

Nuvoton Technology Corporation

3Q'21 Investor Conference

November 5, 2021



Agenda



Nuvoton Financial Results



Nuvoton Technology Corporation Japan Highlight



Nuvoton 3Q'21 Business Update



Q&A

Safe Harbor Notice

- We have made forward-looking statements in this presentation. Our forward-looking statements contain information regarding, among other things, our financial condition, future expansion plans and business strategies. We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that these expectations and projects are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions about us.
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Nuvoton Financial Results

Statement of Comprehensive Income - Consolidated

Selected Items from Statement of Comprehensive Income.

	3Q'21		2Q'21		QoQ		YTD	
Unit: NT\$ M	Amount	%	Amount	%	Amount	%	Amount	%
Net Revenue	10,380	100	10,615	100	(235)	0	31,067	100
Gross Profit	4,266	41	4,342	41	(76)	0	12,528	40
Operating Income	817	8	916	8	(99)	0	2,113	7
Non-Operating Income	17	0	191	2	(174)	(2)	217	1
Income before Income Tax	834	8	1,106	10	(272)	(2)	2,330	8
Net Income	642	6	939	9	(297)	(3)	1,852	6
EPS (NTD)	1.56		2.36				4.63	

Note: Weighted average outstanding shares were 412.1M units in 3Q'21 and 397.6M units in 2Q'21.

Balance Sheet - Consolidated

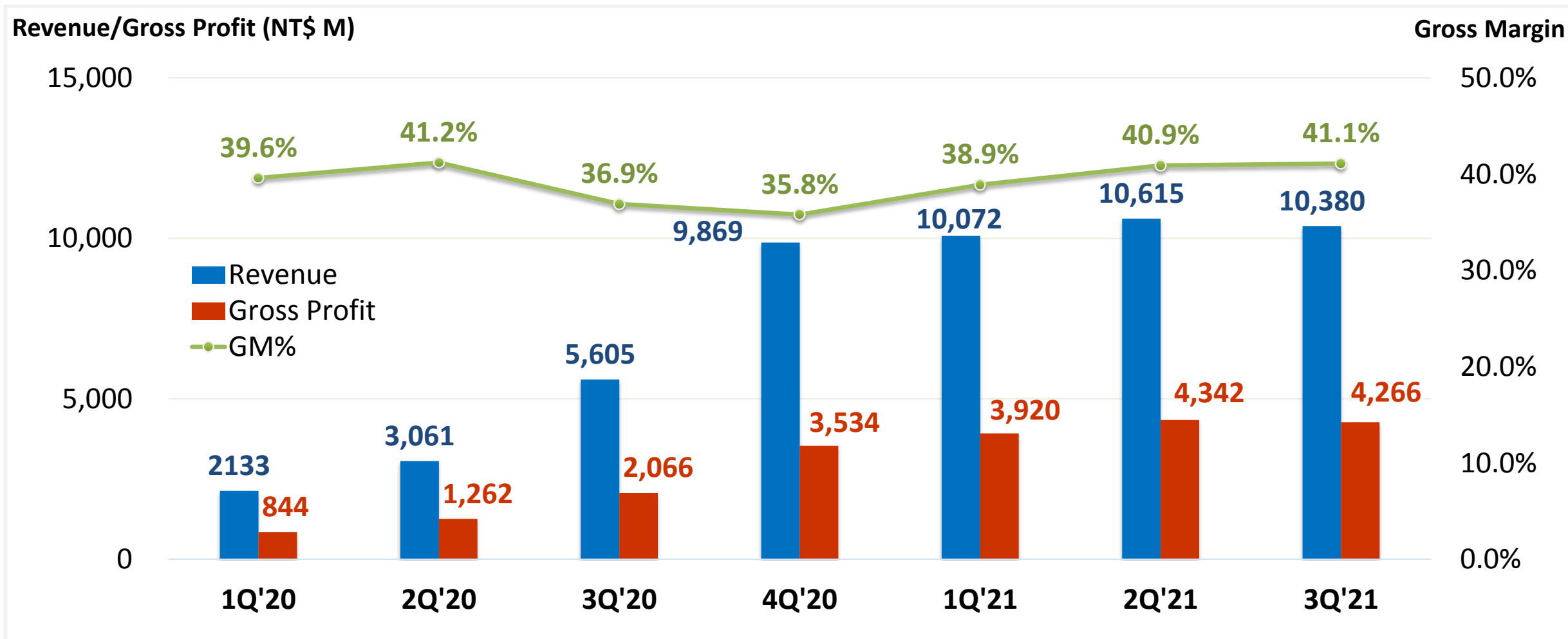
Selected Items from Balance Sheet.

Unit: NT\$ M	Sep 30 '21		June 30 '21		QoQ
	Amount	%	Amount	%	Amount
Cash & Cash Equivalents	6,370	20	6,270	20	100
Accounts Receivable	4,775	15	4,590	15	185
Other Receivable	895	3	1,034	4	(139)
Inventories	6,776	21	6,280	20	496
Long-Term Investments	2,487	8	2,388	8	99
Property, Plant, Equipment and R.O.U	8,857	28	9,116	29	(259)
Others	1,489	5	1,429	4	60
Total Assets	31,649	100	31,107	100	542
Current Liabilities	9,815	31	9,936	32	(121)
Non-Current Liabilities	7,562	24	7,779	25	(217)
Total Liabilities	17,377	55	17,714	57	(337)
Total Equity	14,272	45	13,392	43	880
Debt/Equity Ratio	1.22		1.32		

Statement of Cash Flows - Consolidated

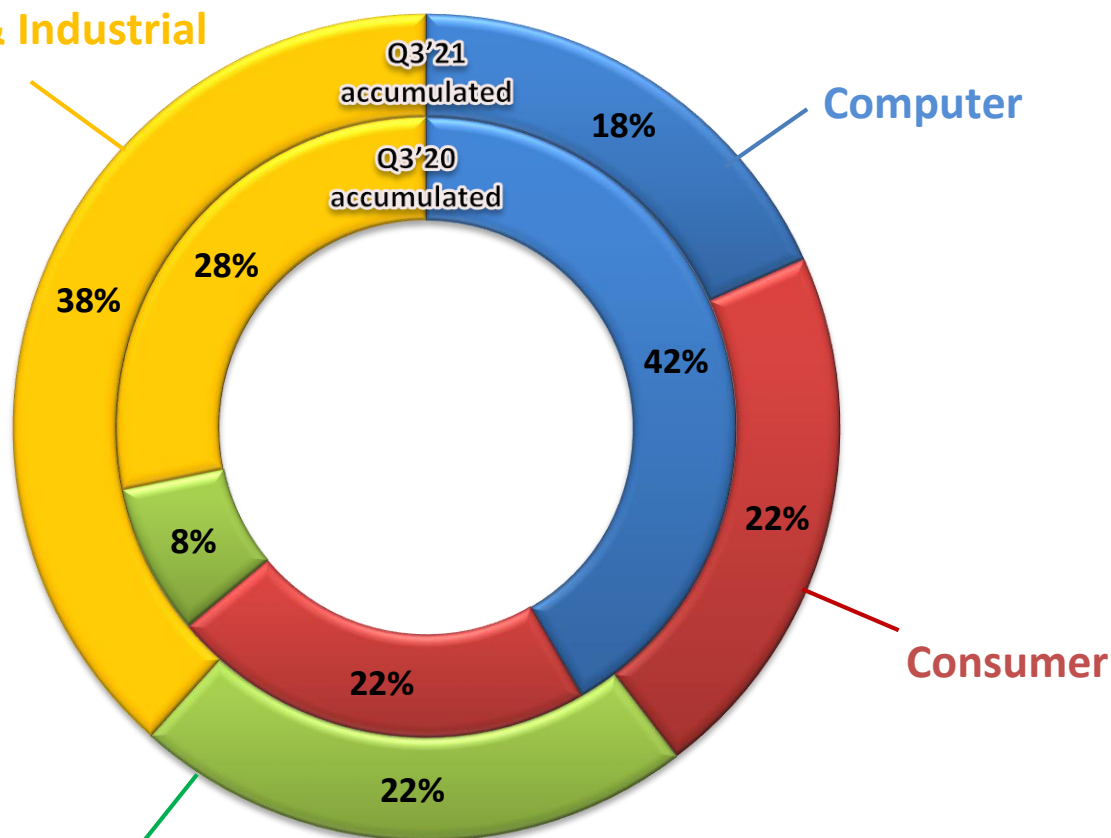
	3Q'21	2Q'21	QoQ
Unit: NT\$ M	Amount	Amount	Amount
Cash Flows from Operating Activities	822	930	(108)
Cash Flows from Investing Activities	(170)	1,046	(1,216)
Cash Flows from Financing Activities	(474)	(1,039)	565
Cash & Cash Equivalents	6,370	6,270	100

Revenue and GM Trend - Consolidated



Revenue by 4C Application

Automotive & Industrial



Communication & Others

Application	
	Computer
	Consumer
	Communication & Others
	Automotive & Industrial

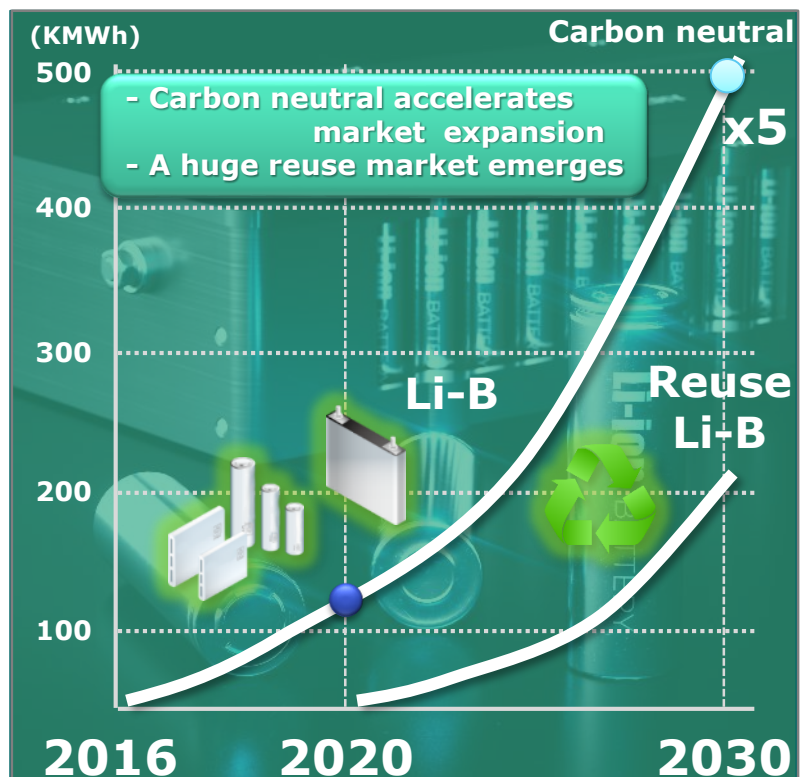
Increased Percentage in Communication and Auto & Industry Sectors

Nuvoton Technology Corporation Japan Highlight



Focus Market and NTCJ Contribution

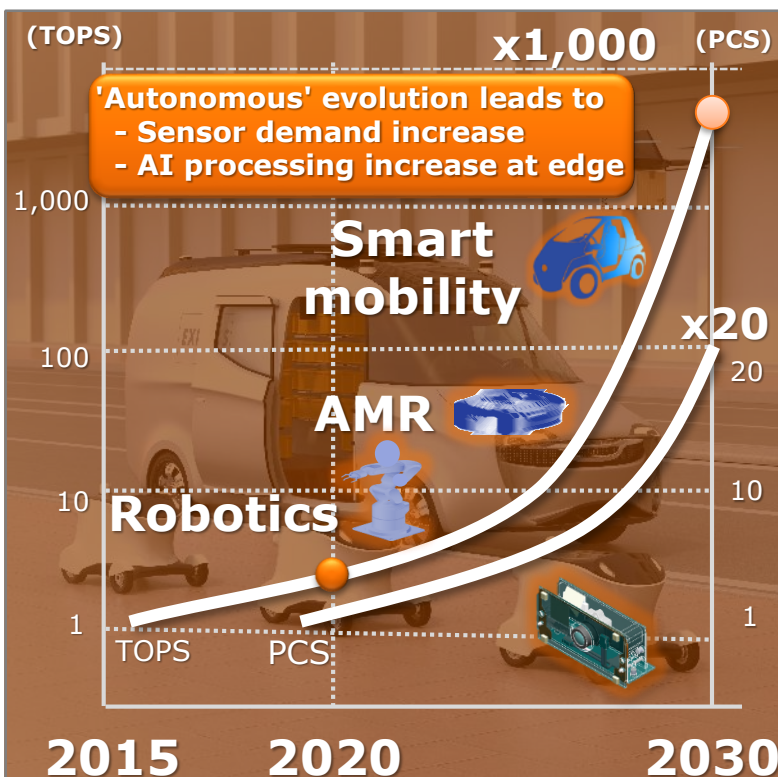
1.New Energy (Li-B)



NTCJ Contribution

Creation of businesses that support carbon neutrality

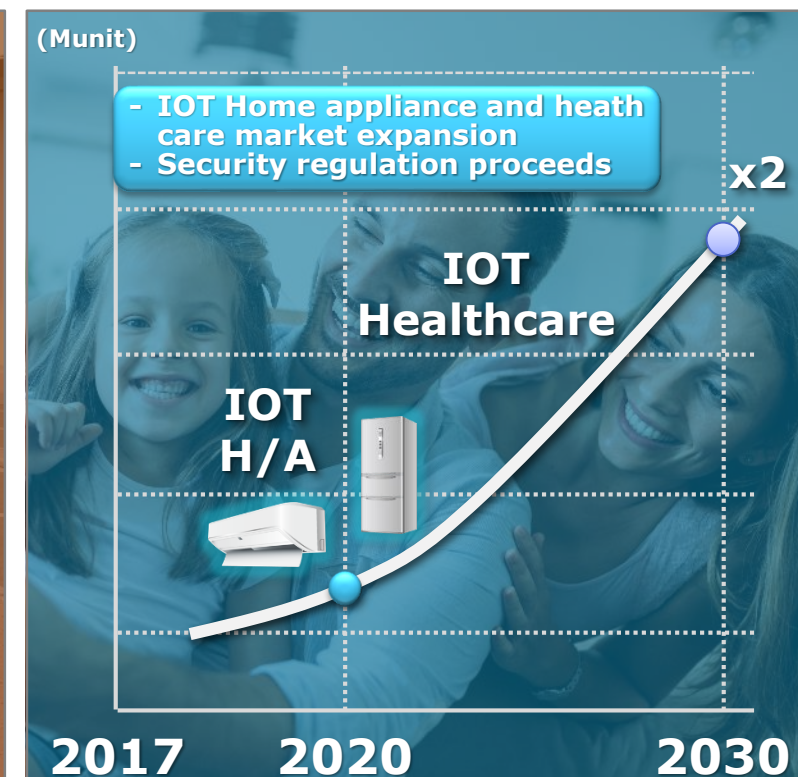
2.Smart mobility & Robotics



NTCJ Contribution

Providing smarter and simpler solutions

3.Smart Life

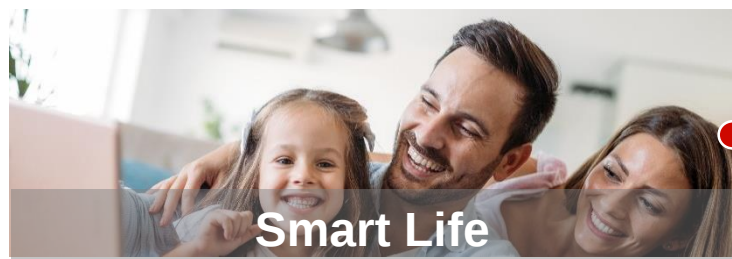


NTCJ Contribution

Providing highly reliable and efficient solutions

Achievement topics products, overview in the focus market

Focus Market



NTCJ New Products

Component BG

- CSP MOSFET for car audio



Visual Sensing BG

- Automotive rear sensing camera IC
functional safety : ASIL-B



Battery Application BG

- 4th generation BM-IC for automotive
functional safety : ASIL-D



Edge IoT security BG

- USB4 Re-Timer with 40Gbps performance



New Energy market

NTCJ's BMIC is in a strong position for automotive.

⇒Expanding to smart mobility & ESS market

Major Car-OEM(JP, EU, CN) >9 companies

Smart BMS configuration

Conventional

Main parts: 7

Hi-side Driver
Isolator
BMIC-15ch
BMIC-15ch
MCU
...
...

Smart

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Main parts: 2

BMIC-22ch
Hi-side Driver
MCU

Already shipping
BM-IC KA49522A

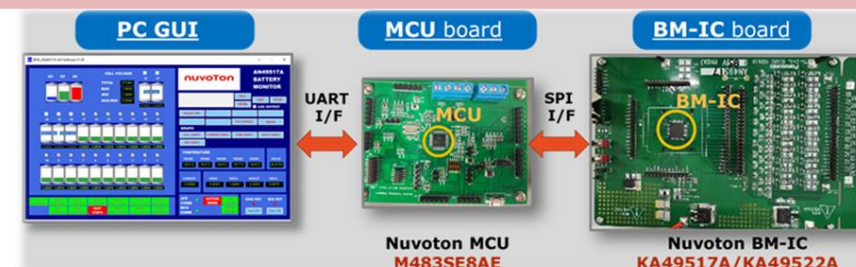


Fast development kit

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Delivering Completed design

- BMS Reference for customer business consisting of BM-IC, MCU and Software



Fast Development kit for China and Taiwan

e-Bike/e-Scooter market

Discussing 70+ customers in collaboration in WW
Some project already started business.
Starting biz will gradually increase toward '22.

ESS market

Focus on CN & TW ESS players

- Discussing with

China : Top 10 ESS suppliers for base station and server system

Taiwan : 3 ESS suppliers

ESS : Energy Storage System

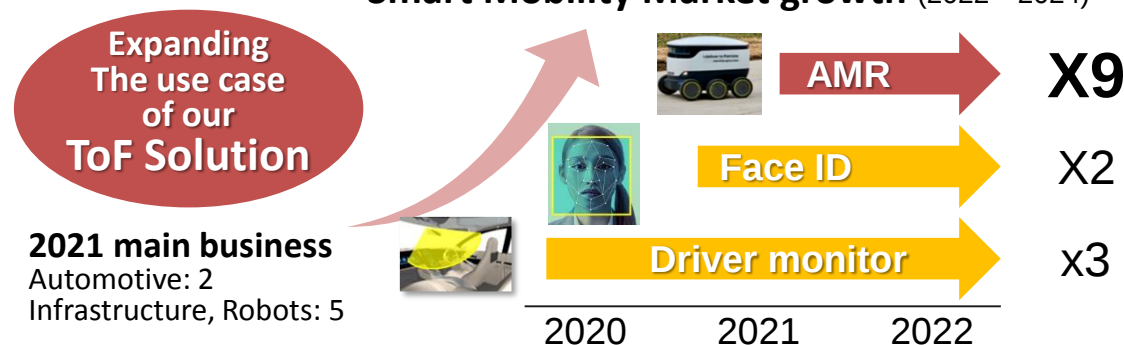
Smart Mobility market

Sensing solution(ToF)

TOF : Time Of Flight

NTCJ ToF sensor developed the automotive use.
⇒ Sensing application rapidly increasing in WW

Smart Mobility Market growth (2022~2024)



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Completed TOF solution

- sensor, reference design, software
- Optimize for customer needs
- HW/SW support with eco system



On going 20 major customers in WW
Some of Customers biz will starting in '22

MOSFET solution

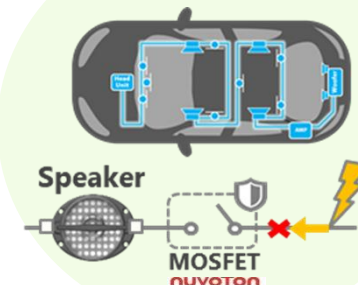
NTCJ is the No. 1 supplier of MOSFETs for mobile.
⇒ Expanding to Automotive market.

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- High reliability & withstanding
- Optimize for customer needs
- Speedy support
- Solution proposal
- New technology

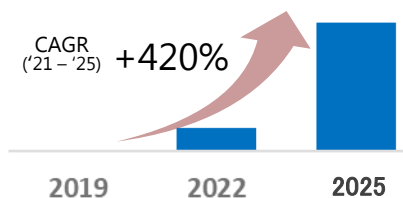


Automotive Audio



Automotive new application expectation

over 170 M units (MOSFET)



collaborated with major partners
to create new application

※NTCJ Estimation based on the market research

Smart Life market

Next-generation USB4

NTCJ is the No. 1 supplier of HDMI ICs for home video game consoles and AV equipment.

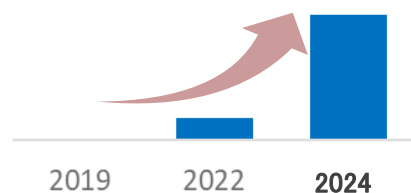
⇒ Creating to new market with new IC

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- Leading Edge Technology (Patents)
- Experiences of high speed design
- Analog signal I/F

USB4 Re-Timer market

over 300M units



※NTCJ Estimation based on the market research

-USB4 will be adopted from next-generation PCs.

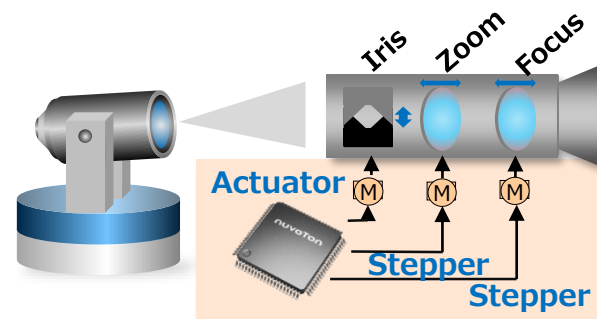
-Collaboration with leading processor manufacturers

-Mass production chip tape out in November

Surveillance camera Driver-IC

NTCJ MTD has been strong position for MFP
⇒ Expanding for growing market.

All-in One Solution for driving (Iris/Zoom/Focus)



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- Small footprint
- Silent drive
- Easy design

- Expanding share up for current customer
- Discussing other customers

WW top surveillance camera manufacturers

	share	now biz	expansion
1	21%	✓	
2	12%	✓	
3	10%		✓
4	9%	✓	
others	48%		✓

WW camera share over 50% in total of Top 4 companies

NTCJ's Major Automotive solutions (Smart mobility & New Energy)

Behavior & Motion sensing

5 years of business

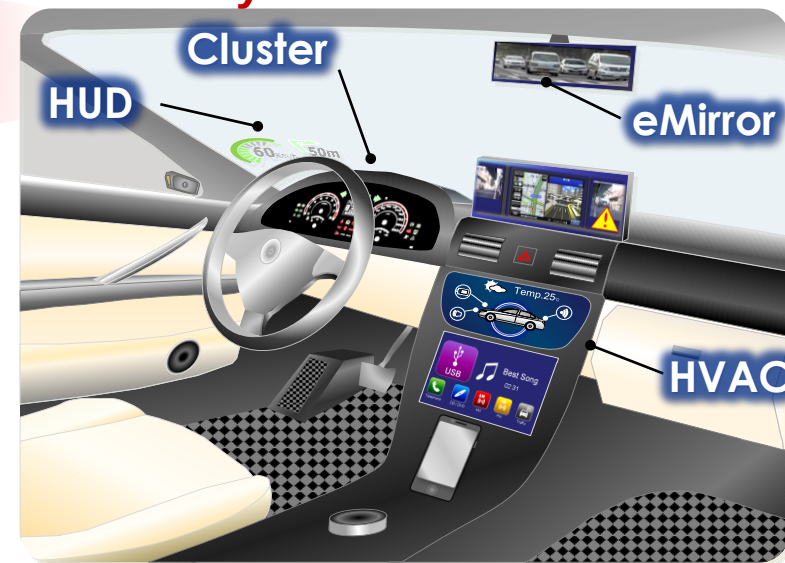


ToF sensor

Graphic Processor

HMI System

15 years of business



ADAS sensing

10 years of business

Rear camera

Sensing Processor

Audio & Radio IC

MCU

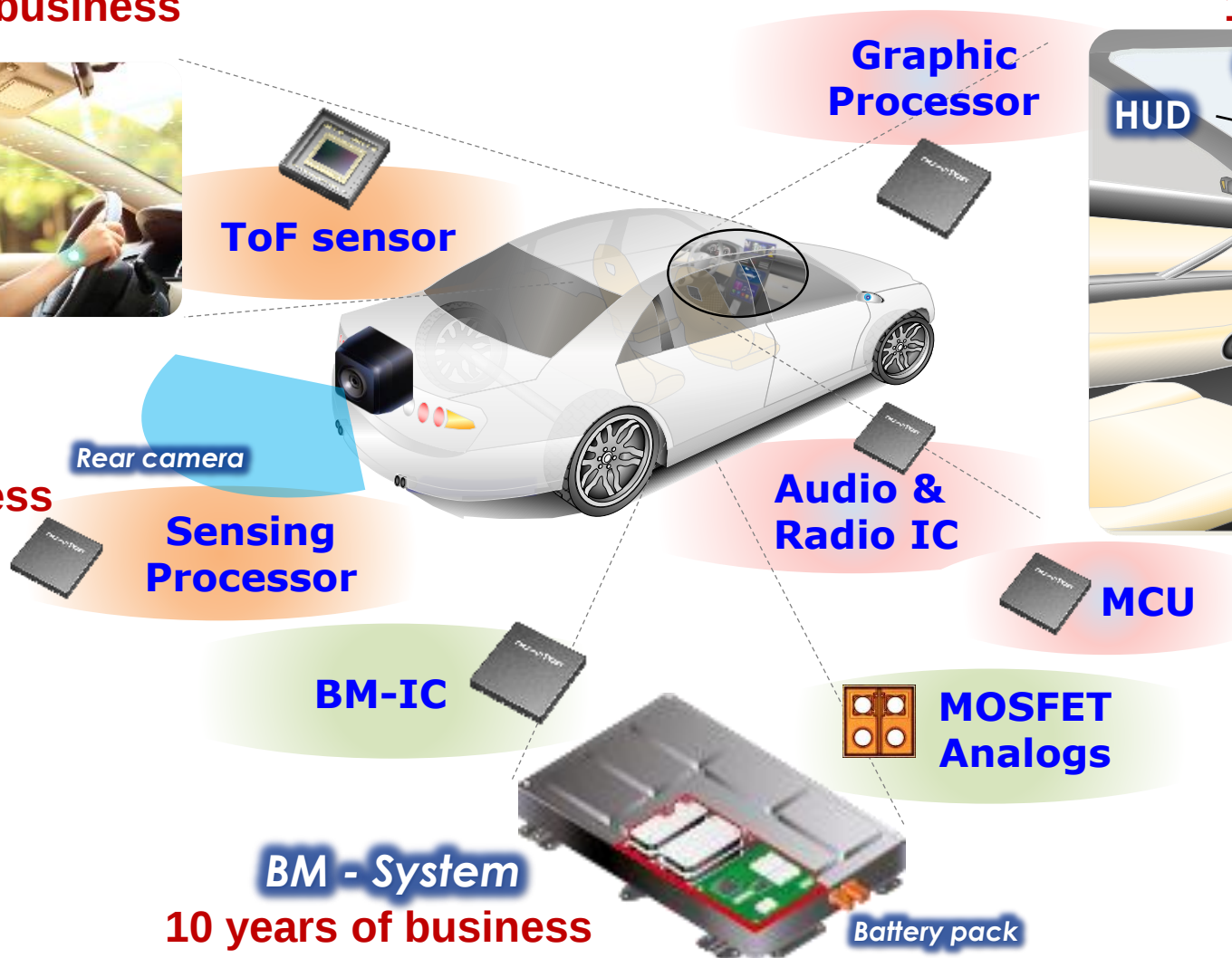
BM-IC

MOSFET
Analog

BM - System

10 years of business

Battery pack





比叡山 延暦寺

'3/Nov/2021, Photo Taken by NTCJ

Nuvoton 3Q'21 Business Update

Nuvoton 3Q'21 Business Update (1)

MCU

- For Industrial Control Connectivity, M031BT/M032BT, M0-based BLE 5.0 and 2.4GHz dual-mode MCU passed BLE 5.1 certification to ensure the quality of the Bluetooth connection
- For 5G Base Station, released M031G, M0-based GPON^{*1} SFP^{*2} MCU with hardware pilot tone functions
- Development of the high-performance and low-power MCU series for the new emerging applications
- Development of high processing power MPU by Arm[®] Cortex[®]-A35 core for Industrial Edge Gateway applications

*1 GPON: Gigabit-capable Passive Optical Network

*2 SFP : Small form-factor pluggable transceiver

Nuvoton 3Q'21 Business Update (2)

Smart Home

- Development of the Expanded Audio CODEC NAU88L25 for Google Chromebook on both Alder Lake and Jasper Lake platforms
- Development of highly integrated Audio MCU as a true single chip solution for headset and gaming controller applications
- Development of industrial grade NSP2.0 Voice Prompt solution with voice contents field updateable via BLE or Wi-Fi
- Development of high power Smart Amplifier NAU83G60 for automotive market

Nuvoton 3Q'21 Business Update (3)

Cloud Security

- Strong demand for commercial PC (Office Re-open)
- Healthy growth on BMC products for both Enterprise and Hyperscale Data Centers
- New SIO/EC product released for client PC based on new Intel & AMD platforms
- Development of high performance next-generation BMC is on schedule

6"-Fab Foundry

- Significant demands on Power Management IC process
- Expansion of new customers on Half bridge HVIC process for HV gate driver application
- Development of new generation BCD process for DC/DC application

Nuvoton 3Q'21 Business Update (4)

Component

- Started business of high-power blue-violet laser diode for Japanese high-end exposure system
- Released CSP MOSFET withstanding high power for car audio system
- Developing high power Infra-red Laser Diodes for light source of fiber laser
- Started to submit Engineering Samples of high performance RF-GaN power amplifier module for 5G massive MIMO base transceiver station

Visual Sensing

- Chinese camera maker released 8k camera in the worldwide using our large size 8k Image Sensor
- Mass-production of the LSI for automotive rear sensing camera
- Development of new TOF image sensor with the long range sensing for AMR and human monitoring

Nuvoton 3Q'21 Business Update (5)

Battery and Analog Solutions

- Chinese OEM expands EV lineup on BMS platform based on our BM-IC and ranks in the top 10 of EV sales
- Increased inquiries about one-chip motor driver ICs for zoom focus control and iris control of surveillance cameras
- Provided engineering sample of 4th generation automotive BM-IC, and started to evaluate new BMS system in collaboration with leading customers

IoT with Security

- Launched new inverter control MCU for home appliance with 120MHz performance, 256k bytes instruction memory and safety functions
- Development of the USB4 Re-Timer with 40Gbps performance for both the PC and the cable applications

Questions & Answers

Company website

Nuvoton: www.nuvoton.com

