

Nuvoton Technology Corporation

2H'20 Investor Conference

Feb 19, 2021



Agenda

- **Nuvoton Financial Results**
- **Nuvoton Technology Corporation Japan Introduction**
- **Nuvoton 2H'20 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.
- We undertake no obligation to publicly update or revise any forward-looking statements whether as a result of new information, future event or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this conference might not occur and our actual results could differ materially from those anticipated in these forward-looking statements.
- The information contained herein shall also not constitute an offer to sell or a solicitation of an offer to buy the company's securities nor shall there be any sale of such securities in any state or country in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or country.

Nuvoton Financial Results

- **Nuvoton Consolidated Statement of Comprehensive Income**
- **Nuvoton Consolidated Balance Sheet**
- **Nuvoton Consolidated Statement of Cash Flows**

Nuvoton Consolidated Statement of Comprehensive Income

Selected Items from Statement of Comprehensive Income.

	4Q'20		3Q'20		2H'20		2H'19		YoY	
Unit: NT\$ M	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Net Revenue	9,869	100	5,605	100	15,474	100	5,733	100	9,741	170
Gross Profit	3,535	36	2,066	37	5,601	36	2,294	40	3,307	144
Operating Income	38	0	(63)	(1)	(25)	0	400	7	(425)	(106)
Net Non-Operating Income	77	1	272	5	349	2	9	0	340	3,778
Income before Income Tax	115	1	209	4	324	2	409	7	(85)	(21)
Net Income	70	1	119	2	189	1	344	6	(155)	(45)
EPS (NTD)	0.2		0.41		0.61		1.5			

Note: Weighted average outstanding shares were 295.1M units in Y2020.

Nuvoton Consolidated Statement of Comprehensive Income

Selected Items from Statement of Comprehensive Income.

Unit: NT\$ M	Y2020		Y2019		YoY	
	Amount	%	Amount	%	Amount	%
Net Revenue	20,668	100	10,367	100	10,301	99
Gross Profit	7,707	38	4,128	39	3,579	87
Operating Income	322	2	584	5	(262)	(45)
Net Non-Operating Income	421	2	83	1	338	407
Income before Income Tax	743	4	668	6	75	11
Net Income	533	3	558	5	(25)	(4)
EPS (NTD)	1.81		2.53			

Note: Weighted average outstanding shares were 295.1M units in Y2020.

Nuvoton Consolidated Balance Sheet

Selected Items from Balance Sheet.

Unit: NT\$ M	Dec 31 '20		Dec 31 '19		YoY	
	Amount	%	Amount	%	Amount	%
Cash & Cash Equivalents	5,882	18	4,859	44	1,023	21
Accounts Receivable	4,246	13	1,078	10	3,168	294
Other Receivable	1,710	5	497	4	1,213	244
Inventories	6,250	20	1,605	14	4,645	289
Long-Term Investments	1,807	6	1,117	10	690	62
Property, Plant, Equipment and R.O.U	10,513	33	1,405	13	9,108	648
Others	1,915	5	595	5	1,320	222
Total Assets	32,323	100	11,156	100	21,167	190
Current Liabilities	11,550	36	2,342	21	9,208	393
Non-Current Liabilities	9,251	28	1,422	13	7,829	551
Total Liabilities	20,801	64	3,764	34	17,037	453
Total Equity	11,521	36	7,392	66	4,129	56
Debt/Equity Ratio	1.81	7	0.51			

Nuvoton Consolidated Statement of Cash Flows

	2H'20	2H'19	YoY
Unit: NT\$ M	Amount	Amount	Amount
Cash Flows from Operating Activities	1,167	800	367
Cash Flows from Investing Activities	(7,256)	(1,084)	(6,172)
Cash Flows from Financing Activities	5,379	3,520	1,859
Cash & Cash Equivalents	5,882	4,859	1,023

Nuvoton Technology Corporation Japan Introduction

- **NTCJ's Company Profile**
- **NTCJ's History**
- **NTCJ's Business and Product Strategy**
- **NTCJ's Main Products and Applications**
- **Technology and Business Integration between NTC and NTCJ**
- **Balanced Business in 4C Application after the Merger**

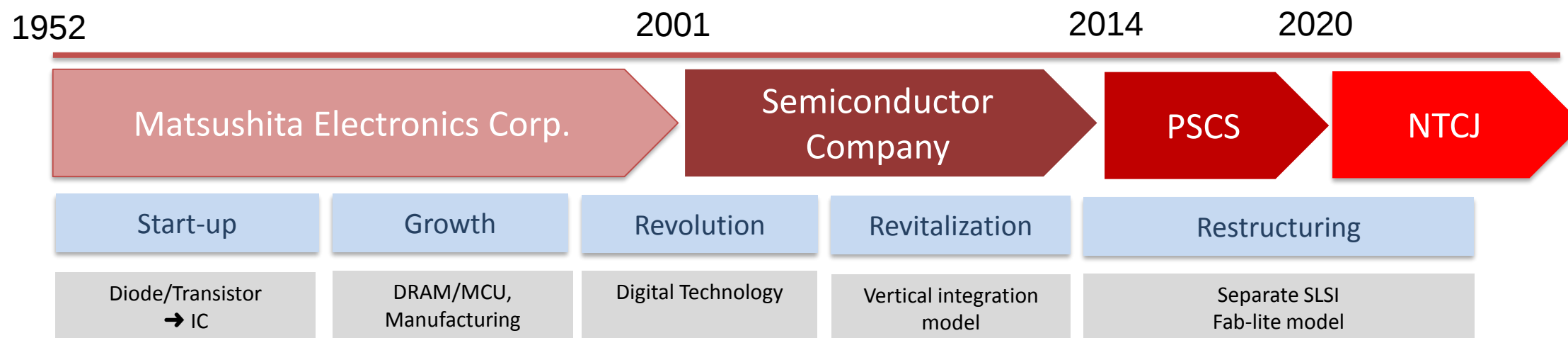
NTCJ's Company Profile

- **Company Name** : Nuvoton Technology Corporation Japan (“NTCJ”) previously named Panasonic Semiconductor Solutions (“PSCS”)
- **Business** : Semiconductor IC design, development, manufacturing and sales
- **Acquired date** : September 1, 2020
- **Location** : Nagaokakyo City, Kyoto, Japan
- **Capital** : Around 400 Million yen
- **Employees** : 2,000+
- **Management team** :
 - ✓ Chairman: Yuan-Mou Su
 - ✓ President: Kazuhiro Koyama



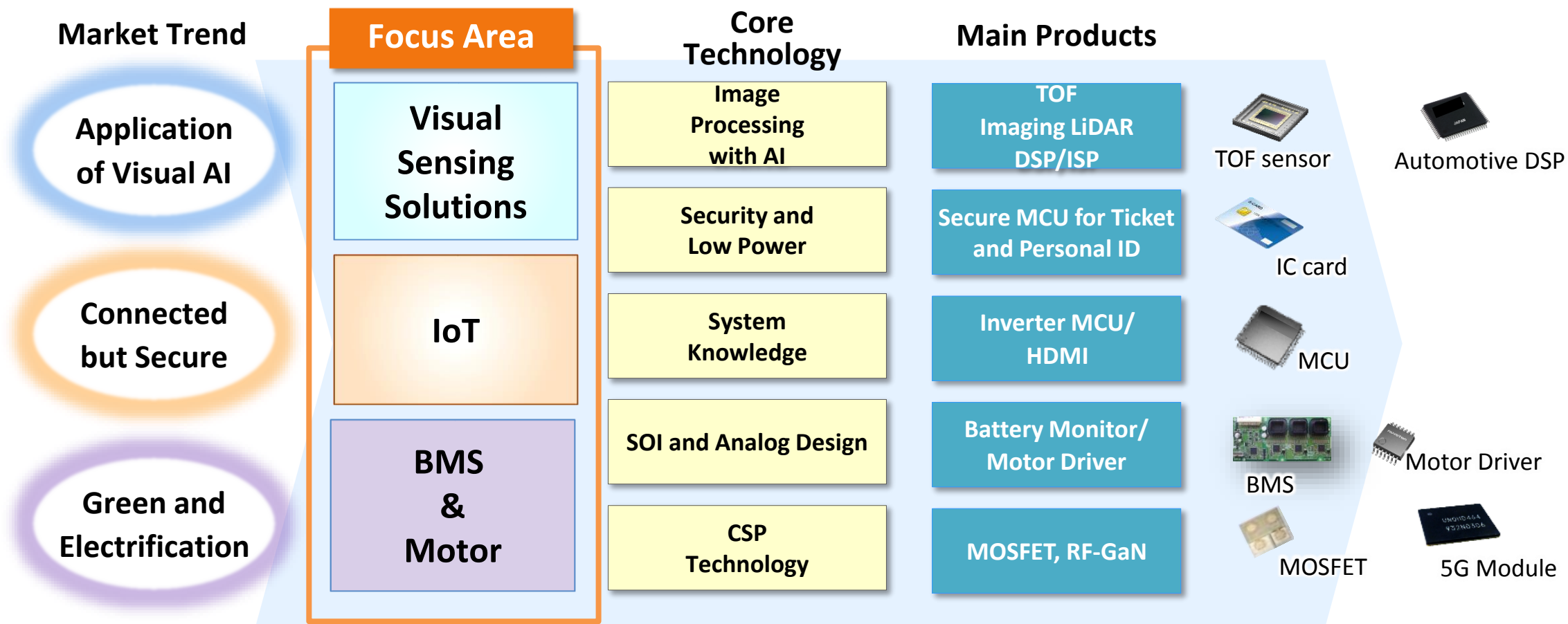
NTCJ's History

- 1952 Founded : Matsushita Electronics Corporation(MEC) as a joint venture by Matsushita Electronic Industrials(MEI) and Philips
- 2001 Absorption into MEI as a division company for Semiconductor
- 2014 Spin off PSCS as a subsidiary of Panasonic IS company
- 2020 Transferred to Nuvoton and start business as NTCJ



NTCJ's Business and Product Strategy

- Products and technologies meet market trend



NTCJ's Main Products and Applications (1)

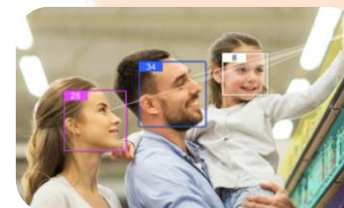
TOF/Imaging LiDAR

- Enables highly accurate obstacle detection and recognition of human facial expressions and motions
- High robustness against environmental changes

Home/Industrial Robot



Store



In-cabin



DSP/ISP

- The high-quality 2D/3D graphics can be displayed on information devices
- Comfortable sound space by high-performance analog & digital audio processing with noise suppression

Head Up Display

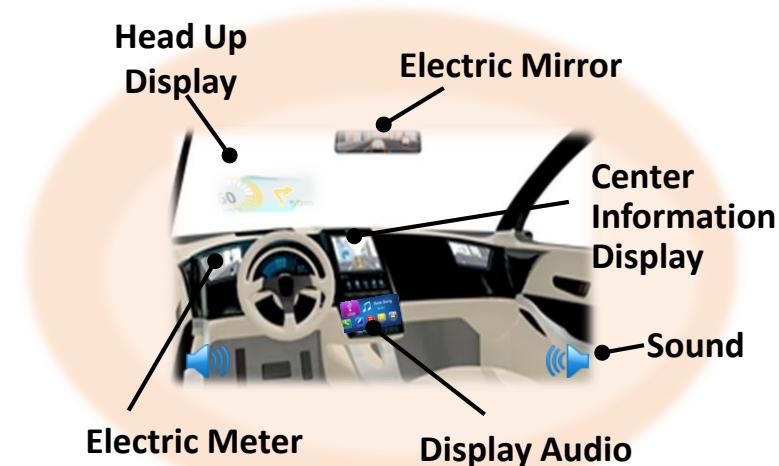
Electric Mirror

Center Information Display

Sound

Electric Meter

Display Audio



NTCJ's Main Products and Applications (2)

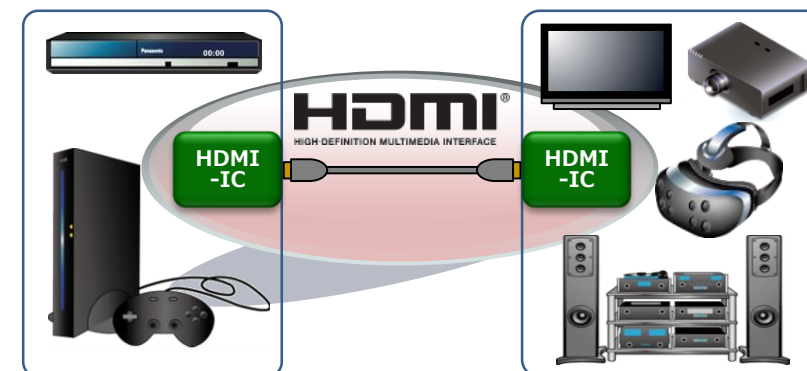
Inverter MCU

- Excellent system knowledge based on over 40 years of business experience in consumer, automotive and industrial market
- Enable to make digital control of various power conversions and inverter motor control



HDMI

- Leading supplier for various applications such as AV receiver, sound bar, switcher, game, VR/AR, signage, etc.
- Provide high quality connectivity based on the advanced analog technology



NTCJ's Main Products and Applications (3)

Battery Monitor

- Excellent reliability by unique Silicon on Insulator(SOI) Technology to achieve high reliability requirements in automotive market
- Easy launch and horizontal expansion for industrial battery pack



Electric Vehicle



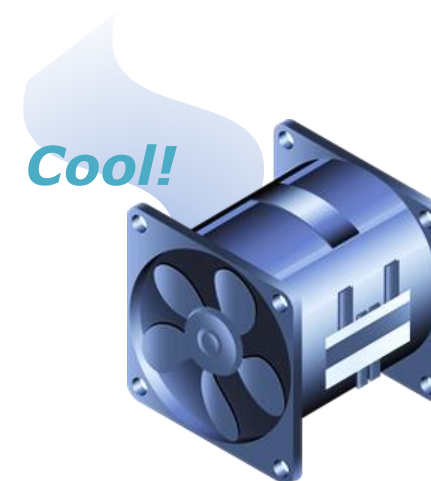
E-Scooter



Server/ESS

Motor Driver

- Our unique Auto Phase Control (APC) technology provides long life motor driving and enables application to cooling FAN of various devices
 - ✓ Long life motor for Industry
 - ✓ Small motor required relievable operation
 - ✓ Motor that rotating silent for Home appliances



Cooling Fan

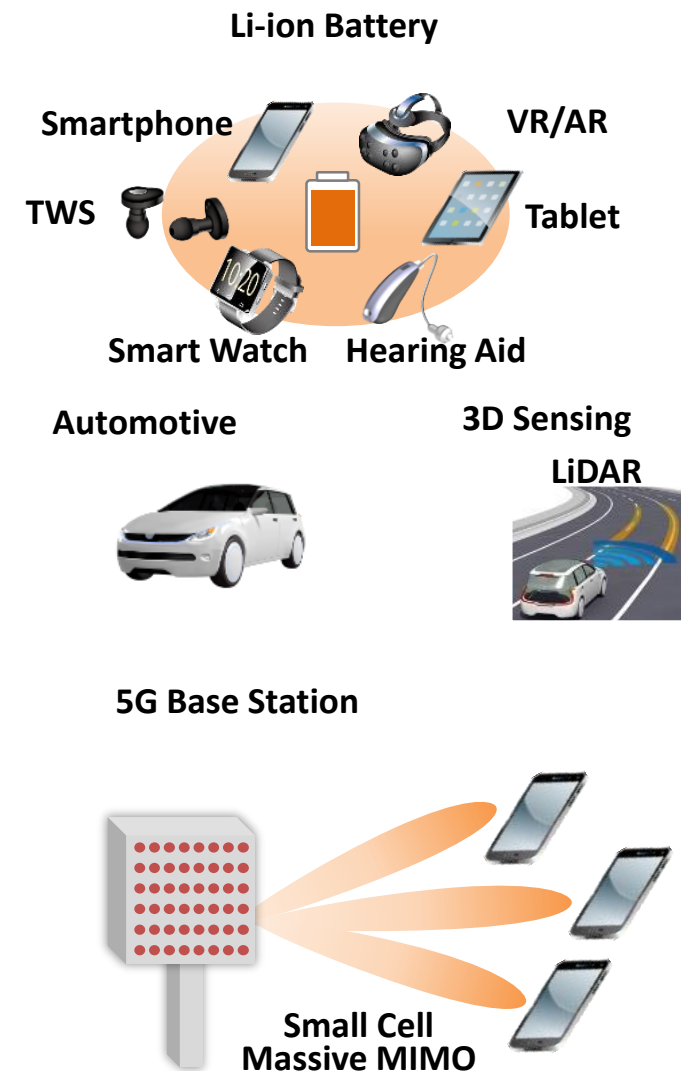
NTCJ's Main Products and Applications (4)

MOSFET(CSP)

- Small size and low on resistance provides,
 - ✓ Design ability for small and thin devices
 - ✓ Long battery run time for Li battery devices
 - ✓ Zero defects for automotive and medical
 - ✓ High speed charge for 5G smartphone

RF-GaN

- More than 30 years of high-frequency circuits knowledge
- Enables high efficiency and small size module with bias circuit for 5G base station



Technology and Business Integration between NTC and NTCJ

Technology	Business				
	General Purpose	Smart Home	Cloud Security	Image Processing	Battery Management
	MCU / DSP	○○	○○	○	○
	Security	○○	○○	○	○
	Analog Interface / Audio	○○	○○	○	○
	Low Power	○○	○○	○	○
	Sensing	○	○	○	

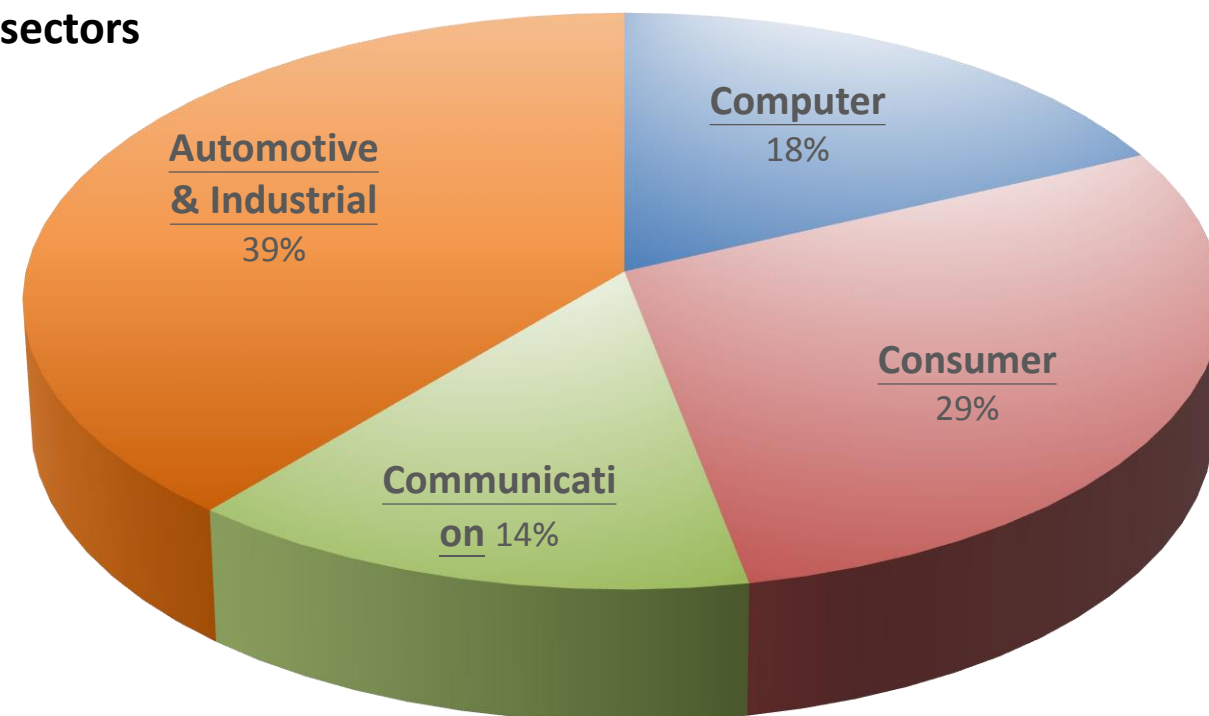
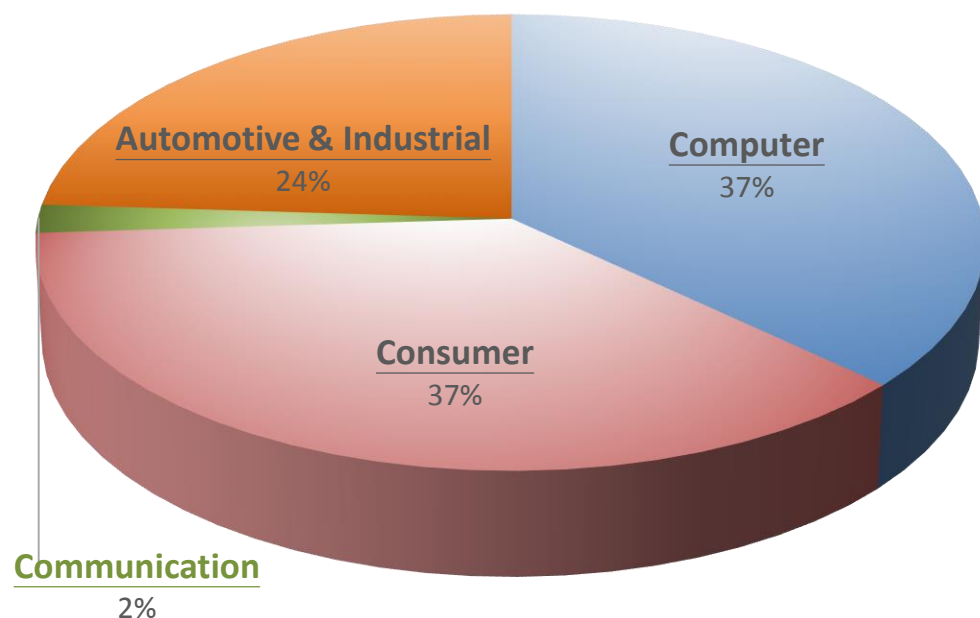
○ Nuvoton Taiwan ○ NTCJ

Balanced Business in 4C Application after the Merger

NTC

NTC + NTCJ

Increasing percentage in
Automotive and
Communication sectors



NTCJ @Kyoto

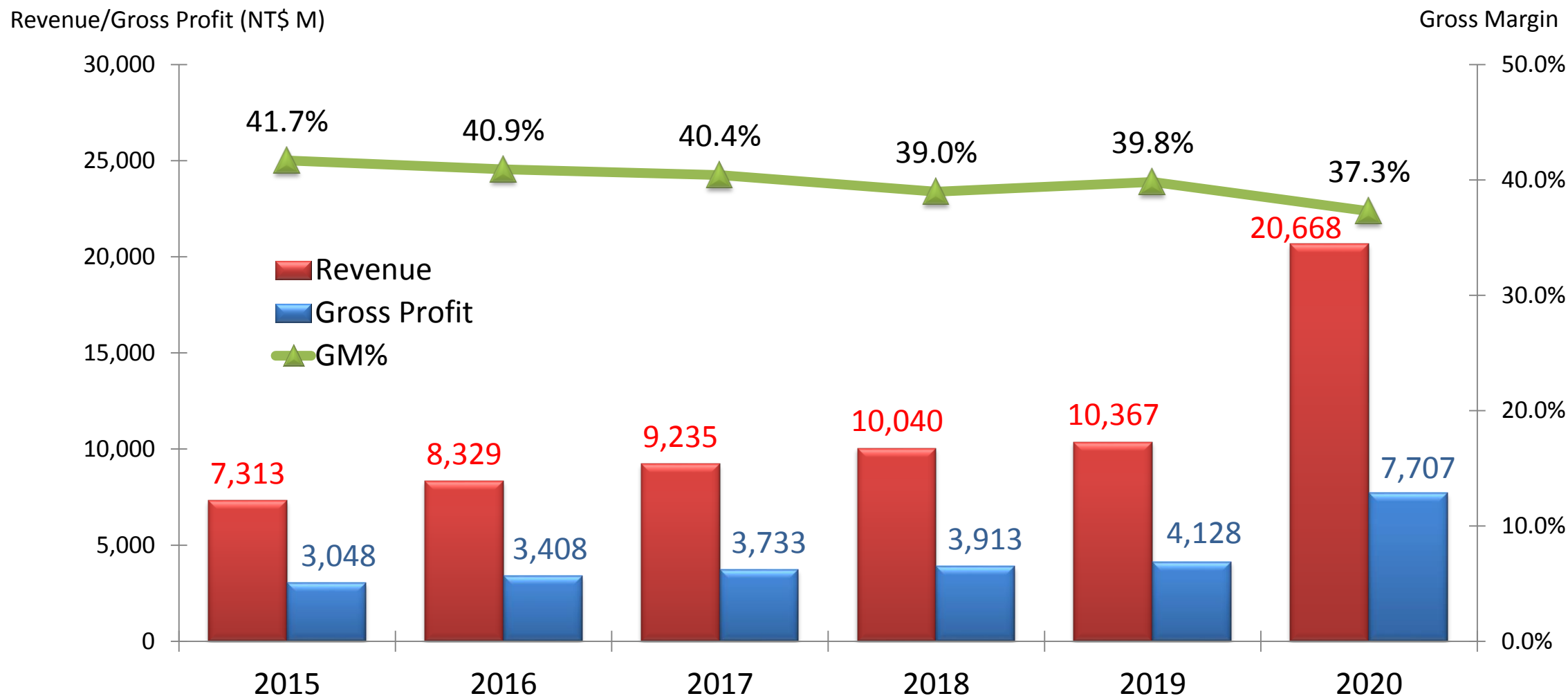


'21/Jan, Taken photo with NTCJ's image sensor(MN34450)

Nuvoton 2H'20 Business Update

- Nuvoton Revenue and GM Trend - Consolidated
- Nuvoton 2H'20 Business Update
- Nuvoton 2021 Business Outlook

Nuvoton Revenue and GM Trend - Consolidated



Nuvoton 2H'20 Business Update (1)

- **Main Achievements – MCU/Smart Home**

- ✓ Launched the first 32-bit Arm® Cortex®-M0 based NUC131U that is qualified by automotive AEC-Q100 Grade 2 (-40°C to 105°C)
- ✓ Launched 32-bit Arm® Cortex®-M0 based NuMicro® M0A21 Series MCU with a temperature range from -40°C to 125°C
- ✓ Expansion of NuMicro MCU on multi-segment market and healthcare-related applications
- ✓ Released NAU83G10 and NAU83G20, a new breed of efficient Class-D Smart Amplifier solutions with integrated Klippel Controlled Sound technology (KCS) on Tensilica HiFi audio DSP

Nuvoton 2H'20 Business Update (2)

- **Main Achievements – Cloud and Computing/Foundry**
 - ✓ Shipments of BMC products to both Enterprise and Hyperscale Data Center customers
 - ✓ Nuvoton NCT6692D, a 32-bit security controller chip with on-chip ROM and key storage as the root of trust, passes Cryptographic Algorithm Validation Program (CAVP) by Computer Security Resource Center, which is under National Institute of Standards and Technology (NIST)
 - ✓ Strong EC demand for Commercial NB (Work from Home) and Chromebook (Study from Home)
 - ✓ Significant contributions from Power Management IC process (Foundry Service)

Nuvoton 2H'20 Business Update (3)

- **Main Achievements - NTCJ**

- ✓ Released CSP MOSFET with the lowest On-resistance for 5G smartphone
- ✓ Released reference design for new 3D sensing camera solutions with high-precision, high-resolution TOF sensor approved for robotics platform
- ✓ Launched industrial grade battery monitoring solutions for e-Bike that collect data on battery lifespan health status
- ✓ Launched the digital power control MCU based on Arm® Cortex®-M7 core with 160MHz performance and PWM resolution of 208ps

Nuvoton 2021 Business Outlook (1)

- **New Products and Developments**

- ✓ Development of high processing power MPU (based on the Cortex-A35) for industrial Edge Gateway applications
- ✓ Development of M23 based low-power secure MCU with touch key and LCD interface targeted for Smart Home Appliance applications
- ✓ Development of high-power, stereophonic, Smart Amplifier solution for automotive applications
- ✓ Development of SIO/EC for new Intel & AMD platforms
- ✓ Release ultra-low On-resistance MOSFET for 5G smartphone Li-ion battery protection

Nuvoton 2021 Business Outlook (2)

- **New Products and Developments**

- ✓ Establishment of 12nm Fin-FET process SoC development technology, with Arm CA53 core processor, and multiple Gbps high speed Interfaces (LPDDR4, PCIe, USB3.1, HDMI, etc.) implemented
- ✓ Development of new industrial battery monitoring IC, with 17-ch and 22-ch lineup for e-Bike, Energy Storage System (ESS), and also Automated Guided Vehicle (AGV)
- ✓ Development of new digital power control MCU based on Arm® Cortex®-M7 core for server grade power supply

- **New Foundry Service Processes**

- ✓ Development of new generation BCD process
- ✓ Expansion of new customers on Half bridge HVIC process

Questions & Answers

Company website

Nuvoton: www.nuvoton.com

