoted from Frost &amp; Sullivan statistics

# 1.3. Promote BLDC via Modular Platform



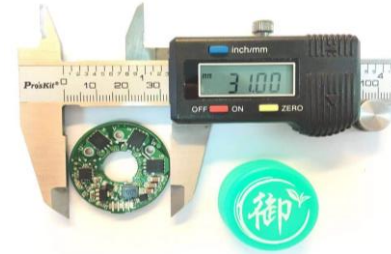
Ceil Fan



Crossflow Fan



Hair Dryer

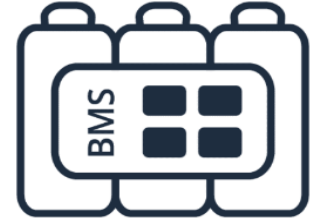


Servo Fan



Water Heat Exhaust

## 2. Lithium Battery Management



- The era of lithium batteries has arrived (home/personal components/communication/transportation...); Build a safe battery management system SoC to meet future needs and growth
- Focus on BMS electronic control IC system
- Establish a battery (Cell) characteristic laboratory
- Develop battery protection algorithms
- Battery metering module expected to be launched in December
- Develop 24Bit ADC (had been verified)
- Develop AFE SoC (plan to develop 12-16 string battery management AFE)

## 2.1. BMS Market Size

- Global BMS market will be USD 7.2 billion in 2022
- Expected to reach USD 26.8 billion by 2030
- CAGR of 17.9% in 2022-2030

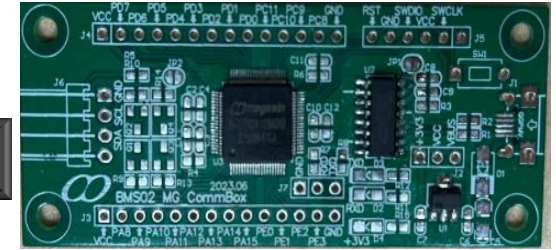
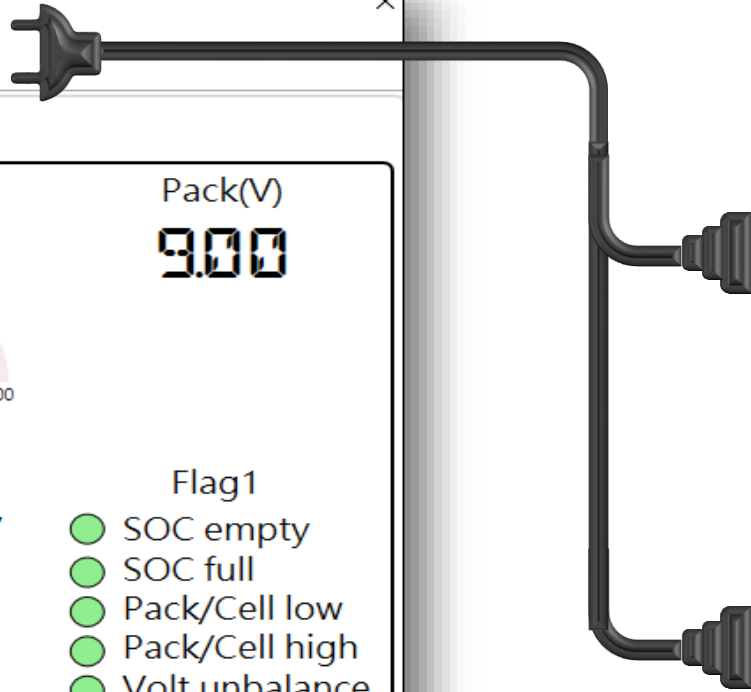
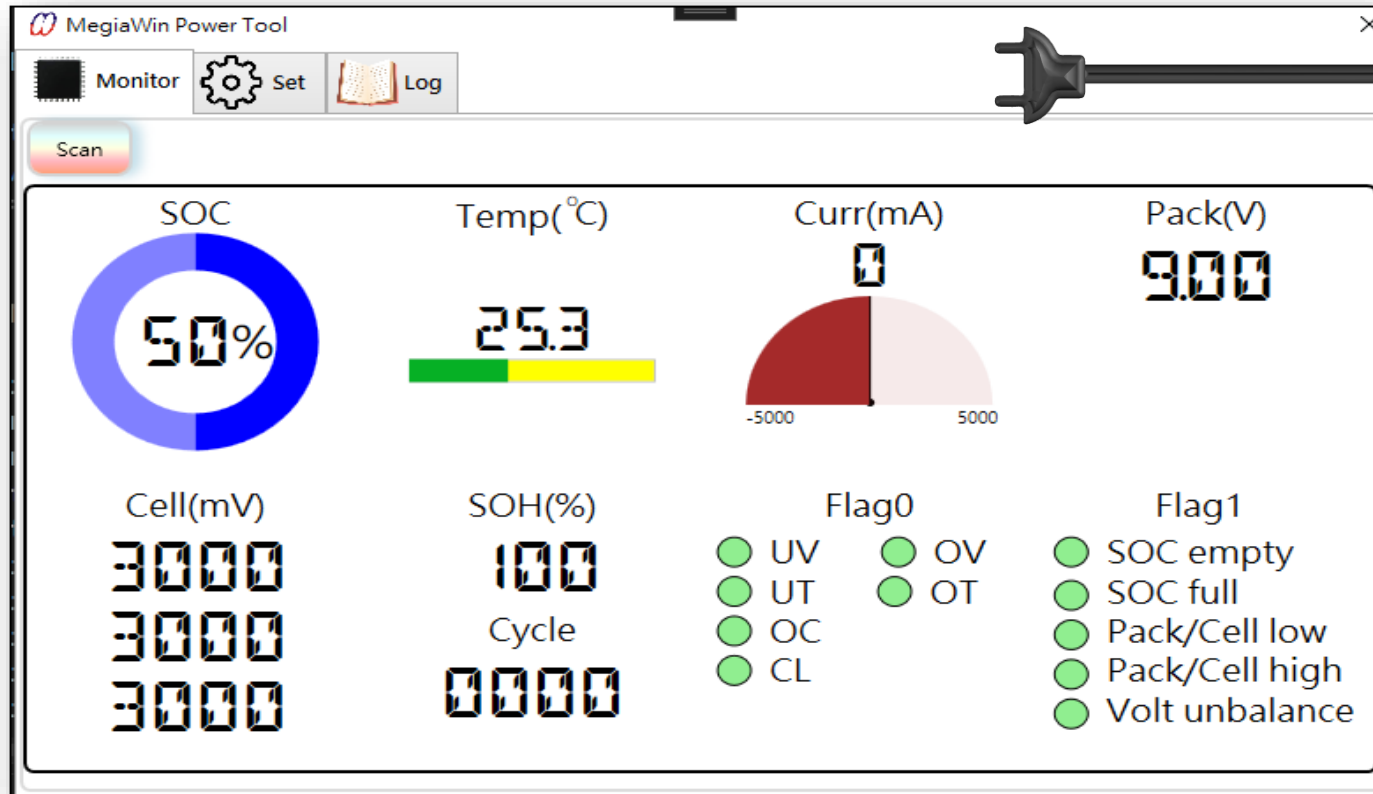
### Battery Management System Market

PRESCIENT & STRATEGIC INTELLIGENCE  
Where knowledge inspires strategy



資料出處：Prescient & Strategic Intelligence





# Develop a More Convenient Lithium Battery Management Suite

## 2.2. Battery Energy Storage Market Size

Market size in 2022  
USD 5.8 billion

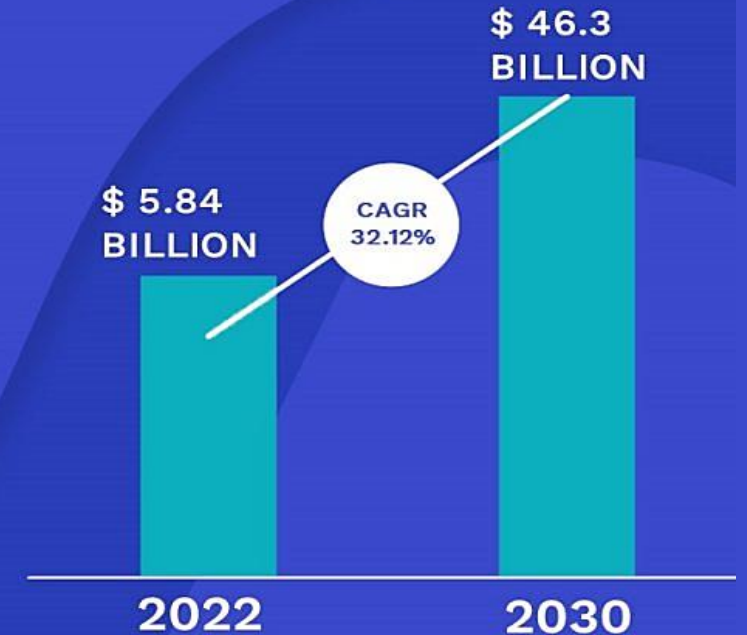
Expected to reach  
USD 46.3 billion in 2030,  
with a CAGR of 32%

Source: Verified Market Research

 VERIFIED  
MARKET  
RESEARCH

Global  
Battery Energy Storage  
System Market

2023-2030



## 2.3. Energy Storage-Specific M3 Put into Mass Production

- Support one set of CAN 2.0b
- 1Mbit/s speed
- 11/29 bit identifier

### CAN BUS

- Support AES 128 HW Encryption
- TRNG generate real random number
- ECB/CBC/CTR modes

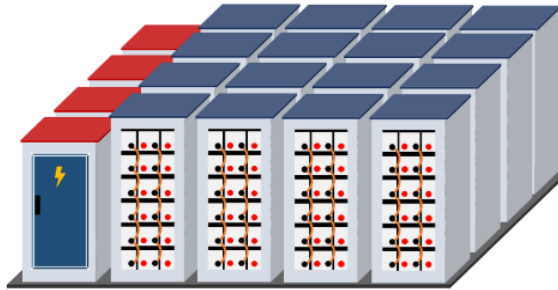
### Security

### Analog

- 12 bit ADC x 3 set (18 CH), support
- 12 bit Voltage DAC x 2
- Operation Ampiler x 3

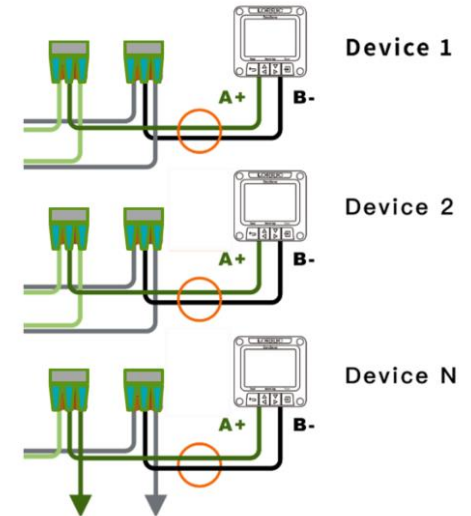
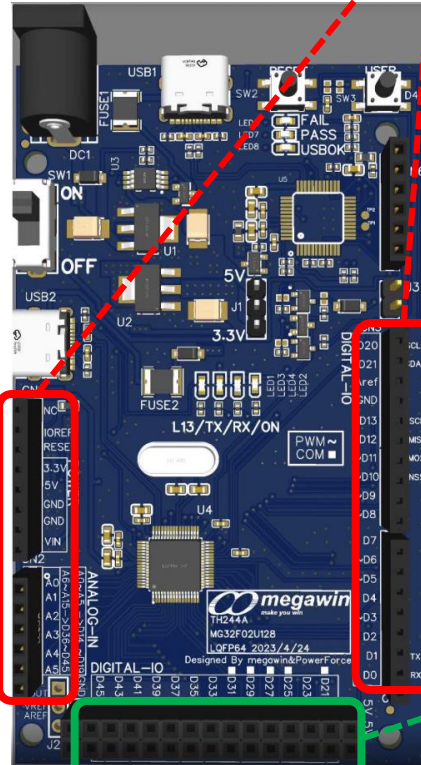
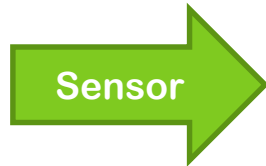
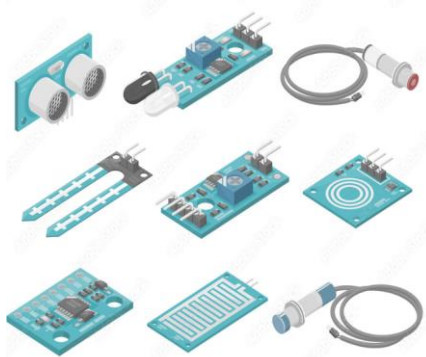
### Others

- Up to 256k FLASH and 64k SRAM
- LQFP64 / LQFP100 with 5V Tolerance
- SDIO card reader (SD/SDIO/MMC4.2)
- DMA controller x 2



# 3. Developed Arduino Modules for Industrial Application

Pin compatible to Arduino rich sensor and peripherals

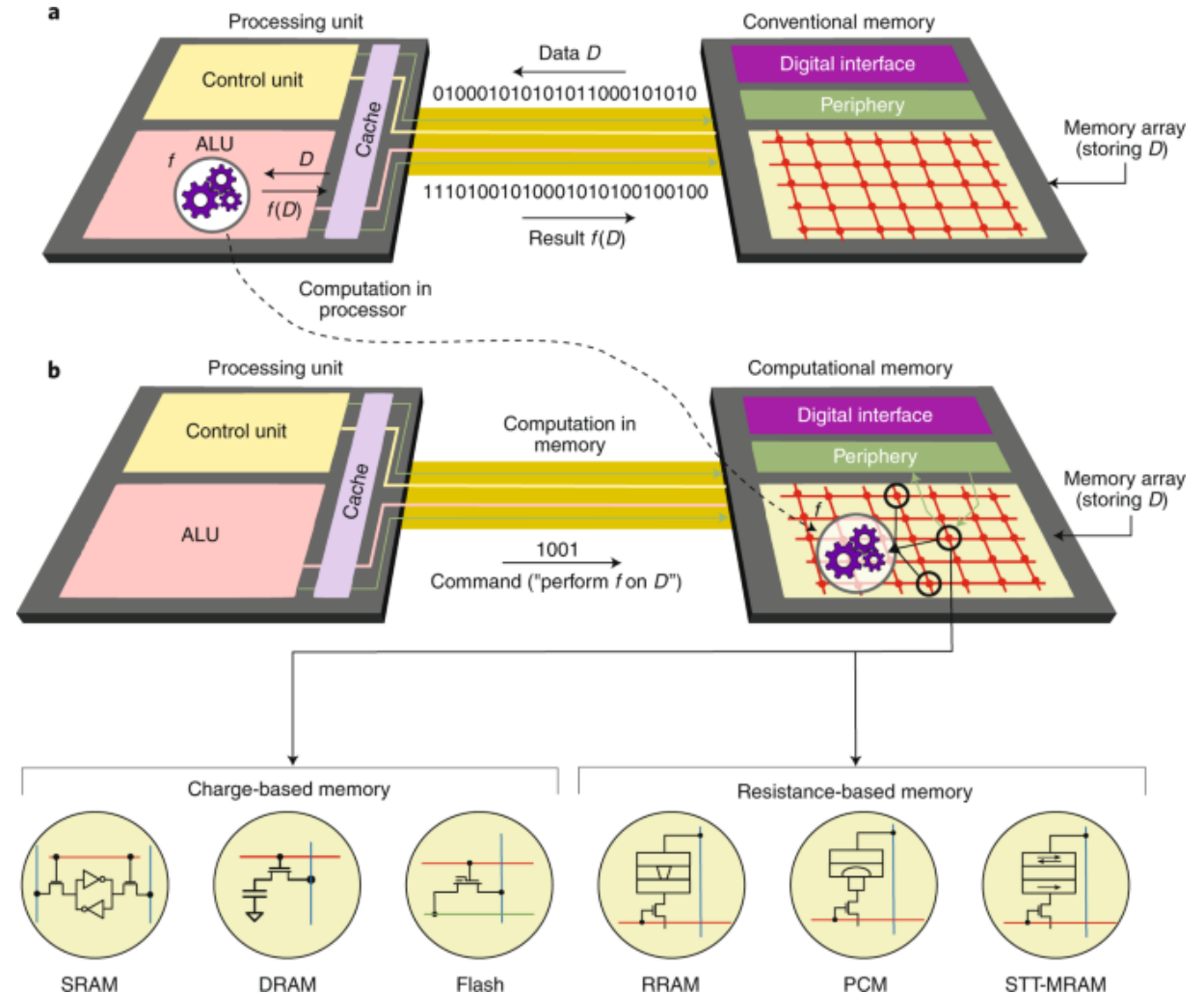


Extend pins for megawin's extended feature

CN5	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	PIN
	A15	A13	A11	A9	A7	D35	D33	D31	UART6 TX	UART5 TX	UART4 TX	UART2 TX	I2C1_SCL	I2C0_SDA / uart7 TX	5V	
	GND	D44	D42	D40	D38	D36	D34	D32	D30	D28	D26	D24	D22	D20		
	A14	A12	A10	A8	A6			UART6 RX	UART5 RX	UART4 RX	UART2 RX	I2C1_SDA	I2C_SCL / uart7 RX			
	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	PIN

# 4.1. Developing CIM AI with ITRI

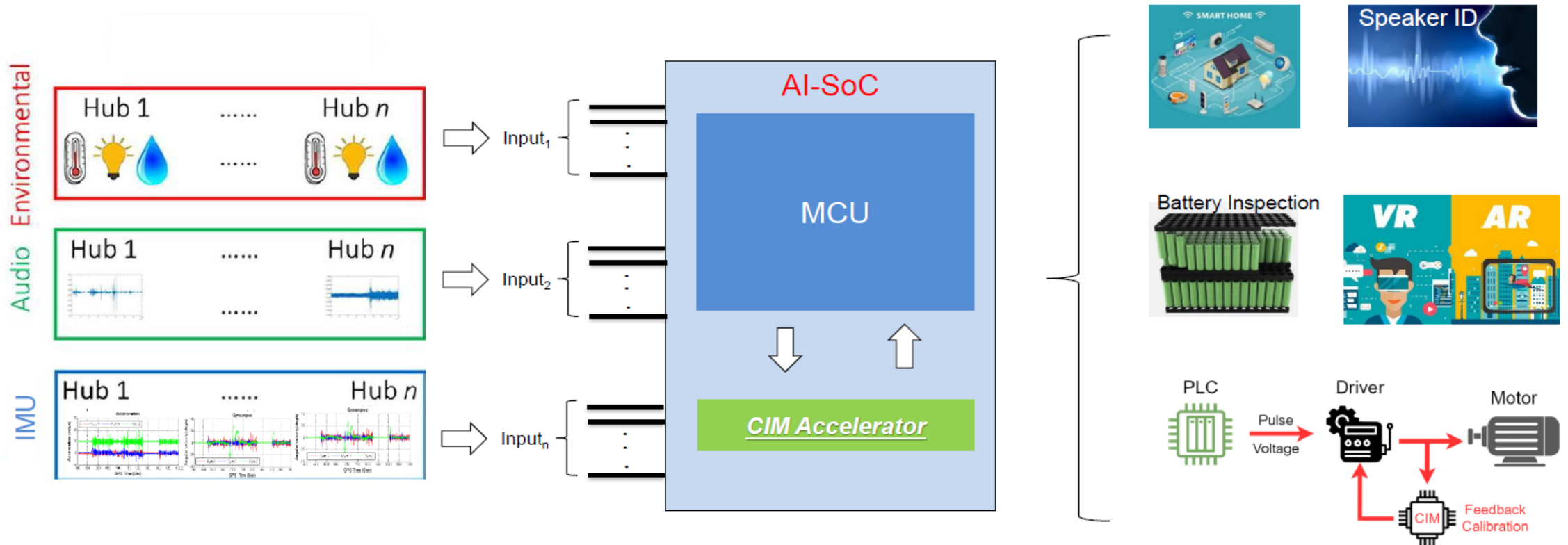
- CIM (C**o**mputing **I**n **M**emory)
  - ✓ Significantly reduces the memory bandwidth for AI processing
  - ✓ Effectively reduces the power consumption of AI computing
- In 2023, megawin cooperates with EOSL of ITRI\* on CIM MCU application solutions.



\* Electronic and Optoelectronic System Research Laboratories (EOSL)  
Industrial Technology Research Institute (ITRI)

# 4.2. CIM MCU Supports Edge Computing

Parameters extraction and data scheduling by MCU & recognition by CIM Accelerator



Ref:  
 Multimodal sensor fusion framework for residential building occupancy detection  
[https://www.researchgate.net/figure/Full-IMU-Sensor-Outputs-during-typical-vehicle-dynamics\\_fig4\\_268397811](https://www.researchgate.net/figure/Full-IMU-Sensor-Outputs-during-typical-vehicle-dynamics_fig4_268397811)

# III. Q & A

# Appendix

1. Consolidated Statement Of Comprehensive Income
2. Consolidated Balance Sheet



# Appendix 1:

## Consolidated Statement Of Comprehensive Income

	單位：新台幣仟元			
	112年1月1日至9月30日		111年1月1日至9月30日	
	金額	%	金額	%
營業收入淨額	254,205	100	407,856	100
營業成本	(176,501)	(69)	(248,834)	(61)
營業毛利	77,704	31	159,022	39
營業費用	(128,085)	(49)	(129,624)	(32)
營業淨利(損)	(50,381)	(18)	29,398	7
營業外收入及支出	4,157	2	8,706	2
稅前淨利(損)	(46,224)	(16)	38,104	9
所得稅費用	(144)	-	(8,647)	(2)
本期淨利(損)	(46,368)	(18)	29,457	7
每股盈餘(虧損)(單位:元)	(1.17)		0.75	

## Appendix 2:

### Consolidated Balance Sheet (1/3)

代碼	資產	單位：新台幣仟元			
		112年9月30日		111年9月30日	
		金額	%	金額	%
	流動資產				
1100	現金及約當現金	\$91,791	13	\$132,048	16
1136	按攤銷後成本衡量之金融資產－流動	258,635	36	235,211	29
1170	應收票據及帳款	58,942	8	56,539	7
130X	存貨	92,340	13	189,530	24
1479	其他流動資產	17,633	3	21,035	3
11XX	流動資產總計	519,341	73	634,363	79
	非流動資產				
1550	採用權益法之投資	11,213	2	-	-
1600	不動產、廠房及設備	153,061	22	153,908	19
1755	使用權資產	2,277	-	3,897	-
1780	無形資產	24,810	3	15,105	2
1920	存出保證金	656	-	686	-
15XX	非流動資產總計	192,017	27	173,596	21
1XXX	資產總計	\$711,358	100	\$807,959	100

## Appendix 2: Consolidated Balance Sheet (2/3)

代碼	負債及權益	單位：新台幣仟元			
		112年9月30日		111年9月30日	
		金額	%	金額	%
	流動負債				
2170	應付帳款	\$21,573	3	\$32,633	4
2200	其他應付款	30,094	4	46,293	6
2230	本期所得稅負債	34	-	7,314	1
2280	租賃負債－流動	2,216		2,380	-
2320	一年內到期之應付公司債	197,531	28		
2300	其他流動負債	3,829	1	5,062	-
21XX	流動負債總計	255,277	36	93,682	11
	非流動負債				
2530	應付公司債	0	-	195,052	24
2580	租賃負債－非流動	162	-	1,594	-
2645	存入保證金	3,535	-	3,535	1
25XX	非流動負債總計	3,697	-	200,181	25
2XXX	負債總計	\$258,974	36	\$293,863	36

## Appendix 2: Consolidated Balance Sheet (3/3)

代碼	負債及權益	112年3月31日		111年3月31日	
		金額	%	金額	%
	股本				
3110	普通股股本	396,089	56	391,449	49
3140	預收股本	168	-	45	-
3100	股本總計	396,257	56	391,494	49
3200	資本公積	50,149	7	48,736	6
	保留盈餘				
3310	法定盈餘公積	14,674	2	12,933	2
3320	特別盈餘公積	917	-	1,429	-
3350	未分配盈餘	-8,874	-1	60,162	7
3300	保留盈餘總計	6,717	1	74,524	9
3400	其他權益	-739	-	-658	-
31XX	本公司業主權益總計	452,384	64	514,096	64
3XXX	權益總計	\$452,384	64	\$514,096	64
	負債及權益總計	\$711,358	100	\$807,959	100

# *Thank you!*

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