Stock Code:3529

eMemory Technology Inc.

2019 Annual Report

Annual report is available at Market Observation Post System:
https://mops.twse.com.tw/mops/web/index

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Notice to Readers

This document is prepared in accordance with the Chinese version and is for reference only. In the event of any inconsistency between the English version and the Chinese version, the Chinese version shall prevail.

1. Spokesperson
   Name：Michael Ho
   Title：Vice President
   Tel：886-3-560-1168
   E-mail：ir@ememory.com.tw

   Acting Spokesperson
   Name：Anita Chang
   Title：Vice President
   Tel：886-3-560-1168
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2. eMemory Address and Tel Number
   Address：Room 305, No. 47, Yuanqu 2nd Road, Hsinchu Science Park, Hsinchu City, Taiwan
   Jhubei Office Address：8F, No. 5, Tai-Yuan 1st Street, Jhubei City, Hsinchu County, Taiwan
   Tel：886-3-560-1168

3. Stock Transfer Agent
   Company：KGI Securities Co., Ltd. Brokerage Registry and Transfer Services Department
   Address：5F, No.2, Sec.1, Chongqing S. Road, Taipei City, Taiwan
   Tel：886-2-2389-2999
   Website：https:// www.kgieworld.com.tw

4. Independent Auditor
   Accounting Firm：Deloitte & Touche
   Auditors：Yu-Feng Huang and Su-Li Fang
   Address：20F, No. 100, Songren Road, Taipei City, Taiwan
   Tel：886-2-2725-9988
   Website：https://www.deloitte.com.tw

5. Name of any exchanges where the company's securities are traded offshore, and the method by which to access information on said offshore securities：None

6. eMemory Website：https://www.ememory.com.tw

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I. Letter to Shareholders

Dear Shareholders,

In 2019, although eMemory suffered a slight decline in revenue due to the dramatic changes in the global political and economic environment and the replacement of customer products, but it still has considerable results in product applications and technology platforms.

In the following we will report our operation results of 2019.
Operation results: The overall revenue is NT$ 1,410.09 million, license fee contribute NT$ 430.27 million which is accounts for 30.5% of revenue, whereas royalty contribute NT$ 979.82 million which is accounts for 69.5% of the revenue. As compared to 2018, the license fee down 4.3% and the royalty down 4.06%. The royalty from NeoFuse technology grows 50.7% because of increasing production from advanced node. In addition, NeoPUF has begun to generate revenue which is very exciting to us.
Financial results: Our operating profit is NT$ 621.32 million and down 7.6% as compared to 2018, and net income is NT$ 542.07 million and down 11.6% yearly, the earning per share is NT$ 7.30 which down 10.2% as compared to 2018.
The net cash flow is reduced by NT$ 38.15 million due to the payment of cash dividends.

eMemory has developed various new embedded non-volatile memory process platforms to meet the demands of different applications among them:
For technology platform ready for production. OTP / PUF has been advanced to 7 nm, 12/14nm and 22/28 nm. We are now the only IP provider to provide 7 nm OTP IP. And, 0.13um MTP in BCD process with automotive-grade also moves into production phase.
For new technology development. We continue developing more OTP platforms from 14 nm to 5 nm across foundries. In addition, we continue to develop MTP in BCD and provide solutions for Power Management applications. Besides the progress in OTP and MTP, our disruptive innovation in PUF (Physical Unclonable Function) has also been verified in 7 nm, which is a very significant milestone for eMemory to move into security era.
Due to wide availability of OTP & MTP process platforms, in 2019, we have achieved more than 400 design licenses and more than 3.92 million of wafers manufactured using our technologies.

Looking forward in 2020 and beyond, our IPs will keep deployed widely in the applications of OLED/LCD Driver IC, TDDI, PMIC, Type-C, DTV, Surveillance and STB IC's. In the meantime, eMemory IP solutions will penetrate into the application segments of DRAM, under-glass fingerprint sensors, wireless charger and connectivity IC's. The applications in more chips with the security functions of PUF are also highly expected.

eMemory is ranked as the top 10 IP companies in the world, receives TSMC's IP Partner Award for 10 consecutive years, and is the No.1 player in the logic NVM technology. Regarding corporate governance, eMemory was awarded the "Top 5 Percent Companies" by the 5th Corporate Governance Evaluation by the Securities and Futures Market Development Foundation. The competence is attributed to the spirit of teamwork and innovation, excellent service quality, and professional operation flows. We are very confident that our technologies and IP's will continue to add values to our customers, and our disruptive technology, NeoPUF, will lead us to expand our business greatly in the emerging markets, such as IoT, AI, Autonomous driving and Blockchain.

At last not the least, we thank you all for the long term support to eMemory. We will continue to move forward to make eMemory become world -leading technology and IP company.

Chairman:	President:	Accounting Officer:
Charles Hsu	Rick Shen	Teresa Kuo

II. Company Profile

2.1 Date of Incorporation: Sep. 2, 2000

2.2 Corporate Milestones

Year	Milestones
Aug. 2000	eMemory founded as eMemory Technology Inc.
Mar. 2001	eMemory receives approval to move into Hsinchu Science Park
Sep. 2001	Wholly owned subsidiary Lotus Glade Investment Inc. founded
Apr. 2002	eMemory licenses technology to Mitsubishi Electric
Jul. 2002	eMemory moves into Hsinchu Science Park
Nov. 2002	eMemory licenses technology to Chartered Semiconductor
Apr. 2003	eMemory licenses technology to Renesas Technology
Apr. 2003	eMemory announces NeoBit applications for ROM replacement in MCU
Sep. 2003	eMemory licenses technology to Taiwan Semiconductor Manufacturing Company (TSMC)
Oct. 2003	eMemory announces NeoBit applications for electrical fuse
Jan. 2004	eMemory licenses technology to Chartered Semiconductor
Jun. 2004	eMemory announces NeoBit applications for trimming circuit in LCD driver
Aug. 2004	eMemory announces NeoBit applications for RFID
Oct. 2004	eMemory announces NeoBit prototype in 0.11um technology for DRAM redundancy
Oct. 2004	eMemory provides 0.18um NeoBit OTP/MTP solutions for LCD driver IC
Jan. 2005	eMemory announces NeoBit applications for speech IC
Jan. 2005	eMemory licenses technology to Vanguard International Semiconductor Corporation (VIS)
Mar. 2005	eMemory announces NeoBit prototype in 0.13um process
Apr. 2005	eMemory licenses technology to Ricoh
Apr. 2005	eMemory licenses technology to Powerchip Semiconductor Corporation (PSC)
Jun. 2005	Production of NeoBit reaches 10,000 wafers
Oct. 2005	NeoBit NVM wins the National Invention and Creation Gold Medal Award
Oct. 2005	eMemory licenses technology to Toshiba
Mar. 2006	eMemory licenses technology to OKI
Mar. 2006	eMemory licenses technology to NJRC
Apr. 2006	Advance NeoFlash embedded non-volatile memory technology is qualified
Apr. 2006	eMemory licenses technology to Silterra
Jul. 2006	eMemory provides high voltage NeoBit processes and improves wafer yield and performance
Oct. 2006	NeoBit production reaches 100,000 wafers

Year	Milestones
Dec. 2006	eMemory wins Industrial Innovation Award
Mar. 2007	Production of NeoBit reaches 150,000 wafers
Mar. 2007	eMemory listed in Taiwan Emerging Market: ticker number #3529
Jul. 2007	eMemory customers adopt 0.13um NeoBit in mass production
Jul. 2007	eMemory licenses technology to NECEL
Sep. 2007	eMemory licenses technology to Magnachip
Oct. 2007	Production of NeoBit reaches 300,000 wafers
Nov. 2007	NeoBit qualified in 0.13um high-voltage process for LCD driver applications
Feb. 2008	Production of NeoBit reaches 400,000 wafers
Feb. 2008	Expanded NeoBit non-volatile memory cooperation in 0.18um logic process platform with Magnachip
May 2008	eMemory licenses technology to Fujitsu Microelectronics Limited
May 2008	eMemory licenses technology to United Microelectronics Corporation (UMC)
Jun. 2008	eMemory licenses technology to Dongbu HiTek
Sep. 2008	Expanded non-volatile memory cooperation in high-voltage and logic process platforms with Magnachip
Oct. 2008	eMemory wins Industrial Technology Advancement Award and National Invention and Creation Award
Nov. 2008	0.13um high-voltage NeoBit process for LCD driver applications goes into mass production
Dec. 2008	NeoFlash qualified in 0.18um ULL process
Dec. 2008	Production of NeoBit reaches 900,000 wafers
Jan. 2009	NeoFlash in 0.13um process demonstrates ultra-low power program/erase performance
Apr. 2009	eMemory licenses technology to Mitsumi Electronic
May 2009	eMemory announces NeoROM, a low-cost OTP mass production solution
Jul. 2009	eMemory’s NeoBit OTP production reaches 1 million wafers; IP solutions for 65 nm processes launched
Jul. 2009	eMemory licenses technology to Mitsumi Electronic
Sep. 2009	eMemory breaks new ground launching industrial-grade embedded NVM for power management solution
Nov. 2009	Successful development of high-density OTP in advanced high-voltage process to meet requirement for larger memory when LCD driver and touch panel applications are combined in one chip
Mar. 2010	eMemory collaborates with MagnaChip to offer 0.11um high-voltage embedded NVM technology
Mar. 2010	eMemory announces NeoEE prototype in 0.18um process technology

Year	Milestones
May 2010	eMemory responds to market needs by offering complete set of multiple-time programmable (MTP) embedded NVM solutions
Jun. 2010	NeoEE in 0.18um process demonstrates ultra-high endurance (100,000) performance
Jul. 2010	eMemory announces industry’s first Green High Density OTP solution
Jul. 2010	eMemory becomes the first automotive-grade OTP provider to automotive IC makers
Oct. 2010	eMemory wins TSMC’s 2010 IP Partner Award
Nov. 2010	eMemory is honored as one of Asia’s 200 Best Under A Billion by Forbes
Nov. 2010	eMemory holds the first Embedded Tech Forum
Dec. 2010	eMemory NeoFlash offers an unrivalled, highly reliable embedded flash solution for automotive electronic applications
Jan. 2011	eMemory lists on Taipei Exchange (GreTai Securities Market) on 24 January 2011
Mar. 2011	Volume production of cost-effective OTP solution for MCU application with GSMC
Mar. 2011	Use of touch panel controllers and energy-saving devices proliferates, leading to significant growth in NeoFlash applications
Apr. 2011	eMemory's NeoEE verified, targets NFC applications
Jun. 2011	eMemory's NeoBit OTP qualified at 12" foundry in 80nm technology
Jul. 2011	eMemory offers eNVM IP in TSMC 80nm high-voltage technology
Aug. 2011	eMemory licenses technology to Shanghai Huali Microelectronics Corporation (HLMC)
Sep. 2011	eMemory licenses technology to GSMC
Oct. 2011	eMemory honored again as one of Asia's 200 Best Under A Billion by Forbes
Oct. 2011	eMemory wins TSMC’s 2011 IP Partner Award
Oct. 2011	eMemory and Grace Semiconductor expand partnership, developing diverse solutions and advanced processes
Nov. 2011	eMemory NeoBit silicon IP advances in 3D image application
Dec. 2011	eMemory masters developing trends in technology and expands into advanced technology
Dec. 2011	NeoBit in 65nm is qualified in a Tier 1 foundry and enters mass production
Jan. 2012	eMemory licenses technology to Vanguard
Mar. 2012	eMemory announces ultra-low power OTP solution in low-cost process platform
Mar. 2012	eMemory and HLMC collaborate on high-voltage advanced fabrication platform
Mar. 2012	eMemory licenses technology to Mitsubishi Electronic
May 2012	eMemory’s NeoBit silicon IP to play important role in MEMS applications

Year	Milestones
Jun. 2012	eMemory licenses technology to TSMC
Jul. 2012	eMemory's embedded MTP solution- NeoEE passes verification in 65nm process node
Sep. 2012	eMemory introduces new NeoMTP technology
Oct. 2012	eMemory licenses technology to Magnachip
Oct. 2012	eMemory receives TSMC’s IP Partner Award for the third straight year
Nov. 2012	eMemory licenses technology to NXP
Nov. 2012	NeoFlash in 0.11um logic process qualified and enters mass production, demonstrating the best solution for touch-panel applications
Dec. 2012	eMemory’s eNVM silicon IP global deployment contributes to the growth of royalty income
Dec. 2012	eMemory NeoEE silicon IP passes verification in SMIC 0.18um logic process
Dec. 2012	MagnaChip joins eMemory in developing leading-edge 0.18um EEPROM IP
Jan. 2013	eMemory's NeoEE silicon IP qualified for 2.4GHz RF product application
Jan. 2013	Taiwan Corporate Governance Association accredited eMemory with the Certificate of Corporate Governance System Evaluation – Version CG6007
Mar. 2013	Production of eMemory's eNVM silicon IPs reaches 5 million wafers
Mar. 2013	eMemory licenses technology to UMC
Mar. 2013	eMemory NeoEE Silicon IP passes verification in TSMC 0.16um mixed-signal process
May 2013	eMemory develops NeoFuse—an innovative anti-fuse eNVM technology
Jun. 2013	eMemory and UMC expand non-volatile memory cooperation to advanced 28nm process
Jun. 2013	eMemory NeoEE silicon IP passes qualification in TSMC 0.16um mixed-signal process
Aug. 2013	eMemory NeoEE silicon IP passes qualification in SMIC 0.18um logic process
Aug. 2013	eMemory offers mature Full-HD SDDI solutions in advanced 55nm high-voltage process
Aug. 2013	eMemory ranks as 「The Top 50 TWSE/GTSM Listed Companies with Most Valuable US Patents」 according to the cooperatives evaluation result by Institute for Information Industry and Ocean Tomo
Aug. 2013	eMemory's NeoEE technology advances into BCD process platform, augmenting P-Gamma silicon IP product range and accelerating integration with power management ICs
Sep. 2013	eMemory's NeoMTP technology advances in extensive Touch Panel MCU and TDDI applications

Year	Milestones
Sep. 2013	eMemory receives SMIC's IP Partner Award
Oct. 2013	eMemory receives TSMC's IP Partner Award for the fourth year in a row
Oct. 2013	eMemory NeoEE silicon IP passes verification in HHGrace 0.153um logic process
Oct. 2013	eMemory NeoEE silicon IP passes verification in UMC 0.3m BCD process
Oct. 2013	eMemory NeoEE silicon IP passes verification in UMC 0.18m BCD process
Dec. 2013	eMemory and SMIC expand partnership in eNVM technical development
Dec. 2013	MagnaChip and eMemory offer 0.18um EEPROM silicon IP
Jan. 2014	eMemory NeoMTP silicon IP passes verification in UMC 0.11um logic process
Jan. 2014	eMemory NeoEE silicon IP passes qualification in HHGrace 0.11um 1.5V/3.3V low-power process
Feb. 2014	eMemory expands NeoFlash's industrial applications
Feb. 2014	eMemory NeoFuse silicon IP passes qualification in UMC 40nm low-power process
Feb. 2014	eMemory NeoEE silicon IP passes qualification in UMC 0.3m BCD process
Feb. 2014	eMemory offers mature Full-HD SDDI solutions in advanced 55nm high-voltage process
Mar. 2014	eMemory's silicon IP NeoFuse received CA certification for advanced security applications
Apr. 2014	eMemory's silicon IP introduced to electro-medical applications
Apr. 2014	eMemory NeoEE silicon IP passes qualification in UMC 0.18m BCD process
Apr. 2014	eMemory publishes first book by eNVM IP providers: LOGIC NON-VOLATILE MEMORY－NVM Solutions from eMemory
Jun. 2014	eMemory NeoEE silicon IP passes verification in HHGrace 0.18m 3.3V cost-effective process
Jun. 2014	eMemory NeoFuse silicon IP passes qualification in SMIC 55nm low-power process
Jun. 2014	eMemory ranked A+ in R.O.C. Securities & Futures Institute's 11th Information Disclosure and Transparency Evaluation of Public Companies Ranking
Jul. 2014	eMemory's eNVM silicon IP NeoFuse contributes to revenue growth momentum
Jul. 2014	eMemory NeoEE silicon IP expands wireless communication ICs applications
Aug. 2014	eMemory provides tailor-made MTP solutions in low-cost Green process platforms, develops diverse MCU product range
Sep. 2014	eMemory receives again SMIC's IP Partner Award
Sep. 2014	eMemory receives TSMC's IP Partner Award for five consecutive years
Sep. 2014	eMemory NeoMTP silicon IP passes qualification in UMC 0.11um logic process
Sep. 2014	eMemory NeoEE silicon IP passes verification in HHGrace 0.18m logic process

Year	Milestones
Sep. 2014	eMemory NeoFuse silicon IP passes qualification in TSMC 28nm HKMG 2.5V process
Oct. 2014	eMemory NeoEE silicon IP advances into automotive electronics applications
Nov. 2014	eMemory offers IP industry-leading hybrid MTP silicon IP
Nov. 2014	eMemory NeoFuse silicon IP passes qualification in TSMC 28nm low-power process
Dec. 2014	eMemory NeoFuse silicon IP passes qualification in TSMC 55nm low-power process
Dec. 2014	eMemory NeoFuse silicon IP passes qualification in TSMC 55nm high-voltage process
Jan. 2015	eMemory NeoFuse silicon IP passes qualification in UMC 55nm high-voltage process
Jan. 2015	eMemory NeoFuse silicon IP passes verification in SMIC 28nm low-power process
Jan. 2015	eMemory NeoEE silicon IP passes verification in HHGrace 0.13um 1.5V/3.3V low-power process
Feb. 2015	Fingerprint application opens up market demands for eMemory's logic NVM IP solutions
Feb. 2015	eMemory NeoFuse silicon IP passes qualification in SMIC 40nm low-power process
Feb. 2015	eMemory NeoFuse silicon IP passes qualification in GLOBALFOUNDRIES 28nm low-power process
Mar. 2015	Andes and eMemory announce new IC security solutions for IoT security applications
Mar. 2015	eMemory NeoFuse silicon IP passes qualification in TSMC 40nm low-power process
Apr. 2015	eMemory ranked A++ in R.O.C. Securities & Futures Institute's 12th Information Disclosure and Transparency Evaluation of Public Companies Ranking
Apr. 2015	eMemory was ranked TOP 20% in the 2014 Corporate Governance Evaluation of Public Companies conducted by R.O.C Securities & Futures Institute
May 2015	eMemory NeoFuse technology is verified in 16nm FinFET process
May 2015	eMemory NeoFuse silicon IP passes verification in VIS 0.15um 1.8V/13.5V process
Jun. 2015	eMemory NeoEE silicon IP passes verification in GLOBALFOUNDRIES 0.18um 3.3V MCU process
Jun. 2015	eMemory launches ultra-low power MTP silicon IP for IoT applications
Jun. 2015	eMemory NeoFuse silicon IP passes verification in TSMC 0.13um BCD process
Jun. 2015	eMemory NeoFuse silicon IP passes verification in UMC 55nm CMOS-image

Year	Milestones
	sensor process
Jul. 2015	eMemory offers logic NVM solutions to enhance IC performance for camera modules
Jul. 2015	eMemory NeoFuse silicon IP passes verification in GLOBALFOUNDRIES 55nm high-voltage process
Jul. 2015	eMemory NeoFuse silicon IP passes verification in PowerChip 63nm DRAM process
Aug. 2015	eMemory integrates OTP and MTP to offer industry-leading Combo and Hybrid silicon IPs
Aug. 2015	eMemory NeoFuse silicon IP passes qualification in UMC 28nm low-power process
Aug. 2015	eMemory NeoFuse silicon IP passes verification in TSMC 16nm FinFET Plus process
Aug. 2015	eMemory NeoMTP silicon IP passes verification in UMC 80nm high-voltage process
Sep. 2015	eMemory receives again SMIC's IP Partner Award
Sep. 2015	eMemory receives TSMC's IP Partner Award for six consecutive years
Sep. 2015	eMemory announces the first verified NeoFuse OTP IP in 16nm FinFET Plus process
Jan. 2016	eMemory's NeoFuse Technology: A Major Advance in Automotive Panel Driver IC
Mar. 2016	eMemory Announces Innovative Solution for Cryptographic Security
Mar. 2016	eMemory Announces Industry's First 16nm FinFET Compact (FFC) Process Verified OTP Silicon IP
Mar. 2016	eMemory NeoEE silicon IP passes qualification in GLOBALFOUNDRIES 0.18um Green process
Apr. 2016	eMemory was ranked TOP 20% in the 2015 Corporate Governance Evaluation of Public Companies conducted by R.O.C Securities & Futures Institute
Apr. 2016	eMemory Launches Enhanced NeoFuse IP for IoT Applications
May 2016	eMemory NeoFuse IP Qualified in 40nm EHV Process
Jul. 2016	eMemory's NeoEE Solution Facilitates Module Integration for Fingerprint Applications
Jul. 2016	eMemory Announces Comprehensive NVM Solution in 0.13um BCD Process for PMIC Applications
Aug. 2016	eMemory Unveils EcoBit Technology for RFID and NFC Applications
Sep. 2016	eMemory once again receives TSMC's IP Partner Award-the only eNVM Silicon Intellectual Property (Silicon IP) supplier in the world to receive the honor for seven consecutive years

Year	Milestones
Oct. 2016	eMemory Receives SMIC Best IP Partner Award for 4th Year in a Row
Nov. 2016	eMemory’s NeoFuse IP Verified in TSMC 10nm FinFET Process
Feb. 2017	eMemory Qualified NeoFuse in TSMC 16FFC Process
Mar. 2017	eMemory’s NeoFuse Implemented in HV Process for OLED Application
Apr. 2017	Over 100,000 Wafers Embedded with eMemory’s NeoEE IP Shipped
Apr. 2017	eMemory was ranked TOP 20% in the 2016 Corporate Governance Evaluation of Public Companies conducted by R.O.C Securities & Futures Institute
May 2017	eMemory Taps into IoT Markets with its Game-Changing Security IP
Jul. 2017	eMemory Announces Validation of On-Chip Security IP on UMC Advanced Nodes
Sep. 2017	eMemory receives TSMC’s IP Partner Award for eight consecutive years
Oct. 2017	Over 18,000,000 Wafers Embedded with eMemory’s IP Shipped
Dec. 2017	eMemory receives Hsinchu Science Park Bureau Research and Development Achievement Award
Dec. 2017	eMemory receives Hsinchu Science Park Bureau Innovative Product Award
Apr. 2018	Over 20 Million Wafers Embedded with eMemory’s IP Shipped
Apr. 2018	eMemory was ranked TOP 20% in the 2017 Corporate Governance Evaluation of Public Companies conducted by R.O.C. Securities & Futures Institute
Aug. 2018	eMemory's 2nd Generation NeoMTP Enables a Wide Range of Power Management Applications on BCD Process
Oct. 2018	NeoFuse is qualified on Fully-Depleted Silicon On-Insulator (FD-SOI) process technology
Oct. 2018	eMemory receives TSMC’s IP Partner Award for 9 consecutive years
Feb. 2019	eMemory Receives ISSCC Award for Breakthrough Security Technology
Mar. 2019	eMemory receives National Industrial Innovation Award
Apr. 2019	eMemory was ranked TOP 5% in the 2018 Corporate Governance Evaluation of Public Companies conducted by R.O.C. Securities & Futures Institute
May 2019	Wholly owned subsidiary PUFsecurity Corporation founded
Jun. 2019	eMemory’s NeoFuse Qualified on Winbond 25nm DRAM Process
Sep. 2019	eMemory receives TSMC’s IP Partner Award for 10 consecutive years
Sep. 2019	eMemory IP Garners Most Stringent Level of Certification for Automotive Applications

III. Corporate Governance Report

3.1 Organization

3.1.1 Organization Chart

3.1.2 Major Corporate Functions

Department		Functions
Chairman Office		Set up the target for the Company, management strategy and planning of the Company, strategy and planning for the long term development of the Company, strategy and planning for technology development, investors relations etc.
President Office		1. Product strategy and managing the business of the Company. 2. Provide managers for analysis strategy and execution of business operation and product planning, according to the Company's need for business operation.
Audit Office		Establish and revise the internal control system, plan and execute the audit of internal control and follow up the improvement.
Quality Management & Process Integration Department		According to the requirements of International standard to establish the quality management system and ensure the system is effectively operated. From the viewpoint of process integration to setup the project and management system.
Finance Department		Funds management, bank transactions, accounting processing, production and analysis of financial statements, financial forecasting and control, stock-related matters.
Administration Center	Human Resource Department	Human resources management and organizational development.
	Information Technology Department	Information system framework, information system operation and development, information security management.
	Legal Affairs Department	Legal affairs and contract management/contract drafting, review and negotiation /other general legal matters.
Business Group I	Product Division I	Managing the silicon IP development project of NeoBit embedded floating gate technology for One-Time Programmable (OTP) non-volatile memory.
	Product Division II	Managing the silicon IP development project of NeoFuse embedded Antifuse technology for One-Time Programmable (OTP) non-volatile memory and NeoPUF technology etc.
Business Group II	Product Division IV	Managing the silicon IP development project of Multiple-Time Programmable (MTP) non-volatile memory (NeoEE, EcoBit, ReRAM… etc.).
	Product Division V	Managing the silicon IP development project of Multiple-Time Programmable (MTP) non-volatile memory (NeoMTP, MagnaChip EEPROM, Neoflash … etc.).
Engineering Center	Product Integration Division	Test & verification for product development, backend engineering outsourcing for IP product.
	IP Integration Division	Layout engineering of product development.

<table>
<tr><th colspan="2">Department</th><th>Functions</th></tr>
<tr><td>Engineering Center</td><td>Integration Design Division</td><td>CAD environment maintenance for product development, development of design automation and IP database system.</td></tr>
<tr><td rowspan="4">Sales & Marketing Center</td><td>Sales Department</td><td>Sell products and develop/maintain relationships with customers.</td></tr>
<tr><td>Customer Engineering Department</td><td>1. Provide technical support including the delivery of specification and IP usage relevant information and the assistance in customer production.
2. Cooperate with sales team to promote eMemory’s solutions.</td></tr>
<tr><td>Customer Service Department</td><td>Execute and manage sales flow, analysis sales and revenue, improve system working flow and manage key items.</td></tr>
<tr><td>Market Development Department</td><td>1. Have product marketing and promotion for major application and deal license agreement for strategic technology and platforms.
2. Organize the trade shows/events and provide the promotion relevant materials.
3. Make the marketing strategies and propose business models, analyze the market and applications of embedded NVM IP, advise on the deployment of technology platform for new product applications, plan and manage product strategy projects.</td></tr>
</table>

3.2 Directors, Supervisors and Management Team

3.2.1 Directors

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Chairman	R.O.C.	Charles Hsu	Male	06/14/2018	3	08/08/2000	1,629	2.15	1,629	2.15	1	0	0	0	1.Ph.D. in Electrical Engineering, University of Illinois, Urbana-Champaign, U.S.A. 2. Researcher, IBM T.J. Watson Research Center, NY, U.S.A. 3.Chairman, Institute of Electronics Engineering, National Tsing Hua University	1. Chairman, iMQ Technology Inc. 2. Chairman, PUFsecurity Corporation 3. Director, PowerFlash Technology Corp. 4. Director, SecuX Technology Inc. 5. Independent Director, Remuneration Committee Member & Audit Committee Member, Acer Inc. 6. Independent Director & Remuneration Committee Member, Materials Analysis Technology Inc. 7. Director, National Applied Research Laboratories	Representa-tive of How-Han Investment Corporation	Teresa Cheng	Spouse	None

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Director	R.O.C.	Mu-Chuan Hsu	Male	06/14/2018	3	05/07/2003	1,273	1.68	1,273	1.68	676	0.89	0	0	1. Bachelor Degree in Medicine, China Medical University 2. Attending Physician, Department of Obstetrics & Gynecology, National Taiwan University Hospital 3. Superintendent, North Town Women & Children Hospital	1. Director, iMQ Technology Inc. 2. Attending Physician, Fu Jen Catholic University Hospital	None	None	None	None
Director	R.O.C.	How-Han Investment Corporation	N/A	06/14/2018	3	06/19/2012	1,132	1.49	1,132	1.49	0	0	0	0	N/A	1. Director, iMQ Technology Inc. 2. Director, SecuX Technology Inc.	None	None	None	None

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Representa-tive of Director	R.O.C.	How-Han Investment Corporation Representa-tive： Teresa Cheng	Female	06/14/2018	3	06/19/2012	1	0	1	0	1,629	2.15	0	0	1. Master of Science, Computer Science and Applied Mathematics, University of Illinois at Urbana-Champaign, U.S.A. 2. Bachelor Degree in Economics, National Taiwan University 3. Chief Information Officer, Macronix International Co., Ltd. 4. Department Manager, Software Development, BDC Corporation 5. Associate Researcher, Manufacturing Information System, North American Philips Labs., NY, U.S.A. 6. Software Engineer, IBM T.J. Watson Research Center, NY, U.S.A.	1.Chairman, How-Han Investment Corporation 2. Director, iMQ Technology Inc. 3. Supervisor, Uniband Electronic Corporation 4. Vice President, HeFeChip Corporation Limited, Shanghai 5. Independent Director, Remuneration Committee Member & Audit Committee Member, Acer Synergy Tech Corp.	Chair-man	Charles Hsu	Spouse	None

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Representa-tive of Director	R.O.C.	How-Han Investment Corporation Representa-tive： Jason Hsu	Male	06/14/2018	3	06/14/2018	0	0	0	0	0	0	0	0	1. Master of Computer Science, Stevens Institute of Technology, U.S.A. 2. Chairman / General Manager, IBM Taiwan 3. CEO, GE Taiwan	1. Independent Director, Remuneration Committee Member & Audit Committee Member, inergy Technology Inc. 2. Professor, EMBA / MBA, National Tsing Hua University 3. Professor, National Taiwan University	None	None	None	None
Director	R.O.C.	Li-Jeng Chen	Female	06/14/2018	3	06/09/2015	2,145	2.83	2,345	3.09	0	0	0	0	1. Master of Air Transportation Management, University of Hawaii, Travel Industry Management School, U.S.A. 2. Chief Investment Officer, Cathay Securities Investment Trust 3. Portfolio Manager, Invesco Global Technology Fund	None	None	None	None	None

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Director	R.O.C.	Rick Shen	Male	06/14/2018	3	06/19/2012	166	0.22	162	0.21	0	0	0	0	1. Ph.D. in Electrical Engineering, National Tsing Hua University 2. R&D Principal Engineer, Taiwan Semiconductor Manufacturing Company Limited	1. President, eMemory Technology Inc. 2. Independent Director, Remuneration Committee Member & Audit Committee Member, inergy Technology Inc. 3. Executive Supervisor, Taiwan IoT Technology and Industry Association	None	None	None	None
Independent Director	R.O.C.	Kenneth Kin	Male	06/14/2018	3	05/26/2009	0	0	0	0	0	0	0	0	1. Ph.D. Nuclear Engineering and Applied Physics, Columbia University, U.S.A. 2. Bachelor Degree in Nuclear Engineering, National Tsing Hua University 3. Senior Vice President, Worldwide Sales & Services, Taiwan Semiconductor Manufacturing Company Limited 4. Vice President, Worldwide Sales & Services, IBM Microelectronics Division 5. Vice President, Asia Pacific Operations, Motorola Computer Gro	1. Director, MediaTek Inc. 2. Independent Director, Remuneration Committee Member & Audit Committee Member , Vanguard International Semiconductor Corporation 3. Independent Director, Remuneration Committee Member & Audit Committee Member, Global Unichip Corp. 4. Director, Medtech Investment Co. Ltd. 5. Professor, College of Technology Management, National Tsing Hua University	None	None	None	None

04/12/2020；Unit: Year；Thousand shares；%

Title	Nationality/ Place of Incorporation	Name	Gender	Date Elected	Term (Years)	Date First Elected	Shareholding when Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Executives, Directors or Supervisors Who are Spouses or within Two Degrees of Kinship			Note
							Shares	%	Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Independent Director	R.O.C.	Ming-To Yu	Male	06/14/2018	3	06/09/2015	0	0	0	0	0	0	0	0	1. Master of Business Administration, The Wharton School, University of Pennsylvania, U.S.A. 2. Master of Public Administration, National Chengchi University 3. Chief Financial Officer, Xiaomi Corporation, Beijing 4. Chief Financial Officer and Spokesperson, MediaTek Inc. 5. Financial Manager, Taiwan Semiconductor Manufacturing Company Limited	1. Vice Chairman, Egis Technology Inc. 2. Independent Director, Remuneration Committee Member & Audit Committee Member, Acer Cyber Security Inc. 3. Director, ULSee Co, Ltd. 4. Director, GIXIA GROUP CO. 5. Chairman, Yishing Technology Ltd.	None	None	None	None
Independent Director	R.O.C.	T.C. Chen	Male	06/14/2018	3	06/14/2016	0	0	0	0	0	0	0	0	1. Ph.D. in Engineering and Applied Science, Yale University, U.S.A. 2. Bachelor Degree in Physics, National Cheng Kung University 3. Fellow Member, Institute of Electrical and Electronics Engineers (IEEE)	1. Fellow, IBM 2. Vice President Science & Technology, IBM 3. Independent Director & Audit Committee Member, AP Memory Technology Corp.	None	None	None	None

Note: Where the chairman and the president or person of an equivalent post (the highest level manager) of a company are the same person, spouses, or relatives within the first degree of kinship, an explanation shall be given of the reason for, reasonableness, necessity thereof, and the measures adopted in response thereto.

Major shareholders of the institutional shareholders

04/12/2020

Name of Institutional Shareholders	Major Shareholders	
How-Han Investment Corporation	Teresa Cheng	25.00%
	Charles Hsu	15.00%
	Felix Hsu	20.00%
	Alexander Hsu	20.00%
	Rosalind Hsu	20.00%

Major shareholders of the Company's major institutional shareholders：None.

Professional qualifications and independence analysis of Directors：

04/12/2020

Criteria / Name	Meet One of the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience			Independence Criteria(Note)												Number of Other Public Companies in Which the Individual is Concurrently Serving as an Independent Director
	An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialist Who has Passed a National Examination and been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Areas of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9	10	11	12	
Charles Hsu	✓	-	✓	✓	-	-	-	✓	✓	-	-	✓	-	✓	✓	2
Mu-Chuan Hsu	-	-	✓	✓	-	-	✓	✓	✓	-	-	✓	✓	✓	✓	0
Teresa Cheng	-	-	✓	✓	-	-	-	✓	✓	-	-	✓	-	✓	-	1
Jason Hsu	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	1
Li-Jeng Chen	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Rick Shen	-	-	✓	-	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	1
Kenneth Kin	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2
Ming-To Yu	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1
T.C. Chen	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1

Note: Please tick the corresponding boxes that apply to the directors or supervisors during the two years prior to being elected or during the term of office.

1. Not an employee of the Company or any of its affiliates.

2. Not a director or supervisor of the Company or any of its affiliates. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
3. Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of 1% or more of the total number of outstanding shares of the Company or ranking in the top 10 in holdings.
4. Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the persons in the preceding 1 subparagraph, or of any of the above persons in the preceding subparagraphs 2 and 3.
5. Not a director, supervisor, or employee of a corporate/institutional shareholder that directly holds 5% or more of the total number of issued shares of the Company, ranks as of its top 5 shareholders, or has representative director(s) serving on the Company's board based on Paragraph 1 or 2 Article 27 of the Company Act. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
6. Not a director, supervisor, or employee of a company of which the majority of board seats or voting shares is controlled by a company that also controls the same of the Company. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
7. Not a director, supervisor, or employee of a company of which the Chairman or President (or equivalent) themselves or their spouse also serve as the Company's Chairman or President (or equivalent). Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
8. Not a director, supervisor, officer, or shareholder holding 5% or more of the shares of a specified company or institution that has a financial or business relationship with the Company. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary holds 20% or more and no more than 50% of the total number of issued shares of the Company and as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
9. Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the Company or any affiliate of the Company, or that provides commercial, legal, financial, accounting or related services to the Company or any affiliate of the Company for which the provider in the past 2 years has received cumulative compensation exceeding NT$500,000, or a spouse thereof; provided, this restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Act or to the Business Mergers and Acquisitions Act or related laws or regulations.
10. Not having a marital relationship, or a relative within the second degree of kinship to any other director of the Company.
11. Not been a person of any conditions defined in Article 30 of the Company Act.
12. Not a governmental, juridical person or its representative as defined in Article 27 of the Company Act.

3.2.2 Management Team

04/12/2020；Unit: Thousand shares；%

Title	Nationality	Name	Gender	Date Effective	Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Managers who are Spouses or Within Two Degrees of Kinship			Note
					Shares	%	Shares	%	Shares	%			Title	Name	Relation	
President	R.O.C.	Rick Shen	Male	10/12/2009	162	0.21	0	0	0	0	1. Ph.D. in Electrical Engineering, National Tsing Hua University 2. R&D Principal Engineer, Taiwan Semiconductor Manufacturing Company Limited	1. Independent Director, Remuneration Committee Member & Audit Committee Member, inergy Technology Inc. 2. Executive Supervisor, Taiwan IoT Technology and Industry Association	None	None	None	None
Vice President	R.O.C.	Ching-Yuan Lin	Male	02/21/2008	156	0.21	34	0.04	0	0	1. Master Degree in Physics, National Central University 2. EMBA, National Tsing Hua University 3. Technical Manager, Technology, Taiwan Semiconductor Manufacturing Company Limited 4. Technical Manager, Technology, Vanguard International Semiconductor Corporation	None	None	None	None	None
Vice President	R.O.C.	Anita Chang	Female	02/21/2008	26	0.03	0	0	0	0	1. Master Degree in Economics, National Taiwan University 2. Section Manager, Tze Chiang Foundation of Science and Technology	None	None	None	None	None

04/12/2020；Unit: Thousand shares；%

Title	Nationality	Name	Gender	Date Effective	Shareholding		Spouse & Minor Shareholding		Shareholding by Nominee Arrangement		Experience (Education)	Other Position	Managers who are Spouses or Within Two Degrees of Kinship			Note
					Shares	%	Shares	%	Shares	%			Title	Name	Relation	
Vice President	R.O.C.	Chris Lu	Male	01/01/2014	10	0.01	156	0.21	0	0	1. Master Degree in Photonics and Optoelectronics, National Taiwan University 2. R&D Engineer, Philips Electronics Ltd. 3. Principal Engineer, Taiwan Semiconductor Manufacturing Company Limited.	None	None	None	None	None
Vice President	R.O.C.	John Ho	Male	01/01/2014	83	0.11	0	0	0	0	1. Master Degree in Electronics Engineering, National Chiao Tung University 2. Engineer, Vanguard International Semiconductor Corporation 3. Engineer, Comax Tech. Inc.	None	None	None	None	None
Vice President	R.O.C.	Evans Yang	Male	01/01/2014	41	0.05	1	0	0	0	1. Ph.D. in Electrical Engineering, National Tsing Hua University 2. Technical Manager, Product Engineering Center, Powerchip Technology Corporation 3. Director of President's Office, PowerFlash Technology Corp.	Vice President, PUFsecurity Corporation	None	None	None	None
Vice President	R.O.C.	Michael Ho	Male	01/01/2014	35	0.05	80	0.11	0	0	1. Master Degree in Electrical and Electronics Engineering, National Tsing Hua University 2. Principal Engineer, Taiwan Semiconductor Manufacturing Company Limited	None	None	None	None	None
Accounting and Financial Officer	R.O.C.	Teresa Kuo	Female	08/02/2011	14	0.02	0	0	0	0	1. Bachelor Degree in Accounting, Tamkang University 2. Internal Auditing Officer, United Epitaxy Company, Ltd.	None	None	None	None	None

Note: Where the president or person of an equivalent post (the highest level manager) and the chairman of a company are the same person, spouses, or relatives within the first degree of kinship, an explanation shall be given of the reason for, reasonableness, necessity thereof, and the measures adopted in response thereto.

3.2.3 Remuneration of Directors, Supervisors, President, and Vice Presidents

A. Remuneration of Directors

12/31/2019；Unit: NT$ thousands；Thousand shares；%

Title / Name	Remuneration								Ratio of Total Remuneration (A+B+C+D) to Net Income (%)		Relevant Remuneration Received by Directors Who are Also Employees								Ratio of Total Compensation (A+B+C+D+E+F+G) to Net Income (%)		Remuneration Paid to Directors from Non-consolidated Affiliates or Parent Company
	Base Compensation (A) (Note 1)		Severance Pay (B) (Note 2)		Directors Compensation(C) (Note 3)		Allowances (D) (Note 4)				Salary, Bonuses, and Allowances (E) (Note 5)		Severance Pay (F)		Employee Compensation (G) (Note 6)						
	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company		Companies in the consolidated financial statements		The company	Companies in the consolidated financial statements	
															Cash	Stock	Cash	Stock			
Chairman Charles Hsu	14,675	14,675	0	0	2,844	2,844	25	25	3.24%	3.24%	0	0	0	0	0	0	0	0	3.24%	3.24%	0
Director Mu-Chuan Hsu Director How-Han Investment Corporation Representative：Teresa Cheng Director How-Han Investment Corporation Representative：Jason Hsu Director Li-Jeng Chen Director Rick Shen	0	0	0	0	8,531	8,531	200	200	1.61%	1.61%	7,578	7,578	108	108	4,107	0	4,107	0	3.78%	3.78%	0
Independent Director Kenneth Kin Independent Director Ming-To Yu Independent Director T.C. Chen	5,178	5,178	0	0	0	0	190	190	0.99%	0.99%	0	0	0	0	0	0	0	0	0.99%	0.99%	0

1. Please state the policy, system, standard and structure of remuneration payment for independent directors, and state the correlation between remuneration payment and responsibilities, risks, investment time and other factors:
The annual profit sharing distributed to Directors shall not be applied to Independent Directors, the monthly “fixed remuneration” will be paid according to their jobs and responsibilities, and the “annual reward” will be paid in accordance with the business operation performance of the Company, and shall be examined annually by the Remuneration Committee and Board of Directors. The rationality of relevant remuneration of Independent Directors will be reviewed from time to time according to the practical operation situation and related laws and regulations, to reach the balance between the sustainable operation and risk control of the Company.

2.In addition to the above remuneration, director remuneration shall be disclosed as follows when received from companies included in the consolidated financial statements in the most recent year to compensate directors for their services, such as being independent contractors.：None.

Note 1：Base compensation for directors in 2019 (including director’s salary, duty allowance, severance pay, bonus and reward, etc.)

Note 2：Allowance or funding of pension obligation.

Note 3：Directors compensation of 2019 is resolved by the Board of Directors on February 19, 2020.

Note 4：The directors’ professional practicing fees in the most recent year (including transportation allowance, special allowance, various allowances, and provisions of such tangible objects as dormitory and car, etc...).If a house, car and any other transportation means or exclusive personal allowance is provided, please disclose the nature and cost of the assets, rent imputed based on the actual value or fair value, fuel expenses and other benefits. If a driver is assigned, please specify the pay made by The Company to the driver, but exclude the same from the remuneration.

Note 5：It means the salary, duty allowance, severance pay, bonus, reward, transportation allowance, special allowance, various allowances, and provision of such tangible objects as dormitory and car received by the directors who acted as employees concurrently (including President, Vice President, managerial officer and employee) in the most recent year. If a house, car and any other transportation means or exclusive personal allowance is provided, please disclose the nature and cost of the assets, rent imputed based on the actual value or fair value, fuel expenses and other benefits. If a driver is assigned, please specify the pay made by The Company to the driver, but exclude the same from the remuneration. The salary expenses recognized in accordance with IFRS 2 “Share-based payment”, including obtaining employee stock options, new restricted employee shares and participating in cash increase subscription shares, shall also be included in the remuneration.

Note 6：The directors who acted as employees concurrently (including President, Vice President, managerial officer and employee) received employee compensation (including stock dividend and cash dividend) of 2019 is resolved by the Board of Directors on February 19, 2020. The employee compensation paid to directors who are also employees is a proposed number.

Range of Remuneration	Name of Directors			
	Total of (A+B+C+D)		Total of (A+B+C+D+E+F+G)	
	The Company	Companies in the consolidated financial statements	The Company	Companies in the consolidated financial statements
Under NT$ 1,000,000				
NT$1,000,000 ~ NT$1,999,999	Mu-Chuan Hsu, How-Han Investment Corporation Representative：Teresa Cheng, How-Han Investment Corporation Representative：Jason Hsu, Kenneth Kin, Ming-To Yu, T.C. Chen	Mu-Chuan Hsu, How-Han Investment Corporation Representative：Teresa Cheng, How-Han Investment Corporation Representative：Jason Hsu, Kenneth Kin, Ming-To Yu, T.C. Chen	Mu-Chuan Hsu, How-Han Investment Corporation Representative：Teresa Cheng, How-Han Investment Corporation Representative：Jason Hsu, Kenneth Kin, Ming-To Yu, T.C. Chen	Mu-Chuan Hsu, How-Han Investment Corporation Representative：Teresa Cheng, How-Han Investment Corporation Representative：Jason Hsu, Kenneth Kin, Ming-To Yu, T.C. Chen
NT$2,000,000 ~ NT$3,499,999	Li-Jeng Chen, Rick Shen	Li-Jeng Chen, Rick Shen	Li-Jeng Chen	Li-Jeng Chen
NT$3,500,000 ~ NT$4,999,999				
NT$5,000,000 ~ NT$9,999,999				
NT$10,000,000 ~ NT$14,999,999			Rick Shen	Rick Shen
NT$15,000,000 ~ NT$29,999,999	Charles Hsu	Charles Hsu	Charles Hsu	Charles Hsu
NT$30,000,000 ~ NT$49,999,999				
NT$50,000,000 ~ NT$99,999,999				
NT$100,000,000 or above				
Total	9	9	9	9

B. Remuneration of Supervisors：None.

C. Remuneration of the President and Vice Presidents

12/31/2019；Unit: NT$ thousands；Thousand shares；%

Title	Name	Salary(A)		Severance Pay (B) (Note 1)		Bonuses and Allowances (C) (Note 2)		Employee Compensation (D) (Note 3)				Ratio of total compensation (A+B+C+D) to net income (%)		Remuneration Paid to the President and Vice Presidents from Non-consolidated Affiliates or Parent Company
		The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company		Companies in the consolidated financial statements		The company	Companies in the consolidated financial statements	
								Cash	Stock	Cash	Stock			
President	Rick Shen													
Vice President	Ching-Yuan Lin													
Vice President	Anita Chang													
Vice President	Chris Lu	19,576	19,576	1,012	1,012	18,511	18,511	13,964	0	13,964	0	9.79%	9.79%	0
Vice President	John Ho													
Vice President	Evans Yang													
Vice President	Michael Ho													

Note 1：Allowance or funding of pension obligation.

Note 2：It means the bonus, reward, transportation allowance, special allowance, various allowances, and provision of such tangible objects as dormitory and car received by the President and Vice Presidents in the most recent year. If a house, car and any other transportation means or exclusive personal allowance is provided, please disclose the nature and cost of the assets, rent imputed based on the actual value or fair value, fuel expenses and other benefits. If a driver is assigned, please specify the pay made by The Company to the driver, but exclude the same from the remuneration. The salary expenses recognized in accordance with IFRS 2 “Share-based payment”, including obtaining employee stock options, new restricted employee shares and participating in cash increase subscription shares, shall also be included in the remuneration.

Note 3：The President and Vice Presidents received employee compensation of 2019 is resolved by the Board of Directors on February 19, 2020. The employee compensation paid to President and Vice Presidents is a proposed number.

Range of Remuneration	Name of President and Vice Presidents	
	The Company	Companies in the consolidated financial statements
Under NT$ 1,000,000		
NT$1,000,000 ~ NT$1,999,999		
NT$2,000,000 ~ NT$3,499,999		
NT$3,500,000 ~ NT$4,999,999		
NT$5,000,000 ~ NT$9,999,999	Ching-Yuan Lin, Anita Chang, Chris Lu, John Ho, Evans Yang, Michael Ho	Ching-Yuan Lin, Anita Chang, Chris Lu, John Ho, Evans Yang, Michael Ho
NT$10,000,000 ~ NT$14,999,999	Rick Shen	Rick Shen
NT$15,000,000 ~ NT$29,999,999		
NT$30,000,000 ~ NT$49,999,999		
NT$50,000,000 ~ NT$99,999,999		
NT$100,000,000 or above		
Total	7	7

D. Employee Compensation to Executive Officers

12/31/2019；Unit: NT$ thousands；%

	Title	Name	Employee Compensation - in Stock (Fair Market Value)	Employee Compensation - in Cash	Total	Ratio of Total Amount to Net Income (%)
Executive Officers	President	Rick Shen	0	14,785	14,785	2.73%
	Vice President	Ching-Yuan Lin				
	Vice President	Anita Chang				
	Vice President	Chris Lu				
	Vice President	John Ho				
	Vice President	Evans Yang				
	Vice President	Michael Ho				
	Accounting and Financial Officer	Teresa Kuo				

Note：The executive officers received employee compensation of 2019 is resolved by the Board of Directors on February 19, 2020. The employee compensation paid to executive officers is a proposed number.

3.2.4 Comparison of Remuneration for Directors, Supervisors, President and Vice Presidents in the Most Recent Two Fiscal Years and Remuneration Policy for Directors, Supervisors, President and Vice Presidents

A. The ratio of total remuneration paid by the Company and by all companies included in the consolidated financial statements for the two most recent fiscal years to directors, supervisors, president and vice presidents of the Company, to the net income.

Ratio of total remuneration paid to directors, supervisors, president and vice presidents to net income (%)	
2018	2019
14.43%	15.63%

B. The policies, standards, and portfolios for the payment of remuneration, the procedures for determining remuneration, and the correlation with risks and business performance.

(1) The Remuneration Committee had been established on October 20, 2011 under the approval of the Board of Directors. With respect to the remunerations of Directors, President, Vice President and managers, the Remuneration Committee shall periodically review the performances of Directors and managers as well as the policies, system, standards and structure of the remunerations according to the organization rules thereof, and shall periodically assess the remunerations of Directors and managers, then propose to the Board of Directors for approval after the suggestions are made.

(2) Pursuant to the provisions of Article 25 in the Articles of Incorporation, that no more 2% of the profit shall be distributed to Directors as compensation for the then current year. The remunerations of Directors are reasonable rewards given under the weight distribution principle by taking the operation achievements and the participation degree of each Director in the daily operation activities of the Company into consideration; the annual profit sharing distributed to Directors shall not be applied to Independent Directors, the monthly “fixed remuneration” will be paid according to their jobs and responsibilities, and the “annual reward” will be paid in accordance with the business operation performance of the Company.

(3) Pursuant to the provisions of Article 25 in the Articles of Incorporation, that if there is any pre-tax profit, 1% to 25% of the profit shall be distributed to eligible employees for profit sharing. The remunerations of President, Vice President and managers of the Company shall include salary, employees’ compensation and employee stock option certificates. The salary level shall be determined according to the contribution degree that the managers provided to the Company and also by taking a reference to the level implemented by other companies in the same industry.

(4) The rationality of relevant remunerations of Directors and managers shall be examined by the Remuneration Committee and Board of Directors, and the remuneration system will be reviewed from time to time according to the practical operation situation and related laws and regulations, to reach the balance between the sustainable operation and risk control of the Company.

3.3 Implementation of Corporate Governance

3.3.1 Board of Directors

A total of 5 (A) meetings of the Board of Directors were held in 2019. The attendance of director were as follows:

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%)【B/A】	Remarks
Chairman	Charles Hsu	5	0	100.00%	
Director	Mu-Chuan Hsu	4	0	80.00%	
Director	How-Han Investment Corporation Representative：Teresa Cheng	4	1	80.00%	
Director	How-Han Investment Corporation Representative：Jason Hsu	4	1	80.00%	
Director	Li-Jeng Chen	5	0	100.00%	
Director	Rick Shen	5	0	100.00%	
Independent Director	Kenneth Kin	5	0	100.00%	
Independent Director	Ming-To Yu	4	1	80.00%	
Independent Director	T.C. Chen	5	0	100.00%	

Other mentionable items:

1. If any of the following circumstances occur, the dates of the meetings, sessions, contents of motion, all independent directors' opinions and the company's response should be specified:
   (1) Matters referred to in Article 14-3 of the Securities and Exchange Act：The Company had established the Audit Committee, that the provisions of Article 14-3 shall not apply. With respect to the descriptions for the matters listed in Article 14-5 of the Securities and Exchange Act, please take a reference to 3.3.2 Audit Committee in page 33 of this Annual Report.
   (2) Other matters involving objections or expressed reservations by independent directors that were recorded or stated in writing that require a resolution by the board of directors：None.
2. Any recusal of Directors due to conflicts of interests during the period of 2019 and up to April 12, 2020 is set forth below:
   (1) The sixth meeting of seventh Board of Directors (2019.02.26)
   Subject: The distribution of employees' compensation and team operation bonus to management team of the Company for 2018.
   Resolution: Chairmen Mr. Charles Hsu and Director Mr. Rick Shen (concurrently is the President) are the persons to be distributed in this proposal, Director Ms. Teresa Cheng is the spouse of Chairman, that they shall enter into recusal pursuant to the

law, and shall not participate in the discussion and vote. The chairperson was changed to be served by the Independent Director Mr. Kenneth Kin. After inquiring the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Remuneration Committee convened on 2019.02.26 without any objection.

(2) The seventh meeting of seventh Board of Directors (2019.04.24)

Subject: Proposal of removing the prohibition on Directors from participation in competitive business newly added.

Resolution: Director Mr. Rick Shen, Independent Directors Mr. Ming-To Yu, Mr. T.C. Chen are involved persons, Director Ms. Teresa Cheng and Mr. Jason Hsu are representatives of How-Han Investment Company who is a juristic person Director, shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote. After inquiring the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Audit Committee convened on 2019.04.24 without any objection.

(3) The eighth meeting of seventh Board of Directors (2019.07.30)

Subject: Distribution of the respective remuneration of Directors of the Company in 2018.

Resolution: 1. Chairman Mr. Charles Hsu, Director Ms. Li-Jeng Chen, Mr. Mu-Chuan Hsu, Mr. Rick Shen are persons to be distributed under this proposal who shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote.

2. Director Ms. Teresa Cheng and Mr. Jason Hsu are representatives of How-Han Investment Company who is a juristic person Director shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote.

3. The chairperson was changed to be served by the Independent Director Mr. Kenneth Kin. After inquiring the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Remuneration Committee convened on 2019.07.30 without any objection.

Subject: Distribution of the remuneration of Independent Directors of the Company in 2018.

Resolution: Independent Directors Mr. Kenneth Kin, Mr. T.C. Chen are persons to be distributed under this proposal who shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote. After the chairperson inquired the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Remuneration Committee convened on 2019.07.30 without any objection.

(4) The ninth meeting of seventh Board of Directors (2019.10.23)

Subject: The employee stock option certificates of subsidiary which are distributed to the managers of the Company and its subsidiary.

Resolution: 1. The employee stock option certificates of the subsidiary, PUFsecurity, were distributed to the Chairman Mr. Charles Hsu due to his position as the manager of that subsidiary, and distributed to the Director Rick Shen due to his position as the manager of the Company. Therefore, they should recuse themselves from the discussion and voting according to law.

2. The chairperson was changed to be served by the Independent Director Mr. Kenneth Kin. After inquiring the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Remuneration Committee convened on 2019.10.23 without any objection.

(5) The eleventh meeting of seventh Board of Directors (2020.02.19)

Subject: The distribution of employees' compensation and team operation bonus to management team of the Company for 2019.

Resolution: Chairmen Mr. Charles Hsu and Director Mr. Rick Shen (concurrently is the President) are the persons to be distributed in this proposal, Director Ms. Teresa Cheng is the spouse of Chairman, that they shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote. The chairperson was changed to be served by the Independent Director Mr. Kenneth Kin. After inquiring the other Directors attended at the meeting, this proposal was approved according to the examination result concluded by the Remuneration Committee convened on 2020.02.19 without any objection.

3. The evaluation of the Board of Directors:

The rules and methodology for evaluating the performance of Board of Directors of the Company will be established before the end of 2020, and the performance appraisal is anticipated to be performed annually from the current year; the result of performance appraisal will be reported to the Board of Directors.

4. The targets of enhancing the competence of Board of Directors in current year and latest year (ex. establishing the Audit Committee, enhancing the information transparency etc.) and the assessment of execution:

(1) The Remuneration Committee had been established on October 20, 2011 by the Company, who takes charge of assisting the Board of Directors in assessing and establish the salary and remuneration of Directors and managers periodically, and on a regular schedule review the performance assessment of Directors and managers and the remuneration policy, system, standards and structure.

(2) In order to further conform to the spirits of corporate governance, the Audit Committee had been voluntarily established on June 9, 2015, exercise the authority provided for in the Securities and Exchange Act, Company Act and other laws and regulations.

(3) The " Investor Relations" had been established on the website of the Company, which provides investors the information of financial, business, material information and corporate governance for reference, and have specific persons appointed to maintain the information; the spokesperson system and email address of Audit Committee had been established, for shareholders to inquire the financial , business related information of the Company.

(4) The Company is dedicated in implementing corporate governance evaluation to improve the information transparency, in 2019, the Company was honorably ranked as "Top 5%" in the corporate governance evaluation system. Besides, the Company also selected as "TPEx Corporate Governance Index", "TPEx 50 Index", "TPEx 200 Index", "TPEx Compensation Index" Constituents.

3.3.2 Audit Committee

The main purpose of Audit Committee is assisting the Board of Directors in performing the supervision on the quality and faith of execution regarding accounting, audit, financial report process and financial control of the Company, the focuses of its practice in 2019 are set forth below:

1. Reviewing and approving the annual and quarterly financial reports.
2. Reviewing and approving the business report and proposal for distribution of profit.
3. Reviewing and approving the amendments of "Procedures for Acquisition or Disposal of Assets", "Procedures for Lending Funds to Other Parties", "Procedures for Endorsement and Guarantee", "Delegation of Authorization".
4. Assessing the effectiveness of internal control system.
5. Reviewing and approving the fees, independence and performance of certified public accountant.
6. Reviewing and approving the loan contract signed with bank.
7. Reviewing and approving the newly added prohibition on Directors from participation in competitive business.
8. Reviewing and approving the investment of establishing subsidiary.
9. Reviewing and approving the transfer of employee stock option certificates to general shares and relevant change of registration.
10. Reviewing and approving the proposal of audit plan.
11. Reviewing and approving the amendments of "Internal Control System" and relevant "Implement of Internal Audit".
12. Reviewing and approving the proposal of annual budget.

A total of 5 (A) Audit Committee meetings were held in 2019. The attendance of the independent directors was as follows:

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%)【B/A】	Remarks
Independent Director	Kenneth Kin	5	0	100.00%	
Independent Director	Ming-To Yu	5	0	100.00%	
Independent Director	T.C. Chen	5	0	100.00%	

Other mentionable items:

1. If any of the following circumstances occur, the dates of meetings, sessions, contents of motion, resolutions of the Audit Committee and the Company's response to the Audit Committee's opinion should be specified:
   (1) Matters referred to in Article 14-5 of the Securities and Exchange Act：After being approved by the concurrence of one-half or more of all members of the Audit Committee, all of these matters were sent to Board of Directors for approval by resolutions, there was not the situation of being approved by the concurrence of two-thirds or more of all members of the Board of

Directors and without the approval of Audit Committee, please take a reference to the Major Resolutions of Board Meetings in page 62~65 of this Annual Report .

(2) Other matters which were not approved by the Audit Committee but were approved by two-thirds or more of all directors：None.

2. Any recusal of Independent Directors due to conflicts of interests during the period of 2019 and up to April 12, 2020 is set forth below:

The fifth meeting of second Audit Committee (2019.04.24)

Subject: Proposal of removing the prohibition on Directors from participation in competitive business newly added.

Resolution: (1) The current Independent Director Mr. Ming-To Yu, Mr. T. C. Chen are involved persons who shall enter into recusal pursuant to the law, and shall not participate in the discussion and vote.

(2) To make the procedure go smoothly, the Independent Director under this proposal was reviewed individually and entered into recusal by turns, the resolution is concluded as in the followings:

a. The review on Director: After inquiring all the attended members in the meeting by chairperson, this proposal was approved without any objection and sent to the Board of Directors for discussion and approval.

b. The review on Mr. T. C. Chen: Director Mr. T. C. Chen entered into recusal, that Director Mr. Ming-To Yu (the chairperson) and Mr. Kenneth Kin performed the review, this proposal was approved as is without any objection, and proposed to the Board of Directors for approval.

c. The review on Mr. Ming-To Yu: Director Mr. Ming-To Yu entered into recusal, that Director Mr. Kenneth Kin (the chairperson) and Mr. T. C. Chen performed the review, this proposal was approved as is without any objection, and proposed to the Board of Directors for approval.

3. The Communication Situation Between the Independent Directors and Internal Audit Officer and CPA (shall include the communicated material matters, style and result in terms of financial, business status of the Company)

(1) The Audit Officer attended to each meeting of the Audit Committee, and reported the audit practices during the meeting, the Independent Directors may thoroughly communicate with Audit Officer in face.

(2) The Audit Officer will periodically submit audit report to the Independent Directors for review.

(3) The CPA of the Company attended to the meeting of Audit Committee for reviewing each quarter financial report and reported the situation of review or audit, the members of Audit Committee and CPA may thoroughly communicate with each other in face.

3.3.3 Corporate Governance Implementation Status and Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies"

Evaluation Item	Implementation Status			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
1. Does the Company establish and disclose the Corporate Governance Best-Practice Principles based on "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies"?	V		The Company had established the "Corporate Governance Practice Principles" based on "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and made it disclosed on the Company's website and Market Observation Post System.	None
2. Shareholding structure & shareholders' rights (1) Does the Company establish an internal operating procedure to deal with shareholders' suggestions, doubts, disputes and litigations, and implement based on the procedure? (2) Does the Company possess the list of its major shareholders as well as the ultimate owners of those shares? (3) Does the Company establish and execute the risk management and firewall system within its conglomerate structure? (4) Does the Company establish internal rules	V V V V		(1) The Company had established spokesperson system and delegated specific person to take charge of shareholder services and handle the proposals submitted by shareholders, and further employed the legal counsel to assist replying and handling the legal inquiries from the shareholders. (2) The Company on schedule possesses the list of major shareholders of the actual controlling company and the ultimate owner of the major shareholders according to the shareholders roster provided by the stock agency when the share transfer registration is suspended. (3) The assets, finance, business and accounting affairs of the affiliates are all operated independently, and under the charge of specific person as well as controlled and audited by the parent company. (4) The Company had established the "Ethical Corporate Management	None

Evaluation Item	Implementation Status			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
against insiders trading with undisclosed information?			Practice Principles" in which definitely provided that the personnel of the Company shall obey the provisions of the Securities and Exchange Act, and shall in no event make use of undisclosed information for insiders trading, as well as shall not disclose to any third party, to prevent insiders from trading with undisclosed information.	
3. Composition and Responsibilities of the Board of Directors (1) Does the Board develop and implement a diversified policy for the composition of its members?	V		(1) The composition of Directors is stipulated in the "Corporate Governance Practice Principles" of the Company, in consideration of diversification and the operation, type of business activities, and demands of development, the properly diversified policies are provided for the major two phases including but not limited to essential conditions and value (in gender, age, nationality, culture, etc.) and professional knowledge and skills (e.g. law, accounting, industry, finance, marketing, technology, etc.), and they generally possess the knowledge, skills and competence necessary for practicing their jobs. Currently, the 9 members of the Board of this term have professional backgrounds in industries, academia and medical science, and professional specialties in the scopes of management, leadership and policy decision, industrial	None

Evaluation Item	Implementation Status			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			knowledges, academy and financial. Among the Directors, Directors with employee identity take a ratio of 11%; the Independent Directors take a ratio of 33%. In addition, the Company also concerns about the gender distribution of the Board; it is the target to have at least one seat of female Director. Currently, there are two female Directors which account for 22%. The seniority of the three Independent Directors are 4, 5, and 11 years respectively; 6 Directors are more than 60 years old, and 3 Directors are under the age of 60.	
(2) Does the Company voluntarily establish other functional committees in addition to the Remuneration Committee and the Audit Committee?	V		(2) The Company had established Audit Committee voluntarily in 2015 while the establishment of Audit Committee is not compulsorily required; other functional committees will be established according to the demands of business operation in the future.	
(3) Has the Company established the rules and methodology for evaluating the performance of its Board of Directors and taken the performance appraisal on an annual basis then making the appraisal result reported to the Board of Directors, which will be used as a reference for the remuneration and nomination for the renewal of respective director?		V	(3) The rules and methodology for evaluating the performance of Board of Directors of the Company will be established before the end of 2020, and the performance appraisal is anticipated to be performed annually from the current year; the result of performance appraisal will be reported to the Board of Directors, and will be used as a reference for the remuneration and nomination for the renewal of respective director.	
(4) Does the Company	V		(4) The Audit Committee and Board of	

Evaluation Item	Implementation Status			Deviations from “the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
regularly evaluate the independence of CPAs?			Directors of the Company annually evaluate the independence of CPAs pursuant to the provisions of No. 10 of the Bulletin of Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and obtain the Confirmation of Independence from CPAs; the latest evaluation date is December 18, 2019.	
4. Does the Company have an adequate number of corporate governance personnel with appropriate qualifications, and appoint a chief corporate governance officer who takes charge of the corporate governance affairs (including but not limited to furnishing information required for business execution by directors and supervisors, assisting directors and supervisors with legal compliance, handling matters relating to board meetings and shareholders’ meetings according to the laws, and producing minutes of board meetings and shareholders’ meetings, etc.)?	V		Although the capital of the Company does not reach the standard of establishing a chief corporate governance officer, every unit of the Company takes charge of corporate governance related affairs according to their job functions: The stock affairs unit is responsible for handling the operation of Board of Directors, Audit Committee and Shareholders’ Meeting, and assists Directors in business execution in time and efficiently according to the “Standard Operational Protocol for Responding to Requests from Directors” of the Company; Human Resource Department is responsible for the works related to meetings of the Compensation Committee; President Office is the top leading unit for the scope of ethic corporate management and corporate social responsibility which is responsible for coordinating the target of corporate social responsibility and formulate the sustainable development policies, and annually report to the Board of Directors.	None
5. Does the Company establish a communication channel and build a designated section on its website for stakeholders	V		The stakeholders of the Company may find the corresponding contact information through the “Stakeholder Engagement” on the website of the	None

Evaluation Item	Implementation Status			Deviations from “the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
(including but not limited to shareholders, employees, customers, and suppliers), as well as handle all the issues they care for in terms of corporate social responsibilities?			Company, or express opinions by sending emails to the members of Audit Committee. Furthermore, the area of “Social Responsibility” on the corporate website interprets the corporate social responsibility policy and explicit achieves in detail which provides the stakeholders for the ideas related to corporate social responsibility of the Company.	
6. Does the Company appoint a professional shareholder service agency to deal with shareholder affairs?	V		The Company delegates the Brokerage Registry and Transfer Services Department of KGI Securities Co., Ltd. to deal with the shareholder affairs.	None
7. Information Disclosure (1) Does the Company have a corporate website to disclose both financial standings and the status of corporate governance? (2) Does the Company have other information disclosure channels (e.g. building an English website, appointing designated people to handle information collection and disclosure, creating a spokesman system, webcasting investor conferences)? (3) Does the Company publish and report its annual financial report within two months after the end of a fiscal year, and publish	 V V V		 (1) The Company has a corporate website both in Chinese and English to disclose both financial standings and the status of corporate governance. (2) The Company had built a corporate website both in Chinese and English and appointed designated people to handle information collection and disclosure; carried out the spokesman system; participate in the investor conference held by the external institutes without a fixed schedule, and voluntarily webcast the investor meeting each quarter, the information for investor conference had been disclosed on the Market Observation Post System and the corporate website. (3) The Company had published and reported its annual financial reports of 2018 and 2019 on February 27, 2019 and February 20, 2020 respectively, and the financial	None

Evaluation Item	Implementation Status			Deviations from “the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
and report its financial reports for the first, second and third quarters as well as its operating status for each month before the specified deadline?			reports for the first, second and third quarters of 2019 and the financial reports for the first quarter of 2020 as well as its operating status for each month had been published and reported before the specified deadline.	
8. Is there any other important information to facilitate a better understanding of the Company’s corporate governance practices (e.g., including but not limited to employee rights, employee wellness, investor relations, supplier relations, rights of stakeholders, directors’ and supervisors’ training records, the implementation of risk management policies and risk evaluation measures, the implementation of customer relations policies, and purchasing insurance for directors and supervisors)?	V		(1) The Company actively protects the rights and benefits of employees and is concerned with employees, except obeying the provisions related to labor laws and regulations, also provide the leave better than labor laws and regulations. (2) The Company had established the unit of Investor Relations which can immediately handle the inquiries rendered by the investors. (3) The procurement unit of the Company manages the suppliers pursuant to the Procedures for Control of Procurement Operation, and re-examine the list of qualified suppliers, to secure the supplier quality. (4) The stakeholders may communicate through the Stakeholder Engagement of the corporate website. (5) All Directors of the Company actively participated in various professional enhancement courses, the Directors profession enhancement status had disclosed on the Market Observation Post System. (6) The Board Meeting is convened at least quarterly, the status of attendance is good, the Director had	None

<table>
<tr><th rowspan="2">Evaluation Item</th><th colspan="3">Implementation Status</th><th rowspan="2">Deviations from “the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th><th>Abstract Illustration</th></tr>
<tr><td></td><td></td><td></td><td>avoided the vote or discussion if he/she has a personal interest in the matter under discussion.
(7) The internal control system, fiscal year budgets and necessary management rules and procedures are the risk control policies and measurement standards, and those system, budgets and procedures shall be examined by the Audit Committee and approved by the Board of Directors; the unit being in charge has to report the status of execution to Audit Committee and the Board.
(8) The Company had established the Procedures for Control of Customer Services Provision, the Procedures for Customer Satisfaction Survey, which provide the handling procedures, and periodically evaluate the satisfactory of customers to make sure the customers have best services.
(9) The Directors and manager had been insured for liabilities and this is disclosed on the Market Observation Post System.</td><td></td></tr>
<tr><td colspan="5">9. Please explain the improvements which have been made in accordance with the results of the Corporate Governance Evaluation System released by the Corporate Governance Center, Taiwan Stock Exchange, and provide the priority enhancement measures.
The examination of Corporation Governance Evaluation System in 2019, with respect to the failed items of the Company, the improvements are set forth below:
(1) The Company will establish the rules for evaluating the performance of its Board of Directors before the end of 2020, and take the performance appraisal on an annual basis; the results of performance appraisal will be disclosed on the corporate website or in the Annual Report.
(2) The Company had disclosed the annual working summaries of Audit Committee in the Annual Report of 2019; please refer to page 33 of this Annual Report.</td></tr>
</table>

3.3.4 Composition, Responsibilities and Operations of the Remuneration Committee

A. Professional Qualifications and Independence Analysis of Remuneration Committee Members

Criteria / Title/ Name	Meets One of the Following Professional Qualification Requirements, Together with at Least Five Years' Work Experience			Independence Criteria (Note)										Number of Other Public Companies in Which the Individual is Concurrently Serving as an Remuneration Committee Member	Remarks
	An instructor or higher position in a department of commerce, law, finance, accounting, or other academic department related to the business needs of the Company in a public or private junior college, college or university	A judge, public prosecutor, attorney, Certified Public Accountant, or other professional or technical specialist who has passed a national examination and been awarded a certificate in a profession necessary for the business of the Company	Has work experience in the areas of commerce, law, finance, or accounting, or otherwise necessary for the business of the Company	1	2	3	4	5	6	7	8	9	10		
Independent Director Kenneth Kin	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2	
Independent Director Ming-To Yu	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	
Independent Director T.C. Chen	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	

Note: Please tick the corresponding boxes that apply to a member during the two years prior to being elected or during the term(s) of office.

1. Not an employee of the Company or any of its affiliates.
2. Not a director or supervisor of the Company or any of its affiliates. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
3. Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of 1% or more of the total number of outstanding shares of the Company or ranking in the top 10 in holdings.
4. Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the persons in the preceding 1 subparagraph, or of any of the above persons in the preceding subparagraphs 2 and 3.
5. Not a director, supervisor, or employee of a corporate/institutional shareholder that directly holds 5% or more of the total number of issued shares of the Company, ranks as of its top 5 shareholders, or has representative director(s) serving on the Company's board based on Paragraph 1 or 2 Article 27 of the Company Act. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
6. Not a director, supervisor, or employee of a company of which the majority of board seats or voting shares is controlled by a company that also controls the same of the Company. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
7. Not a director, supervisor, or employee of a company of which the Chairman or President (or equivalent) themselves or their spouse also serve as the Company's Chairman or President (or equivalent). Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.

8. Not a director, supervisor, officer, or shareholder holding 5% or more of the shares of a specified company or institution that has a financial or business relationship with the Company. Not applicable in cases where the person is an independent director of the Company, its parent company, or any subsidiary holds 20% or more and no more than 50% of the total number of issued shares of the Company and as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary.
9. Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the Company or any affiliate of the Company, or that provides commercial, legal, financial, accounting or related services to the Company or any affiliate of the Company for which the provider in the past 2 years has received cumulative compensation exceeding NT$500,000, or a spouse thereof; provided, this restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Act or to the Business Mergers and Acquisitions Act or related laws or regulations.
10. Not been a person of any conditions defined in Article 30 of the Company Act.

B. Attendance of Members at Remuneration Committee Meetings

The Remuneration Committee of the Company takes charge of assisting the Board of Directors in executing and assessing the entire remuneration and welfare policies of the company, and the remuneration of Directors and managers. The focuses of its practice in 2019 are set forth below:

(1) Reviewing and approving the distribution of employees' compensation and the remuneration of Directors.

(2) Reviewing and approving the performance assessment of managers.

(3) Reviewing and approving the distribution of employees' compensation and team operation bonus to management team.

(4) Reviewing and approving the amendments of "Remuneration Committee Charter".

(5) Reviewing and approving the distribution of the respective remuneration of Directors and Independent Director.

(6) Reviewing and approving the employee stock option certificates of subsidiary which are distributed to the managers of the Company and its subsidiary.

Resolutions of the remuneration committee and the Company's response to the remuneration committee 's opinion in 2019, please take a reference to the Major Resolutions of Board Meetings in page 62~65 of this Annual Report.

There are 3 members in the Remuneration Committee. A total of 3 (A) Remuneration Committee meetings were held in 2019. The attendance record of the Remuneration Committee members was as follows:

<table>
<tr><th>Title</th><th>Name</th><th>Attendance in Person(B)</th><th>By Proxy</th><th>Attendance Rate (%)【B/A】</th><th>Remarks</th></tr>
<tr><td>Convener</td><td>Kenneth Kin</td><td>3</td><td>0</td><td>100.00%</td><td></td></tr>
<tr><td>Committee Member</td><td>Ming-To Yu</td><td>3</td><td>0</td><td>100.00%</td><td></td></tr>
<tr><td>Committee Member</td><td>T.C. Chen</td><td>3</td><td>0</td><td>100.00%</td><td></td></tr>
<tr><td colspan="6">Other mentionable items:
1. If the board of directors declines to adopt or modifies a recommendation of the remuneration committee, it should specify the date of the meeting, session, content of the motion, resolution by the board of directors, and the Company's response to the remuneration committee's opinion (eg., the remuneration passed by the Board of Directors exceeds the recommendation of the remuneration committee, the circumstances and cause for the difference shall be specified): None.
2. Resolutions of the remuneration committee objected to by members or expressed reservations and recorded or declared in writing, the date of the meeting, session, content of the motion, all members' opinions and the response to members' opinion should be specified: None.</td></tr>
</table>

3.3.5 Corporate Social Responsibility Implementation Status and Deviations from "the Corporate Social Responsibility Best Practice Principles for TWSE/TPEx Listed Companies"

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
1. Does the Company make the risk assessment on the issues concerning environment, society and corporate governance which are related to the operation of Company according to the materiality principle, and establish relevant risk management policies or strategy?	V		To ensure the thorough implementation of sustainable strategy, the Company has its President convene Management Examination Meeting every six months to review the issues related to environment, society and corporate governance which are concerned by stakeholders; in consideration of the materiality principle, the Company establishes risk assessment which is relevant to the business operation, and proposes related policies and measures. Please refer to page 118~119 of this Annual Report. The information with respect to the issues which are concerned by stakeholders and the communication performances is disclosed in the "Stakeholder Engagement" area on the corporate website.	None
2. Does the Company establish exclusively (or concurrently) dedicated first-line managers authorized by the board to be in charge of proposing the corporate social responsibility policies and reporting to the board?	V		On December 21, 2016, the Board of Directors had appointed the President Office as the dedicated unit which is responsible for establishing the corporate social responsibility, and report to the Board of Directors the status of implementation on an annual basis; the annual report of implementation of the corporate social responsibility for each year shall be published on the corporate website.	None
3. Environment Topic (1) Does the Company establish proper environmental management systems	 V		 (1) The main business of the Company is silicon IP licensing, which is non-pollution business; therefore, the verification of Environmental	None

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
based on the characteristics of their industries?			Management System is not applicable.	
(2) Does the Company endeavor to utilize all resources more efficiently and use renewable materials which have low impact on the environment?	V		(2) The Company obeys the laws and regulations related to environment protection to sign the contracts with legal cleaning service companies for cleaning and recycling the recyclable wastes to implement the sustainable policy of environment protection and resource recycling.	
(3) Does the Company evaluate the potential risk and opportunity caused by the climate change currently and in the future, and take measures corresponding to the climate relevant issues?	V		(3) The Company has evaluated that climate change may cause disaster hazard, market risk, operation risk etc., and to minimize the impact of increased operation costs caused by the relevant potential risks, the Company alters the green environmental protection from duties to opportunities by the innovation of core technologies, implementing component reduced product design which substitutes the complex manufacturing process required by the conventional non-volatile memory, and reduces the emission of carbon dioxide; depending on the innovation in several aspects of strategy, market, management, research and development, and accompanying with power of implementation, the Company keeps change for sustainability.	
(4) Does the Company make statistics of total greenhouse gas	V		(4) The Company is a professional silicon IP company, and not engaged in production and manufacturing	

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
emissions, water consumption and waste weight of the Company during past two years, and establish strategies for energy conservation, carbon and greenhouse gas reduction, water consumption saving or waste management?			(intangible product); thus, there is no industrial waste being produced. For general waste, the Company had contracted with cleaning service company to perform the daily cleaning and recycle the resource waste, which practically implements the protection of environment and resource reusing. In addition, the Company is devoted to environmental protection policies of energy conservation and carbon reduction and water resource protection; thus, timers are configured on the air conditioners, and water savers are installed on faucets. Switching off when leaving, paperless operation, water saving are publicized to the employees. The inventory of greenhouse gas and water consumption is performed annually; the goal is to decrease the emission of carbon dioxide and consumption of water year by year. The averaged emission of carbon dioxide for each person of the Company in 2019 is 2,563 kg, which is almost equivalent to 2,559 kg in 2018. The emission of carbon dioxide is expected to reach 2,500 kg/person after 3 years. The averaged water consumption for each person is 15.6 cubic meters in 2019, which is almost equivalent to 15.2 cubic meters in 2018, the water consumption is expected to reach 13 cubic meters/person after 3 years.	

Evaluation Item	Implementation Status			Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Explanation	
4. Society Topic (1) Does the Company formulate appropriate management policies and procedures according to relevant regulations and the International Bill of Human Rights?	V		(1) The “Human Rights Protection Policy” had been established by the Company and publicly disclosed on the corporate website. The Company abides by local laws and regulations, and complies with internationally recognized human rights standards such as <UN Guiding Principles on Business and Human Rights>, <International Labor Organization Declaration of Fundamental Principles and Rights at Work>, <Universal Declaration of Human Rights>, <Responsible Business Alliance Code of Conduct>, and treat all employees, contractors and contingent workers, interns with dignity and respect.	None
(2) Does the Company establish and implement rational employee welfare measures (including remuneration, leave and other welfare etc.) and appropriately reflect the corporate business performance or achievements in the employee remuneration policy?	V		(2) It is definitely provided for in the Articles of Incorporation that if there is any pre-tax profit, 1% to 25% of the profit shall be distributed to eligible employees for profit sharing. Based on the ideas of human-based management and profit sharing with employees, and also taking account of the external competitiveness, internal fairness and legality, the “Salary Management Rule” is established, which provides various and competitive salary, welfare and reward programs. In addition to the fixed bonus paid for the three traditional festivals, the annual target will be set each year, and the seasonal bonus or performance bonus, project	

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
			bonus and compensations (bonus) will be distributed to employees to encourage them according to the business operation performance and the status of completion of the target reviewed each season. The employee promotion is processed according to the "Rules for Performance Management", two assessments are performed each year which will be the basis for the salary adjustment, promotion, bonus. The Company concerns the balance of employees' work and life, except providing the competitive salary, the leaves and activities are offered under the conditions better than those required by laws. The subsidy for daily afternoon tea is granted; there are society activities every week; birthday parties are held by the Welfare Committee each season. The travel subsidy is provided as well as the family day and year-end party are held each year. In addition to the leaves stipulated in the Labor Standards Act, the Company grants 7 days of special leaves and the leave for birthday. Under certain requirements, 7 days of full-pay sick leaves will be given which are better than those provided by laws.	
(3) Does the Company provide a healthy and safe working environment and	V		(3) The Company is dedicated in the topics of securing labor health and working environment by periodically implementing safety and health	

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
organize training on health and safety for its employees on a regular basis?			education and holding "Fire Safety Seminar" propaganda courses pursuant to the occupational safety and health relevant laws and regulations. And by providing specific parking spaces or transportation allowances, nursery room, full time security system, multifunction rest area etc. the employees can enjoy a comfortable and healthy environment. We believe that the most fortune of the Company shall be the healthy employees, we provide full exercise allowances for fitness and hold health examination periodically, and the nursing personnel on-site services are available in the Company to manage the health of employees and provide health consulting services.	
(4) Does the Company provide its employees with career development and training sessions?	V		(4) In order to improve the scheduled milestone and develop the employees' abilities in profession and management to make human resources efficiently available and obtain the knowledge, skill and ability required for work, develop the goals of each stage on the basis of deeply establishing human resource of the Company, every Wednesday is set as eMemory's learning day, that professional internal training courses will be held, and expenses for external training courses can be subsidized. The goal of employee's career development, learning capability, execution status, effectiveness review	

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
			will be further planned and connected with internal practices, that the annual program planning can be proposed.	
(5) Has the Company complied with relevant laws and regulations and international standards for the health and safety of customers, customer privacy, marketing and labeling of products and services, and formulated relevant consumer protection policies and complaint procedures?	V		(5) The major business of the Company is silicon IP licensing, that labeling will not be applicable for the products are intangible; The marketing of goods and services of the Company conforms to the requirements of relevant regulations and international standards. Besides, the Company insists on the spirit of "Quality First, Service Best, Customer Satisfied" and focuses on product quality to reach the main goal of increasing the customer's satisfaction, provides customers with safe, reliable and high quality products, and maintain good communication channel with customers by providing transparent and effective complaint handling procedures for products and services. In addition, the customer satisfaction survey is conducted every year, the Company deserves recognition from customers for years, the average score of 2019 is 95.22.	
(6) Does the Company establish supplier management policy and request suppliers to comply with related standards on the topics of environmental protection, occupational safety	V		(6) The Company established "eMemory Supplier Code of Conduct" to require the supply chain vendors for being qualified with the requirements of safe working environment, that their employees shall be respected with dignity, facilitating environment protection in business operation and complying with ethics. Except	

Evaluation Item	Implementation Status			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation	
and health or labor right, and their implementation status?			requiring the suppliers for following the code of conduct, the major suppliers are also required for signing the " eMemory Supplier Social Responsibility Commitment" and complying with the local laws and regulations implemented in the place their businesses are operated. Otherwise, the suppliers are also encouraged to require their downstream suppliers, contractors and service providers for recognizing and adopting the "eMemory Supplier Code of Conduct" . The supplier will be required for performing the self-examination pursuant to the "Supplier_Checking List" annually by the Company, where the five phases of labor, health and safety, environment protection, ethics and management system are included in the content, and the suppliers are required for complying with the regulations related to the subjects of environment protection, health and safety etc. There were 30 "Supplier_Checking List" distributed to the suppliers in 2019, and all of the checking list forms were received after the suppliers filled in them. The Quality Management & Process Integration Department will review the collected checking list forms and make them as a basis for supplier management. If it is necessary, the on-site audit will be performed by the	

<table>
<tr><td rowspan="2">Evaluation Item</td><td colspan="3">Implementation Status</td><td rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</td></tr>
<tr><td>Yes</td><td>No</td><td>Abstract Explanation</td></tr>
<tr><td></td><td></td><td></td><td>Quality Management & Process Integration Department to ensure the supply chain’s performance of corporate social responsibility.</td><td></td></tr>
<tr><td>5. Does the Company refer to international reporting rules or guidelines to publish CSR Report to disclose non-financial information of the Company? Has the said Report acquired 3rd certification party verification or statement of assurance?</td><td>V</td><td></td><td>Although the capital of the Company does not reach the standard of preparing for CSR report, the information relevant to the performance of social responsibility is disclosed on the corporate website, in the Annual Report and Market Observation Post System.</td><td>None</td></tr>
<tr><td colspan="5">6. If the Company has established the corporate social responsibility principles based on “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies”, please describe any discrepancy between the Principles and their implementation：None.</td></tr>
<tr><td colspan="5">7. Other important information to facilitate better understanding of the Company’s corporate social responsibility practices：
(1) The Company has established the Social Responsibility area on the corporate website, in which interprets the corporate social responsibility policy of the Company and explicit achievements, that the internal and external persons can be clearly aware of the social responsibility ideas of the Company.
(2) The Company participates in the philanthropic activities and gives back to the society. In 2019, we donated NT$ 300,000 to National Tsing Hua University for scholarships, donated computer equipment to ” Hsinchu West Area Office of World Vision” and “Hsinchu Office of World Peace”, donated stationery to “Hsinchu I-Link Community Care Association- Green Light Seeds Classroom” and participated in the Christmas flower bazaar for “Development Center of Spinal Cord Injury”.
(3) The Company dedicated to diversified learning program, except internally providing various knowledge inheritance courses, especially cooperate in opening related courses with universities and colleges, hope this can well fulfill the social responsibility by the opportunity of sharing resources, and establish the cooperation platform for both the industries and academies, share and exchange the practices of industry with academia.</td></tr>
</table>

3.3.6 Ethical Corporate Management Implementation Status and Deviations from "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies"

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
1. Establishment of ethical corporate management policies and programs (1) Does the Company establish the ethical corporate management policies which are approved by the Board of Directors, and clearly specify in the rules and external documents the ethical corporate management policies and measures, and the commitment made by the Board of Directors and senior management on rigorous and thorough implementation of such policies?	V		(1) The Company engages in commercial activities by basing on the fair, honest, trustworthy, transparent principle, that the "Ethical Corporate Management Practice Principles" had been established and approved by the Board of Directors on December 21, 2016 to make ethical management practicable and prevent form unethical conducts. The President Office is appointed as a dedicated unit which is responsible for establishing the ethical corporate management policies and prevention programs and supervising the implementation and report on the same to the Board of Directors on an annual basis, as well as publicly disclose "Ethical Corporate Management Practice Principles" on the corporate website and Market Observation Post System; furthermore, the implementation of the ethical corporate management for each year shall be published on the corporate website.	None
(2) Does the Company establish a risk assessment mechanism against unethical conduct, analyze and assess business activities within their business scope which	V		(2) The Company had established the "Work Rules" in which provided definitely that all the employees are required to be honesty without accepting bribes to prevent the benefit of the Company from being damaged for the individual benefit of the employee; the handling procedures and	

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
are at a higher risk of being involved in unethical conduct, and establish prevention programs, which at least include preventive measures against the conducts provided for in paragraph 2 of Article 7 of the "Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies"? (3) Dose the Company clearly and thoroughly prescribe the operational procedures, guidelines, discipline for violation and complaints system in the programs of preventing unethical conducts, on rigorous and thorough implementation of such programs, and review the programs periodically?	 V		the reward and penalty system for inhibiting the Director, manager, employee etc. to provide or accept improper benefits are also definitely provided in the "Ethical Corporate Management Practice Principles" of the Company. Besides, in order to ensure the fulfillment of ethical management, the President Office, as the unit in charge, shall annually report to the Board of Directors. (3) The clear directions of "Ethical Corporate Management Practice Principles" for performance of duties, operation procedures, discipline for violation and complaint channel, stakeholders may find the corresponding contact information through the area of "Stakeholder Engagement" on the corporate website, or send emails to the Company or the members of Audit Committee to inform of unethical or complain.	
2. Fulfill operations integrity policy (1) Does the Company evaluate business partners' ethical records and include ethics-related clauses in business contracts?	 V		 (1) The sales unit and procurement unit of the Company respectively evaluates customer's credit and manages the quality of supplier's services pursuant to the internal procedures. The Company also cooperate with	None

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			customers to sign the Supplier Code of Conduct or Supplier Social Responsibility Commitment and requires major suppliers to sign the "eMemory Supplier Social Responsibility Commitment" in which the requirement of ethical conduct has been provided.	
(2) Does the Company establish a dedicated unit that is under the Board of Directors and responsible for establishing the ethical corporate management, and report to the Board of Directors the ethical corporate management policies, prevention programs and the status of implementation under supervising periodically (at least on an annual basis)?	V		(2) On December 21, 2016, the Board of Directors had appointed the President Office as the dedicated unit which is responsible for establishing the ethical corporate management, and report to the Board of Directors the ethical corporate management, prevention programs and the status of implementation under supervising on an annual basis, the implementation of the ethical corporate management for each year shall be published on the corporate website.	
(3) Does the Company establish policies to prevent conflicts of interest and provide appropriate communication channels, and implement it?	V		(3) The recusal for Directors' interest conflict had been provided in the "Rules of Procedure for Board of Directors Meetings", that the Director him/herself or the corporate he/she represents for has a stake in the proposal at the meeting where there is a likelihood that the interests of the Company would be prejudiced, may state opinions or answer the inquiry but not participate in the discussion or vote on that proposal, shall recuse himself or herself from any discussion and voting,	

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			and may not exercise voting rights as proxy on behalf of another director. Furthermore, the "Ethical Corporate Management Practice Principles" of the Company has provided the situation that in the event the personnel of the Company find there is conflict to the interests of his/her or the entity he/she represents for, or there is a likelihood that himself or herself, his or her spouse, parent, child or the stakeholder may obtain the improper benefits when executing the business of the Company, shall report the related events to his/her direct supervisor and the unit in charge, and the direct supervisor shall provide proper direction.	
(4) Does the Company had established effective accounting system, internal control system for rigorous and thorough implementation of ethical corporate management, and based on the results of assessment of the risk of involvement in unethical conducts under internal control operation, does the internal auditor devise internal audit plans and perform the examination on the compliance with	V		(4) In order to fulfill the ethical management, the Company had established effective accounting system and internal audit system. The financial statements of the Company had been reviewed by the CPAs with audit report. Based on the results of assessment of the risk of involvement in unethical conducts under internal control operation, the internal auditor devises internal audit plans and performs the examination.	

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
programs of preventing from unethical conducts, or delegate a certified public accountant to perform the examination? (5) Does the Company regularly hold internal and external educational trainings on operational integrity?	V		(5) The fulfillment of ethical principle by employees is highly valued during the daily business, that the "Information Environment and Information Safety Propaganda" course is arranged in the new employee's training courses, which emphasize on well preserving and keeping the confidentiality of either tangible information equipment or intangible information assets to prevent the confidentiality of the Company from being revealed. The course of "Personal Information Protection Act Propaganda" puts emphasis on the execution of non-disclosure agreement by the personnel who handles personal information to well conform to the confidentiality obligations and not illegally use the personal information. And the course of "Insider Trading Propaganda" which propagates the inhibition of making use of undisclosed information to conduct insider trading and disclose to others. In 2019, the total number of new employees of the Company who participated in the courses mentioned above are 16, and total in 22.8 hours.	
3. Operation of the integrity channel (1) Does the Company	V		(1) The whistle-blowing system and related	None

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
establish both a reward/punishment system and an integrity hotline? Can the accused be reached by an appropriate person for follow-up?			processing procedures had been established in the "Stakeholders Engagement" area on the corporate website, or the whistle-blowing can be made by sending an email to the member of Audit Committee, the whistle-blowing case will be handled by a person appointed by the Company according to the accused.	
(2) Does the Company establish the standard operational procedures for investigation when whistle-blowing case occurs, the follow-up measures as well as the confidential mechanism after the investigation?	V		(2) After receiving the whistleblowing case, according to the matters, the Company shall appoint a person to accept and investigate the case. The appointed person shall report to the Company and the whistleblower about handling methods, schedule and result, the whistleblower and appointed person shall keep the investigation and related information confidential, that it shall not be disclosed, and the Company shall protect the whistleblower from revenge or other improper treatment.	
(3) Does the Company provide proper whistleblower protection?	V		(3) As mentioned in the above, the Company shall protect the whistleblower from improper treatment due to the whistleblowing. The involved person who fails to keep the confidentiality and causes the confidentiality revealed shall be disciplined pursuant to the related rules.	
4. Strengthening information disclosure (1) Does the Company disclose its ethical corporate management policies and the results of its implementation on	V		The "Ethical Corporate Management Practice Principles" of the Company had been established and publicly disclosed on the corporate website and Market Observation Post System; the execution status of ethical management of the Company is further interpreted on the	None

Evaluation Item	Implementation Status			Deviations from "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
the Company's website and MOPS?			corporate website and in the Annual Report.	
5. If the Company has established the ethical corporate management policies based on the Ethical Corporate Management Best-Practice Principles for TWSE/TPEx Listed Companies, please describe any discrepancy between the policies and their implementation：None.				
6. Other important information to facilitate a better understanding of the Company's ethical corporate management policies (e.g., review and amend its policies)：None.				

3.3.7 Corporate Governance Guidelines and Regulations

To enhance corporate management system, the Company had established the corporate management related rules such as Rules of Procedure for Shareholders Meetings, Rules of Procedure for Board of Directors Meetings, Rules for Election of Directors, Corporate Governance Practice Principles, Corporate Social Responsibility Practice Principles, Ethical Corporate Management Practice Principles, Rules Governing the Scope of Powers of Independent Directors, Audit Committee Charter and Remuneration Committee Charter, relevant contents of the fore mentioned 9 rules are available on the Market Observation Post System and the corporate website.

3.3.8 Other Important Information Regarding Corporate Governance

To implement the hierarchical responsibilities management mechanism, the delegation of authorization had been established and authorized by the Board of Directors; the internal control system includes the management of related party transactions, supervision and management of subsidiaries, management of operation of Board meetings, management of Audit Committee meeting operations and management of Remuneration Committee meeting operations, that internal audit unit shall annually arrange the audit and report to the Audit Committee and Board of Directors.
The Company further established the rules related to corporate governance including Procedures for Acquisition or Disposal of Assets, Procedures for Endorsement and Guarantee, and Procedures for Lending Funds to Other Parties which are available on the Market Observation Post System and the corporate website.
The Directors of the Company continuingly participate in the corporate governance and professional knowledge training courses and obtained the certified documents every fiscal year pursuant to the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEx Listed Companies". The Directors profession enhancement status had disclosed on the Market Observation Post System.

3.3.9 Internal Control System Execution Status

A. Statement of Internal Control System

eMemory Technology Inc.

Statement of Internal Control System

February 19, 2020

Based on the findings of a self-assessment, eMemory Technology Inc. (eMemory) states the following with regard to its internal control system during the year 2019:

1. eMemory's Board of Directors and management are responsible for establishing, implementing, and maintaining an adequate internal control system. Our internal control is a process designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance and safeguarding of assets), reliability, timeliness, transparency of our reporting, and compliance with applicable rulings, laws and regulations.
2. An internal control system has inherent limitations. No matter how perfectly designed, an effective internal control system can provide only reasonable assurance of accomplishing its stated objectives. Moreover, the effectiveness of an internal control system may be subject to changes due to extenuating circumstances beyond our control. Nevertheless, our internal control system contains self-monitoring mechanisms, and eMemory takes immediate remedial actions in response to any identified deficiencies.
3. eMemory evaluates the design and operating effectiveness of its internal control system based on the criteria provided in the Regulations Governing the Establishment of Internal Control Systems by Public Companies (herein below, the "Regulations"). The criteria adopted by the Regulations identify five key components of managerial internal control: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring activities.
4. eMemory has evaluated the design and operating effectiveness of its internal control system according to the aforesaid Regulations.
5. Based on the findings of such evaluation, eMemory believes that, on December 31, 2019, it has maintained, in all material respects, an effective internal control system (that includes the supervision and management of our subsidiaries), to provide reasonable assurance over our operational effectiveness and efficiency, reliability, timeliness, transparency of reporting, and compliance with applicable rulings, laws and regulations.
6. This Statement is an integral part of eMemory's annual report and prospectus, and will be made public. Any falsehood, concealment, or other illegality in the content made public will entail legal liability under Articles 20, 32, 171, and 174 of the Securities and Exchange Law.
7. This Statement was passed by the Board of Directors in their meeting held on February 19, 2020, with none of the nine attending directors expressing dissenting opinions, and the remainder all affirming the content of this Statement.

eMemory Technology Inc.

Chairman：Charles Hsu

President：Rick Shen

B. If CPA Was Engaged to Conduct a Special Audit of Internal Control System, Provide Its Audit Report: None.

3.3.10 Legal penalty against the Company or its internal personnel, or any disciplinary penalty by the Company against its internal personnel for violation of the internal control system, where the result of such penalty could have a material effect on shareholder equity or securities prices, disclose the penalty, the main shortcomings, and condition of improvement.: None.

3.3.11 Major Resolutions of Shareholders' Meeting and Board Meetings

A. Major Resolutions of Shareholders' Meeting in 2019

<table>
<tr><th>Major Resolutions</th><th>Status of Execution</th></tr>
<tr><td>Adoption of the Business Report of 2018 and Financial Statements</td><td>Approved by resolution.</td></tr>
<tr><td>Adoption of the Proposal for Distribution of 2018 Profit</td><td rowspan="2">July 8, 2019 was set as the distribution closing date, July 26, 2019 was set as the distribution date.(cash dividends were distributed by NT$ 7.4985 per share; cash derived from Capital Surplus was distributed by NT$0.4999 per share)</td></tr>
<tr><td>Adoption of Distributing the Cash from Capital Surplus</td></tr>
<tr><td>Adoption of Amendment to the "Procedures for Acquisition or Disposal of Assets"</td><td>Approved by resolution, and implemented according to the amendment to the articles.</td></tr>
<tr><td>Adoption of Amendment to the "Procedures for Lending Funds to Other Parties"</td><td>Approved by resolution, and implemented according to the amendment to the articles.</td></tr>
<tr><td>Adoption of Amendment to the "Procedures for Endorsement and Guarantee"</td><td>Approved by resolution, and implemented according to the amendment to the articles.</td></tr>
<tr><td>Adoption of Removing the Prohibition on Directors from Participation in Competitive Business Newly Added</td><td>Approved by resolution.</td></tr>
</table>

B. Major Resolutions of Board Meetings in 2019 and up to April 12, 2020

Time	Term	Major Resolutions	Status of Execution
2019.02.26	The sixth meeting of seventh term	1. Adopted the distribution of employees' compensation and the remuneration of Directors of 2018 (*2) 2. Adopted the financial statements and business report of 2018 (*1) 3. Adopted the proposal for distribution of 2018 Profit (*1) 4. Adopted the proposal of distributing the cash from capital surplus 5. Adopted the proposal of amending a part of the provisions of the "Procedures for Acquisition or Disposal of Assets" (*1) 6. Adopted the proposal of convening the shareholders' general meeting of 2019	All of the items were executed according to the resolutions.

Time	Term	Major Resolutions	Status of Execution
		7. Adopted the performance assessment of managers of 2018 (*2) 8. Adopted the proposal of distribution of employees' compensation and team operation bonus to management team of the Company for 2018 (*2) 9. Adopted the proposal of amending a part of the provisions of the "Remuneration Committee Charter" (*2) 10. Adopted the report of self-assessment of internal control system and the "Statement of Internal Control System " for 2018 (*1) 11. Adopted the professional fees of CPA for 2019 (*1)	
2019.04.24	The seventh meeting of seventh term	1. Acknowledged the loans had been signed with the bank for the need of business operation (*1) 2. Adopted the financial statements of the first quarter of 2019 (*1) 3. Adopted the proposal of amending of the "Procedures for Lending Funds to Other Parties" and the "Procedures for Endorsement and Guarantee" (*1) 4. Adopted the proposal of removing the prohibition on Directors from participation in competitive business newly added (*1) 5. Adopted the amendment of subjects for convening the shareholders'general meeting of 2019 6. Adopted the amendments of the "Delegation of Authorization" (*1) 7. Adopted the "Standard Operational Protocol for Responding to Requests from Directors" 8. Adopted the investment of establishing subsidiary (*1)	All of the items were executed according to the resolutions.
2019.07.30	The eighth meeting of seventh term	1. Acknowledged the loans had been signed with the bank for the need of business operation (*1) 2. Adopted the transfer of employee stock option certificates first issued in 2016 to general shares and relevant change of registration (*1) 3. Adopted the consolidated financial statements of the second quarter of 2019 (*1) 4. Adopted the amendments of audit plan of 2019 (*1)	All of the items were executed according to the resolutions.

Time	Term	Major Resolutions	Status of Execution
		5. Adopted the proposal of distribution of the respective remuneration of Directors of the Company in 2018 (*2) 6. Adopted the proposal of distribution of the remuneration of Independent Directors of the Company in 2018 (*2) 7. Adopted the amendments of the "Rules for the Third Time Shares Repurchase and Transfer to Employee" 8. Adopted the removing the prohibition on managers from participation in competitive business newly added	
2019.10.23	The ninth meeting of seventh term	1. Adopted the transfer of employee stock option certificates first issued in 2016 to general shares and relevant change of registration (*1) 2. Adopted the consolidated financial statements of the third quarter of 2019 (*1) 3. Adopted the amendments of "Internal Control System" and the relevant "Implementation rules for internal audits" (*1) 4. Adopted the employee stock option certificates of subsidiary which are distributed to the managers of the Company and its subsidiary (*2)	Except the distributions under proposal 4 are not completed, the other items were executed according to the resolutions.
2019.12.18	The tenth meeting of seventh term	1. Adopted the proposal of budget of 2020 (*1) 2. Adopted the proposal of audit plan of 2020 of the Company and its subsidiary (*1) 3. Adopted the assessment of the independence and performance of the CPA engaged by the Company (*1)	All of the items were executed according to the resolutions.
2020.02.19	The eleventh meeting of seventh term	1. Adopted the distribution of employees' compensation and the remuneration of Directors of 2019 (*2) 2. Adopted the transfer of employee stock option certificates first issued in 2016 to general shares and relevant change of registration (*1) 3. Adopted the financial statements and business report of 2019 (*1) 4. Adopted the proposal for distribution of 2019 Profit (*1) 5. Adopted the proposal of distributing the cash from capital surplus 6. Adopted the proposal of amending of the	Except the distributions under proposal 1 & 10 are not completed, and the proposal 3~8 will be determined during the shareholders' general

Time	Term	Major Resolutions	Status of Execution
		"Rules of Procedure for Shareholders Meetings" 7. Adopted the proposal of amending of the "Procedures for Acquisition or Disposal of Assets" (*1) 8. Adopted the proposal of convening the shareholders' general meeting of 2020 9. Adopted the performance assessment of managers of 2019 (*2) 10. Adopted the proposal of distribution of employees' compensation and team operation bonus to management team of the Company for 2019 (*2) 11. Adopted the report of self-assessment of internal control system and the "Statement of Internal Control System " for 2019 (*1) 12. Adopted the amendments of "Internal Control System" and the relevant "Implementation rules for internal audits" (*1) 13. Adopted the professional fees of CPA for 2020 (*1)	meeting on 2020.06.10, the other items were executed according to the resolutions.
2020.02.19	The twelfth meeting of seventh term	1. Adopted the proposal of implementing treasury stock to repurchase the shares of the Company, which will be the source of the stock used to transfer to employees	The declared share repurchase period is to 2020.05.19; as of the Annual Report publication date, it is still in the process of execution.

*1: The matters that Audit Committee of the Company submits to the Board of Directors for approval Pursuant to Article 14-5 of the "Securities and Exchange Act".

*2: The matters that Remuneration Committee of the Company submits to the Board of Directors for approval Pursuant to Article 7 of the "Regulations Governing the Appointment and Exercise of Powers by the Remuneration Committee of a Company Whose Stock is Listed on the Stock Exchange or Traded Over the Counter".

3.3.12 Major Issues of Record or Written Statements Made by Any Director or Supervisor Dissenting to Important Resolutions Passed by the Board of Directors：None.

3.3.13 Resignation or Dismissal of the Company's Key Individuals, Including the Chairman, CEO, and Heads of Accounting, Finance, Internal Audit, Corporate Governance and R&D：None.

3.4 Information Regarding the Company's Audit Fee and Independence

Audit Fee Scale

Fee Range \ Fee Items		Audit Fee	Non-audit Fee
1	Under NT$ 2,000,000		✓
2	NT$2,000,000 ~ NT$3,999,999	✓	
3	NT$4,000,000 ~ NT$5,999,999		
4	NT$6,000,000 ~ NT$7,999,999		
5	NT$8,000,000 ~ NT$9,999,999		
6	NT$100,000,000 or above		

3.4.1 Non-Audit Fee Paid to Auditors and the Accounting Firm Accounted for More Than One-Fourth of Total Audit Fee Shall Disclose the Amount and The Service Item:

Audit Fee and Non-Audit Fee Paid to the Accounting Firm in 2019 are provided below：

Unit: NT$ thousands

Accounting Firm	Name of CPA	Audit Fee	Non-audit Fee					Period Covered by CPA's Audit	Remarks
			System of Design	Company Registration	Human Resource	Others	Subtotal		
Deloitte & Touche	Yu-Feng Huang Su-Li Fang	2,005	None	None	None	30	30	2019	Other Non-Audit Related Fee: Review of Annual Report in Amount of NT$30K.

3.4.2 When the Company Changes Its Accounting Firm and the Audit Fees Paid for the Fiscal Year in Which Such Change Took Place Are Lower Than Those for the Previous Year, The Reduction in the Amount of Audit Fees, Reduction Percentage, and Reason(s) Therefore Shall Be Disclosed: None.

3.4.3 When the Audit Fees Paid for the Current Year Are Lower Than Those for the Previous Fiscal Year by 10 Percent Or More, the Reduction in the Amount of Audit Fees, Reduction Percentage, and Reason(s) Therefore Shall Be Disclosed: None.

3.5 Replacement of CPA

A. Regarding the former CPA

Replacement Date	Approved by the Board Meeting on 2018.12.19		
Replacement reasons and explanations	The original CPAs of the Company were Yih-Shin Kao and Su-Li Fang from Deloitte & Touche. Due to internal restructuring at Deloitte & Touche, the CPAs of the Company were changed to Yu-Feng Huang and Su-Li Fang, beginning the fist quarter of 2019.		
Describe whether the Company terminated or the CPA did not accept the appointment	Status \ Parties	CPA	The Company
	Termination of appointment	-	-
	No longer accepted (continued) appointment	-	-

<table>
<tr><td>Other issues (except for unqualified issues) in the audit reports within the last two years</td><td colspan="3">None</td></tr>
<tr><td rowspan="5">Differences with the company</td><td rowspan="4">None</td><td>-</td><td>Accounting principles or practices</td></tr>
<tr><td>-</td><td>Disclosure of Financial Statements</td></tr>
<tr><td>-</td><td>Audit scope or steps</td></tr>
<tr><td>-</td><td>Others</td></tr>
<tr><td colspan="3">Remarks/specify details:</td></tr>
<tr><td>Other Revealed Matters</td><td colspan="3">None</td></tr>
</table>

B. Regarding the successor CPA

Name of accounting firm	Deloitte & Touche
Name of CPA	Yu-Feng Huang and Su-Li Fang
Date of appointment	Approved by the Board Meeting on 2018.12.19
Consultation results and opinions on accounting treatments or principles with respect to specified transactions and the company's financial reports that the CPA might issue prior to the engagement	None
Succeeding CPA’s written opinion of disagreement toward the former CPA	None

C. Reply Letter from the former CPA：None.

3.6 The Company’s Chairman, Chief Executive Officer, Chief Financial Officer, and Managers in charge of its finance and accounting operations did not hold any positions in the Company’s independent auditing firm or its affiliates during 2019.

3.7 Changes in Shareholding and Shares Pledged by the Directors, Supervisors, Managers and Shareholders with 10% Shareholdings or More

A. Changes in Shareholding of Directors, Supervisors, Managers and Major Shareholders

Title	Name	2019		2020 (As of April 12)	
		Holding Increase (Decrease)	Pledged Holding Increase (Decrease)	Holding Increase (Decrease)	Pledged Holding Increase (Decrease)
Chairman	Charles Hsu	0	0	0	0
Director	Mu-Chuan Hsu	0	0	0	0
Director	How-Han Investment Corporation	0	0	0	0
Director	Li-Jeng Chen	0	60,000	0	50,000
Director and President	Rick Shen	(10,000)	0	2,168	0
Independent Director	Kenneth Kin	0	0	0	0
Independent Director	Ming-To Yu	0	0	0	0
Independent Director	T.C. Chen	0	0	0	0
Vice President	Ching-Yuan Lin	(2,000)	0	0	0
Vice President	Anita Chang	0	0	0	0
Vice President	Chris Lu	0	0	0	0
Vice President	John Ho	0	0	0	0
Vice President	Evans Yang	0	0	0	0
Vice President	Michael Ho	0	0	0	0
Accounting and Financial Officer	Teresa Kuo	0	0	0	0

B. Shares Trading with Related Parties: None.

C. Shares Pledge with Related Parties: None.

3.8 Relationship among the Top Ten Shareholders

04/12/2020；Unit: Share；%

Name	Current Shareholding		Spouse's/minor's Shareholding		Shareholding by Nominee Arrangement		Name and Relationship Between the Company's Top Ten Shareholders, or Spouses or Relatives Within Two Degrees		Remarks
	Shares	%	Shares	%	Shares	%	Name	Relationship	
Government of Singapore	5,328,000	7.03	N/A	N/A	N/A	N/A	None	None	None
SmallCap World Fund Inc.	4,024,334	5.31	N/A	N/A	N/A	N/A	None	None	None
Swedbank Robur Globalfond	3,027,000	3.99	N/A	N/A	N/A	N/A	None	None	None
New Labor Pension Fund	2,878,000	3.80	N/A	N/A	N/A	N/A	None	None	None
Li-Jeng Chen	2,345,000	3.09	-	-	-	-	None	None	None
Fubon Life Insurance Co., Ltd.	1,950,000	2.57	N/A	N/A	N/A	N/A	None	None	None
Charles Hsu	1,629,407	2.15	1,423	0	-	-	None	None	None
eMemory Technology Inc.	1,567,000	2.07	N/A	N/A	N/A	N/A	None	None	None
Diamond Hosiery & Thread Co., Ltd.	1,552,000	2.05	N/A	N/A	N/A	N/A	None	None	None
Allianz Global Investors Taiwan Technology Fund	1,504,000	1.98	N/A	N/A	N/A	N/A	None	None	None
Taiwan Life Insurance Co., Ltd.	1,470,000	1.94	N/A	N/A	N/A	N/A	None	None	None

3.9 Ownership of Shares in Affiliated Enterprises

04/12/2020；Unit: Thousand shares；%

Affiliated Enterprises (Note 1)	Ownership by the Company		Direct or Indirect Ownership by Directors/Supervisors/Managers (Note 2)		Total Ownership	
	Shares	%	Shares	%	Shares	%
iMQ Technology Inc.	2,057	3.38	4,039	6.64	6,096	10.02

Note 1：Investments accounted for using equity method.

Note 2：If the Director or Supervisor is a legal entity, its shares include legal entity and its representative.

IV. Capital Overview

4.1 Capital and Shares

4.1.1 Source of Capital

Unit: Thousand shares / NT$ thousands

Month/ Year	Par Value (NT$)	Authorized Capital		Paid-in Capital		Remark		
		Shares	Amount	Shares	Amount	Sources of Capital (Amount)	Capital Increased by Assets Other than Cash (Amount)	Other
09/2000	10	40,000	400,000	30,895	308,950	Set up Capital : 308,950	Technology : 60,000	09/22/2000 Jin (089) Sun Tzu No.089134296
01/2002	10	40,000	400,000	40,000	400,000	Cash Offering : 91,050	None	01/09/2002 Jin So Sun Tzu No.09101006950
12/2003	10	60,000	600,000	46,000	460,000	Cash Offering : 60,000	None	12/11/2003 Yuan Shang Tzu No. 0920034610
11/2004	10	61,500	615,000	32,689	326,889	Capital Reduction : 203,111 Cash offering : 70,000	None	11/24/2004 Yuan Shang Tzu No.0930032426
10/2005	10	61,500	615,000	33,425	334,249	Exercise of Employee Stock : 7,360	None	10/24 /2005Yuan Shang Tzu No.0940028474
01/2006	10	61,500	615,000	33,500	334,999	Exercise of Employee Stock : 750	None	01/23/2006 Yuan Shang Tzu No.0950001176A
08/2006	10	61,500	615,000	38,357	383,565	Capitalization of Profits : 41,133 Capitalization of Employee Bonus : 7,433	None	08/01/2006Yuan Shang Tzu No.0950019826
10/2006	10	61,500	615,000	39,446	394,455	Exercise of Employee Stock : 10,890	None	10/23/2006 Yuan Shang Tzu No.0950027836
01/2007	10	61,500	615,000	39,452	394,515	Exercise of Employee Stock : 60	None	01/10/2007Yuan Shang Tzu No.0960000825
08/2007	10	61,500	615,000	44,869	448,694	Exercise of Employee Stock : 4,940 Capitalization of Profits : 41,721 Capitalization of Employee Bonus : 7,518	None	08/31/2007 Yuan Shang Tzu No.0960023515
10/2007	10	61,500	615,000	45,415	454,154	Exercise of Employee Stock : 5,460	None	10/16/2007 Yuan Shang Tzu No.0960027729
01/2008	10	61,500	615,000	45,558	455,584	Exercise of Employee Stock : 1,430	None	01/28/2008 Yuan Shang Tzu No.0970002528
04/2008	10	61,500	615,000	45,744	457,444	Exercise of Employee Stock : 1,860	None	04/29/2008 Yuan Shang Tzu No.0970011421
07/2008	10	61,500	615,000	53,497	534,974	Exercise of Employee Stock : 1,690 Capitalization of Profits : 64,050 Capitalization of Employee Bonus : 11,790	None	07/29/2008 Yuan Shang Tzu No.0970020537
11/2008	10	61,500	615,000	53,966	539,664	Exercise of Employee Stock : 4,690	None	11/06/2008 Yuan Shang Tzu No.0970031028
01/2009	10	61,500	615,000	54,116	541,164	Exercise of Employee Stock : 1,500	None	01/19/2009 Yuan Shang Tzu No.0980001857
04/2009	10	61,500	615,000	54,300	543,004	Exercise of Employee Stock : 1,840	None	04/20/2009 Yuan Shang Tzu No.0980010553
08/2009	10	80,000	800,000	60,392	603,916	Exercise of Employee Stock : 800 Capitalization of Profits : 54,116	None	08/05/2009 Yuan Shang Tzu No.0980021773

Month/ Year	Par Value (NT$)	Authorized Capital		Paid-in Capital		Remark		
		Shares	Amount	Shares	Amount	Sources of Capital (Amount)	Capital Increased by Assets Other than Cash (Amount)	Other
						Capitalization of Employee Bonus : 5,995		
10/2009	10	80,000	800,000	60,427	604,266	Exercise of Employee Stock : 350	None	10/26/2009 Yuan Shang Tzu No.0980030178
02/2010	10	80,000	800,000	62,422	624,221	Exercise of Employee Stock : 19,955	None	02/11/2010 Yuan Shang Tzu No.0990004274
03/2010	10	80,000	800,000	62,452	624,521	Exercise of Employee Stock : 300	None	06/02/2010 Yuan Shang Tzu No.0990015194
08/2010	10	100,000	1,000,000	65,358	653,567	Exercise of Employee Stock : 320 Capitalization of Profits : 18,727 Capitalization of Employee Bonus : 10,000	None	08/26 /2010Yuan Shang Tzu No.0990024779
10/2010	10	100,000	1,000,000	65,378	653,777	Exercise of Employee Stock : 210	None	10/29/2010 Yuan Shang Tzu No.0990032379
01/2011	10	100,000	1,000,000	76,086	760,855	Exercise of Employee Stock : 7,078 Cash offering : 100,000	None	02/09/2011 Yuan Shang Tzu No.1000003917
01/2012	10	100,000	1,000,000	76,514	765,138	Exercise of Employee Stock : 4,283	None	01/17/2012 Yuan Shang Tzu No.1010001845
05/2012	10	100,000	1,000,000	76,706	767,058	Exercise of Employee Stock : 1,920	None	05/09/2012 Yuan Shang Tzu No.1010013550
11/2012	10	100,000	1,000,000	76,833	768,323	Exercise of Employee Stock : 1,265	None	11/06/2012 Yuan Shang Tzu No.1010034298
02/2016	10	100,000	1,000,000	75,783	757,823	Cancellation of Treasury Shares: 10,500	None	02/18/2016 Zhu Shang Tzu No. 1050004206
04/2018	10	100,000	1,000,000	75,791	757,908	Exercise of Employee Stock : 85	None	05/09/2018 Zhu Shang Tzu No. 1070013293
07/2019	10	100,000	1,000,000	75,805	758,050	Exercise of Employee Stock : 142	None	08/20/2019 Zhu Shang Tzu No. 1080023864
10/2019	10	100,000	1,000,000	75,831	758,314	Exercise of Employee Stock : 264	None	11/05/2019 Zhu Shang Tzu No. 1080032062
02/2020	10	100,000	1,000,000	75,834	758,336	Exercise of Employee Stock : 22	None	03/02/2020 Zhu Shang Tzu No. 1090005834

04/12/2020；Unit: Share

Share Type	Authorized Capital			Remarks
	Issued Shares	Un-issued Shares	Total Shares	
Common Share	75,833,542	24,166,458	100,000,000	TPEx stocks

4.1.2 Status of Shareholders

04/20/2020

Item	Government Agencies	Financial Institutions	Other Juridical Persons	Domestic Natural Persons	Foreign Institutions & Natural Persons	Total
Number of Shareholders	0	9	155	6,686	166	7,016
Shareholding (shares)	0	5,300,000	15,513,243	24,876,255	30,144,044	75,833,542
Percentage (%)	0	6.99	20.46	32.80	39.75	100

4.1.3 Shareholding Distribution Status

04/12/2020

Class of Shareholding (Unit: Share)	Number of Shareholders	Shareholding (Shares)	Percentage (%)
1 ~ 999	4,081	81,885	0.11
1,000 ~ 5,000	2,267	4,024,349	5.31
5,001 ~ 10,000	231	1,802,842	2.38
10,001 ~ 15,000	77	963,352	1.27
15,001 ~ 20,000	73	1,312,294	1.73
20,001 ~ 30,000	66	1,657,401	2.19
30,001 ~ 40,000	33	1,148,708	1.51
40,001 ~ 50,000	26	1,150,325	1.52
50,001 ~ 100,000	59	4,295,556	5.66
100,001 ~ 200,000	50	7,473,655	9.86
200,001 ~ 400,000	17	4,940,626	6.52
400,001 ~ 600,000	6	2,664,000	3.51
600,001 ~ 800,000	9	6,006,679	7.92
800,001 ~ 1,000,000	3	2,752,000	3.63
1,000,001 or over	18	35,559,870	46.88
Total	7,016	75,833,542	100.00

4.1.4 List of Major Shareholders

04/12/2020

Shareholder's Name	Shareholding	
	Shares	Percentage (%)
Government of Singapore	5,328,000	7.03
SmallCap World Fund Inc.	4,024,334	5.31
Swedbank Robur Globalfond	3,027,000	3.99
New Labor Pension Fund	2,878,000	3.80
Li-Jeng Chen	2,345,000	3.09
Fubon Life Insurance Co., Ltd	1,950,000	2.57
Charles Hsu	1,629,407	2.15
eMemory Technology Inc.	1,567,000	2.07
Diamond Hosiery & Thread Co., Ltd.	1,552,000	2.05
Allianz Global Investors Taiwan Technology Fund	1,504,000	1.98
Taiwan Life Insurance Co., Ltd.	1,470,000	1.94

4.1.5 Market Price, Net Worth, Earnings, and Dividends per Share

Unit: NT$ / Thousand shares

Item \ Year			2018	2019	2020 (As of April 12) (Note 4)
Market Price per Share (Note 1)	Highest Market Price		455.0	410.0	372.5
	Lowest Market Price		181.0	241.0	159.5
	Average Market Price		289.46	334.76	250.96
Net Worth per Share (Note 2)	Before Distribution		23.36	22.92	25.32
	After Distribution		15.36	(Note 2)	N/A
Earnings per Share	Weighted Average Shares		75,425	74,247	74,267
	Earnings Per Share		8.13	7.30	2.38
Dividends per Share (Note 3)	Cash Dividends		7.9984	(Note 3)	N/A
	Stock Dividends	Dividends from Retained Earnings	-	(Note 3)	N/A
		Dividends from Capital Surplus	-	(Note 3)	N/A
	Accumulated Undistributed Dividends		-	(Note 3)	N/A
Return on Investment	Price / Earnings Ratio (Note 5)		40.00	46.23	N/A
	Price / Dividend Ratio (Note 6)		40.66	48.21	N/A
	Cash Dividend Yield Rate (Note 7)		2.46%	2.07%	N/A

Note 1: Market price per share is based on the information posted on the official website of TPEx.

Note 2: Information on 2018 is based on the resolution of the Shareholders' Meeting in 2019; the distribution of profits for 2019 is still pending on the final resolution of the Shareholders' Meeting in 2020.

Note 3: Cash dividend paid by eMemory for 2019 is NT$7 per share (dividend from the retained earnings amounted to NT$5.5 and from capital Surplus amounted to NT$1.5). This proposal is pending on the final resolution of the Shareholders' Meeting in 2020.

Note 4: The net worth and earnings per share in this column are the information on the reviewed consolidated financial statements for the first quarter of 2020.

Note 5: Price / Earnings Ratio = Average Closing Price per Share in current year / Earnings per Share.

Note 6: Price / Dividend Ratio = Average Closing Price per Share in current year / Cash Dividends per Share.

Note 7: Cash Dividend Yield = Cash Dividends per Share / Average Closing Price per Share in current year.

4.1.6 Dividend Policy and Implementation Status

A. Dividend Policy

If there is any profit in an annual general financial statement of the Company, such profit shall be distributed in the following orders:

1. Reserve for tax payments.
2. Offset accumulated losses, if any.
3. Legal reserve, which is 10% of remaining net profits after deducting the aforementioned items. However, this restriction does not apply in the event that the amount of the accumulated legal reserve equals or exceeds the Company's total capital stock.
4. Allocation or reverse of special reserves as required by law or government authorities.
5. The remaining net profits and retained earnings from previous years will be allocated as shareholders' dividend. The Board will prepare a distribution proposal and submit it to the Meeting for review and approval by a resolution.

Since the Company is in an industry in a growth phase, the dividend policy shall take into consideration factors such as the Company's current and future investment and capital needs, and capital budgeting plans. The proposal should strike a balance between the shareholders' benefits and the Company's long-term financial plans. Dividends to shareholders shall not be less than 50% of the remaining retained earnings available for distribution and may be distributed in cash or in stock. Cash dividends shall not be lower than 10% of total dividends to shareholders. Each year the Board shall prepare a profit distribution proposal and present it at the Meeting for approval.

B. Proposed Distribution of Dividend

The proposal for 2019 profit distribution was resolved by the Board dated February 19, 2020; pending on the final resolution of the Shareholders' Meeting scheduled on June 10, 2020 with authorization to the Chairman for setting the ex-dividend day.

eMemory Technology Inc.
Statement of Profit Distribution
2019

Unit: NT$

Item	Amount	
	Subtotal	Total
Beginning Balance of Unappropriated Retained Earnings		**$ 5,186,112**
Net Profit of 2019	542,072,418	
Remeasurement of Defined Benefit Plans Counted in Retained Earnings	(1,604,141)	540,468,277
10% Legal Reserve Appropriated		(54,046,828)
Special Reserve Appropriated		(3,653,957)
Retained Earnings Available for Distribution		**487,953,604**
Distribution of Shareholder Dividends - Cash (NT$ 5.5 per share)		(408,465,981)
Ending Balance of Unappropriated Retained Earnings		**$ 79,487,623**

Chairman: Charles Hsu President: Rick Shen Accounting Officer: Teresa Kuo

Remarks: 1. According to the Rule No.871941343 issued by the Ministry of Finance on April 30, 1998, when distributing earnings, it shall be identified respectively; the earnings distributed in this year shall be those of the latest year.

2. The shareholder cash dividends is in a total amount of NT$ 408,465,981, to be distributed by NT$ 5.5 per share, this is calculated by basing on the issued 74,266,542 outstanding shares up to February 18, 2020, and rounded down to the nearest whole number, the fractional balance less than NT$ 1 shall be summed up and recognized as other income of the Company.

C. Anticipation of Future Change in Dividend Policy: None.

4.1.7 Impact to 2019 Business Performance and EPS Resulting from Stock Dividend Distribution: Not applicable.

4.1.8 Compensation of Employees, Directors and Supervisors

A. Information Relating to Compensation of Employees, Directors and Supervisors in the Articles of Incorporation

If there is any pre-tax profit, 1% to 25% of the profit shall be distributed to eligible employees in the form of cash or stock for profit sharing. No more than 2% of the profit shall be distributed to directors for compensation.

B. The basis for estimating the amount of employee, director, and supervisor compensation, for calculating the number of shares to be distributed as employee compensation, and the accounting treatment of the discrepancy, if any, between the actual distributed amount and the estimated figure, for the current period

In case of variation between the amount resolved by the resolution of the Shareholders' Meeting and the estimation in the financial statements, the difference is recognized as a change in accounting estimate and recognized as income or loss in current period.

C. Distribution of Compensation Approved in the Board of Directors Meeting

(1) Employee compensation sharing, stock dividend, and remuneration to the directors and the supervisors in the year of recognition varied with the estimation, disclose the differences, specify the cause, and the settlement of the problem:
  a. The employees' compensation and the remuneration of Directors of 2019 had been resolved by the Board of Directors on February 19, 2020, the distribution of mentioned compensation and remuneration is set forth below:
     ① The distribution of employees' compensation is in an amount of NT$ 113,745,684.
     ② The distribution of remuneration of Directors is in an amount of NT$ 11,374,568.
  b. There is no difference between the distributed amounts mentioned above and the assessed amounts of employees' compensation and remuneration of Directors.

(2) The amount of employee stock compensation planned to be released in proportion to the net income of the individual financial statements of The Company and to total employee compensation: Not applicable.

D. Information of 2018 Distribution of Compensation of Employees, Directors and Supervisors (with an indication of the number of shares, monetary amount, and stock price, of the shares distributed) and, if there is any discrepancy between the actual distribution and the recognized employee, director, or supervisor compensation, additionally the discrepancy, cause, and how it is treated

Unit: Thousand shares / NT$ thousands

Item	Amount for Distribution Resolved by the Board of Directors	Estimation in the Year of Recognition	Difference	Shares (1,000 shares)	Share Price (NT$)	Note to the Difference
Employees' Compensation	125,538	125,538	-	-	-	N/A
Remuneration of Directors	12,554	12,554	-	-	-	N/A

4.1.9 Status of Repurchase of Shares

A. Having been completely excuted

04/12/2020

Number of times	Third time
Purpose	Transferring the shares to employees
Actual period of the repurchase	September 14, 2018 ~ October 31, 2018
Estimated price range for repurchase	NT$ 177.8~ NT$ 400
Average repurchased price per share (NT$)	NT$ 257.97
The amount of actually repurchased shares (shares)	Common Share 1,567,000 shares
The total amount of actually repurchased shares (NT$)	NT$ 404,237,872
The ratio of the quantity repurchased to the planned repurchase quantity（%）	62.68%
Shares deregistered and transferred (shares)	0
Cumulative holding (shares)	1,567,000 shares
Cumulated holding as a percentage of total issued shares (%)	2.07%

B. Still in the process of execution

04/12/2020

Number of times	Fourth time
Purpose	Transferring the shares to employees
Share Type	Common Share
Maximum total amount of repurchased shares (NT$)	NT$ 723,619,510
Estimated period for repurchase	March 20, 2020 ~ May 19, 2020
Estimated shares for repurchase	1,000,000 shares
Estimated price range for repurchase	NT$ 111.65~ NT$ 319
The amount of actually repurchased shares (shares)	Common Share 0 shares
The total amount of actually repurchased shares (NT$)	NT$ 0
The ratio of the quantity repurchased to the planned repurchase quantity (%)	0%

4.2 Bonds Status of Corporate Bonds, Preferred Stocks, Global Depository Receipts (GDRs): Not applicable.

4.3 Status of Employee Stock Options

4.3.1 Issuance of Employee Stock Options

04/12/2020；Unit: Thousand shares / NT$ thousands

Type of Stock Option	First Stock Option of 2016 (Issuance on 02/23/2016)	First Stock Option of 2019 (Expired on 01/01/2020 without being issued)
Approval Date	12/30/2015	01/02/2019
Issue Date	02/23/2016	-
Units Issued	500	-
Percentage of Shares Exercisable to Outstanding Common Shares	0.66%	-
Option Duration	10 years (to 02/22/2026)	5 years
Source of Option Shares	New Common Share	New Common Share
Vesting Schedule	2nd Year: Up to 30% 3rd Year: Up to 60% 4th Year: Up to 100%	2nd Year: Up to 30% 3rd Year: Up to 60% 4th Year: Up to 100%
Shares Exercised	51.3	-
Value of Shares Exercised	16,860	-
Shares Unexercised	419.95 (Note)	-
Adjusted Exercise Price Per Share (NT$)	324.2	-
Percentage of Shares Unexercised to Outstanding Common Shares	0.55%	-
Impact to Shareholders’ Equity	Dilution to shareholder’s equity is limited	Dilution to shareholder’s equity is limited

Note：The shares had been deducted due to employee turnover.

4.3.2 List of Executives Receiving Employee Stock Options and the Top Ten Employees with Stock Options

04/12/2020

	Title	Name	No. of Stock Options	Stock Options as a Percentage of Shares Issued	Exercised				Unexercised			
					No. of Shares Converted	Strike Price (NT$)	Amount (NT$ thousands)	Converted Shares as a Percentage of Shares Issued	No. of Shares Converted	Strike Price (NT$)	Amount (NT$ thousands)	Converted Shares as a Percentage of Shares Issued
Executive officers	President	Rick Shen	148,500	0.20%	-	-	-	-	148,500	324.2	48,144	0.20%
	Vice President	Ching-Yuan Lin										
	Vice President	Anita Chang										
	Vice President	Chris Lu										
	Vice President	John Ho										
	Vice President	Evans Yang										
	Vice President	Michael Ho										
	Accounting and Financial Officer	Teresa Kuo										
Employees	Department Manager	Shih-Chen Wang	101,000	0.13%	18,600	Highest: 331.6 Lowest: 324.2	6,052	0.02%	82,400	324.2	26,714	0.11%
	Staff Project Manager	Hung-Hsiang Wang										
	Senior Director	Chun-Hung Lin										
	Deputy Director	Chun-Fu Lin										
	Director	Shih-Yun Lin										
	Senior Director	Wein-Town Sun										
	Director	Hsin-Kun Hsu										
	Senior Director	Hsin-Ming Chen										
	Staff Project Manager	Shih-Chan Huang										
	Senior Director	Tsung-Mu Lai										
	Department Manager	Ming-Shan Lo										

4.4 Status of New Restricted Employee Shares：Not applicable.

4.5 Status of New Share Issuance in Connection with Mergers and Acquisitions：Not applicable.

4.6 Financing Plans and Implementation：Not applicable.

V. Business Overview

5.1 Business Activities

5.1.1 Scope of business

A. Main business activities

① CC01080 Electronic Parts and Components Manufacturing
② I501010 Product Designing
③ F601010 Intellectual Property (IP)
④ CC01050 Data Storage and Processing Equipment Manufacturing
⑤ Research, development, manufacture and sales of the following products:

a. Flash Memory Integrated Circuits (IC)
b. Embedded flash memory IC IP (Embedded Non-Volatile Memory)
  i. Embedded One-Time Programmable Memory SIP
  ii. Embedded Flash Memory SIP
  iii. Embedded Multi-Time Programmable Memory SIP
c. Memory card output/input controllers
d. Memory card and digital film related products

B. Revenue composition

Unit : NT$ thousands

Revenue Streams	2018		2019	
	Net Revenue	Revenue Contribution	Net Revenue	Revenue Contribution
Licensing	449,806	30.46%	430,263	30.51%
Royalty	1,026,710	69.54%	979,822	69.49%
Total	1,476,516	100.00%	1,410,085	100.00%

C. Products and services as of now

Founded in September 2000, eMemory is a Silicon Intellectual Property (SIP) design company owning over 700 patents. eMemory is dedicated to the technology development and applications of embedded non-volatile memories.

eMemory focuses on technology innovation, namely the creation of new embedded non-volatile memories within existing process platforms (e.g. Logic, Radio-Frequency, High Voltage, and BCD processes). Unlike other companies that introduce new materials/processes or adopt unstable device operation modes for their non-volatile memory technology, eMemory technology platforms are already available in world-wide foundries with our versatile offerings able to meet the different needs of IC design houses. This ensures shorter product development time and prevents process incompatibility issue.

SIP contends intellectual property. Users (customers) are licensed for use with the rights to manufacture or design products, while the property right is still possessed by the inventor. Users will be charged when using the SIP for product design or production. eMemory collects License fee, Usage fee, or Non-Recurring Engineering (NRE), Royalty, or a combination of the above. Descriptions of the fees are as follows:

① License Fee

eMemory's main licensing customers are semiconductor foundries. Due to patent entry barrier or expertise in mass production, customers must rely on eMemory's technology and IP solutions. License fee generally refers to the fee charged according to individual process platform (e.g. 0.5um，0.35um，0.25um，0.18um，65nm，40nm，28nm, 16nm, 10nm, 7nm, 5nm and so on).

② Usage Fee

Usage fee is applicable to customers who adopt available macro. Customers are subject to a fee for each usage. In other words, if a customer uses the same macro on 3 different products, the customer shall pay the usage fee for 3 times.

③ NRE

This is the fee for the development of customized macro.

④ Royalty

In general, this is the fee charged according to a certain ratio of the wafer or product price.

D. New product development plan

eMemory focuses on the design and development of embedded NVM technologies. Our proprietary SIP technologies include NeoBit, NeoFuse, NeoPUF, NeoEE, and NeoMTP, which have all been deployed on various process platforms. These technologies have been introduced to different production processes in leading foundries for mass production. New development plans will further push our core technologies towards advanced nodes, ranging from 28 nm down to 5nm logic process technologies. To respond to TSMC's "more-than-Moore" strategy, eMemory will expand value-added solutions onto matured process platforms by deploying IP into high-voltage, MEMS, BCD, CIS, analog, and SOI processes to meet the needs of one-stop shopping SIP solutions. The development plans are as follows:

① Increase process platform coverage.

② Expand the product applications from existing customers (of NeoBit) by deploying NeoFuse, NeoPUF, NeoEE, and NeoMTP for new markets.

③ Expedite the development progress of new technologies for NeoFuse, NeoPUF, and NeoMTP.

5.1.2 Industry overview

A. Current status and future development of the industry

(1) SIP industry background

IP (Intellectual Property) refers to intangible asset recognized and protected by law.

Without permission from IP owners, no replication or use is allowed. Silicon Intellectual Property (hereinafter, "SIP") is a function block, consisting of IPs and know-hows, which has been initially defined and qualified for repetitive usage.

SIP cell is a pre-designed and qualified macro. With adjustable parameters, these cells can be tailor-made per customer requirements or product specifications. IC designers use these SIP cells to realize a part of the design functions without redesigning this function block. To get a head start, the use of SIP substantially brings down development timeline thereby accelerates the time to market.

SIP was originated after the mid-1990s. Nowadays, consumer electronics products are getting lighter, slimmer, and smaller. A System-on-a Chip (SoC) utilizing SIP blocks can greatly reduce the time for product qualification and integration; hence product developers can focus their efforts on verifying few new functions. This in turn minimizes the required engineering efforts that are needed to meet the customer adjustment requests. Therefore, product developers can concentrate on product core competencies while being agile enough to respond to unpredictable market demands.

High complexity and short development time in IC industry highlight the importance of IC design productivity. It is foreseen that the number of transistors in a semiconductor chip will increase year-over-year. Through purchasing or licensing SIP cells, it gains a greatly competitive advantage. It not only reduces IC designers' burden but also greatly shorten product development time, as well as increase products' competitive advantages in time-to-market. As such, the inevitable trend is to design the System-on-a Chip by using SIP cells.

(2) Industry outlook

According to the reviews from IEK ITIS in 2019, the production value generated by Taiwanese semiconductor industry amounted to nearly NT$2.66 trillion, indicating a 1.7% growth compared to 2018. Due to few commodity memory shipments in Taiwan, it was much better than the 12.1% decline in 2019 worldwide. eMemory has a 4.5% decline in 2019, still better than the worldwide semiconductor industry.

eMemory focused on SIP business and became a pure SIP vendor since 2013, when all revenue with 100% gross margin were from royalty and upfront fee (including license fee and technical service fee). Due to continuous improvement in internal operation logistics and global business development, the revenue from upfront fee and royalty continues to grow year-over-year. Also, compared to 2018, NTO number in 2019 grew 4.5% and our market share increased substantially.

Right in the information age, demand for SIP will grow further along with the IC design industry market size. The innovative SIP licensing business model leads IP vendors towards niche markets as it doesn't involve production but creates a good value of technology licensing with license fee and royalty in return. Having advantages of low operation cost and high gross margin, IP industry is superior to other entities in the semiconductor industry value chain.

The development of SoCs created a structural change in IC design industry. Soon afterwards, when the benefits of reusable SIP cells were understood, it contributed to even higher growth in the SoC development. Currently, with many of the global leading foundries (with advanced process and high production capacity) and numerous IC design houses all located in Asia, there is unlimited business potential for SIP providers who are also in Asia.

B. IC industry supply chain in Taiwan

Group	Roles	Products	Major Players
Upstream	SIP Development, Design Service and IC Design	SIP cells, Circuitry Product	eMemory, MTK, Novatek, GUC
Midstream	Mask & Wafer Production	Wafer	TSMC, UMC, VIS
Downstream	Package & Testing	Backend services for IC package and test	ASE, SPIL, KYEC

SIP is among the top in the upstream of IC industry and facilitates the overall productivity in IC design and manufacturing.

C. Megatrend in IC industry

(1) Reusable SIP

Product delivery timeline is a major indicator of competitiveness. As the industry is inclined toward specialization, the use of SIP cells will be the key to success.

(2) Qualified and reliable SIP

Expense on product development is heavy due to the complexity and uncertainty in a SoC design. In the advanced process nodes, using non-qualified SIP equals risk. Therefore, the adoption of qualified SIP from a third party will greatly reduce production risks; among which foundries are the most objective and convincing. SIP qualified by multiple foundry companies not only indicates the production flexibility of fab-to-fab porting but also demonstrates the wide availability in various process platforms.

(3) Continuous deployment in advanced process nodes

From 55nm down to 5nm and beyond, logic NVM SIPs in logic or high performance computing (HPC) process platforms are frequently deployed into memory repair, security setting, feature selection, chip identification, analog trimming, Digital Rights Management (DRM) and code storage. These are used in application processors, FPGA, AI accelerators, multi-media, SSD drive, network processors and commodity DRAMs.

In the age of IoT, smartphones, autotronics and bioelectronics where data security is at the utmost, this category will play a key role. Logic NVM provides the storage capability of analog trimming, security as well as chip identification for display driver IC, power management IC and sensor controller.

As for high density (1~4M Bytes) requirements, Logic NVM SIP is embedded for code storage to supersede ROM and reaches a high level of integration as well as meeting the needs of security. They are widely applied in wireless applications including Wi-Fi, Bluetooth, and smartphones.

D. Competition

From the perspectives of Logic NVM SIP that eMemory specializes in, the other competitors in Taiwan are still in the stage of technical development. On the other hand, two of the foreign main competitors have just been acquired, thus the result of acquisition is not yet clear. From the perspective of design services, except for Andes and M31 that offers SIP licensing, the remaining, such as Global Unichip Corp., Faraday Technology Inc. and Alchip, concentrate on providing ASIC services as well as turnkey services with foundry strategic alliances. Therefore, those design service companies will derive less of their revenue from license fees and royalties, as compared to eMemory.

E. Key performance indicators (KPI)

Quantity of new tape outs (NTO) with eMemory IP					
2018			2019		
Target	Actual	Completion Rate	Target	Actual	Completion Rate
400	404	101%	420	422	100%

5.1.3 Short and long term business development plan

eMemory continuously increases market share through innovation, wide product applications and strategic partnerships worldwide. eMemory keeps playing a leading role as a SIP provider in embedded memory technology.

A. Short-term

(1) Marketing plan

a. Expand NeoBit, NeoFuse, NeoPUF, NeoEE, and NeoMTP's popularity through existing sales channels.
b. Collaborate with major companies in Europe, America, and Japan to develop local markets.
c. Develop product applications of emerging memory technology which is co-developed with technology partners.
d. Focus on the establishment of groundwork and expertise of SIP products and to optimize investment and return.
e. Provide customers with more comprehensive SIP platforms across worldwide foundries.

f. Increase the revenue contribution from NeoFuse, NeoPUF, NeoEE, and NeoMTP SIP.
g. Enhance on-time delivery to meet customer's needs.
h. Introduce existing technologies and SIP to new application segments.
i. Leverage distribution channels of partner foundries to enhance product promotion.
j. Utilize social media to gain exposure, popularity and technical expertise through publishing newsletters of new technology, application, and platform along with whitepapers.
k. Improve online system to maximize the bandwidth in serving customers 24/7.

(2) Financial plan

Make use of a robust business model to maintain a sound financial structure and optimized working capital.

B. Long-term

(1) Marketing plan

a. Establish technical service and sales local offices worldwide to boost regional sales, reputation, and market share.
b. Establish a one-stop shopping SIP platform to provide customers with comprehensive SIP choices and services.
c. Continue developing new products, applications, strategic partnerships, and markets.
d. Collaborate with worldwide foundries through strategic alliances to establish new technology and manufacturing platform and strengthen competitiveness.
e. Uplift adoption rate in advanced process nodes and develop new applications targeting products with higher ASP to enhance royalty income.
f. Develop high value-added and reliable logic NVM SIP, including industrial, automotive and security applications.

(2) Financial plan

Make use of diverse fundraising and financial initiatives to form a sound financial structure.

5.2 Technology and R&D Outlook

5. 2.1 R&D expense in previous year to the date this report was printed

Unit : NT$ thousands

	2019	2020 (As of March 31)
R&D Expense(A)	506,215	145,693
Net Revenue (B)	1,410,085	415,436
(A)/(B)	35.90%	35.07%

5.2.2 Technology or product successfully developed in previous year to the date this report was printed

Technology or product The Company successfully developed in previous year to the date this report was printed is as the following:

Date	Item
2019 to April 12, 2020	1. NeoBit (1) NeoBit in 0.13um BCD process successfully passed the first phase of the ISO26262 ASIL-D safety certification and second phase of certification works is on-going. 2. NeoFuse (1) Complete the functionality check of 5nm OTP. (2) Complete the reliability qualification of 7nm OTP. Successfully engaged the first customer's product tape-out. (3) Complete 6nm OTP testchip tapeout. (4) NeoFuse in 25nm DRAM process has successfully entered the mass production stage. (5) NeoFuse in 28nm HV process has completed qualification and is currently in mass production. 3. NeoPUF (1) Strategic project with ARM is progressing smoothly. The prototyping of the security module has been completed at 40nm. (2) In cooperation with PUFsecurity Corporation, the first customer adopted the NeoPUF embedded security module. 4. NeoEE (1) Got 1st phase certification of automotive function safety ISO26262 standard on 0.11um BCD process. (2) Complete 100K cycles high-endurance qualification on 0.18um 1.8V/5V process, which could replace stand-alone EEPROM for MCU applications and already engage customers to use. (3) Complete 100K-cycles high-endurance qualification on 0.11um 1.2V/3.3V process, which could replace stand-alone EEPROM for MCU applications and already engage customers to use. 5. NeoMTP (1) Complete the high-temperature (175°C) reliability certification of NeoMTP Gen-II on 0.13 um BCD process. The IP meets the requirements of AEC-Q100 Grade 0, the highest level, and can be applied for automotive power management applications. (2) Complete functionality characterization of 90nm BCD process. 6. ReRAM (1) Complete 40nm embedded ReRAM functionality characterization.

5.3 Market Outlook and Production and Sales Overview

5.3.1 Market analysis

A. Main geographic regions for sales of products (services)

Unit : NT$ thousands

Geographic Regions	2018	2019
Domestic	880,511	805,649
Asia	530,545	526,737
America	51,242	53,320
Europe	13,910	24,226
Africa	308	153
Oceania	0	0
Total	1,476,516	1,410,085

B. Market share

According to the statistics compiled by IEK and its forecast, the production value of the IC design industry of Taiwan in 2019 amounted to NT$ 692.8 billion. In 2019, eMemory had revenue of NT$ 1,410,085 thousand or at 0.2% of the total market production value. With the introduction of newly developed technologies of NeoEE, NeoFuse, and NeoMTP and NeoPUF, the full product IP technologies portfolio is in place. The Company can provide customers diverse technical services which will benefit operational performance. With steady growth in business operation and increasing number of customers and new product adaptations, the revenue generates from technical service and licensing fee will continue to grow. Likewise, revenue from royalty will also increase, and market share of eNVM SIP will surge.

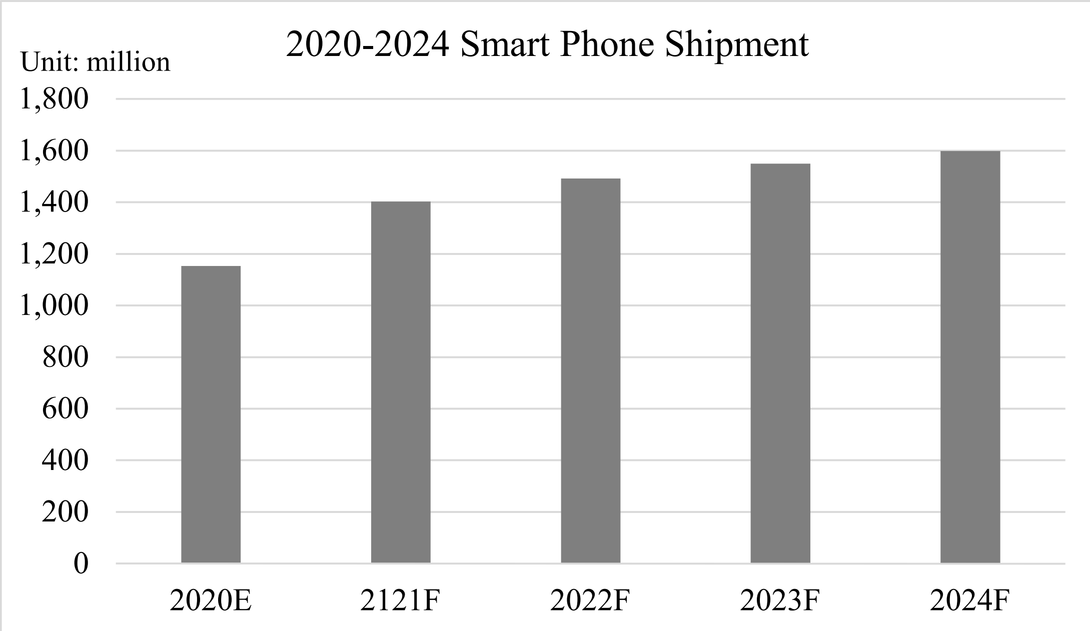
C. Market supply/demand and growth in the future

(1) Future market supply and demand

SIP is increasingly important as global IC providers’ demand in advanced process ndoe raise. The main market applications include mobile communication, consumer electronics, industrial electronics, and autotronics. eMemory has researched and developed series of eNVM technologies and SIP applicable to micro controllers ICs, LCD panel control ICs, LCD screen driver ICs, PMICs, Image Signal Processor (ISP), high frequency signal ICs, short-range communication ICs, Bluetooth ICs, oscillator controller ICs, MP3 control ICs, battery power management ICs, voice ICs and autotronic ICs.

From the company’s perspective, the market supply and demand suggested the rapid growth of portable devices in recent years increased the number of IC contained in the products, including CPUs, panel driver ICs, panel controller ICs, PMICs, touch panel ICs, communication ICs, and base band ICs. Furthermore, the fast growth new application markets, such as fingerprint ICs, portable DRAM, CMOS image sensors, Image Signal Processor (ISP), and TDDI, will also contribute to the revenue.

According to the market information, the shipment volume of smart phone is projected to be below 1.2 billion units in 2020 due to the COVID-19 impact, which still has the highest demend in consumer electronic field. Mobile devices is going to grow due to the continuous launch of innovative high-end products and the momentum comes from demand for mid to low-end products at the emerging markets. Besides, new applications in AR/VR and autoronic's will also drive the total production value to grow.



Source: Digitimes, eMemory, 2020/4

(2) Market growth potentials

As the integration of SoC increases, the demand for light-weighted compact products become the mainstream of IC technology development. Factors including increasing proportion of design outsourcing, raising cost of new process mask and technology development, and the IC complexity which lead to longer cycle time, all of which have made SIP become the key to accelerate SoC development. The complex SoC design and production process resulted in increasing division of labor in the semiconductor industry. The use of SIP for SoC design reduces designers' burdens and the development time substantially. This is critical for enhancing competitive advantage in terms of time-to-market; as the result, SoC becomes increasingly dependent on SIP.

The rapid development of semiconductor production node and the increasing demand for compact, slim, and light-weighted products which require a greater variety of functions has led the IC design to the integration of multi-functionality and embedded design including application processor IC, stacked CMOS image sensor, fingerprint sensor, autoronic image system. As such, the raising era of communication, home appliance, and personal service communication, the scale of the IC design market continues to expand. The destructive innovation eNVM SIP from eMemory transcend traditional logic process into the eNVM logic process, which makes SoC circuit design simple and easy to accomplish, while reducing SoC development and manufacturing cost, and achieve higher performance efficiency to meet the requirement of IoT and autotronics. We not only build the floating gate structure on mature manufacturing platform but also introduce the NeoFuse on advanced node platform (7nm~65nm). This provides our clients product development and testification under multiple platform, increasing flexibility for the production and enhancing the competitiveness of the business. As such, the promising future of silicon intellectual device is foreseen.

D. Competitive advantages

(1) Rich eNVM technologies portfolio

eMemory has dedicated its resources in the research and development of eNVM since its establishment, focusing on the application of NeoBit, NeoFuse, NeoPUF, NeoEE, and NeoMTP technologies. These technologies were not only testified by many leading foundries, but also successfully applied into 0.5 um to 16 nm process node for customer's need in mass production. Furthermore, our technologies expand to 12nm, 7nm, 6nm, 5nm advance nodes, fulfilling customers' different need. The eNVM technology is applicable to all kinds of CMOS process (including logic, analog, M-M, HV, SiGe, CIS, EEPROM, and DRAM, etc) with wide applications, allowing customers to directly apply into their design without modifying components characters of customers' products to shorten the development time. For example, it takes 2~3 years to introduce eNVM (e.g., embedded flash or EERROM) technology in 0.13um and 90nm process platform. It may take even longer for 55nm and 40nm process. Yet it takes only 6 to 9 months for porting NeoBit, NeoEE, NeoFuse, or NeoMTP technology to each process node.

(2) IP technology features one-time/multiple-times programmable function; allowing higher flexibility of production and sales for customers

In general, program code mask must be introduced in ROM device manufacturing process. In other words, program code is already added in the production process that there is no flexibility for product program code adjustment later on. In addition, program codes of different versions also pose problems for mask and inventory management. NeoBit, NeoFuse, NeoPUF, NeoEE, and NeoMTP eNVM can be directly added to the memory device in the logic device manufacturing process. The product itself features one-time/multiple-times (OTP/MTP) programmable function. Therefore, special application providers can write in the program code before delivery to specific customers, or provide the code for the customers so that they could update the program code or data. These features provide IC providers greater production and sales flexibility, bringing the advantage of greater variety in small quantity and fast delivery.

(3) Strong research and development team

The Company has oriented towards the research and development of its own technologies since its establishment. The Chairman of eMemory, Dr. Charles Hsu, is a member of world-renowned NVM Committee. Former Director of the Institute of Electronics Engineering at National Tsing-Hua University, Dr. Hsu first propose the P-type tunneling flash memory in 1992, and has been awarded the "Outstanding Research Award" by National Science Commission in 1997 and 1999.

Chairman Hsu leads a research and development team with outstanding professionals and rich work experience, and has acquired more than 700 patents around the world. The patented technology of eNVM developed by this team has won the gold medal of "2005

National Invention and Creation Award" in October 2005, the Innovative Enterprise Award of the "Industrial Technology Advancement Award" by Ministry of Economic Affairs in October 2008, the "2008 National Invention and Creation Award" by Intellectual Property Bureau of Ministry of Economic Affairs, the "Excellent Manufacturers Innovation Product Award and R&D Achievement Award" by Hsinchu Science Park Bureau of Ministry Science and Technology in December 2017, and Excellence in Innovation First Prize of the"National Industry Innovation Award" by Ministry of Economic Affairs in April 2019 .

The Company is dedicated to the development of advanced technologies and makes ceaseless effort in the training and recruitment of talents. By providing full-range design resources and reliable technical supports, The Company makes the products of its customers highly competitive.

(4) Outstanding management team

Most of the management team members came from renowned companies, who have rich experience in business operation and are specialized in research and development, business, and operation management. With the same believe, the team leads the company towards substantial growth.

(5) Strong partnership with leading foundries

Our collaborative foundries are all worldwide leading foundries with the best process technology, yield rate, and delivery. Our eNVM technology, IP licensing, manufacturing technology, and design service has passed strict qualification and successfully assisted foundries to launch mass production. From 2010 to 2019, eMemory was recognized as the Best IP Partner by TSMC for 10 consecutive years, and received the best SMIC IP Partner Award from 2013 to 2016. In addition, the company has also been highly-recognized by UMC and GlobalFoundries. Looking towards the future, the strategic alliance with foundries will bring growth momentum and further expanded the market share.

(6) Zero-inventory contributed to the capital flexibility

The sole business of the company is eNVM IP licensing with zero-inventory. The company is not a manufacturer. Without factories, machinery, and equipment and other sizable capital expenditures, eMemory can use the working capital with high flexibility.

(7) Full-range and efficient service quality

The company has established a customer technical service system. With well-developed process management mechanism, the company can provide customers the timely and accurate delivery of technical documents. Unlike other foreign SIP suppliers, when the SIP supplied is not compatible with customers' products, it is the customers who is responsible for seeking for solutions. On the country, eMemory focuses the compatibility of SIP technology and customers' IC, and will provide a complete solution for customers in case of any issues.

E. Favorable and unfavorable factors for corporate development and the responding measures

(1) Favorable factors

a. Specialization of the semiconductor industry

The close relation of the upper- and lower-stream of the industry is beneficial to the formation of the supply chain.

With more than 30 years of experience, the semiconductor industry in Taiwan has a complete semiconductor industry chain.

The prosperity of Taiwan IC design industry also stimulates the growth in SIP industry. Leading foundries include TSMC, UMC, and VIS can provide the platform for SIP qualification. The reliability and the complete SIP portfolio provide customers a solid product foundation. Therefore, the cooperative relation between eMemory and the customers could be bolstered.

b. Geographic advantage

The IC market is focus on Asia, therefore, companies will approach the market to enhance the service efficiency and quality. The majority of leading foundries are mainly located in Taiwan, Mainland China, Korea, and Singapore. There are large IDMs in Japan and Korea while IC design companies tend to clatter in Taiwan and Mainland China. The cost advantage in Asia attracts semiconductor industry to the region. Therefore, eMemory has the excellent advantage.

(2) Unfavorable factors and responding measures

a. Insufficient SIP design talents in Taiwan

SIP design is a typical knowledge economy, the key to success lies in the R&D ability. However, there is a scarcity of talents with profound and professional knowledge. Moreover, in order to cultivate the centripetal force for employees, it takes higher cost in human resources.

【Responding Measures】

i. The company provide external and internal education and on-the-job training for employees. Moreover, with the cooperative programs with universities, the company can also recruits students with good performance.

ii. An employee’s incentive program is also introduced. Employees with excellent performance will be rewarded correspondingly.

b.The industry is promising, leading to the increasing number of competitors

SIP will be the trend of the semiconductor industry. As the IC design became increasingly complex, particularly in the design of SoC and embedded design, it makes the IP licensing an indispensable part of the operation. eMemory is the leader of eNVM technology and IP application. The eNVM technology has become a critical circuit block for mainstream products, which will attract more competitors.

【Responding Measures】

i. Develop high value-added design service technology to provide rapid and accurate solutions for customers.

ii. Develop applications for new products and assist customers to enhance their products performance or competitiveness.

iii. Continue the effort in innovation and provide customers a full-range solution for eNVM IP.

iv. Broaden the client base and continue to develop the international market and increase the market share.

v. Continue to enhance service quality.

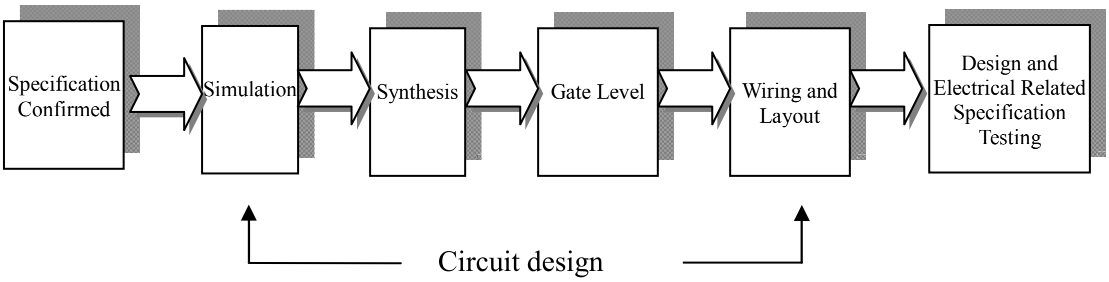
5.3.2 Main products' applications and production flows

A. Main products' applications

The main products of the company covers embedded memory technologies and IP design service. The main applications of the embedded memory include communication equipments, autotronics, home appliances, and communication and consumer electronics.

B. Main products' production flow

eMemory is an IP provider without physical products. The IP service flow chart is shown below:



5.3.3 Supply of Key Materials

eMemory is a professional SIP provider, offering production technology and design service of eNVM technology and IP licensing. The principal business is licensing and does not require supply of materials.

5.3.4 Major suppliers and clients

A. Major suppliers in the last two years

Under the adjustment of business strategy from the second half of 2011 onward, The Company decided to focus on IP production and planned to gradually reduce the proportion of income from wafer production service, and made no purchase of wafer in the last two years.

B. Major clients in the last two years

Unit: NT$ thousands

Item	2018				2019				2020 (As of March 31)			
	Company Name	Amount	Percent	Relation with Issuer	Company Name	Amount	Percent	Relation with Issuer	Company Name	Amount	Percent	Relation with Issuer
1	Company A	569,527	38.57%	-	Company A	520,026	36.88%	-	Company A	160,528	38.64%	-
2	Others	906,989	61.43%		Others	890,059	63.12%		Others	254,908	61.36%	
	Net Sales	1,476,516	100.00%		Net Sales	1,410,085	100.00%		Net Sales	415,436	100.00%	

Note: The major revenue contribution from Company-A is royalty. In the past three years, the major items are the smart phone and mobile device’s power management IC, display driver IC, fingerprint IC and MEMS sensor IC etc. MCU, digital TV and STB are also included.

5.3.5 Production in the last two years

The company is a professional company of SIP, which is not engaged in production and manufacturing; therefore, the production is not applicable.

5.3.6 Shipments and sales in the last two years

Unit: NT$ thousands

Year / Shipments & Sales / Major Products	2018				2019			
	Local		Export		Local		Export	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Licensing	0	134,965	0	314,841	0	124,003	0	306,260
Royalty	0	745,546	0	281,164	0	681,646	0	298,176
Total	0	880,511	0	596,005	0	805,649	0	604,436

5.4 Human Resources

Year		2018	2019	2020 (As of April 12)
Number of Employees	Sales & Marketing	35	35	35
	Administration	40	48	50
	R&D	175	184	186
	Total	250	267	271
Average Age		38	38	38
Average Years of Service		7.1	7.5	7.5
Education	Ph.D.	2.8%	3.8%	3.7%
	Masters	65.2%	64%	64.2%
	Bachelor’s Degree	31.6%	31.8%	31.7%
	Senior High School	0.4%	0.4%	0.4%
	Below Senior High School	-	-	-

Note：Including the number of employees of the subsidiary PUFsecurity Corporation established in May 2019.

5.5 Environmental Protection Expenditure

Any losses suffered by the company in the previous year to the date this report was printed due to environmental pollution incidents (including any compensation paid and any violations of environmental protection laws or regulations found in environmental inspection, specifying the disposition dates, disposition reference numbers, the articles of law violated, and the content of the dispositions), and disclosing an estimate of possible expenses that could be incurred currently and in the future and measures being or to be taken. If a reasonable estimate cannot be made, an explanation of the facts of why it cannot be made shall be provided: None.

5.6 Labor-Management Relations

5.6.1 Employee benefit program, continuing learning, training, retirement system and its implementation, and the labor-management agreement and the protection measures of employees' rights

A. Employee benefit program

The "Employee Welfare Committee" of the Company had been established on September 18, 2002, and approved by the Hsinchu Science Park Bureau for reference, the funds are set aside monthly, the employee welfare activities are periodically held, the welfare programs are planned detailedly and so budgeted, including gift coupons for annual holidays, group entertainment activities, domestic and overseas travel activities, subsidies for wedding and funeral, subsides for birth, pension for hospitalization, birthday party, year-end party lottery, physical examination, labor and health insurances, group insurance(including spouse and child are insured for free), travel accident insurance for business trip, free dessert/beverage bar, subsidy for afternoon tea coupon, subsidy for parking space, subsidy for gymnastic for fit, specific nursing room, personal birthday leave, and eMemory's favorable leaves which are granted under the conditions better than the requirements of laws and regulations.

B. Employees' continuing learning and training status

(1) To orientate the rapid change of technology in the industry and ensure the development of employees' talents to achieve the joint target for the Company, that training is a major point of the management of human resource. The scope covers related trainings including employees' skill, knowledge, language, computer and management, which will improve the professional skill and knowledge of employees as well as enhancing the working attitude. The Company provides employees for the training opportunities and funds, which expects the employees would contribute what he or she had learned to improve the quality and profession of the work and create total revenue of the Company, that the personal career planning and whole benefits of the Company can be achieved jointly.

(2) Implementation of 2019 trainings

Items	Number of Courses	Total participants	Total Hours	Total Expenses
1. New Employee Training	2	21	246	0
2. Vocational Training	158	2220	6,273	903,247
3. Supervisor Training	3	24	103	0
4. General Training (Note)	5	124	1,454	181,290
Total amounts	168	2,389	8,076	1,084,537

Note：Including the courses of environmental safety, tool technique, etc.

C. Retirement system and its implementation

The Rules for Retirement Management of the Company had been established pursuant to the Labor Act and Labor Pension Act, all of the employees are covered, the affairs related to conditions of retirement, standards of payment and procedures for application are definitely provided, and the Supervisory Committee of Labor's Retirement Preparation Fund is also established according to the law, the preparation fund is deposited in the Bank of Taiwan under the title of Supervisory Committee of Labor's Retirement Preparation Fund every month; in conforming with the Labor Pension Act, from the day of July 1, 2005, the employees who originally are covered by the rules and choose to be applicable to the new Act, the seniority of such employees or the employees who is employed after the enforcement of new Act shall be applicable to the defined contribution plan, the pension payment shall be contributed by the employer by no less than 6% per month, and deposit in the individual accounts of labor pension at the Bureau.

D. Labor-management agreement

In order to build up the harmonious labor-management relations, the Company provides the grievance channels of employee forum and written application etc. which the opinions of employees can be smoothly rendered, and the President will report the current status of the Company to employees each quarter to make employees thoroughly understand the situation of the Company's operation. The labor-management relations are harmonious from the establishment of the Company up to the current date, that all relevant affairs are handled pursuant to the related provisions of laws and regulations.

E. Protection measures for the rights of employees

The excellent document control system is set up by the Company in which the management rules are recorded, and the rights, obligations and welfare of employees are definitely provided therein, the welfare are reviewed periodically and updated on the document control system from time to time to protect the rights of employees.

5.6.2 Loss deriving from labor-management dispute (including any violations of the Labor Standards Act found in labor inspection, specifying the disposition dates, disposition reference numbers, the articles of law violated, the substance of the legal violations, and the content of the dispositions) in the last two years to the date this report was printed, disclose the amount possibly incurred for the time being and in the future, and the responding measures. If this amount cannot be reasonably estimated, specify the reasons

The labor-management relations are harmonious from the establishment of the Company up to the current date, that there is not any concern of losses caused by the labor dispute happens right now and in the future.

5.7 Major Contract

Contract	Contracting Party	Term of Agreement	Major Contents	Limitation
License Agreement	GLOBALFOUNDRIES Singapore	11/25/2002~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Renesas Technology	04/01/2003~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	TSMC	09/03/2003~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	GLOBALFOUNDRIES Singapore	01/01/2004~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Alpha Microelectronics	05/01/2004~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Vanguard	01/04/2005~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Ricoh	04/01/2005~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Powerchip	04/06/2005~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Toshiba	10/31/2005~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Silterra	04/07/2006~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	MagnaChip	09/28/2007~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Fujitsu Microelectronics	12/19/2007~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Dongbu HiTek	06/24/2008~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	UMC	05/23/2008~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Mitsumi Electronic	04/01/2009~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Mitsumi Electronic	07/07/2009~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	TI	02/01/2010~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights

Contract	Contracting Party	Term of Agreement	Major Contents	Limitation
License Agreement	HLMC	08/10/2011~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	GSMC	09/28/2011~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Mitsubishi Electric	03/29/2012~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	TSMC	06/01/2012~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Vanguard	01/01/2012~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	MagnaChip	10/12/2012~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	NXP Semiconductors	11/01/2012~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	UMC	03/01/2013~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	TSMC	03/04/2014~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	SK hynix	03/18/2014~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Powerchip	09/01/2014~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Vanguard	08/31/2015~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	GLOBALFOUNDRIES U.S.A.	09/07/2015~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	CSMC	09/11/2015~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	SMIC	01/01/2016~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Maxchip	05/06/2016~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Dongbu HiTek	05/18/2016~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights

Contract	Contracting Party	Term of Agreement	Major Contents	Limitation
License Agreement	Vanguard	07/01/2016~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Japan Semiconductor Corporation	05/09/2017~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	SHARP	07/20/2017~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	GLOBALFOUNDRIES Singapore	07/23/2017~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	HFC	10/10/2017~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	HeJian Technology	12/05/2017~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	Winbond	02/21/2018~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	HHGrace	04/25/2018~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	CanSemi	07/24/2019~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights
License Agreement	CanSemi	10/21/2019~	Technology License Agreement	Comply with the obligations for confidential information and intellectual property rights

VI. Financial Information

6.1 Five-Year Financial Summary

6.1.1 Consolidated Financial Summary

A. Consolidated Balance Sheet

Unit: NT$ thousands

Item \ Year		Financial Summary for The Last Five Years（Note1）					2020 (As of March 31)（Note 1）
		2015	2016	2017	2018	2019	
Current Assets		1,439,253	1,583,609	1,766,977	1,483,605	1,416,756	1,694,080
Property, Plant and Equipment		491,612	503,249	505,337	491,533	477,171	473,370
Intangible Assets		42,885	54,796	62,430	67,162	73,805	72,583
Other Assets		61,723	57,018	66,326	61,877	65,595	29,740
Total Assets		2,035,473	2,198,672	2,401,070	2,104,177	2,033,327	2,269,773
Current Liabilities	Before Distribution	200,260	254,608	316,139	349,772	305,153	364,071
	After Distribution	654,953	747,193	884,506	943,562	(Note 2)	N/A
Non-current Liabilities		18,431	19,938	19,772	20,864	26,160	25,390
Total Liabilities	Before Distribution	218,691	274,546	335,911	370,636	331,313	389,461
	After Distribution	673,384	767,131	904,278	964,426	(Note 2)	N/A
Equity Attributable to Shareholders of the Parent		1,816,782	1,924,126	2,065,159	1,733,541	1,702,014	1,880,290
Capital Stock		768,323	757,823	757,823	757,908	758,336	758,336
Capital Surplus	Before Distribution	455,370	448,025	427,496	416,537	404,446	405,547
	After Distribution	429,604	392,325	397,865	379,425	(Note 2)	N/A
Retained Earnings	Before Distribution	661,838	718,278	879,840	1,025,266	1,009,056	1,185,814
	After Distribution	232,911	281,393	341,104	468,588	(Note 2)	N/A
Other Equity		0	0	0	(61,932)	(65,586)	(65,169)
Treasury Stock		(68,749)	0	0	(404,238)	(404,238)	(404,238)
Non-controlling Interest		0	0	0	0	0	22
Total Equity	Before Distribution	1,816,782	1,924,126	2,065,159	1,733,541	1,702,014	1,880,312
	After Distribution	1,362,089	1,431,541	1,496,792	1,139,751	(Note 2)	N/A

Note 1：The financial information for year 2015 to 2019 has been audited by the CPAs, and the financial information for the first quarter of 2020 has been reviewed by the CPAs.

Note 2：2019 dividend distribution is pending for shareholders' approval at the Shareholders' Meeting.

B. Consolidated Statement of Comprehensive Income

Unit: NT$ thousands (Except EPS: NT$)

Year / Item	Financial Summary for The Last Five Years (Note)					2020 (As of March 31) (Note)
	2015	2016	2017	2018	2019	
Operating Revenue	1,091,620	1,215,459	1,375,758	1,476,516	1,410,085	415,436
Gross Profit	1,091,620	1,215,459	1,375,758	1,476,516	1,410,085	415,436
Income from Operations	521,217	529,809	602,818	672,735	621,323	193,973
Non-operating Income and Expenses	22,070	78,433	76,982	26,096	11,861	8,383
Income before Tax	543,287	608,242	679,800	698,831	633,184	202,356
Income from Continuing Operations	479,111	534,917	598,709	613,106	542,072	176,758
Loss of Discontinued Operations	0	0	0	0	0	0
Net Income (Loss)	479,111	534,917	598,709	613,106	542,072	176,758
Other Comprehensive Income (Income after Tax)	(2,883)	(2,345)	(262)	(590)	(5,258)	417
Total Comprehensive Income	476,228	532,572	598,447	612,516	536,814	177,175
Net Income Attributable to Shareholders of the Parent	479,111	534,917	598,709	613,106	542,072	176,758
Net Income Attributable to Non-controlling Interest	0	0	0	0	0	0
Comprehensive Income Attributable to Shareholders of the Parent	476,228	532,572	598,447	612,516	536,814	177,175
Comprehensive Income Attributable to Non-controlling Interest	0	0	0	0	0	0
Earnings Per Share	6.32	7.06	7.90	8.13	7.30	2.38

Note：The financial information for year 2015 to 2019 has been audited by the CPAs, and the financial information for the first quarter of 2020 has been reviewed by the CPAs.

6.1.2 Parent Company Financial Summary

A. Parent Company Balance Sheet

Unit: NT$ thousands

Item \ Year		Financial Summary for The Last Five Years（Note1）				
		2015	2016	2017	2018	2019
Current Assets		1,414,244	1,487,245	1,766,977	1,483,605	1,388,394
Property, Plant and Equipment		491,612	503,249	505,337	491,533	475,318
Intangible Assets		42,885	54,796	62,430	67,162	73,584
Other Assets		86,231	148,542	66,326	61,877	93,234
Total Assets		2,034,972	2,193,832	2,401,070	2,104,177	2,030,530
Current Liabilities	Before Distribution	199,759	249,768	316,139	349,772	302,356
	After Distribution	654,452	742,353	884,506	943,562	(Note 2)
Non-current Liabilities		18,431	19,938	19,772	20,864	26,160
Total Liabilities	Before Distribution	218,190	269,706	335,911	370,636	328,516
	After Distribution	672,883	762,291	904,278	964,426	(Note 2)
Equity Attributable to Shareholders of the Parent		1,816,782	1,924,126	2,065,159	1,733,541	1,702,014
Capital Stock		768,323	757,823	757,823	757,908	758,336
Capital Surplus	Before Distribution	455,370	448,025	427,496	416,537	404,446
	After Distribution	429,604	392,325	397,865	379,425	(Note 2)
Retained Earnings	Before Distribution	661,838	718,278	879,840	1,025,266	1,009,056
	After Distribution	232,911	281,393	341,104	468,588	(Note 2)
Other Equity		0	0	0	(61,932)	(65,586)
Treasury Stock		(68,749)	0	0	(404,238)	(404,238)
Non-controlling Interest		0	0	0	0	0
Total Equity	Before Distribution	1,816,782	1,924,126	2,065,159	1,733,541	1,702,014
	After Distribution	1,362,089	1,431,541	1,496,792	1,139,751	(Note 2)

Note 1：The financial information for year 2015 to 2019 has been audited by the CPAs.

Note 2：2019 dividend distribution is pending for shareholders’ approval at the Shareholders’ Meeting.

B. Parent Company Statement of Comprehensive Income

Unit: NT$ thousands (Except EPS: NT$)

Item \ Year	Financial Summary for The Last Five Years（Note）				
	2015	2016	2017	2018	2019
Operating Revenue	1,091,620	1,215,459	1,375,758	1,476,516	1,409,329
Gross Profit	1,091,620	1,215,459	1,375,758	1,476,516	1,409,329
Income from Operations	523,578	532,564	604,254	672,735	643,842
Non-operating Income and Expenses	19,660	71,392	72,060	26,096	(10,658)
Income before Tax	543,238	603,956	676,314	698,831	633,184
Income from Continuing Operations	479,111	534,917	598,709	613,106	542,072
Loss of Discontinued Operations	0	0	0	0	0
Net Income (Loss)	479,111	534,917	598,709	613,106	542,072
Other Comprehensive Income (Income after Tax)	(2,883)	(2,345)	(262)	(590)	(5,258)
Total Comprehensive Income	476,228	532,572	598,447	612,516	536,814
Net Income Attributable to Shareholders of the Parent	479,111	534,917	598,709	613,106	542,072
Net Income Attributable to Non-controlling Interest	0	0	0	0	0
Comprehensive Income Attributable to Shareholders of the Parent	476,228	532,572	598,447	612,516	536,814
Comprehensive Income Attributable to Non-controlling Interest	0	0	0	0	0
Earnings Per Share	6.32	7.06	7.90	8.13	7.30

Note：The financial information for year 2015 to 2019 has been audited by the CPAs.

6.1.3 Auditors' Opinions from 2015 to 2019

Year	Accounting Firm	CPA	Audit Opinion
2015	Deloitte & Touche	Yih-Shin Kao, Tung-Hui Yeh	An Unqualified Opinion
2016	Deloitte & Touche	Yih-Shin Kao, Tung-Hui Yeh	An Unmodified Opinion(Note)
2017	Deloitte & Touche	Yih-Shin Kao, Su-Li Fang	An Unmodified Opinion(Note)
2018	Deloitte & Touche	Yih-Shin Kao, Su-Li Fang	An Unmodified Opinion(Note)
2019	Deloitte & Touche	Yu-Feng Huang, Su-Li Fang	An Unmodified Opinion(Note)

Note: Starting in 2016, the new auditing standard of the Republic of China requires "An Unqualified Opinion" be replaced by "An Unmodified Opinion".

6.2 Five-Year Financial Analysis

6.2.1 Consolidated Financial Analysis

Item	Year	Financial Analysis for the Last Five Years (Note 1)					2020 (As of March 31) (Note 1)
		2015	2016	2017	2018	2019	
Financial Structure	Debt Ratio (%)	10.74	12.49	13.99	17.61	16.29	17.16
	Ratio of Debt to Equity (%)	12.04	14.27	16.27	21.38	19.47	20.71
	Ratio of Long-term Capital to Property, Plant and Equipment (%)	373.31	386.30	412.58	356.93	362.17	402.58
Solvency	Current Ratio (%)	718.69	621.98	558.92	424.16	464.28	465.32
	Quick Ratio (%)	710.36	615.89	552.33	417.51	455.73	450.13
	Times Interest Earned (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	3,538.34	5,952.65
Operating Performance	Accounts Receivable Turnover (Times)	20.03	19.79	18.16	11.67	9.33	13.44
	Average Collection Period	18	18	20	31	39	27
	Inventory Turnover (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Accounts Payable Turnover (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Average Days in Sales	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Property, Plant and Equipment Turnover (Times)	2.19	2.44	2.73	2.96	2.91	3.50
	Total Assets Turnover (Times)	0.54	0.57	0.60	0.66	0.68	0.77
Profitability	Return on Total Assets (%)	23.85	25.27	26.03	27.22	26.21	32.87
	Return on Stockholders' Equity (%)	26.60	28.60	30.02	32.28	31.56	39.47
	Pre-tax Income to Paid-in Capital (%)	70.71	80.26	89.70	92.21	83.50	106.74
	Profit Ratio (%)	43.89	44.01	43.52	41.52	38.44	42.55
	Earnings Per Share (NT$)	6.32	7.06	7.90	8.13	7.30	2.38
Cash Flow	Cash Flow Ratio (%)	258.89	224.54	204.59	181.67	194.17	264.12
	Cash Flow Adequacy Ratio (%)	107.97	119.25	123.58	114.25	106.15	145.92
	Cash Reinvestment Ratio (%)	3.32	5.76	7.02	3.56	(0.07)	46.79
Leverage	Operating Leverage	1.89	2.04	2.02	1.95	2.00	1.92
	Financial Leverage	1.00	1.00	1.00	1.00	1.00	1.00

Analysis of financial ratio differences for the last two years. (Not required if the difference does not exceed 20%)

1. The increase in times interest earned was mainly due to the increase in interest caused by lease liabilities in the year of 2019.
2. The decrease in accounts receivable turnover and the increase in average collection period were mainly due to the increase in amount of average accounts receivable for the year 2019 compared with the previous period.
3. The decrease in cash reinvestment ratio was mainly due to the increase in cash dividends issued and the net cash generated from operating activities in 2019.

Note 1：The financial information for year 2015 to 2019 has been audited by the CPAs, and the financial information for the first quarter of 2020 has been reviewed by the CPAs.

Note 2：eMemory did not have interest expense or inventory for the year. Therefore, eMemory did not apply times interest earned, inventory turnover, accounts payable turnover and average days in sales.

6.2.2 Parent Company Financial Analysis

Item		Financial Analysis for the Last Five Years (Note 1)				
Year		2015	2016	2017	2018	2019
Financial Structure	Debt Ratio (%)	10.72	12.29	13.99	17.61	16.18
	Ratio of Debt to Equity (%)	12.01	14.02	16.27	21.38	19.30
	Ratio of Long-term Capital to Property, Plant and Equipment (%)	373.31	386.30	412.58	356.93	363.58
Solvency	Current Ratio (%)	707.98	595.45	558.92	424.16	459.19
	Quick Ratio (%)	699.61	589.24	552.33	417.51	450.64
	Times Interest Earned (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	3,538.34
Operating Performance	Accounts Receivable Turnover (Times)	20.03	19.79	18.16	11.67	9.30
	Average Collection Period	18	18	20	31	39
	Inventory Turnover (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Accounts Payable Turnover (Times)	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Average Days in Sales	(Note 2)	(Note 2)	(Note 2)	(Note 2)	(Note 2)
	Property, Plant and Equipment Turnover (Times)	2.19	2.44	2.73	2.96	2.92
	Total Assets Turnover (Times)	0.54	0.57	0.60	0.66	0.68
Profitability	Return on Total Assets (%)	23.85	25.30	26.06	27.22	26.23
	Return on Stockholders' Equity (%)	26.60	28.60	30.02	32.28	31.56
	Pre-tax Income to Paid-in Capital (%)	70.70	79.70	89.24	92.21	83.50
	Profit Ratio (%)	43.89	44.01	43.52	41.52	38.46
	Earnings Per Share (NT$)	6.32	7.06	7.90	8.13	7.30
Cash Flow	Cash Flow Ratio (%)	260.53	229.80	206.42	181.67	202.23
	Cash Flow Adequacy Ratio (%)	108.19	119.64	124.20	114.73	105.37
	Cash Reinvestment Ratio (%)	3.43	5.87	7.29	3.56	0.94
Leverage	Operating Leverage	1.88	2.03	2.02	1.95	1.94
	Financial Leverage	1.00	1.00	1.00	1.00	1.00

Analysis of financial ratio differences for the last two years. (Not required if the difference does not exceed 20%)

1. The increase in times interest earned was mainly due to the increase in interest caused by lease liabilities in the year of 2019.
2. The decrease in accounts receivable turnover and the increase in average collection period were mainly due to the increase in amount of average accounts receivable for the year 2019 compared with the previous period.
3. The decrease in cash reinvestment ratio was mainly due to the increase in cash dividends issued and the net cash generated from operating activities in 2019.

Note 1：The financial information for year 2015 to 2019 has been audited by the CPAs.

Note 2：eMemory did not have interest expense or inventory for the year. Therefore, eMemory did not apply times interest earned, inventory turnover, accounts payable turnover and average days in sales.

* Glossary

1. Financial Structure
   (1) Debt Ratio = Total Liabilities / Total Assets
   (2) Ratio of Debt to Equity = Total Liabilities / (Total Equity- Non-controlling Interests)
   (3) Ratio of Long-term Capital to Property, Plant and Equipment = (Shareholders' Equity + Non-current Liabilities) / Net Property, Plant and Equipment
2. Solvency
   (1) Current Ratio = Current Assets / Current Liabilities
   (2) Quick Ratio = (Current Assets - Inventories - Prepaid Expenses) / Current Liabilities
   (3) Times Interest Earned = Earnings before Interest and Taxes / Interest Expenses
3. Operating Performance
   (1) Accounts Receivable Turnover = Operating Revenue / Average Accounts Receivables
   (2) Average Collection Period = 365 / Accounts Receivable Turnover
   (3) Inventory Turnover = Cost of Sales / Average Inventory
   (4) Accounts Payable Turnover = Cost of Sales / Average Accounts Payables
   (5) Average Days in Sales = 365 / Inventory Turnover
   (6) Property, Plant and Equipment Turnover = Operating Revenue / Average Net Property, Plant and Equipment
   (7) Total Assets Turnover = Operating Revenue / Average Total Assets
4. Profitability
   (1) Return on Total Assets = (Net Income + Interest Expenses * (1 - Effective Tax Rate)) / Average Total Assets
   (2) Return on Stockholders' Equity = Net Income Attributable to Shareholders of the Parent / Average Equity Attributable to Shareholders of the Parent
   (3) Pre-tax Income to Paid-in Capital Ratio = Income before Tax / Paid-in Capital
   (4) Profit Ratio = Net Income / Operating Revenue
   (5) Earnings Per Share = (Net Income Attributable to Shareholders of the Parent - Preferred Stock Dividend) / Weighted Average Number of Shares Outstanding
5. Cash Flow
   (1) Cash Flow Ratio = Net Cash Provided by Operating Activities / Current Liabilities
   (2) Cash Flow Adequacy Ratio = Five-year Sum of Cash from Operations / Five-year Sum of Capital Expenditures, Inventory Additions, and Cash Dividend
   (3) Cash Reinvestment Ratio = (Cash Provided by Operating Activities - Cash Dividends) / (Gross Property, Plant and Equipment + Long-term Investments + Other Non-current Assets + Working Capital)
6. Leverage
   (1) Operating Leverage = (Operating Revenue - Variable Cost) / Income from Operations
   (2) Financial Leverage = Income from Operations / (Income from Operations - Interest Expenses)

6.3 Audit Committee’s Review Report

Audit Committee's Review Report

The Board of Directors has prepared the Company’s 2019 business report, financial statements, and proposal for allocation of profits. The CPA firm of Deloitte & Touche was retained to audit eMemory’s financial statements and has issued an audit report relating to the financial statements. The business report, financial statements, and profit allocation proposal have been reviewed by the Audit Committee and no irregularities were found. We hereby report as above according to Article 14-4 of the Securities and Exchange Act and Article 219 of the Company Act.

To eMemory Technology Inc. 2020 General Shareholders’ Meeting

eMemory Technology Inc.
Chairman of the Audit Committee: Ming-To Yu

February 19, 2020

6.4 Consolidated Financial Statements for the Years Ended December 31 2019 and 2018, and Independent Auditors' Report：Please refer to page 122~180 of this Annual Report.

6.5 Parent Company Only Financial Statements for the Years Ended December 31, 2019 and 2018 and Independent Auditors' Report：Please refer to page 181~237 of this Annual Report.

6.6 Disclosure of the Impact on Company's Financial Status Due to Financial Difficulties：None.

6.7 Certification Details of Employees who are Related to the Release of the Company's Financial Information Transparency

Title	Name	Issuing Institution	Certification
Accounting and Financial Officer	Teresa Kuo	The Institute of Internal Auditors, ROC (Taiwan)	Qualified Internal Auditor (QIA)
		The Institute of Internal Auditors, ROC (Taiwan)	Certified Internal Auditor (CIA)
Internal Auditing Officer	Grace Mai	The Institute of Internal Auditors, ROC (Taiwan)	Certified Internal Auditor (CIA)
		Securities & Futures Institute	Basic Competence Exams for Enterprise Internal Control
		Ministry of Economic Affairs	Intangible Asset Certified Valuation Analyst – Entry Level Certification
		Securities & Futures Institute	Professional Proficiency Exams for Stock Affair Specialist

VII. Financial Status, Financial Performance, and Risk Management

7.1 Financial Status

Unit: NT$ thousands

Item \ Year	2019	2018	Difference	
			Amount	%
Current Assets	1,416,756	1,483,605	(66,849)	(4.51)
Property, Plant and Equipment	477,171	491,533	(14,362)	(2.92)
Intangible Assets	73,805	67,162	6,643	9.89
Other Assets	65,595	61,877	3,718	6.01
Total Assets	2,033,327	2,104,177	(70,850)	(3.37)
Current Liabilities	305,153	349,772	(44,619)	(12.76)
Non-current Liabilities	26,160	20,864	5,296	25.38
Total Liabilities	331,313	370,636	(39,323)	(10.61)
Equity Attributable to Shareholders of the Parent	1,702,014	1,733,541	(31,527)	(1.82)
Capital Stock	758,336	757,908	428	0.06
Capital Surplus	404,446	416,537	(12,091)	(2.90)
Retained Earnings	1,009,056	1,025,266	(16,210)	(1.58)
Other Equity	(65,586)	(61,932)	(3,654)	5.90
Treasury Stock	(404,238)	(404,238)	0	0.00
Non-controlling Interest	0	0	0	0.00
Total Equity	1,702,014	1,733,541	(31,527)	(1.82)
Analysis of Deviation over 20%：None.				

7.2 Financial Performance

Unit: NT$ thousands (Except EPS: NT$)

Item \ Year	2019	2018	Difference	%
Operating Revenue	1,410,085	1,476,516	(66,431)	(4.50)
Gross Profit	1,410,085	1,476,516	(66,431)	(4.50)
Income from Operations	621,323	672,735	(51,412)	(7.64)
Non-operating Income and Expenses	11,861	26,096	(14,235)	(54.55)
Income before Tax	633,184	698,831	(65,647)	(9.39)
Income from Continuing Operations	542,072	613,106	(71,034)	(11.59)
Loss of Discontinued Operations	0	0	0	0.00
Net Income (Loss)	542,072	613,106	(71,034)	(11.59)
Other Comprehensive Income (Income after Tax)	(5,258)	(590)	(4,668)	791.19
Total Comprehensive Income	536,814	612,516	(75,702)	(12.36)
Net Income Attributable to Shareholders of the Parent	542,072	613,106	(71,034)	(11.59)
Net Income Attributable to Non-controlling Interest	0	0	0	0.00
Comprehensive Income Attributable to Shareholders of the Parent	536,814	612,516	(75,702)	(12.36)
Comprehensive Income Attributable to Non-controlling Interest	0	0	0	0.00
Earnings Per Share	7.30	8.13	(0.83)	(10.21)

Analysis of Deviation over 20%：

1. The decrease in non-operating income and expenses was mainly due to the loss in exchange rate caused by the appreciation of NT$ in 2019.
2. The increase in other comprehensive loss (net after tax) in the current period was mainly due to the recognition of unrealized loss on investments in equity instruments at fair value through other comprehensive income in 2019.

7.3 Cash Flow

7.3.1 Cash Flow Analysis for 2019

Unit: NT$ thousands

Cash and Cash Equivalents, Beginning of Year (1)	Net Cash Generated from Operating Activities (2)	Net Cash Used in Investing Activities and Financing Activities (3)	Effects of Exchange Rate Changes on the Balance of Cash Held in Foreign Currencies (4)	Cash Surplus (Deficit) (1)+(2)-(3)+(4)	Leverage of Cash Deficit	
					Investment Plans	Financing Plans
$1,302,003	$ 592,530	$628,381	($2,294)	$1,263,858	0	0

A. Analysis of Cash Flow

(1) Operating Activities：Net cash generated from operating activities was mainly from net income.

(2) Investing Activities：Net cash used in investing activities was primarily for capital expenditures.

(3) Financing Activities：Net cash used in financing activities was mainly for payment of cash dividends.

B. Remedial Actions for Liquidity Shortfall：Not applicable.

7.3.2 Cash Flow Projection for 2020

Unit: NT$ thousands

Cash and Cash Equivalents, Beginning of Year (1)	Net Cash Generated from Operating Activities (2)	Net Cash Used in Investing Activities and Financing Activities (3)	Effects of Exchange Rate Changes on the Balance of Cash Held in Foreign Currencies (4)	Cash Surplus (Deficit) (1)+(2)-(3)+(4)	Leverage of Cash Deficit	
					Investment Plans	Investment Plans
$1,263,858	$687,646	$686,750	$0	$ 1,264,754	0	0

A. Analysis of Cash Flow

(1) Operating Activities：Net cash generated from operating activities was mainly from net income.

(2) Investing Activities：Net cash used in investing activities was primarily for capital expenditures.

(3) Financing Activities：Net cash used in financing activities was mainly for payment of cash dividends.

B. Remedial Actions for Liquidity Shortfall：Not applicable.

7.4 Major Capital Expenditure Items

7.4.1 Major Capital Expenditure Items and Source of Capital：None.

7.4.2 Expected Benefits：Not applicable.

7.5 Investment Policy in the Last Year, Main Causes for Profits or Losses, Improvement Plans and Investment Plans for the Coming Year

The objectives of the Company’s investment policy are for stable gains and the cultivation of business relation with the investees. In 2019, the investment accounted for under the equity method caused loss amounted to NT$4,336 thousands, which is mainly due to the fact that the invested company has not yet reached the economic scale. In the future, the Company will seek long-term strategic investment and continue taking caution in the evaluation and management of all investment planning.

7.6 Analysis of Risk Management

7.6.1 Effects of Changes in Interest Rates, Foreign Exchange Rates and Inflation on Corporate Finance, and Future Response Measures

A. Interest rate: The Company has sufficient working capital and expects no needs for borrowing in either local or foreign currencies. As such, there is no risk deriving from the rise of interest rate and interest expense for the time being.

B. Foreign exchange volatility: The majority of the sales of the Company are denominated in USD and JPY and some of the purchases were denominated in USD. Any changes in the exchange rate will affect the accounts receivable and payable denominated in foreign currencies and the profit position of the Company. For hedging off risks deriving from exchange rate fluctuation, the Company has appointed designated personnel to keep track of the changes in exchange rate, as well as keeping close liaison with associated banks to gather exchange rate forecast to understand banks' exchange rate trend and information, and reduce the adverse impact of exchange rate changes on the Company's profit and loss.

C. Inflation: Inflation has never caused any significant impact on the Company's income. The Company's management is highly sensitive to the market trend. If there is an anticipation of inflation that increase the purchase cost, the Company will seek to reorient its business policy, including the adjustment of the price of sales. As such to keep inflation risk is kept under control.

7.6.2 Policies, Main Causes of Gain or Loss and Future Response Measures with Respect to High-risk, High-leveraged Investments, Lending or Endorsement Guarantees, and Derivatives Transactions

In 2019 and 2020 to April 12, the Company did not engage in any high-risk, high-leveraged investments, lending or endorsement guarantees, and derivative transactions.

7.6.3 Research & Development Plans and Expense Projection

The Company keeps its effort in eNVM development in line with the future trend in the industry and expedite new SIP development in advanced process nodes to increase Company's competitiveness.

Plans in Recent Years	Progress and Schedule of Completion	R&D Expenditure	Major Factors Affecting Project Success
NeoBit development in 0.13um BCD automotive process to fulfill ISO26262 safety compliance	Completed the 1st stage certification. Begin the 2nd stage process and expect to be completed in H2/20'.	USD 200K	ISO26262 compliance
NeoBit develop cost effective green OTP for multi-functional ICs in 0.11um process	Plan to tape-out IP in Q3/20'.	USD 100K	Retention capability of memory cell
NeoFuse develop ultra-low power macro in ULP process for IoT and MCU applications	Verified basic functions of 55nm, and it's expected to complete IP qualification in Q3/20'.	USD 150K	Device limitation for low voltage
NeoFuse development in CIS process for the fingerprint identification chips	Completed tape-out work of 55nm CIS process. Plan to complete IP characterization in Q2/20' and qualification in Q4/20'.	USD 150K	Device behavior in CIS process
NeoFuse development in 28nm high-voltage process for OLED display driver ICs	Achieve production in some foundries. Expand the development to more foundries, expect to complete serial qualifications in Q3/20'.	USD 200K	Device behavior in HV process
NeoFuse development in 22nm high-voltage process for OLED display driver ICs	Plan to complete the first test-chip tape-out in H1/20'.	USD 250K	Device behavior in HV process
NeoFuse development in 28nm HPC+ logic process for automotive applications	Completed functions check on 2.5V platform, plan to complete IP qualification in H2/20'.	USD 250K	Device behavior at high temp
NeoFuse development in 28nm 1.8V HPC+ logic automotive process to fulfill ISO26262 safety compliance	Begin development for the 1st stage certification. Expect the tape-out work can be done by Q3/20'.	USD 200K	ISO26262 compliance
NeoFuse development in 22nm ULL process for mobile low-power applications	Plan to complete IP qualification of the 1st foundry in H1/20', and expand the development to other foundries.	USD 200K	Low power performance of IP design
High Density NeoFuse development in 90nm BCD process for the power management ICs	Functions had been verified. Porting the process from 8" fab to 12" fab, and expect to complete IP qualification in Q3/20'.	USD 150K	Device behavior in BCD process

Plans in Recent Years	Progress and Schedule of Completion	R&D Expenditure	Major Factors Affecting Project Success
NeoFuse development in leading-edge DRAM process	25nm DRAM is in production stage. Continue to develop the enhanced low-power and shrink versions, expect the production in Q3/20’.	USD 250K	Device behavior in DRAM process
NeoFuse development in 6nm FinFET processes	Porting 7nm IP design to 6nm platform, plan the IP tape-out in Q1/20’.	USD 600K	Device behavior to resist high voltage
NeoFuse development in 5nm FinFET processes for the mobile applications	Completed basic functions of cell array. Plan to tape-out IP vehicle in Q4/20’.	USD 900K	Device behavior to resist high voltage
NeoPUF key management IP development for secure embedded flash memory	Plan to complete IP design in Q3/20’ for the secure memory of 55nm emb-flash process.	USD 150K	Design to meet security guideline
NeoPUF strategic alliance for IoT and MCU	40nm ULP IP had integrated into security module. Begin to work on 22nm and will tape-out IP in Q3/20’.	USD 200K	Design on-time delivery and relationship of partnership
NeoEE development for automotive 0.11um BCD process	Hardware verification has been completed. Qualification will be completed in Q4/20’ and get 2nd phase certification of ISO26262.	USD 400K	Meet ISO26262 compliance
AEC Q-100 Grade-0 NeoMTP development in 0.13um BCD process	Function check was completed in Q3/19’ and qualification will be completed in Q2/20’.	USD 200K	Device behavior at high temp
NeoMTP development in 65nm BCD process for Type-C/PMIC applications	Qualification will be completed in H2/20’.	USD 300K	Device behavior at high temp
NeoMTP development in 90nm BCD process for Type-C/PMIC applications	Qualification will be completed in H2/20’.	USD 300K	Device behavior at high temp
Analog NeoMTP development in 55nm HV process for AI applications	1st design will be completed in H1/20’; 2nd design will be completed in H2/20’.	USD 600K	Device for multi-level storage and complicated control circuits
ReRAM development in 40nm ULP process for MCU application	Function check was completed in Q4/19’. Qualification will be completed in Q3/20’.	USD 400K	Bit Failure Rate.
ReRAM computing-in-memory development in 40nm ULP for AI accelerator	Testchip tapeout in Q4/20’.	USD 200K	Power efficiency, TOPS/W.
ReRAM development in 22nm ULL process for MCU application	Testchip tapeout in Q2/20’. Function characterization by Q4/20’.	USD 400K	Cell performance after size shrinking
MRAM development in 22nm HPC+	Testchip tapeout in Q4/20’, Full function characterization by Q4/22’	USD 4M	MRAM cell performance

7.6.4 Effects of and Response to Changes in Policies and Regulations Relating to Corporate Finance and Sales

The Company runs its routine operation in compliance with applicable domestic and foreign laws, and monitors closely all domestic and foreign governmental policy and regulation changes that might impact the operation and financial operations. In 2019 and 2020 to April 12, there was no influence on the financial and operation performance of the Company due to changes of domestic and foreign governmental policy and regulation.

7.6.5 Effects of and Response to Changes in Technology and the Industry Relating to Corporate Finance and Sales

In order to improve information security management, the Information Security Committee was established in April 2013 by the Company, as well as the information security policies and related operation rules according to the essence and requirements of ISO27001 (Information Security Management System).

Moreover, under the governance of Information Security Committee, the Information Security Execution Team is responsible for planning and execution of information security operation, and the Information Security Event Response Center is established for responding and giving directions to the material information security event.

The Information Security Committee periodically convenes quarter meetings for examining the affairs related to the information security management of the Company and reviewing the execution of information security policy. The Information Security Execution Team is required for periodically reporting information security quality in Management Review Meeting hosted by the President.

The Audit Office annually assesses the execution of information security management, and report to the Board of Directors to ensure the works of information security are actually executed.

The Company highly values the research and development ability enhancement. By establishing the procedures related to management of research and development and patents, the implementation and execution quality of intellectual property management can be ensured. In order to increase the morale in research and development and encourage research and development staff to proactively propose patent proposals, the "Operation Instructions on Rewarding Patent Application and Externally Contributing writings for Publication" have been formulated. Through the strong bonding of strategic alliances with world-class foundries, the Company can keep abreast of the latest changes in the industry and access to market information ahead of the industry peers, for keeping the financial stability and flexibility. As such, the effect of technological change and industry change bring is positive effects to the Company.

7.6.6 The Impact of Changes in Corporate Image on Corporate Risk Management, and the Company's Response Measures

Professionalism and integrity are the fundamental principles of the Company. The Company highly values its corporate images and risk management. There is no foreseeable crisis currently. In the future, the Company will seek to optimize the shareholders' interest while realizing corporate social responsibility.

7.6.7 Expected Benefits from, Risks Relating to and Response to Merger and Acquisition Plans

None.

7.6.8 Expected Benefits from, Risks Relating to and Response to Factory Expansion Plans

None.

7.6.9 Risks Relating to and Response to Excessive Concentration of Purchasing Sources and Excessive Customer Concentration

Under the adjustment of business strategy from the second half of 2011 onward, the Company decided to focus on IP business and planned to gradually reduce the proportion of income from wafer business, and made no purchase of wafer since 2013 to the date this report was printed. The key customers of the Company are famous domestic and foreign foundries with stable streams of purchasing orders and consistent revenue contributions to the Company. The business relation between these foundries and the Company is positive and there is no risk deriving from overconcentration of selling.

7.6.10 Effects of, Risks Relating to and Response to Large Share Transfers or Changes in Shareholdings by Directors, Supervisors, or Shareholders with Shareholdings of over 10%

None.

7.6.11 Effects of, Risks Relating to and Response to the Changes in Management Rights

None.

7.6.12 Litigation or Non-litigation Matters

A. Major ongoing lawsuits, non-lawsuits or administrative lawsuit: None.
B. Major ongoing lawsuits, non-lawsuits or administrative lawsuits caused by directors, supervisors or shareholders with over 10% shareholdings: None.

7.6.13 Other Major Risks

A. Risk Management Policy

The Company's management pays utmost attention to risk management. The frequency of internal audit is arranged in line with the level of risk. The Chief Auditor also assists the Company to bolster all internal control for reducing risk to the minimum level and enhance shareholders' interest.

B. To ensure the thorough implementation of sustainable strategy, the Company has its President convene Management Examination Meeting every six months to review the issues related to environment, society and corporate governance which are concerned by stakeholders; in consideration of the materiality principle, the company establishes risk assessment which is relevant to the business operation, and proposes related policies and measures. Please refer to page 118~119 of this Annual Report.

C. The Organization Structure for Risk Management

Name of Organization	Scope of Authority and Responsibility
Board of Directors	Map out the risk management policy, structure, and the culture; ensure the effectiveness of risk management mechanism and allocate resources.

Name of Organization	Scope of Authority and Responsibility
Audit Committee	Review the policy, structure and culture of risk management and propose suggestions to the Board of Directors; furthermore supervise on the effectiveness of the risk management mechanism and propose suggestions to the Board of Directors.
Senior Management (President, Vice Presidents)	Execution of the risk management decision of the Board, coordination of cross-function risk management interaction and communication, design and decision-making of business operation, assessment mid-term to long-term investment and return to reduce risks.
Audit Office	Conduct regular and irregular audits in accordance with the internal control and audit plan to ensure enforcement of risk control. Prepare audit reports based on the findings as reference for the Audit Committee, Board of Directors and the management for adjusting management policy and decision-making.
Management Review Meeting	Periodically perform comprehensive review on the quality/information security of the Company, the content to be reviewed shall include the feedback of stakeholder, to ensure its constant normal operation.
Information Security Committee	Being responsible for the planning, supervision and integration, communication of information security related affairs.
Environmental Safety Functional Units	Risk Control of labor safety and provide related education, establishment and maintenance of environmental protection, labor safety, and health system.
The Manager of Each Functional Department	Execution of risk control in routine operation and self-assessment of risk control.
Administration Center	Management and maintenance of IT system, allocation of human resources, media and public relations, liaison with external parties, design and arrangement of administrative and general affairs, review and institution of legitimacy of intellectual property rights.
Finance Department	Bookkeeping and compilation of management statements as reference for the management in making and revising decisions, funds management, share registration and transfer, execution, preparation and analysis of the return of short to long-term investment.

D. Risk Management Organization:

<table>
<tr><th>Major Risk Assessment</th><th>Risk Management Authority
(1st Tier)</th><th>Risk Review and Control
(2nd Tier)</th><th>The Board, Audit Committee and Audit Office
(3rd Tier)</th></tr>
<tr><td>1. Interest rate, exchange rate, and financial risk</td><td rowspan="2">Finance Department</td><td rowspan="2">President</td><td rowspan="2">1. The Board: Decision of risk assessment and control.
2.Audit Committee: Review the risk assessment and propose suggestions to the Board.</td></tr>
<tr><td>2. High-risk, high-leveraged investments, lending or endorsement guarantees, derivative</td></tr>
</table>

Major Risk Assessment	Risk Management Authority (1st Tier)	Risk Review and Control (2nd Tier)	The Board, Audit Committee and Audit Office (3rd Tier)
transactions, and financial investments			3. Audit Office: Risk inspection, assessment, monitoring, and tracking of corrective actions and report.
3. R&D plan	R&D Units, Sales & Marketing Units, Information Security Execution Team, Information Security Event Response Center	1. Project Management (members: project manager, Sales & Marketing Units, R&D Units, Quality Management & Process Integration Department) 2. Senior Management Meeting (members: President, VP of Administration Center, VP of Sales & Marketing Center, VP of R&D, Accounting and Financial Officer) 3. Information Security Committee (members: Information Technology Department, Engineering Center, Audit Office)	
4. Changes in Technology and industry			
5. Changes in policies and Regulations	President, Legal Affairs Department	1. Senior Management Meeting (members: President, VP of Administration Center, VP of Sales & Marketing Center, VP of R&D, Accounting and Financial Officer) 2. Management Review Meeting (members: President, managers of each functional departments, Quality Management & Process Integration Department)	
6. Litigation or non-litigation matters			
7. Corporate image / Corporate Social Responsibility	President Office Relevant functional departments		
8. Transfer of shares by Directors and major shareholders	Stock Affairs Unit	Chairman, President	
9. Changes in management rights	Chairman, President		

Major Risk Assessment	Risk Management Authority (1st Tier)	Risk Review and Control (2nd Tier)	The Board, Audit Committee and Audit Office (3rd Tier)
10. Others operational matters	Relevant functional departments	Chairman, President	

E. With respect to the materiality principle of social responsibility, the Company made related risk assessments for material topics, and established related risk management strategy and measures as followings:

Material Topic	Risk Assessment Project	Risk Management Strategy and Measures
Environment	Environmental Protection and Ecological Conservation	The Company is a professional silicon IP company, and not engaged in production and manufacturing (intangible product); thus, there is no industrial waste being produced. For general waste, the Company had contracted with cleaning service company to perform the daily cleaning and recycle the resource waste, which practically implements the protection of environment and resource reusing. In addition, the Company is devoted to environmental protection policies of energy conservation and carbon reduction and water resource protection; thus, timers are configured on the air conditioners, and water savers are installed on faucets. Switching off when leaving, paperless operation, water saving are publicized to the employees. The inventory of greenhouse gas and water consumption is performed annually; the goal is to decrease the emission of carbon dioxide and consumption of water year by year.
	Climate Change	The Company has evaluated that climate change may cause disaster hazard, market risk, operation risk etc., and to minimize the impact of increased operation costs caused by the relevant potential risks, the Company alters the green environmental protection from duties to opportunities by the innovation of core technologies, implementing component reduced product design which substitutes the complex manufacturing process required by the conventional non-volatile memory, and reduces the emission of carbon dioxide; depending on the innovation in several aspects of strategy, market, management, research and development, and accompanying with power of implementation, the Company keeps change for sustainability.

Material Topic	Risk Assessment Project	Risk Management Strategy and Measures
Society	Workplace Safety	The Company is dedicated in the topics of securing labor health and working environment by periodically implementing safety and health education and holding "Fire Safety Seminar" propaganda courses pursuant to the occupational safety and health relevant laws and regulations. And by providing specific parking spaces or transportation allowances, nursery room, full time security system, multifunction rest area etc. the employees can enjoy a comfortable and healthy environment. We believe that the most fortune of the Company shall be the healthy employees, we provide full exercise allowances for fitness and hold health examination periodically, and the nursing personnel on-site services are available in the Company to manage the health of employees and provide health consulting services.
	Product Safety	The marketing of goods and services of the Company conforms to the requirements of relevant regulations and international standards. Besides, the Company insists on the spirit of "Quality First, Service Best, Customer Satisfied" and focuses on product quality to reach the main goal of increasing the customer's satisfaction, provides customers with safe, reliable and high quality products, and maintain good communication channel with customers by providing transparent and effective complaint handling procedures for products and services. In addition, the customer satisfaction survey is conducted every year, the Company deserves recognition from customers for years, the average score of 2019 is 95.22.
Corporate Governance	Social Economic and Compliance	By means of establishing corporate governance organization and implementing internal control system, all the personnel and operations of the Company can be ensured to comply with relevant laws and regulations.

7.7 Other Materiality: None.

VIII. Special Disclosure

8.1 Summary of Affiliated Companies

8.1.1 Consolidation Business Report of Affiliates

A. The Company's Affiliated Companies Chart

eMemory Technology Inc.

↓ Shareholding: 100%

PUFsecurity Corporation

B. Basic Information of Affiliated Companies：

12/31/2019；Unit: NT$ thousands

Company Name	Date of Establishment	Address	Capital	Main Businesses and Products
PUFsecurity Corporation	May 8, 2019	8F.-1, No. 5, Tai-Yuan 1st Street., Jhubei City, Hsinchu County, Taiwan	50,000	Product designing, software services, data processing services, intellectual property, etc.

C. In accordance with the Article 369-3 of the Company Act, Disclose if There is a Presumption of Controlling and Subordinate Relationship：None.

D. Shareholders in Common of the Company and Its Affiliated Companies with Deemed Control and Subordination：None.

E. Business Scope of the Company and Its Affiliated Companies：Please refer to the above of Basic Information of Affiliated Companies.

F. List of Directors, Supervisors and Presidents of the Company's Affiliated Companies：

04/12/2020

Company Name	Title	Name or Representative	Holding Shares	
			Shares	%
PUFsecurity Corporation	Chairman	eMemory Technology Inc. Representative：Charles Hsu	50,000,000	100%

G. Operation Highlights of the Company's Affiliated Companies：

12/31/2019；Unit: NT$ thousands (Except EPS: NT)

Company Name	Capital	Assets	Liabilities	Equity	Revenue	Operating Income	Net Income (Loss)	EPS
PUFsecurity Corporation	50,000	31,269	3,596	27,673	756	(22,519)	(22,384)	(0.45)

8.1.2 Consolidated Business Report and Consolidation of Financial Statements of Affiliates：Please refer to page 122~180 of this Annual Report.

8.1.3 Information Regarding Financing, Endorsements, Guarantees, and Trading in Derivative Products of Affiliates：None.

8.2 Private Placement Securities：None.

8.3 Shares in the Company Held or Disposed of by Subsidiaries：None.

8.4 Supplementary Notes：None.

8.5 Any Events Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Item 2 Paragraph 3 of Article 36 of Securities and Exchange Act：None.

Appendix 1：Consolidated Financial Statements

DECLARATION OF CONSOLIDATION OF FINANCIAL STATEMENTS OF AFFILIATES

The companies required to be included in the consolidated financial statements of affiliates in accordance with the “Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises” for the year ended December 31, 2019 are all the same as the companies required to be included in the consolidated financial statements of a parent and its subsidiaries under International Financial Reporting Standard 10 “Consolidated Financial Statements.” Relevant information that should be disclosed in the consolidated financial statements of affiliates has all been disclosed in the consolidated financial statements of a parent and its subsidiaries. Hence, we have not prepared a separate set of consolidated financial statements of affiliates.

Very truly yours,

eMemory Technology Inc.

By:

____

Charles Hsu
Chairman

February 19, 2020

Deloitte.

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INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
eMemory Technology Inc.

Opinion

We have audited the accompanying consolidated financial statements of eMemory Technology Inc. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter for the Group's consolidated financial statements for the year ended December 31, 2019 is stated as follows:

1. The major revenue source of the Group is royalty revenue, refer to Note 20 for related information. To elaborate, when IC design houses' products with the silicon intellectual property of the Group are expected to be mass produced and shipped from the wafer foundries, the wafer foundries will pay a certain percentage of royalty fee based on the wafer price.

2. The Group recognizes royalty revenue based on the contracts and the time when the royalty reports are signed back. The related risks may exist if the royalty revenue from wafer foundries is not recognized at the appropriate time.

3. To verify the accuracy and recognition timing of the royalty revenue, we established the revenue recognition policy of the Group, assessed the reasonableness of the revenue recognition timing, performed relevant control tests and analytical procedures, as well as traced a certain number of royalty revenue transactions before and after the end of reporting period with relevant supporting documents and accounting records.

Other Matter

We have also audited the parent company only financial statements of eMemory Technology Inc. as of and for the years ended December 31, 2019 and 2018 on which we have issued an unmodified opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and IFRS, IAS, IFRIC and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Group’s financial reporting process.

Auditors’ Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors’ report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group’s internal control.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient and appropriate audit evidence regarding the financial information of entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision, and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Yu-Feng Huang and Su-Li Fang.

Deloitte & Touche
Taipei, Taiwan
Republic of China

February 19, 2020

<u>*Notice to Readers*</u>

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and consolidated financial statements shall prevail.

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

ASSETS	2019 Amount	%	2018 Amount	%
CURRENT ASSETS				
Cash (Notes 4, 6 and 26)	$ 1,263,858	62	$ 1,302,003	62
Accounts receivable - net (Notes 4, 9, 20 and 26)	126,812	7	158,335	8
Other receivables (Notes 4 and 26)	1,929	-	225	-
Other receivables - related parties (Notes 4, 26 and 27)	410	-	251	-
Prepayments (Note 15)	19,472	1	19,889	1
Other current assets (Notes 4, 15 and 26)	4,275	-	2,902	-
Total current assets	1,416,756	70	1,483,605	71
NON-CURRENT ASSETS				
Financial assets at fair value through other comprehensive income - noncurrent (Notes 4, 7 and 26)	15,530	1	19,180	1
Financial assets at amortized cost - noncurrent (Notes 4, 8, 26 and 28)	33,613	2	33,612	2
Investment accounted for using equity method (Notes 4 and 11)	5,382	-	6,046	-
Property, plant and equipment (Notes 4 and 12)	477,171	23	491,533	23
Right-of-use assets (Notes 3, 4 and 13)	7,287	-	-	-
Intangible assets (Notes 4 and 14)	73,805	4	67,162	3
Deferred tax assets (Notes 4 and 22)	3,434	-	2,708	-
Refundable deposits	349	-	331	-
Total non-current assets	616,571	30	620,572	29
TOTAL	$ 2,033,327	100	$ 2,104,177	100

LIABILITIES AND EQUITY	2019 Amount	%	2018 Amount	%
CURRENT LIABILITIES				
Contract liabilities - current (Notes 20 and 27)	$ 32,837	2	$ 37,822	2
Other payables (Notes 16 and 26)	80,914	4	94,104	5
Bonuses payable to employees and directors (Note 21)	125,120	6	138,092	7
Payables on equipment (Note 26)	4,861	-	6,241	-
Current tax liabilities (Notes 4 and 22)	56,576	3	71,897	3
Lease liabilities - current (Notes 3, 4, 13 and 26)	3,114	-	-	-
Other current liabilities (Notes 16 and 27)	1,731	-	1,616	-
Total current liabilities	305,153	15	349,772	17
NON-CURRENT LIABILITIES				
Lease liabilities - noncurrent (Notes 3, 4, 13 and 26)	4,246	-	-	-
Net defined benefit liabilities - noncurrent (Notes 4 and 17)	21,384	1	20,334	1
Guarantee deposits received (Note 27)	530	-	530	-
Total non-current liabilities	26,160	1	20,864	1
Total liabilities	331,313	16	370,636	18
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE COMPANY (Notes 4, 18 and 19)				
Ordinary shares	758,336	37	757,908	36
Capital surplus	404,446	20	416,537	20
Retained earnings				
Legal reserve	401,471	20	340,160	16
Special reserve	61,932	3	926	-
Unappropriated earnings	545,653	27	684,180	32
Total retained earnings	1,009,056	50	1,025,266	48
Other equity				
Exchange differences on translating the financial statements of foreign operations	(4)	-	-	-
Unrealized gain (loss) on financial assets at fair value through other comprehensive income	(65,582)	(3)	(61,932)	(3)
Total other equity	(65,586)	(3)	(61,932)	(3)
Treasury shares	(404,238)	(20)	(404,238)	(19)
Total equity	1,702,014	84	1,733,541	82
TOTAL	$ 2,033,327	100	$ 2,104,177	100

The accompanying notes are an integral part of the consolidated financial statements.

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
OPERATING REVENUE (Notes 4, 20 and 27)	$ 1,410,085	100	$ 1,476,516	100
OPERATING COSTS	-	-	-	-
GROSS PROFIT	1,410,085	100	1,476,516	100
OPERATING EXPENSES (Notes 4, 13, 21 and 27)				
Selling and marketing expenses	122,545	9	120,678	8
General and administrative expenses	162,986	11	169,610	11
Research and development expenses	506,215	36	505,475	34
Expected credit (gain) loss (Notes 4 and 9)	(2,984)	-	8,018	1
Total operating expenses	788,762	56	803,781	54
OPERATING INCOME	621,323	44	672,735	46
NON-OPERATING INCOME AND EXPENSES				
Other income (Notes 4, 13, 21 and 27)	19,760	1	25,024	2
Other gains and losses (Notes 4, 21, 24 and 27)	(3,384)	-	5,428	-
Financial costs (Note 21)	(179)	-	-	-
Share of loss of associates (Notes 4 and 11)	(4,336)	-	(4,356)	-
Total non-operating income and expenses	11,861	1	26,096	2
PROFIT BEFORE INCOME TAX	633,184	45	698,831	48
INCOME TAX EXPENSE (Notes 4 and 22)	91,112	7	85,725	6
NET PROFIT FOR THE YEAR	542,072	38	613,106	42
OTHER COMPREHENSIVE INCOME				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans (Notes 4 and 17)	(1,604)	-	(1,650)	-
Unrealized (loss) gain on investments in equity instruments at fair value through other comprehensive income (Notes 4 and 18)	(3,650)	-	1,060	-

(Continued)

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
Items that may be reclassified subsequently to profit or loss:				
Share of the other comprehensive income of associates accounted for using the equity method (Notes 4 and 18)	$ (4)	-	$ -	-
Other comprehensive loss for the year	(5,258)	-	(590)	-
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 536,814	38	$ 612,516	42
NET PROFIT ATTRIBUTABLE TO:				
Owners of the Company	$ 542,072	38	$ 613,106	42
Non-controlling interests	-	-	-	-
	$ 542,072	38	$ 613,106	42
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Owners of the Company	$ 536,814	38	$ 612,516	42
Non-controlling interests	-	-	-	-
	$ 536,814	38	$ 612,516	42
EARNINGS PER SHARE (Note 23)				
Basic	$ 7.30		$ 8.13	
Diluted	$ 7.26		$ 8.07	

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	Ordinary Shares			Retained Earnings				Other Equity			
	Shares (In Thousands)	Amount	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Total	Exchange Differences on Translating the Financial Statements of Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Treasury Shares	Total Equity
BALANCE, JANUARY 1, 2018	75,783	$ 757,823	$ 427,496	$ 280,298	$ 926	$ 671,322	$ 952,546	$ -	$ (62,992)	$ -	$ 2,074,873
Appropriation of 2017 earnings											
Legal reserve	-	-	-	59,862	-	(59,862)	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(538,736)	(538,736)	-	-	-	(538,736)
Change in capital surplus from investments in associates accounted for by using equity method	-	-	9	-	-	-	-	-	-	-	9
Issuance of cash dividends from capital surplus	-	-	(29,631)	-	-	-	-	-	-	-	(29,631)
Net profit for the year ended December 31, 2018	-	-	-	-	-	613,106	613,106	-	-	-	613,106
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	-	(1,650)	(1,650)	-	1,060	-	(590)
Total comprehensive income for the year ended December 31, 2018	-	-	-	-	-	611,456	611,456	-	1,060	-	612,516
Issuance of ordinary shares under employee share options	8	85	2,794	-	-	-	-	-	-	-	2,879
Buy-back of ordinary shares	-	-	-	-	-	-	-	-	-	(404,238)	(404,238)
Share-based payment	-	-	15,869	-	-	-	-	-	-	-	15,869
BALANCE, DECEMBER 31, 2018	75,791	757,908	416,537	340,160	926	684,180	1,025,266	-	(61,932)	(404,238)	1,733,541
Appropriation of 2018 earnings											
Legal reserve	-	-	-	61,311	-	(61,311)	-	-	-	-	-
Special reserve	-	-	-	-	61,006	(61,006)	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(556,678)	(556,678)	-	-	-	(556,678)
Change in capital surplus from investments in associates accounted for by using equity method	-	-	3,676	-	-	-	-	-	-	-	3,676
Issuance of cash dividends from capital surplus	-	-	(37,112)	-	-	-	-	-	-	-	(37,112)
Net profit for the year ended December 31, 2019	-	-	-	-	-	542,072	542,072	-	-	-	542,072
Other comprehensive loss for the year ended December 31, 2019	-	-	-	-	-	(1,604)	(1,604)	(4)	(3,650)	-	(5,258)
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	-	540,468	540,468	(4)	(3,650)	-	536,814
Issuance of ordinary shares under employee share options	43	428	13,554	-	-	-	-	-	-	-	13,982
Share-based payment	-	-	7,791	-	-	-	-	-	-	-	7,791
BALANCE, DECEMBER 31, 2019	75,834	$ 758,336	$ 404,446	$ 401,471	$ 61,932	$ 545,653	$ 1,009,056	$ (4)	$ (65,582)	$ (404,238)	$ 1,702,014

The accompanying notes are an integral part of the consolidated financial statements.

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	$ 633,184	$ 698,831
Adjustments for:		
Depreciation expenses	40,678	37,402
Amortization expenses	14,495	13,202
Expected credit (gain) loss	(2,984)	8,018
Finance costs	179	-
Interest income	(9,631)	(10,663)
Dividend income	(291)	(943)
Share-based payment	7,791	15,869
Share of loss of associates	4,336	4,356
Loss on disposal of property, plant and equipment	-	278
Intangible asset reclassified as operating expenses	10	-
Gain on disposal of investments	(95)	(79)
Net loss (gain) on foreign currency exchange	4,321	(1,015)
Changes in operating assets and liabilities		
Accounts receivable	32,484	(83,763)
Other receivables	(1,691)	-
Other receivables - related parties	(159)	326
Prepayments	426	(1,895)
Other current assets	(1,373)	(879)
Contract liabilities	(4,985)	4,351
Other payables	(13,204)	13,176
Other current liabilities	115	165
Net defined benefit liabilities	(554)	(558)
Bonuses payable to employees and directors	(12,972)	4,467
Cash generated from operations	690,080	700,646
Interest received	9,618	10,676
Income tax paid	(107,168)	(75,900)
Net cash generated from operating activities	592,530	635,422
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of financial assets at amortized cost	(1)	(1)
Acquisition of financial assets at fair value through profit or loss	(592,000)	(600,000)
Proceeds from disposal of financial assets at fair value through profit or loss	592,095	600,079
Acquisition of property, plant and equipment	(24,601)	(11,335)
Increase in refundable deposits	(18)	(16)
Acquisition of intangible assets	(21,148)	(17,934)
Dividend received	291	943
Net cash used in investing activities	(45,382)	(28,264)

(Continued)

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM FINANCING ACTIVITIES		
Repayment of the principal portion of lease liabilities	$ (3,022)	$ -
Dividends paid	(593,780)	(568,353)
Exercise of employee share options	13,982	2,879
Payments for buy-back of ordinary shares	-	(404,238)
Interest paid	(179)	-
Net cash used in financing activities	(582,999)	(969,712)
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH HELD IN FOREIGN CURRENCIES	(2,294)	873
NET DECREASE IN CASH	(38,145)	(361,681)
CASH AT THE BEGINNING OF THE YEAR	1,302,003	1,663,684
CASH AT THE END OF THE YEAR	$ 1,263,858	$ 1,302,003

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

1. GENERAL INFORMATION

eMemory Technology Inc. (the "Company") was incorporated in Hsinchu City, Republic of China, and commenced business in September 2000. The Company's main business activities include researching, developing, manufacturing and selling embedded flash memory products, etc.

The Company's shares have been listed on the TPEx since January 2011.

The consolidated financial statements are presented in the Company's functional currency, the New Taiwan dollar.

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the board of directors and authorized for issue on February 19, 2020.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and Interpretations of IAS (SIC) (collectively, the "IFRSs") endorsed and issued into effect by the Financial Supervisory Commission (FSC)

Except for the following, whenever applied, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC would not have any material impact on the accounting policies of the Company and entities controlled by the Company (collectively, the "Group"):

1) IFRS 16 "Leases"

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessee and lessor. It supersedes IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", and a number of related interpretations. Refer to Note 4 for information relating to the relevant accounting policies.

<u>Definition of a lease</u>

The Group elects to apply the guidance of IFRS 16 in determining whether contracts are, or contain, a lease only to contracts entered into (or changed) on or after January 1, 2019. Contracts identified as containing a lease under IAS 17 and IFRIC 4 are not reassessed and are accounted for in accordance with the transitional provisions under IFRS 16.

<u>The Group as lessee</u>

The Group recognizes right-of-use assets and lease liabilities for all leases on the consolidated balance sheets except for those whose payments under low-value asset and short-term leases are recognized as expenses on a straight-line basis. On the consolidated statements of comprehensive income, the Group presents the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liabilities; interest is computed using the effective interest method. On the consolidated statements of cash flows, cash payments for the principal portion of lease liabilities are classified within financing activities; cash payments for the interest portion are classified within financing activities. Prior to the application of IFRS 16, payments under operating lease contracts were recognized as expenses on a straight-line basis. Cash flows for operating leases were classified within operating activities on the consolidated statements of cash flows.

Lease liabilities were recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at an amount that is equal to the lease liabilities. The Group applies IAS 36 to all right-of-use assets.

The Group also applies the following practical expedients:

a) The Group applies a single discount rate to a portfolio of leases with reasonably similar characteristics to measure lease liabilities.

b) The Group accounts for those leases for which the lease term ends on or before December 31, 2019 as short-term leases.

c) The Group excludes initial direct costs from the measurement of right-of-use assets on January 1, 2019.

d) The Group uses hindsight, such as in determining lease terms, to measure lease liabilities.

The weighted average lessee's incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 2.2%. The difference between the (i) lease liabilities recognized and (ii) the future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	$ 2,099
The future minimum lease payments of cancellable operating lease commitments on December 31, 2018	7,217
Undiscounted amounts on January 1, 2019	$ 9,316
Discounted amounts using the incremental borrowing rate on January 1, 2019	$ 8,986
Lease liabilities recognized on January 1, 2019	$ 8,986

The Group as lessor

The Group does not make any adjustments for leases in which it is a lessor, and it accounts for those leases with the application of IFRS 16 starting from January 1, 2019.

The Group subleased its leasehold dormitories to its employees. Such sublease was classified as an operating lease under IAS 17. The Group determines the sublease is classified as an operating lease on the basis of the remaining contractual terms and conditions of the head lease and sublease on January 1, 2019.

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	As Originally Stated on January 1, 2019	Adjustments Arising from Initial Application	Restated on January 1, 2019
Right-of-use assets	$ -	$ 8,986	$ 8,986
Total effect on assets	$ -	$ 8,986	$ 8,986
Lease liabilities - current	$ -	$ 2,781	$ 2,781
Lease liabilities - noncurrent	-	6,205	6,205
Total effect on liabilities	$ -	$ 8,986	$ 8,986

b. The IFRSs endorsed by the FSC for application starting from 2020

New, Amended or Revised Standards and Interpretations	Effective Date Announced by IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020 (Note 3)

Note 1: The Group shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Group shall apply these amendments retrospectively for annual reporting periods beginning on or after January 1, 2020.

Note 3: The Group shall apply these amendments prospectively for annual reporting periods beginning on or after January 1, 2020.

As of the date the consolidated financial statements were authorized for issue, the Group is continuously assessing the possible impact that the application of the above standards and interpretations will have on the Group's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

c. New IFRSs issued by IASB but not yet endorsed and issued into effect by the FSC

New, Amended or Revised Standards and Interpretations	Effective Date Announced by IASB (Note 1)
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2022

Note 1: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

As of the date the consolidated financial statements were authorized for issue, the Group is continuously assessing the possible impact that the application of the above standards and interpretations will have on the Group's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of compliance

The consolidated financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IFRSs as endorsed and issued into effect by the FSC.

b. Basis of preparation

The consolidated financial statements have been prepared on the historical cost basis except for financial instruments which are measured at fair value and net defined benefit liabilities which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

The fair value measurements, which are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and based on the significance of the inputs to the fair value measurement in its entirety, are described as follows:

1) Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

2) Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

3) Level 3 inputs are unobservable inputs for an asset or liability.

c. Classification of current and non-current assets and liabilities

Current assets include:

1) Assets held primarily for the purpose of trading;

2) Assets expected to be realized within 12 months after the reporting period; and

3) Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

Current liabilities include:

1) Liabilities held primarily for the purpose of trading;

2) Liabilities due to be settled within 12 months after the reporting period; and

3) Liabilities for which the Group does not have an unconditional right to defer settlement for at least 12 months after the reporting period.

Assets and liabilities that are not classified as current are classified as non-current.

d. Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and the entities controlled by the Company (i.e., its subsidiaries).

Income and expenses of subsidiaries acquired or disposed of during the period are included in the consolidated statement of profit or loss and other comprehensive income from the effective dates of acquisitions up to the effective dates of disposals, as appropriate.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Company.

All intra-group transactions, balances, income and expenses are eliminated in full upon consolidation. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the interests of the Group and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to the owners of the Company.

See Note 10 for detailed information on subsidiaries (including percentages of ownership and main businesses).

e. Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (i.e., foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising from the retranslation of non-monetary items are included in profit or loss for the period except for exchange differences arising from the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income; in which cases, the exchange differences are also recognized directly in other comprehensive income.

Non-monetary items that are measured at historical cost in a foreign currency are not retranslated.

For the purpose of presenting consolidated financial statements, the functional currencies of the Group's foreign operations (including subsidiaries, associates, joint ventures and branches in other countries that use currencies which are different from the currency of the Group) are translated into the presentation currency, the New Taiwan dollar, as follows: Assets and liabilities are translated at the exchange rates prevailing at the end of the reporting period; and income and expense items are translated at the average exchange rates for the period. The resulting currency translation differences are recognized in other comprehensive income.

f. Investments in associates

An associate is an entity over which the Group has significant influence and which is neither a subsidiary nor an interest in a joint venture. The Group uses the equity method to account for its investments in associates.

Under the equity method, investments in associates are initially recognized at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate. The Group also recognizes the changes in the Group's share of the equity of associates.

When the Group subscribes for additional new shares of an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Group's proportionate interest in the associate. The Group records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus - changes in capital surplus from investments in associates accounted for using the equity method. If the Group's ownership interest is reduced due to its additional subscription of the new shares of the associate, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate is reclassified to profit or loss on the same basis as would be required had the investee directly disposed of the related assets or liabilities. When the adjustment should be debited to capital surplus, but the capital surplus recognized from investments accounted for using the equity method is insufficient, the shortage is debited to retained earnings.

The entire carrying amount of an investment is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is not allocated to any asset that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Group transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Group's consolidated financial statements only to the extent of interests in the associate that are not related to the Group.

g. Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment loss.

Depreciation of property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation methods are reviewed at the end of each year, with the effects of any changes in the estimates accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

h. Intangible assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful lives, residual values, and amortization methods are reviewed at the end of each year, with the effect of any changes in the estimates accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are measured at cost less accumulated impairment loss.

2) Internally-generated intangible assets - research and development expenditures

Expenditures on research activities are recognized as expenses in the period in which they are incurred.

An internally-generated intangible asset arising from the development phase of an internal project is recognized if, and only if, all of the following have been demonstrated:

a) The technical feasibility of completing the intangible asset so that it will be available for use or sale;

b) The intention to complete the intangible asset and use or sell it;

c) The ability to use or sell the intangible asset;

d) How the intangible asset will generate probable future economic benefits;

e) The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

f) The ability to measure reliably the expenditures attributable to the intangible asset during its development.

The amount initially recognized for internally-generated intangible assets is the sum of the expenditures incurred from the date when such an intangible asset first meets the recognition criteria listed above. Subsequent to initial recognition, such intangible assets are measured on the same basis as intangible assets that are acquired separately.

3) Derecognition of intangible assets

On derecognition of an intangible asset, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

i. Impairment of tangible and intangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets for any indication of impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of a corporate asset, the asset is tested for impairment in the context of the cash-generating unit (CGU) to which the asset belongs. If a portion of the carrying amount of the asset can be allocated on a reasonable and consistent basis to the CGU, the Group compares the carrying amount of the CGU, including the portion of the asset's carrying amount allocated to the CGU, with the recoverable amount of the CGU to which the asset belongs. If this reasonable and consistent basis of allocation cannot be applied to the CGU to which the asset belongs and can be applied instead to the smallest group of CGUs to which the CGU belongs, this smallest group is used for impairment testing.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the assets may be impaired.

The recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

When an impairment loss is subsequently reversed, the carrying amount of the corresponding asset, cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized on the asset, cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

j. Financial instruments

Financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss (FVTPL)) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognized immediately in profit or loss.

1) Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

a) Measurement categories

Financial assets are classified into the following categories: Financial assets at amortized cost and equity instruments at fair value through other comprehensive income (FVTOCI).

i. Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

i) The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

ii) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost, including cash, accounts receivable, other receivables and other current assets are measured at amortized cost, which equals the gross carrying amount determined using the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such a financial asset, except for:

i) Purchased or originated credit-impaired financial assets, for which interest income is calculated by applying the credit-adjusted effective interest rate to the amortized cost of such financial assets; and

ii) Financial assets that are not credit-impaired on purchase or origination but have subsequently become credit-impaired, for which interest income is calculated by applying the effective interest rate to the amortized cost of such financial assets in subsequent reporting periods.

A financial asset is credit impaired when one or more of the following events have occurred:

i) Significant financial difficulty of the issuer or the borrower;

ii) Breach of contract, such as a default;

iii) It is becoming probable that the borrower will enter bankruptcy or undergo a financial reorganization; or

iv) The disappearance of an active market for that financial asset because of financial difficulties.

Cash is highly liquid, and readily convertible to a known amount of cash, and is subject to an insignificant risk of changes in value. The Group's cash is held for the purpose of meeting short-term cash commitments.

ii. Investments in equity instruments at FVTOCI

On initial recognition, the Group may make an irrevocable election to designate investments in equity instruments as at FVTOCI. Designation as at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments; instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

b) Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable).

The Group always recognizes lifetime expected credit losses (i.e., ECLs) for accounts receivable. For all other financial instruments, the Group recognizes lifetime ECLs when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECLs.

Expected credit losses reflect the weighted average of credit losses with the respective risks of default occurring as the weights. Lifetime ECLs represent the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECLs represent the portion of lifetime ECLs that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

For internal credit risk management purposes, the Group determines that the following situations indicate that a financial asset is in default (without taking into account any collateral held by the Group):

i. Internal or external information show that the debtor is unlikely to pay its creditors.

ii. When a financial asset is more than 90 days past due unless the Group has reasonable and corroborative information to support a more lagged default criterion.

The impairment loss of all financial assets is recognized in profit or loss by a reduction in their carrying amounts through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and the carrying amounts of such financial assets are not reduced.

c) Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset’s carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss which had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the cumulative gain or loss is transferred directly to retained earnings, without recycling through profit or loss.

2) Equity instruments

Equity instruments issued by the Group are classified as equity in accordance with the substance of the contractual arrangements and the definitions of an equity instrument.

Equity instruments issued by the Group are recognized at the proceeds received, net of direct issue costs.

The repurchase of the Group’s own equity instruments is recognized in and deducted directly from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issuance or cancellation of the Group’s own equity instruments.

3) Financial liabilities

a) Subsequent measurement

All financial liabilities are measured at amortized cost using the effective interest method.

b) Derecognition of financial liabilities

The difference between the carrying amount of a financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

k. Revenue recognition

The Group identifies contracts with customers, allocates the transaction price to the performance obligations and recognizes revenue when performance obligations are satisfied.

For contracts where the period between the date on which the Group transfers a promised good or service to a customer and the date on which the customer pays for that good or service is one year or less, the Group does not adjust the promised amount of consideration for the effects of a significant financing component.

1) Authorized revenue

a) Technical service revenue

The Group identifies performance obligations from contracts with customers and recognizes revenue when performance obligations are satisfied.

b) Royalty revenue

Revenue received from the intellectual property that remains operational without updated authorization or technical support is the royalty revenue. While customers use the intellectual property in mass production at the foundries, the royalty prices are determined based on production, sales or other measures and the revenue is recognized with reference to the underlying arrangements.

l. Leases

2019

At the inception of a contract, the Group assesses whether the contract is, or contains, a lease.

1) The Group as lessor

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

When the Group subleases a right-of-use asset, the sublease is classified by reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. However, if the head lease is a short-term lease that the Group, as a lessee, has accounted for applying recognition exemption, the sublease is classified as an operating lease.

Lease payments from operating leases are recognized as income on a straight-line basis over the terms of the relevant leases.

2) The Group as lessee

The Group recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, less any lease incentives received, and plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the consolidated balance sheets.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities are initially measured at the present value of the lease payments. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses the lessee's incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Group remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the consolidated balance sheets.

Variable lease payments that do not depend on an index or a rate are recognized as expenses in the periods in which they are incurred.

2018

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Group as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

2) The Group as lessee

Operating lease payments are recognized as expenses on a straight-line basis over the lease term.

m. Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary conditions are that the Group should purchase, construct or otherwise acquire non-current assets are recognized as deferred revenue and transferred to profit or loss on a systematic basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they are received.

n. Employee benefits

1) Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related services.

2) Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as expenses when employees have rendered services entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost) and net interest on the net defined benefit liabilities (assets) are recognized as employee benefits expense in the period in which they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which it occurs. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liabilities (assets) represent the actual deficit (surplus) in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

3) Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plans except that remeasurement is recognized in profit or loss.

o. Share-based payment arrangements

Employee share options granted to employees

The fair value at the grant date of the employee share options is expensed on a straight-line basis over the vesting period, based on the Group's best estimates of the number of shares or options that are expected to ultimately vest, with a corresponding increase in capital surplus - employee share options. It is recognized as an expense in full at the grant date if vested immediately.

At the end of each reporting period, the Group revises its estimate of the number of employee share options expected to vest. The impact of the revision of the original estimates is recognized in profit or loss such that the cumulative expenses reflect the revised estimate, with a corresponding adjustment to capital surplus - employee share options.

p. Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

According to the Income Tax Law, an additional tax on unappropriated earnings is provided for as income tax in the year the shareholders approve to retain earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, research and development expenditures to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the assets to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the liabilities are settled or the assets are realized, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3) Current and deferred taxes

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity; in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity, respectively.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY

In the application of the Group’s accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Critical Accounting Judgements

a. Business model assessment for financial assets

The Group determines the business model at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. This assessment includes judgment about all relevant evidence including how the performance of the assets is evaluated and the risks that affect the performance of the assets. The Group monitors financial assets measured at amortized cost when assets are derecognized prior to their maturity, the Group understands the reasons for their disposal and whether the reasons are consistent with the objective of the business for which the assets were held. Monitoring is part of the Group's continuous assessment of whether the business model for which the remaining financial assets are held continues to be appropriate and, if it is not appropriate, whether there has been a change in the business model such that a prospective change to the classification of those assets is proper.

b. Lease terms - 2019

In determining a lease term, the Group considers all facts and circumstances that create an economic incentive to exercise or not to exercise an option, including any expected changes in facts and circumstances from the commencement date until the exercise date of the option. Main factors considered include contractual terms and conditions for the optional periods, significant leasehold improvements undertaken over the contract term, the importance of the underlying asset to the lessee's operations, etc. The lease term is reassessed if a significant change in circumstances that are within control of the Group occur.

Key Sources of Estimation and Uncertainty

a. Estimated impairment of financial assets

The provision for impairment of accounts receivables (include related parties) is based on assumptions about risk of default and expected loss rates. The Group uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Group's historical experience, existing market conditions and industrial economic trends. Where the actual future cash inflows are less than expected, a material impairment loss may arise.

b. Lessees' incremental borrowing rates

In determining a lessee's incremental borrowing rate used in discounting lease payments, a risk-free rate for the same currency and relevant duration is selected as a reference rate, and the lessee's credit spread adjustments and lease specific adjustments (such as asset type, secured position, etc.) are also taken into account.

6. CASH

	December 31	
	2019	2018
Bank deposits	$ 1,263,823	$ 1,301,978
Cash on hand	35	25
	$ 1,263,858	$ 1,302,003

The market rates of cash in bank at the end of the reporting period were as follows:

	December 31	
	2019	**2018**
Bank deposits	0.001%-2.75%	0.001%-3.55%

7. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31	
	2019	**2018**
Non-current		
Investments in equity instruments at FVTOCI	$ 15,530	$ 19,180
Domestic investments		
Unlisted shares		
Ordinary shares - Powerchip Technology Corporation	$ 8,540	$ 12,260
Ordinary shares - Syntronix Corporation	6,990	6,920
	$ 15,530	$ 19,180

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes.

8. FINANCIAL ASSETS AT AMORTIZED COST

	December 31	
	2019	**2018**
Non-current		
Domestic investments		
Time deposit with original maturity of more than 1 year	$ 33,500	$ 33,500
Pledged time deposits	113	112
	$ 33,613	$ 33,612

a. The ranges of interest rates for time deposits with original maturities of more than 1 year were approximately 1.015%-1.09% and 1.015%-1.09% per annum as of December 31, 2019 and 2018, respectively.

b. Refer to Note 26 for information relating to the credit risk management and impairment of financial assets at amortized cost.

c. Refer to Note 28 for information relating to investments in financial assets at amortized cost pledged as security.

9. ACCOUNTS RECEIVABLE, NET

	December 31	
	2019	2018
Accounts receivable	$ 133,917	$ 168,424
Less: Allowance for impairment loss	(7,105)	(10,089)
	$ 126,812	$ 158,335

The average credit term was 30 to 60 days. No interest was charged on accounts receivable. The Group uses other publicly available financial information or its own trading records to rate its major customers. The Group's exposure and the credit ratings of its counterparties are continuously monitored.

Credit exposure is controlled by counterparty limits that are reviewed and approved.

The Group applies the simplified approach to provide expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all accounts receivable. The lifetime expected credit losses are estimated considering past default experience and current financial position of the customers as well as industrial economic conditions. The Group's expected credit loss rates are set by individual customer based on historical credit loss experience.

The Group writes off an account receivable when there is information indicating that the debtor is in severe financial difficulty, and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation. For accounts receivable that have been written off, the Group continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

December 31, 2019

	Not Past Due	1 to 30 Days	31 to 90 Days	91 to 180 Days	Over 181 Days	Total
Gross carrying amount	$ 109,000	$ 6,146	$ 14,214	$ 1,679	$ 2,878	$ 133,917
Loss allowance (lifetime ECL)	(1,559)	(1,349)	(1,919)	(839)	(1,439)	(7,105)
Amortized cost	$ 107,441	$ 4,797	$ 12,295	$ 840	$ 1,439	$ 126,812

December 31, 2018

	Not Past Due	1 to 30 Days	31 to 90 Days	91 to 180 Days	Over 181 Days	Total
Gross carrying amount	$ 119,728	$ 11,010	$ 28,318	$ 9,368	$ -	$ 168,424
Loss allowance (lifetime ECL)	(3,165)	-	(5,542)	(1,382)	-	(10,089)
Amortized cost	$ 116,563	$ 11,010	$ 22,776	$ 7,986	$ -	$ 158,335

The movements of the loss allowance of accounts receivable were as follows:

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ 10,089	$ 2,071
Add: Net remeasurement of loss allowance	-	8,018
Less: Net remeasurement of loss allowance	(2,984)	-
Balance at December 31	$ 7,105	$ 10,089

10. SUBSIDIARIES

Subsidiaries included in the consolidated financial statements

Investor	Investee	Nature of Activities	Proportion of Ownership (%) December 31 2019	Proportion of Ownership (%) December 31 2018	Remark
eMemory Technology Inc.	PUFsecurity Corporation	Product designing, software services, data processing services, intellectual property, etc.	100%	-	1

Remarks:

1) eMemory Technology Inc. invested and established PUFsecurity Corporation in May 2019. The authorized capital and the total paid-up capital of PUFsecurity Corporation were NT$ 500,000 thousand and NT$ 50,000 thousand, respectively, divided into 50,000 thousand shares with a par value of NT$ 1.

11. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

Investments in associates

	December 31 2019	December 31 2018
Associates that are not individually material		
iMQ Technology Inc.	$ 5,382	$ 6,046

Name of Associate	Proportion of Ownership and Voting Rights December 31 2019	Proportion of Ownership and Voting Rights December 31 2018
iMQ Technology Inc.	3.38%	4.25%

	Year Ended December 31 2019	Year Ended December 31 2018
The Company's share of :		
Loss from continuing operations	$ (4,336)	$ (4,356)
Other comprehensive income (loss)	(4)	-
Total comprehensive income (loss) for the period	$ (4,340)	$ (4,356)

Although the shareholding ratio is less than 20%, the Company is able to exercise significant influence over iMQ Technology Inc. since the chairman of the Company is the same person as the chairman of iMQ Technology Inc. and the Company acts as the director of iMQ Technology Inc.

As the information about business nature, main operation location and the registered country. Refer to Table 3.

The investments in associates accounted for using the equity method, and the share of profit or loss and other comprehensive income (loss) of those investments for the years ended December 31, 2019 and 2018 was based on the audited financial statements.

12. PROPERTY, PLANT AND EQUIPMENT

	December 31, 2019
Assets used by the Group	$ 446,708
Assets leased under operating leases	30,463
	$ 477,171

a. Assets used by the Group - 2019

	Freehold Land	Buildings	Research and Development Equipment	Office Equipment	Total
Cost					
Balance at January 1, 2019	$ 124,019	$ 383,910	$ 102,728	$ 10,451	$ 621,108
Additions	-	3,751	16,550	2,920	23,221
Disposals	-	(3,747)	(12,374)	(3,567)	(19,688)
Transfers to assets leased under operating leases	(10,289)	(23,927)	-	-	(34,216)
Balance at December 31, 2019	$ 113,730	$ 359,987	$ 106,904	$ 9,804	$ 590,425
Accumulated depreciation					
Balance at January 1, 2019	$ -	$ 78,766	$ 45,500	$ 5,309	$ 129,575
Depreciation expenses	-	10,529	24,721	1,864	37,114
Disposals	-	(3,747)	(12,374)	(3,567)	(19,688)
Transfers to assets leased under operating leases	-	(3,284)	-	-	(3,284)
Balance at December 31, 2019	$ -	$ 82,264	$ 57,847	$ 3,606	$ 143,717
Carrying amounts at December 31, 2019	$ 113,730	$ 277,723	$ 49,057	$ 6,198	$ 446,708

b. Assets leased under operating leases - 2019

	Freehold Land	Buildings	Total
Cost			
Balance at January 1, 2019	$ -	$ -	$ -
Transfers from assets used by the Group	10,289	23,927	34,216
Balance at December 31, 2019	$ 10,289	$ 23,927	$ 34,216
Accumulated depreciation			
Balance at January 1, 2019	$ -	$ -	$ -
Transfers from assets used by the Group	-	3,284	3,284
Depreciation expenses	-	469	469
Balance at December 31, 2019	$ -	$ 3,753	$ 3,753
Carrying amounts at December 31, 2019	$ 10,289	$ 20,174	$ 30,463

Operating leases are related to leases of buildings with lease terms between 1 to 3 years. The lessees do not have bargain purchase options to acquire the assets at the expiry of the lease periods.

The maturity analysis of lease payments receivable under operating lease payments was as follows:

	December 31, 2019
Year 1	$ 3,363
Year 2	1,666
	$ 5,029

c. 2018

	Freehold Land	Buildings	Research and Development Equipment	Office Equipment	Total
Cost					
Balance at January 1, 2018	$ 124,019	$ 384,646	$ 97,007	$ 9,785	$ 615,457
Additions	-	368	20,350	3,158	23,876
Disposals	-	(1,104)	(14,629)	(2,492)	(18,225)
Balance at December 31, 2018	$ 124,019	$ 383,910	$ 102,728	$ 10,451	$ 621,108
Accumulated depreciation					
Balance at January 1, 2018	$ -	$ 68,676	$ 35,723	$ 5,721	$ 110,120
Depreciation expense	-	10,968	24,354	2,080	37,402
Disposals	-	(878)	(14,577)	(2,492)	(17,947)
Balance at December 31, 2018	$ -	$ 78,766	$ 45,500	$ 5,309	$ 129,575
Carrying amounts at December 31, 2018	$ 124,019	$ 305,144	$ 57,228	$ 5,142	$ 491,533

The future minimum lease payments of non-cancellable operating leases are as follows:

	December 31, 2018
Not later than 1 year	$ 3,363

There was no indication of impairment for the years ended December 31, 2019 and 2018, respectively.

The Group's property, plant and equipment are depreciated on a straight-line basis over the following estimated useful life:

Buildings	
Office main buildings	35-50 years
Electrical power equipment	5-10 years
Air-conditioning	5-8 years
Extinguishment equipment	5 years
Research and development equipment	3-8 years
Office equipment	3-5 years

13. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Buildings	$ 5,679
Office equipment	15
Transportation equipment	1,593
	$ 7,287

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 1,396
Depreciation charge for right-of-use assets	
Buildings	$ 1,790
Office equipment	30
Transportation equipment	1,275
	$ 3,095
Income from the subleasing of right-of-use assets (presented in other income)	$ (1,301)

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	
Current	$ 3,114
Non-current	$ 4,246

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Buildings	1.68%
Office equipment	3.05%
Transportation equipment	3.25%

c. Other lease information

Lease arrangements under operating leases for the leasing out of freehold property, plant and equipment are set out in Notes 12.

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 1,444
Total cash outflow for leases	$ (4,466)

The Group leases certain parking space and machine room which qualify as short-term leases. The Group has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease liabilities for these leases.

2018

The future minimum lease payments of non-cancellable operating lease commitments are as follows:

	December 31, 2018
Not later than 1 year	$ 1,549
Later than 1 year and not later than 5 years	550
	$ 2,099

The lease payments and sublease payments recognized in profit or loss were as follows:

	For the Year Ended December 31, 2018
Minimum lease payments	$ 1,596

14. INTANGIBLE ASSETS

	Patents	Software	Trademark	Total
Cost				
Balance at January 1, 2019	$ 112,921	$ 11,695	$ 4,418	$ 129,034
Additions	18,169	2,801	178	21,148
Disposals	(2,067)	(4,898)	(1,466)	(8,431)
Balance at December 31, 2019	$ 129,023	$ 9,598	$ 3,130	$ 141,751

(Continued)

	Patents	Software	Trademark	Total
Accumulated amortization				
Balance at January 1, 2019	$ 51,793	$ 6,556	$ 3,523	$ 61,872
Amortization expense	11,222	2,893	380	14,495
Disposals	(2,057)	(4,898)	(1,466)	(8,421)
Balance at December 31, 2019	$ 60,958	$ 4,551	$ 2,437	$ 67,946
Carrying amounts at December 31, 2019	$ 68,065	$ 5,047	$ 693	$ 73,805
Cost				
Balance at January 1, 2018	$ 97,611	$ 11,387	$ 4,411	$ 113,409
Additions	15,310	2,617	7	17,934
Disposals	-	(2,309)	-	(2,309)
Balance at December 31, 2018	$ 112,921	$ 11,695	$ 4,418	$ 129,034
Accumulated amortization				
Balance at January 1, 2018	$ 42,311	$ 5,571	$ 3,097	$ 50,979
Amortization expense	9,482	3,294	426	13,202
Disposals	-	(2,309)	-	(2,309)
Balance at December 31, 2018	$ 51,793	$ 6,556	$ 3,523	$ 61,872
Carrying amounts at December 31, 2018	$ 61,128	$ 5,139	$ 895	$ 67,162

(Concluded)

The Company's major products are NeoBit®, NeoFuse®, NeoPUF®, NeoEE® and NeoMTP®, etc. There are 967 patents currently owned or applied in progress for the products mentioned above. According to the requirements of IAS 38, the research and development costs were recognized as research and development expenses, instead of capitalized, in the periods when incurred. The costs of the patents and the trademarks mentioned above were the costs of the relevant fees and professional service expenses for legal right applications.

The above intangible assets with finite useful lives are amortized on a straight-line basis over the following estimated useful life:

Patents	5 years
Software	3 years
Trademark	5 years

15. OTHER ASSETS

	December 31	
	2019	2018
Current		
Prepayments		
Prepayment for software	$ 10,979	$ 12,559
Prepayment for annual fee on the patents	4,866	4,680
Prepayment for software maintenance	1,503	1,107
Others	2,124	1,543
	$ 19,472	$ 19,889
Other assets		
Temporary payment	$ 4,275	$ 2,902

16. OTHER LIABILITIES

	December 31	
	2019	2018
Current		
Other payables		
Bonus	$ 45,126	$ 62,917
Payable for annual leave	3,436	3,343
Payable for professional service fee	1,526	1,056
Others	30,826	26,788
	$ 80,914	$ 94,104
Other liabilities		
Receipt under custody	$ 1,159	$ 1,008
Receipt in advance	550	550
Temporary receipt	22	58
	$ 1,731	$ 1,616

17. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The Group adopted a pension plan under the Labor Pension Act (the "LPA"), which is a state-managed defined contribution plan. Under the LPA, an entity makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.

b. Defined benefit plans

The defined benefit plan adopted by the Company in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the 6 months before retirement. The Company contributes amounts equal to 2% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Company assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor (the Bureau); the Company has no right to influence the investment policy and strategy.

The amounts based on the actuary report of the Company's defined benefit plans were as follows:

	December 31	
	2019	**2018**
Present value of funded defined benefit obligation	$ 31,041	$ 28,793
Fair value of plan assets	(9,657)	(8,459)
Net defined benefit liability	$ 21,384	$ 20,334

Movements in net defined benefit liabilities were as follows:

	Present Value of the Defined Benefit Obligation	**Fair Value of the Plan Assets**	**Net Defined Benefit Liabilities**
Balance at January 1, 2018	$ 26,575	$ (7,333)	$ 19,242
Net interest expense (income)	398	(116)	282
Recognized in profit or loss	398	(116)	282
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(170)	(170)
Actuarial loss			
Changes in demographic assumptions	352	-	352
Changes in financial assumptions	538	-	538
Experience adjustments	930	-	930
Recognized in other comprehensive loss (income)	1,820	(170)	1,650
Contributions from the employer	-	(840)	(840)
Balance at December 31, 2018	28,793	(8,459)	20,334
Net interest expense (income)	396	(122)	274
Recognized in profit or loss	396	(122)	274
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(248)	(248)
Actuarial loss (gain)			
Changes in demographic assumptions	375	-	375
Changes in financial assumptions	1,630	-	1,630
Experience adjustments	(153)	-	(153)
Recognized in other comprehensive loss (income)	1,852	(248)	1,604
Contributions from the employer	-	(828)	(828)
Balance at December 31, 2019	$ 31,041	$ (9,657)	$ 21,384

Through the defined benefit plans under the Labor Standards Law, the Company is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic and foreign equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets should not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plans' debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations were as follows:

	December 31	
	2019	**2018**
Discount rate	1.00%	1.375%
Expected rate of salary increase	4.00%	4.00%

If possible reasonable changes in each of the significant actuarial assumptions will occur and all other assumptions will remain constant, the present value of the defined benefit obligation would increase (decrease) as follows:

	December 31	
	2019	**2018**
Discount rate		
0.25% increase	$ (1,102)	$ (1,071)
0.25% decrease	$ 1,152	$ 1,121
Expected rate of salary increase		
0.25% increase	$ 1,103	$ 1,077
0.25% decrease	$ (1,061)	$ (1,035)

The sensitivity analysis presented above may not be representative of the actual changes in the present value of the defined benefit obligation as it is unlikely that changes in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

	December 31	
	2019	**2018**
Expected contributions to the plans for the next year	$ 863	$ 890
Average duration of the defined benefit obligation	14.5 years	15.3 years

18. EQUITY

a. Ordinary shares

	December 31	
	2019	2018
Numbers of shares authorized (in thousands)	100,000	100,000
Shares authorized	$ 1,000,000	$ 1,000,000
Number of shares issued and fully paid (in thousands)	75,834	75,791
Shares issued	$ 758,336	$ 757,908

For the year Ended December 31, 2019, the shares increased due to the employees' exercise of their employee share options.

b. Capital surplus

	December 31	
	2019	2018
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital (1)		
Arising from issuance of ordinary shares	$ 287,201	$ 310,759
May be used to offset a deficit only		
Arising from share of changes in capital surplus of associates	45,060	41,384
Arising from issuance of ordinary−exercised/invalid employee share options	9,160	2,445
May not be used for any purpose		
Arising from employee share options	63,025	61,949
	$ 404,446	$ 416,537

1) Such capital surplus may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or transferred to share capital (limited to a certain percentage of the Company's capital surplus and to once a year).

c. Retained earnings and dividend policy

The Company's Articles of Incorporation state that, where the Company made profit in a fiscal year, the profit shall be first utilized for paying taxes, offsetting accumulated losses, setting aside as legal reserve 10% of the remaining profit, setting aside or reversing a special reserve in accordance with the laws and regulations, and then any remaining profit together with any undistributed retained earnings shall be used by the Company's board of directors as the basis for proposing a distribution plan, which should be resolved in the shareholders' meeting for the distribution of dividends and bonuses to shareholders. For the policies on the distribution of employees' compensation and remuneration of directors after the amendment, refer to "Employees' compensation and remuneration of directors" in Note 21 (f).

The Company shall distribute dividend with considerations of the market situation and development stage, as well as future capital needs, long-term corporate development and the shareholders' cash flow needs. The Company's dividend policy, in principle, shall not be less than 50% of distributable earnings, of which at least 10% will be paid as cash dividend and the remainder will be in the form of stock dividend. The board of directors shall map out the distribution proposal in consideration of future operation and capital expenditure, and present the proposal at the shareholders' meeting for approval.

An appropriation of earnings to a legal reserve shall be made until the legal reserve equals the Company's paid-in capital. The legal reserve may be used to offset deficits. If the Company has no deficit and the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

Items referred to under Rule No. 1010012865, Rule No. 1010047490 and Rule No. 1030006415 issued by the FSC and the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Company.

The appropriations of earnings for 2018 and 2017 which had been approved in the shareholders' meetings on June 13, 2019 and June 14, 2018, respectively, were as follows:

	Appropriation of Earnings For the Year Ended December 31	
	2018	**2017**
Legal reserve	$ 61,311	$ 59,862
Special reserve	$ 61,006	$ -
Cash dividends	$ 556,678	$ 538,736
Cash dividends per share (NT$)	$ 7.50	$ 7.109

The Company's shareholders also resolved to issue cash dividends from capital surplus of $37,112 thousand and $29,631 thousand in the shareholders' meetings on June 13, 2019 and June 14, 2018, respectively.

The appropriations of earnings for 2019 had been proposed by the Company's board of directors on February 19, 2020. The appropriations and dividends per share were as follows:

	For the Year Ended December 31, 2019
Legal reserve	$ 54,047
Special reserve	$ 3,654
Cash dividends	$ 408,466
Cash dividends per share (NT$)	$ 5.5

Issuance of cash dividends from capital surplus of $111,400 thousand also had been proposed by the Company's board of directors on February 19, 2020.

The appropriations of earnings for 2019 are subject to the resolution of the shareholders' meeting to be held on June 10, 2020.

d. Other equity items

1) Exchange differences on translating the financial statements of foreign operations

	For the Year Ended December 31	
	2019	**2018**
Balance at January 1	$ -	$ -
Recognized for the year		
Share from associates accounted for using the equity method	(4)	-
Other comprehensive loss recognized for the year	(4)	-
Balance at December 31	$ (4)	$ -

2) Unrealized valuation gain (loss) on financial assets at FVTOCI

	For the Year Ended December 31	
	2019	**2018**
Balance at January 1	$ (61,932)	$ (62,992)
Recognized for the year		
Unrealized (loss) gain - equity instruments	(3,650)	1,060
Other comprehensive (loss) income recognized for the year	(3,650)	1,060
Balance at December 31	$ (65,582)	$ (61,932)

e. Treasury shares

Unit: In Thousands of Shares

Purpose of Buy-Back	**Number of Shares at January 1**	**Increase During the Year**	**Decrease During the Year**	**Number of Shares at December 31**
2019				
Shares transferred to employees	1,567	-	-	1,567
2018				
Shares transferred to employees	-	1,567	-	1,567

In September 2018, for shares transferred to employees, the Company's board of directors resolved to buy back 2,500 thousand shares of the Company's ordinary shares from the TPEx market from September 14, 2018 to November 13, 2018 with the price interval ranging from NT$177.80 to NT$400 per share. The Company has bought back 1,567 thousand shares with total cost of NT$404,238 thousand.

Under the Securities and Exchange Act, the Company shall neither pledge treasury shares nor exercise shareholders' rights on these shares, such as the rights to dividends and to vote.

19. SHARE-BASED PAYMENT

Employee share option plan of the Company

Qualified employees of the Company were granted 500 options in February, 2016. Each option entitles the holder to subscribe for one thousand ordinary shares of the Company. The options granted are valid for 10 years and exercisable at certain percentages after the second anniversary from the grant date. The options were granted at an exercise price equal to the closing price of the Company's ordinary shares listed on the TPEx on the grant date. For any subsequent changes in the Company's ordinary shares or for any cash dividends issued in excess of the ratio required in the issuance rule, the exercise price is adjusted accordingly.

The information of employee share options was as follows:

	Year Ended December 31			
	2019		2018	
	Number of Options (In Thousands)	Weighted-average Exercise Price (NT$)	Number of Options (In Thousands)	Weighted-average Exercise Price (NT$)
Balance at January 1	470	$ 331.6	487	$ 338.7
Options exercised	(43)	326.7	(8)	338.7
Options forfeited	(7)	324.2	(9)	338.7
Balance at December 31	420	324.2	470	331.6
Options exercisable, end of period	231	324.2	135	331.6

The weighted-average share prices on the exercise date of the share options for the years ended December 31, 2019 and 2018 were $369 and $378, respectively.

Information on outstanding options is as follows:

	December 31	
	2019	2018
Range of exercise price (NT$)	$ 324.2	$ 331.6
Weighted-average remaining contractual life (in years)	6.15 years	7.15 years

Options granted in February 2016 were priced using the Black-Scholes pricing model and the inputs in the model were as follows:

Grant-date share price (NT$)	$351
Exercise price (NT$)	$351
Expected volatility	43.24%
Expected life (in years)	6-7 years
Expected dividend yield	-
Risk-free interest rate	0.71-0.75%

Compensation costs recognized were NT$7,791 thousand and NT$15,869 thousand for the years ended December 31, 2019 and 2018, respectively.

20. REVENUE

	Year Ended December 31	
	2019	2018
Royalty revenue	$ 979,822	$ 1,026,710
Technical service revenue	430,263	449,806
	$ 1,410,085	$ 1,476,516

a. Contract balances

	December 31, 2019	December 31, 2018	January 1, 2018
Accounts receivables (Note 9)	$ 126,812	$ 158,335	$ 82,457
Contract liabilities			
Technical service revenue	$ 32,837	$ 37,822	$ 33,471

The changes in the balance of contract liabilities primarily result from the timing difference between the Group's performance and the respective customer's payment.

Revenue of the reporting period recognized from the beginning contract liabilities in the previous periods is as follows:

	Year Ended December 31	
	2019	2018
From the beginning contract liabilities		
Technical service revenue	$ 25,764	$ 22,390

b. Partially completed contracts

	Year Ended December 31	
	2019	2018
Taiwan (Company located)	$ 805,649	$ 880,511
China	300,474	267,184
Singapore	122,869	128,410
Korea	54,698	72,705
United States of America	40,378	36,755
Others	86,017	90,951
	$ 1,410,085	$ 1,476,516

21. NET PROFIT FROM CONTINUING OPERATIONS

a. Other income

	Year Ended December 31	
	2019	2018
Interest income		
Bank deposits	$ 9,631	$ 10,663
Remuneration of directors received	5,142	10,023
Rental income - operating lease (Note 13)	4,696	3,395
Dividend income	291	943
	$ 19,760	$ 25,024

b. Other gains and losses

	Year Ended December 31	
	2019	2018
Net foreign exchange (loss) gain	$ (5,290)	$ 5,615
Government grants income (Note 24)	1,691	-
Gain on disposal of investment	95	79
Loss on disposal of property, plant and equipment	-	(278)
Others	120	12
	$ (3,384)	$ 5,428

c. Finance costs

	Year Ended December 31	
	2019	2018
Interest on lease liabilities	$ 179	$ -

d. Depreciation and amortization

	Year Ended December 31	
	2019	2018
An analysis of depreciation by function		
Operating expenses	$ 40,678	$ 37,402
An analysis of amortization by function		
Selling and marketing expenses	$ -	$ -
General and administrative expenses	1,944	2,130
Research and development expenses	12,551	11,072
	$ 14,495	$ 13,202

e. Employee benefits expense

	Year Ended December 31	
	2019	2018
Post-employment benefits (see Note 17)		
Defined contribution plans	$ 16,387	$ 15,328
Defined benefit plans	274	282
	16,661	15,610
Share-based payments (see Note 19)		
Equity-settled	7,791	15,869
Other employee benefits	584,092	597,535
	$ 608,544	$ 629,014
An analysis of employee benefits expense by function		
Operating expenses	$ 608,544	$ 629,014

f. Employees' compensation and remuneration of directors

According to the Articles of Incorporation of the Company, the Company accrued employees' compensation and remuneration of directors at rates of 1-25% and no higher than 2%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. The employees' compensation and the remuneration of directors for the years ended December 31, 2019 and 2018, which were approved by the Company's board of directors on February 19, 2020 and February 26, 2019, respectively, are as follows:

Accrual rate

	Year Ended December 31	
	2019	2018
Employees' compensation	15%	15%
Remuneration of directors	1.5%	1.5%

Amount

	Year Ended December 31	
	2019	2018
Employees' compensation	$ 113,746	$ 125,538
Remuneration of directors	$ 11,374	$ 12,554

If there is a change in the amounts after the annual consolidated financial statements are authorized for issue, the differences are recorded as a change in the accounting estimate.

There is no difference between the actual amounts of employees' compensation and remuneration of directors paid and the amounts recognized in the consolidated financial statements for the years ended December 31, 2018 and 2017.

Information on the employees' compensation and remuneration of directors resolved by the Company's board of directors in 2020 and 2019 is available at the Market Observation Post System website of the Taiwan Stock Exchange.

22. INCOME TAXES RELATING TO CONTINUING OPERATIONS

a. Income tax recognized in profit or loss

The major components of tax expense (income) were as follows:

	Year Ended December 31	
	2019	2018
Current tax		
In respect of the current year	$ 91,829	$ 87,079
Adjustments for prior periods	9	(754)
	91,838	86,325
Deferred tax		
In respect of the current year	(726)	(228)
Adjustments to deferred tax attributable to changes in tax rates and laws	-	(372)
Income tax expense recognized in profit or loss	$ 91,112	$ 85,725

A reconciliation of accounting profit and income tax expense is as follows:

	Year Ended December 31	
	2019	2018
Profit before tax	$ 633,184	$ 698,831
Income tax expense calculated at the statutory rate	$ 126,637	$ 139,766
Nondeductible expenses in determining taxable income	5,333	741
Tax-exempt income	(84,175)	(93,488)
Additional income tax under the Alternative Minimum Tax Act	31,304	36,614
Unrecognized deductible temporary differences and investment credits	12,004	3,218
Adjustments to deferred tax attributable to changes in tax rates and laws	-	(372)
Adjustments for prior years' tax	9	(754)
Income tax expense recognized in profit or loss	$ 91,112	$ 85,725

The Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings was reduced from 10% to 5%.

In July 2019, the President of the ROC announced the amendments to the Statute for Industrial Innovation, which stipulate that the amounts of unappropriated earnings in 2018 and thereafter that are reinvested in the construction or purchase of certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings.

b. Current tax liabilities

	December 31	
	2019	2018
Current tax liabilities		
Income tax payable	$ 56,576	$ 71,897

c. Deferred tax assets

The movements of deferred tax assets and deferred tax liabilities were as follows:

Year ended December 31, 2019

	Opening Balance	Recognized in Profit or Loss	Closing Balance
Deferred tax assets			
Temporary differences	$ 2,708	$ 726	$ 3,434

Year ended December 31, 2018

	Opening Balance	Recognized in Profit or Loss	Closing Balance
Deferred tax assets			
Temporary differences	$ 2,108	$ 600	$ 2,708

d. Information about tax-exemption

As of December 31, 2019, profits attributable to the following expansion projects were exempted from income tax for a five-year period:

Expansion of Construction Project	Tax-exemption Period
Fifth expansion of the manufacturing plant	January 1, 2015-December 31, 2019
Sixth expansion of the manufacturing plant	January 1, 2016-December 31, 2020

e. Income tax assessments

The tax returns through 2017 have been assessed by the tax authorities.

23. EARNINGS PER SHARE

Unit: NT$ Per Share

	Year Ended December 31	
	2019	2018
Basic earnings per share	$ 7.30	$ 8.13
Diluted earnings per share	$ 7.26	$ 8.07

The earnings and weighted average number of ordinary shares outstanding used in the computation of earnings per share were as follows:

Net Profit for the Year

	Year Ended December 31	
	2019	**2018**
Earnings used in the computation of basic earnings per share	$ 542,072	$ 613,106
Effect of potentially dilutive ordinary shares:		
Employees' compensation	-	-
Employee share options	-	-
Earnings used in the computation of diluted earnings per share	$ 542,072	$ 613,106

Weighted average number of ordinary shares outstanding (in thousand shares):

	Year Ended December 31	
	2019	**2018**
Weighted average number of ordinary shares used in the computation of basic earnings per share	74,247	75,425
Effect of potentially dilutive ordinary shares:		
Employees' compensation	387	528
Employee share options	14	-
Weighted average number of ordinary shares used in the computation of diluted earnings per share	74,648	75,953

Since the Company can offer to settle bonus to employees in cash or shares, the Company assumes the entire amount of the bonus would be settled in shares and the resulting potential shares are included in the weighted average number of shares outstanding used in the computation of diluted earnings per share, if the effect is dilutive. Such dilutive effect of the potential shares is included in the computation of diluted earnings per share until the shareholders resolve the number of shares to be distributed to employees at their meeting in the following year.

Since the exercise price of the options or warrants issued by the Company exceeded the average market price of the shares during 2018, they are anti-dilutive and excluded from the computation of diluted earnings per share.

24. GOVERNMENT GRANTS

The Company applied for the AI on chip R&D subsidy program "The Industrial Technology Foresight Research Program of Reconfigurable Analog Artificial Intelligence Chip", proposed by the Ministry of Economic Affairs, and the program was approved on December 18, 2019. The total funds approved were NT$ 85,750 thousand, and the subsidies were NT$ 34,300 thousand. As of December 31, 2019, the accumulated government grants income recognized was NT$ 1,691 thousand. The collateral provided by the Group included cashier checks whose drawees are banking industries and guarantee letters and the amounts were NT$ 34,300 thousand and NT$ 10,080 thousand, respectively.

25. CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue a going concern while maximizing the return to shareholders through the optimization of the debt and equity balance. The Group's overall strategy has no significant changes.

The capital structure of the Group consists of issued ordinary shares, capital surplus, retained earnings and other equity.

The Group is not subject to any externally imposed capital requirements.

26. FINANCIAL INSTRUMENTS

a. Fair value of financial instruments that are not measured at fair value

The management believes the carrying amounts of financial assets and financial liabilities not carried at fair value approximate their fair values or their fair values cannot be reliably measured.

b. Fair value of financial instruments that are measured at fair value on a recurring basis

1) Fair value hierarchy

December 31, 2019

	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets at FVTOCI				
Investments in equity instruments at FVTOCI				
Unlisted shares	$ -	$ -	$ 15,530	$ 15,530

December 31, 2018

	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets at FVTOCI				
Investments in equity instruments at FVTOCI				
Unlisted shares	$ -	$ -	$ 19,180	$ 19,180

There were no transfers between Levels 1 and 2 in the current and prior periods.

2) Reconciliation of Level 3 fair value measurements of financial instruments

	Financial Assets at FVTOCI	
	Equity Instruments	
Financial Assets	**2019**	**2018**
Balance at January 1	$ 19,180	$ 18,120
Recognized in other comprehensive income (included in unrealized valuation gain (loss) on financial assets at FVTOCI)	(3,650)	1,060
Balance at December 31	$ 15,530	$ 19,180

3) Valuation techniques and inputs applied for Level 3 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Unlisted shares - ROC	Estimate the value of the target by estimating the assets and liabilities items or use the observable stocks price company comparing items of balance sheet or income statement, calculate the implied value multiplier for the price and evaluate the value of the target at balance sheet dates.

c. Categories of financial instruments

	December 31	
	2019	2018
Financial assets		
Financial asset at amortized cost (Note 1)	$ 1,430,865	$ 1,497,322
Investment in equity instrument at FVTOCI	15,530	19,180
Financial liabilities		
Amortized cost (Note 2)	26,326	24,171

Note 1: The balances include financial assets measured at amortized cost, which comprise cash, accounts receivables, other receivables, other receivables-related parties and other current assets.

Note 2: The balances included financial liabilities measured at amortized cost, which comprise other payables and payables on equipment.

d. Financial risk management objectives and policies

The Group's major financial instruments included equity investments, accounts receivable, lease liabilities and other payables. The Group's corporate financial management function provides services to the business, coordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

The Group's main financial plans are reviewed by the board of directors in accordance with relevant regulations and internal control system.

1) Market risk

The Group's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (a) below) and interest rates (see (b) below).

There had been no change in the Group's exposure to market risks or the manner in which these risks were managed and measured.

a) Foreign currency risk

The Group's operating activities are partially denominated in foreign currencies and apply the natural hedge. The purpose of the Group's management of the foreign currency risk is to hedge the risk instead of making a profit.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities are set out in Note 29.

Sensitivity analysis

The Group is mainly exposed to the exchange rate fluctuation of USD, CNY and JPY.

The sensitivity analysis included only outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting period for a 5% change in foreign currency rates. A positive number below indicates an increase in pre-tax profit associated with the New Taiwan dollar weakening 5% against the relevant currency. For a 5% strengthening of the New Taiwan dollar against the relevant currency, there would be an equal and opposite impact on pre-tax profit and the balances below would be negative. The sensitivity analysis included cash, accounts receivable, other receivables, payables on equipment and other payables.

	USD Impact		CNY Impact		JPY Impact	
	Year Ended December 31		Year Ended December 31		Year Ended December 31	
	2019	2018	2019	2018	2019	2018
Profit or loss	$ 10,367	$ 10,954	$ 434	$ 1,131	$ 20	$ 15

b) Interest rate risk

The Group is exposed to interest rate risk arising from financial assets both at fixed and floating interest rates.

The carrying amounts of the Group's financial assets with exposure to interest rates at the end of the reporting periods were as follows.

	December 31	
	2019	2018
Fair value interest rate risk		
Financial assets	$ 804,513	$ 843,230
Cash flow interest rate risk		
Financial assets	492,923	492,360

Sensitivity analysis

The sensitivity analyses below are determined based on the Group's exposure to interest rates for non-derivative instruments at the end of the reporting period. For floating rate assets, the analysis was prepared assuming the amount of the asset outstanding at the end of the reporting period was outstanding for the whole year.

If the market interest rates had increased/decreased by 0.1% and all other variables were held constant, the Group's pre-tax profit for the years ended December 31, 2019 and 2018 would increase/decrease by $493 thousand and $492 thousand, respectively, mainly due to the Group's exposure to floating interest rate assets.

2) Credit risk management

Credit risk refers to the risk that counterparty will default on its contractual obligations and result in financial loss to the Group. As at the end of the reporting period, the Group's maximum exposure to credit risk which will cause a financial loss to the Group due to failure of counterparties to discharge an obligation mainly arise from the carrying amount of the respective recognized financial assets as stated in the consolidated balance sheets.

In order to minimize credit risk, the Group has made credit and receivable management regulations to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowances are made for irrecoverable amounts. In this regard, management believes the Group's credit risk was significantly reduced.

The credit risk on liquid funds was limited because the counterparties are banks with good credit.

Apart from the customers whose balances exceeded 5% of the accounts receivable, the Group did not have significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics.

The customers whose balances exceeded 5% of the accounts receivable are creditworthy counterparties. Therefore, the credit risk is limited.

3) Liquidity risk

The Group manages liquidity risk by monitoring and maintaining a level of cash deemed adequate to finance the Group's operations and mitigate the effects of fluctuations in cash flows.

Liquidity and interest risk rate tables

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities from the earliest date on which the Group can be required to pay. The tables included both interest and principal cash flows.

December 31, 2019

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	1+Years	Total
Non-derivative financial liabilities					
Non-interest bearing	$ 8,808	$ 17,140	$ 908	$ -	$ 26,856
Lease liabilities	270	540	2,414	4,343	7,567
	$ 9,078	$ 17,680	$ 3,322	$ 4,343	$ 34,423

Additional information about the maturity analysis for lease liabilities:

	Less than 1 Year	1-5 Years	5+ Years
Lease liabilities	$ 3,224	$ 4,343	$ -

December 31, 2018

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	Total
Non-derivative financial liabilities				
Non-interest bearing	$ 8,106	$ 15,759	$ 836	$ 24,701

27. TRANSACTIONS WITH RELATED PARTIES

Balances and transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

a. Related party name and category

Related Party Name	Related Party Category
iMQ Technology Inc.	Associates
Powerchip Technology Corporation	Substantive related parties before May 24, 2018
Powerchip Semiconductor Manufacturing Corp.	Substantive related parties before May 24, 2018
HeFeChip Corporation Limited	Substantive related parties
SecuX Technology Inc.	Substantive related parties
Li-Jeng Chen	Key management personnel
T.C. Chen	Key management personnel
Evans Yang	Key management personnel
Chris Lu	Key management personnel

b. Operating revenue

Line Items	Related Party Category	Year Ended December 31 2019	2018
Sales	Substantive related parties	$ 1,815	$ 44,707
	Associates	452	1,802
		$ 2,267	$ 46,509

The prices that the Group transferred and granted the professional technology to related parties were decided by the two sides. The payment term was open account 30 days.

c. Operating expense

Line Items	Related Party Category	Year Ended December 31 2019	2018
Other expense	Substantive related parties	$ 11	$ -

d. Other income

Line Items	Related Party Category	Year Ended December 31 2019	2018
Remuneration of directors received	Substantive related parties		
	Powerchip Technology Corporation	$ -	$ 10,000
	Others	-	23
		$ -	$ 10,023
Other income	Key management personnel	$ 95	$ -

e. Receivables from related parties (excluding loans to related parties)

Line Items	Related Party Category	December 31 2019	2018
Other receivables - related parties	Substantive related parties		
	HeFeChip Corporation Limited	$ 410	$ 251

The outstanding trade receivables from related parties are unsecured. For the years ended December 31, 2019 and 2018, no impairment losses were recognized for trade receivables from related parties.

f. Contract liabilities

Related Party Category	December 31 2019	2018
Substantive related parties	$ -	$ 1,312
Associates	-	452
	$ -	$ 1,764

g. Other current liabilities

Line Items	Related Party Category	December 31 2019	2018
Receipt in advance	Substantive related parties		
	HeFeChip Corporation Limited	$ 550	$ 550
Temporary receipt	Key management personnel	$ 10	$ 25

h. Guarantee deposits received

Line Items	Related Party Category	December 31 2019	2018
Guarantee deposits received	Substantive related parties		
	HeFeChip Corporation Limited	$ 520	$ 520

i. Lease arrangements

The Group is lessor under operating leases

The Group leases out offices, parking spaces and dormitories to its substantive related parties - HeFeChip Corporation Limited and key management personnel under operating leases with lease terms of 1 to3 years. As of December 31, 2019 and 2018, the balance of operating lease receivable was $6,191 thousand and $8,331 thousand, respectively. Lease income recognized for the years ended December 31, 2019 and 2018 was $3,692 thousand and $3,345 thousand, respectively.

Lease income was as follows:

	For the Year Ended December 31	
Related Party Category	**2019**	**2018**
Substantive related parties		
HeFeChip Corporation Limited	$ 3,335	$ 3,335
Key management personnel	357	10
	$ 3,692	$ 3,345

j. Compensation of key management personnel

The compensation to directors and the key management personnel were as follows:

	Year Ended December 31	
	2019	**2018**
Short-term employee benefits	$ 81,131	$ 85,100
Post-employment benefits	1,012	1,002
Share-based payment transactions	2,564	4,696
	$ 84,707	$ 90,798

The remuneration of directors and key management personnel, as determined by the remuneration committee, was based on the performance of individuals and market trends.

28. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets of the Group were provided as deposits for the tariff of imported raw materials:

	December 31	
	2019	**2018**
Pledged time deposits (classified as financial assets a amortized cost)	$ 113	$ 112

29. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The Group's significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currencies and the related exchange rates between foreign currencies and respective functional currencies were as follows:

December 31, 2019

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 6,916	29.980	$ 207,345
CNY	2,015	4.305	8,673
JPY	1,440	0.276	398
			$ 216,416

December 31, 2018

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 7,158	30.715	$ 219,843
CNY	5,057	4.472	22,614
JPY	1,087	0.2782	302
			$ 242,759
Financial liabilities			
Monetary items			
USD	25	30.715	$ 754

The significant unrealized foreign exchange gains (losses) were as follows:

	Year Ended December 31			
	2019		2018	
Foreign Currencies	Exchange Rate	Net Foreign Exchange Gains (Losses)	Exchange Rate	Net Foreign Exchange Gains (Losses)
USD	29.980 (USD:NTD)	$ (3,595)	30.715 (USD:NTD)	$ 2,070

30. SEPARATELY DISCLOSED ITEMS

Except for the following, the Group has no other significant transactions. In the preparation of the consolidated financial statements, major transactions between the parent and its subsidiaries and their balances have been completely eliminated.

a. Information about significant transactions and investees:

1) Marketable securities held (excluding investment in subsidiaries, associates and jointly controlled entities). (Table 1)

2) Intercompany relationships and significant intercompany transactions. (Table 2)

3) Information on investees. (Table 3)

b. Information on investments in mainland China: (None)

31. SEGMENT INFORMATION

a. Segment revenue, operating results and segment assets

For resources allocation and performance assessment, the Group's chief operating decision maker reviews the operating results regularly. The Group's segments are aggregated into a single reportable segment.

The measurement basis of segment information presented to the chief operating decision maker is consistent with the consolidated financial statements. The segment revenues and operating results for the years ended December 31, 2019 and 2018 can be referred to the consolidated statements of comprehensive income for the years ended December 31, 2019 and 2018. The segment assets as of December 31, 2019 and 2018 can be referred to the consolidated balance sheets as of December 31, 2019 and 2018.

b. Revenue from major products and services

The following is an analysis of the Group's revenue from its major products and services:

	Year Ended December 31	
	2019	2018
Royalty revenue	$ 979,822	$ 1,026,710
Revenue from technical service	430,263	449,806
	$ 1,410,085	$ 1,476,516

c. Geographical information

The Group's revenue from continuing operations from external customers by location of operations and information about its non-current assets by location of assets are detailed below.

	Revenue from External Customers		Non-current Assets	
	Year Ended December 31		December 31	
	2019	2018	2019	2018
Taiwan (Company located)	$ 805,649	$ 880,511	$ 484,458	$ 491,533
China	300,474	267,184	-	-
Singapore	122,869	128,410	-	-
Korea	54,698	72,705	-	-
United States of America	40,378	36,755	-	-
Others	86,017	90,951	-	-
	$1,410,085	$1,476,516	$ 484,458	$ 491,533

Non-current assets include property, plant and equipment and right-of-use assets.

d. Information about major customers

Single customers contributing 10% or more to the Group's Royalty revenue were as follows:

	Year Ended December 31			
	2019	%	2018	%
Company A	$ 519,446	53	$ 565,878	55
Company B	133,873	14	97,479	9

TABLE 1

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

MARKETABLE SECURITIES HELD
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares (In Thousands)	Carrying Value	Percentage of Ownership (%)	Market Value or Net Asset Value	
eMemory Technology Inc.	Shares							
	Powerchip Technology Corporation	-	Financial assets at fair value through other comprehensive income - noncurrent	758	$ 8,540	0.02	$ 8,540	Note 2
	Syntronix Corporation	-	Financial assets at fair value through other comprehensive income - noncurrent	1,210	6,990	2.81	6,990	Note 2
	PowerFlash Technology Corp.	The Company is its director.	Financial assets at fair value through other comprehensive income - noncurrent	40	-	3.99	-	Note 2

Note 1: Marketable securities mentioned in the table include shares, bonds, beneficiary certificates and the derivative securities from aforementioned items, which is under the definition of IFRS 9.

Note 2: The market value was based on the fair value as of December 31, 2019.

Note 3: As of December 31, 2019, the above marketable securities had not been pledged or mortgaged.

TABLE 2

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

No. (Note 1)	Investee Company	Counterparty	Relationship (Note 2)	Transaction Details			
				Financial Statement Accounts	Amount	Payment Terms	% of Total Sales or Assets (Note 3)
0	eMemory Technology Inc.	PUFsecurity Corporation	1	Sales	$ 756	-	-
			1	Accounts receivable - related parties	787	-	-
			1	Other receivables	9	-	-
			1	Temporary payment	3	-	-
1	PUFsecurity Corporation	eMemory Technology Inc.	2	Other payables - related parties	799	-	-

Note 1: Information about intercompany relationships should be indicated in the “No.” column, and the method of filling in the number is as follows:
NO 1. Parent Company is numbered as 0 in the “No.” column.
NO 2. Subsidiaries are numbered sequentially according to their company name and the number starts from 1.

Note 2: There are three types of “Relationship”:
NO 1. Parent company to subsidiaries
NO 2. Subsidiaries to parent company
NO 3. Subsidiaries to subsidiaries

Note 3: If financial statement accounts are classified as items in the balance sheets, the calculation of the ratio is that ending balance divides by total assets.If the financial statement accounts are classified as items in the income statement, the calculation of the ratio is that the accumulated amount in the interim period divides by total sales.

TABLE 3

EMEMORY TECHNOLOGY INC. AND SUBSIDIARY

INFORMATION ON INVESTEES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Share of Profits (Loss)	Note
				December 31, 2019	December 31, 2018	Shares (In Thousands)	Percentage of Ownership (%)	Carrying Amount			
eMemory Technology Inc.	PUFsecurity Corporation	Hsinchu County	Product designing, software services, data processing services, intellectual property, etc.	$ 50,000	$ -	50,000	100.00	$ 27,673	$ (22,384)	$ (22,384)	Subsidiary
	iMQ Technology Inc.	Hsinchu City	Electronic parts and components manufacturing	27,900	27,900	2,057	3.38	5,382	(108,225)	(4,336)	Investment accounted for using equity method

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INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
eMemory Technology Inc.

Opinion

We have audited the accompanying parent company only financial statements of eMemory Technology Inc. (the "Company"), which comprise the parent company only balance sheets as of December 31, 2019 and 2018, and the parent company only statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the parent company only financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying parent company only financial statements present fairly, in all material respects, the parent company only financial position of the Company as of December 31, 2019 and 2018, and the parent company only financial performance and the parent company only cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Parent Company Only Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the parent company only financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the parent company only financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter for the Company's parent company only financial statements for the year ended December 31, 2019 is stated as follows:

1. The major revenue source of the Company is royalty revenue, refer to Note 19 for related information. To elaborate, when IC design houses' products with the silicon intellectual property of the Company are expected to be mass produced and shipped from the wafer foundries, the wafer foundries will pay a certain percentage of royalty fee based on the wafer price.

2. The Company recognizes royalty revenue based on the contracts and the time when the royalty reports are signed back. The related risks may exist if the royalty revenue from wafer foundries is not recognized at the appropriate time.

3. To verify the accuracy and recognition timing of the royalty revenue, we established the revenue recognition policy of the Company, assessed the reasonableness of the revenue recognition timing, performed relevant control tests and analytical procedures, as well as traced a certain number of royalty revenue transactions before and after the end of reporting period with relevant supporting documents and accounting records.

Responsibilities of Management and Those Charged with Governance for the Parent Company Only Financial Statements

Management is responsible for the preparation and fair presentation of the parent company only financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and for such internal control as management determines is necessary to enable the preparation of parent company only financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the parent company only financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Parent Company Only Financial Statements

Our objectives are to obtain reasonable assurance about whether the parent company only financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these parent company only financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the parent company only financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the parent company only financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the parent company only financial statements, including the disclosures, and whether the parent company only financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient and appropriate audit evidence regarding the financial information of entities or business activities within the Company to express an opinion on the parent company only financial statements. We are responsible for the direction, supervision, and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the parent company only financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Yu-Feng Huang and Su-Li Fang.

Deloitte & Touche
Taipei, Taiwan
Republic of China

February 19, 2020

<u>*Notice to Readers*</u>

The accompanying parent company only financial statements are intended only to present the parent company only financial position, parent company only financial performance and parent company only cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such parent company only financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying parent company only financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and parent company only financial statements shall prevail.

EMEMORY TECHNOLOGY INC.

PARENT COMPANY ONLY BALANCE SHEETS
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

ASSETS	2019 Amount	2019 %	2018 Amount	2018 %
CURRENT ASSETS				
Cash (Notes 4, 6 and 25)	$ 1,234,930	61	$ 1,302,003	62
Accounts receivable - net (Notes 4, 9, 19 and 25)	126,812	6	158,335	8
Accounts receivable - related parties (Notes 4, 25 and 26)	787	-	-	-
Other receivables (Notes 4 and 25)	1,926	-	225	-
Other receivables - related parties (Notes 4, 25 and 26)	419	-	251	-
Prepayments (Note 14)	19,242	1	19,889	1
Other current assets (Notes 4, 14, 25 and 26)	4,278	-	2,902	-
Total current assets	1,388,394	68	1,483,605	71
NON-CURRENT ASSETS				
Financial assets at fair value through other comprehensive income - noncurrent (Notes 4, 7 and 25)	15,530	1	19,180	1
Financial assets at amortized cost - noncurrent (Notes 4, 8, 25 and 27)	33,613	2	33,612	2
Investment accounted for using equity method (Notes 4 and 10)	33,055	2	6,046	-
Property, plant and equipment (Notes 4 and 11)	475,318	23	491,533	23
Right-of-use assets (Notes 3, 4 and 12)	7,287	-	-	-
Intangible assets (Notes 4 and 13)	73,584	4	67,162	3
Deferred tax assets (Notes 4 and 21)	3,434	-	2,708	-
Refundable deposits	315	-	331	-
Total non-current assets	642,136	32	620,572	29
TOTAL	$ 2,030,530	100	$ 2,104,177	100

LIABILITIES AND EQUITY	2019 Amount	2019 %	2018 Amount	2018 %
CURRENT LIABILITIES				
Contract liabilities - current (Notes 19 and 26)	$ 32,837	2	$ 37,822	2
Other payables (Notes 15 and 25)	78,364	4	94,104	5
Bonuses payable to employees and directors (Note 20)	125,120	6	138,092	7
Payables on equipment (Note 25)	4,659	-	6,241	-
Current tax liabilities (Notes 4 and 21)	56,576	3	71,897	3
Lease liabilities - current (Notes 3, 4, 12 and 25)	3,114	-	-	-
Other current liabilities (Notes 15 and 26)	1,686	-	1,616	-
Total current liabilities	302,356	15	349,772	17
NON-CURRENT LIABILITIES				
Lease liabilities - noncurrent (Notes 3, 4, 12 and 25)	4,246	-	-	-
Net defined benefit liabilities - noncurrent (Notes 4 and 16)	21,384	1	20,334	1
Guarantee deposits received (Note 26)	530	-	530	-
Total non-current liabilities	26,160	1	20,864	1
Total liabilities	328,516	16	370,636	18
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE COMPANY (Notes 4, 17 and 18)				
Ordinary shares	758,336	37	757,908	36
Capital surplus	404,446	20	416,537	20
Retained earnings				
Legal reserve	401,471	20	340,160	16
Special reserve	61,932	3	926	-
Unappropriated earnings	545,653	27	684,180	32
Total retained earnings	1,009,056	50	1,025,266	48
Other equity				
Exchange differences on translating the financial statements of foreign operations	(4)	-	-	-
Unrealized gain (loss) on financial assets at fair value through other comprehensive income	(65,582)	(3)	(61,932)	(3)
Total other equity	(65,586)	(3)	(61,932)	(3)
Treasury shares	(404,238)	(20)	(404,238)	(19)
Total equity	1,702,014	84	1,733,541	82
TOTAL	$ 2,030,530	100	$ 2,104,177	100

The accompanying notes are an integral part of the parent company only financial statements.

EMEMORY TECHNOLOGY INC.

PARENT COMPANY ONLY STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
OPERATING REVENUE (Notes 4, 19 and 26)	$ 1,409,329	100	$ 1,476,516	100
OPERATING COSTS	-	-	-	-
GROSS PROFIT	1,409,329	100	1,476,516	100
OPERATING EXPENSES (Notes 4, 12, 20 and 26)				
Selling and marketing expenses	112,644	8	120,678	8
General and administrative expenses	162,721	11	169,610	11
Research and development expenses	493,106	35	505,475	34
Expected credit (gain) loss (Notes 4 and 9)	(2,984)	-	8,018	1
Total operating expenses	765,487	54	803,781	54
OPERATING INCOME	643,842	46	672,735	46
NON-OPERATING INCOME AND EXPENSES				
Other income (Notes 4, 12, 20 and 26)	19,622	1	25,024	2
Other gains and losses (Notes 4, 20, 23 and 26)	(3,381)	-	5,428	-
Finance costs (Note 20)	(179)	-	-	-
Share of loss of associates (Notes 4 and 10)	(26,720)	(2)	(4,356)	-
Total non-operating income and expenses	(10,658)	(1)	26,096	2
PROFIT BEFORE INCOME TAX	633,184	45	698,831	48
INCOME TAX EXPENSE (Notes 4 and 21)	91,112	7	85,725	6
NET PROFIT FOR THE YEAR	542,072	38	613,106	42
OTHER COMPREHENSIVE INCOME				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans (Notes 4 and 16)	(1,604)	-	(1,650)	-
Unrealized (loss) gain on investments in equity instruments at fair value through other comprehensive income (Notes 4 and 17)	(3,650)	-	1,060	-
Items that may be reclassified subsequently to profit or loss:				
Share of the other comprehensive income of associates accounted for using the equity method (Notes 4 and 17)	(4)	-	-	-
Other comprehensive loss for the year	(5,258)	-	(590)	-
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 536,814	38	$ 612,516	42

(Continued)

EMEMORY TECHNOLOGY INC.

PARENT COMPANY ONLY STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
EARNINGS PER SHARE (Note 22)				
Basic	$ 7.30		$ 8.13	
Diluted	$ 7.26		$ 8.07	

The accompanying notes are an integral part of the parent company only financial statements. (Concluded)

EMEMORY TECHNOLOGY INC.

STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	Ordinary Shares			Retained Earnings				Other Equity			
	Shares (In Thousands)	Amount	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Total	Exchange Differences on Translating the Financial Statements of Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Treasury Shares	Total Equity
BALANCE, JANUARY 1, 2018	75,783	$ 757,823	$ 427,496	$ 280,298	$ 926	$ 671,322	$ 952,546	$ -	$ (62,992)	$ -	$ 2,074,873
Appropriation of 2017 earnings											
Legal reserve	-	-	-	59,862	-	(59,862)	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(538,736)	(538,736)	-	-	-	(538,736)
Change in capital surplus from investments in associates accounted for by using equity method	-	-	9	-	-	-	-	-	-	-	9
Issuance of cash dividends from capital surplus	-	-	(29,631)	-	-	-	-	-	-	-	(29,631)
Net profit for the year ended December 31, 2018	-	-	-	-	-	613,106	613,106	-	-	-	613,106
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	-	(1,650)	(1,650)	-	1,060	-	(590)
Total comprehensive income for the year ended December 31, 2018	-	-	-	-	-	611,456	611,456	-	1,060	-	612,516
Issuance of ordinary shares under employee share options	8	85	2,794	-	-	-	-	-	-	-	2,879
Buy-back of ordinary shares	-	-	-	-	-	-	-	-	-	(404,238)	(404,238)
Share-based payment	-	-	15,869	-	-	-	-	-	-	-	15,869
BALANCE, DECEMBER 31, 2018	75,791	757,908	416,537	340,160	926	684,180	1,025,266	-	(61,932)	(404,238)	1,733,541
Appropriation of 2018 earnings											
Legal reserve	-	-	-	61,311	-	(61,311)	-	-	-	-	-
Special reserve	-	-	-	-	61,006	(61,006)	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(556,678)	(556,678)	-	-	-	(556,678)
Change in capital surplus from investments in associates accounted for by using equity method	-	-	3,676	-	-	-	-	-	-	-	3,676
Issuance of cash dividends from capital surplus	-	-	(37,112)	-	-	-	-	-	-	-	(37,112)
Net profit for the year ended December 31, 2019	-	-	-	-	-	542,072	542,072	-	-	-	542,072
Other comprehensive loss for the year ended December 31, 2019	-	-	-	-	-	(1,604)	(1,604)	(4)	(3,650)	-	(5,258)
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	-	540,468	540,468	(4)	(3,650)	-	536,814
Issuance of ordinary shares under employee share options	43	428	13,554	-	-	-	-	-	-	-	13,982
Share-based payment	-	-	7,791	-	-	-	-	-	-	-	7,791
BALANCE, DECEMBER 31, 2019	75,834	$ 758,336	$ 404,446	$ 401,471	$ 61,932	$ 545,653	$ 1,009,056	$ (4)	$ (65,582)	$ (404,238)	$ 1,702,014

The accompanying notes are an integral part of the parent company only financial statements.

EMEMORY TECHNOLOGY INC.

PARENT COMPANY ONLY STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	$ 633,184	$ 698,831
Adjustments for:		
Depreciation expenses	40,477	37,402
Amortization expenses	14,495	13,202
Expected credit (gain) loss	(2,984)	8,018
Finance costs	179	-
Interest income	(9,493)	(10,663)
Dividend income	(291)	(943)
Share-based payment	7,734	15,869
Share of loss of associates	26,720	4,356
Loss on disposal of property, plant and equipment	-	278
Intangible asset reclassified as operating expenses	10	-
Gain on disposal of investments	(95)	(79)
Net loss (gain) on foreign currency exchange	4,288	(1,015)
Changes in operating assets and liabilities		
Accounts receivable	32,484	(83,763)
Accounts receivable - related parties	(794)	-
Other receivables	(1,691)	-
Other receivables - related parties	(168)	326
Prepayments	656	(1,895)
Other current assets	(1,376)	(879)
Contract liabilities	(4,985)	4,351
Other payables	(15,754)	13,176
Other current liabilities	70	165
Net defined benefit liabilities	(554)	(558)
Bonuses payable to employees and directors	(12,972)	4,467
Cash generated from operations	709,140	700,646
Interest received	9,483	10,676
Income tax paid	(107,168)	(75,900)
Net cash generated from operating activities	611,455	635,422
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of financial assets at amortized cost	(1)	(1)
Acquisition of financial assets at fair value through profit or loss	(592,000)	(600,000)
Proceeds from disposal of financial assets at fair value through profit or loss	592,095	600,079
Net cash outflow on acquisition of subsidiaries	(50,000)	-
Acquisition of property, plant and equipment	(22,749)	(11,335)
Increase in refundable deposits	-	(16)
Decrease in refundable deposits	16	-
Acquisition of intangible assets	(20,927)	(17,934)
Dividend received	291	943
Net cash used in investing activities	(93,275)	(28,264)

(Continued)

EMEMORY TECHNOLOGY INC.

PARENT COMPANY ONLY STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM FINANCING ACTIVITIES		
Repayment of the principal portion of lease liabilities	$ (3,022)	$ -
Dividends paid	(593,780)	(568,353)
Exercise of employee share options	13,982	2,879
Payments for buy-back of ordinary shares	-	(404,238)
Interest paid	(179)	-
Net cash used in financing activities	(582,999)	(969,712)
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH HELD IN FOREIGN CURRENCIES	(2,254)	873
NET DECREASE IN CASH	(67,073)	(361,681)
CASH AT THE BEGINNING OF THE YEAR	1,302,003	1,663,684
CASH AT THE END OF THE YEAR	$ 1,234,930	$ 1,302,003

The accompanying notes are an integral part of the parent company only financial statements. (Concluded)

1. GENERAL INFORMATION

eMemory Technology Inc. (the “Company”) was incorporated in Hsinchu City, Republic of China, and commenced business in September 2000. The Company’s main business activities include researching, developing, manufacturing and selling embedded flash memory products, etc.

The Company’s shares have been listed on the TPEx since January 2011.

The parent company only financial statements are presented in the Company’s functional currency, the New Taiwan dollar.

2. APPROVAL OF FINANCIAL STATEMENTS

The parent company only financial statements were approved by the board of directors and authorized for issue on February 19, 2020.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and Interpretations of IAS (SIC) (collectively, the “IFRSs”) endorsed and issued into effect by the Financial Supervisory Commission (FSC)

Except for the following, whenever applied, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC would not have any material impact on the Company’s accounting policies:

1) IFRS 16 “Leases”

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessee and lessor. It supersedes IAS 17 “Leases”, IFRIC 4 “Determining whether an Arrangement contains a Lease”, and a number of related interpretations. Refer to Note 4 for information relating to the relevant accounting policies.

Definition of a lease

The Company elects to apply the guidance of IFRS 16 in determining whether contracts are, or contain, a lease only to contracts entered into (or changed) on or after January 1, 2019. Contracts identified as containing a lease under IAS 17 and IFRIC 4 are not reassessed and are accounted for in accordance with the transitional provisions under IFRS 16.

The Company as lessee

The Company recognizes right-of-use assets and lease liabilities for all leases on the parent company only balance sheets except for those whose payments under low-value asset and short-term leases are recognized as expenses on a straight-line basis. On the parent company only statements of comprehensive income, the Company presents the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liabilities; interest is computed using the effective interest method. On the parent company only statements of cash flows, cash payments for the principal portion of lease liabilities are classified within financing activities; cash payments for the interest portion are classified within financing activities. Prior to the application of IFRS 16, payments under operating lease contracts were recognized as expenses on a straight-line basis. Cash flows for operating leases were classified within operating activities on the parent company only statements of cash flows.

Lease liabilities were recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at an amount that is equal to the lease liabilities. The Company applies IAS 36 to all right-of-use assets.

The Company also applies the following practical expedients:

a) The Company applies a single discount rate to a portfolio of leases with reasonably similar characteristics to measure lease liabilities.

b) The Company accounts for those leases for which the lease term ends on or before December 31, 2019 as short-term leases.

c) The Company excludes initial direct costs from the measurement of right-of-use assets on January 1, 2019.

d) The Company uses hindsight, such as in determining lease terms, to measure lease liabilities.

The weighted average lessee's incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 2.2%. The difference between the (i) lease liabilities recognized and (ii) the future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	$ 2,099
The future minimum lease payments of cancellable operating lease commitments on December 31, 2018	7,217
Undiscounted amounts on January 1, 2019	$ 9,316
Discounted amounts using the incremental borrowing rate on January 1, 2019	$ 8,986
Lease liabilities recognized on January 1, 2019	$ 8,986

The Company as lessor

The Company does not make any adjustments for leases in which it is a lessor, and it accounts for those leases with the application of IFRS 16 starting from January 1, 2019.

The Company subleased its leasehold dormitories to its employees. Such sublease was classified as an operating lease under IAS 17. The Company determines the sublease is classified as an operating lease on the basis of the remaining contractual terms and conditions of the head lease and sublease on January 1, 2019.

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	As Originally Stated on January 1, 2019	Adjustments Arising from Initial Application	Restated on January 1, 2019
Right-of-use assets	$ -	$ 8,986	$ 8,986
Total effect on assets	$ -	$ 8,986	$ 8,986
Lease liabilities - current	$ -	$ 2,781	$ 2,781
Lease liabilities - noncurrent	-	6,205	6,205
Total effect on liabilities	$ -	$ 8,986	$ 8,986

b. The IFRSs endorsed by the FSC for application starting from 2020

New, Amended or Revised Standards and Interpretations	Effective Date Announced by IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020 (Note 3)

Note 1: The Company shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Company shall apply these amendments retrospectively for annual reporting periods beginning on or after January 1, 2020.

Note 3: The Company shall apply these amendments prospectively for annual reporting periods beginning on or after January 1, 2020.

As of the date the parent company only financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of the above standards and interpretations will have on the Company's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

c. New IFRSs issued by IASB but not yet endorsed and issued into effect by the FSC

New, Amended or Revised Standards and Interpretations	Effective Date Announced by IASB (Note 1)
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2022

Note 1: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

As of the date the parent company only financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of the above standards and interpretations will have on the Company's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of compliance

The parent company only financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

b. Basis of preparation

The parent company only financial statements have been prepared on the historical cost basis except for financial instruments which are measured at fair value and net defined benefit liabilities which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

The fair value measurements, which are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and based on the significance of the inputs to the fair value measurement in its entirety, are described as follows:

1) Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

2) Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

3) Level 3 inputs are unobservable inputs for an asset or liability.

When preparing its parent company only financial statements, the Company used the equity method to account for its investment in subsidiaries and associates. In order for the amounts of the net profit for the year, other comprehensive income for the year and total equity in the parent company only financial statements to be the same with the amounts attributable to the owner of the Company in its consolidated financial statements, adjustments arising from the differences in accounting treatment between parent company only basis and consolidated basis were made to investments accounted for using the equity method, share of profit or loss of subsidiaries and associates, as appropriate, in the parent company only financial statements.

c. Classification of current and non-current assets and liabilities

Current assets include:

1) Assets held primarily for the purpose of trading;

2) Assets expected to be realized within 12 months after the reporting period; and

3) Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

Current liabilities include:

1) Liabilities held primarily for the purpose of trading;

2) Liabilities due to be settled within 12 months after the reporting period; and

3) Liabilities for which the Company does not have an unconditional right to defer settlement for at least 12 months after the reporting period.

Assets and liabilities that are not classified as current are classified as non-current.

d. Foreign currencies

In preparing the Company's financial statements, transactions in currencies other than the Company's functional currency (i.e., foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising from the retranslation of non-monetary items are included in profit or loss for the period except for exchange differences arising from the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income; in which cases, the exchange differences are also recognized directly in other comprehensive income.

Non-monetary items that are measured at historical cost in a foreign currency are not retranslated.

e. Investments in subsidiaries

The Company uses the equity method to account for its investments in subsidiaries.

A subsidiary is an entity that is controlled by the Company.

Under the equity method, investments in subsidiaries are initially recognized at cost and adjusted thereafter to recognize the Company's share of the profit or loss and other comprehensive income of the subsidiary. The Company also recognizes the changes in the Company's share of equity of subsidiaries.

The Company assesses its investment for any impairment by comparing the carrying amount with the estimated recoverable amount as assessed based on the investee's financial statements as a whole. Impairment loss is recognized when the carrying amount exceeds the recoverable amount. If the recoverable amount of the investment subsequently increases, the Company recognizes a reversal of the impairment loss; the adjusted post-reversal carrying amount should not exceed the carrying amount that would have been recognized (net of amortization or depreciation) had no impairment loss been recognized in prior years. An impairment loss recognized on goodwill cannot be reversed in a subsequent period.

f. Investments in associates

An associate is an entity over which the Company has significant influence and which is neither a subsidiary nor an interest in a joint venture. The Company uses the equity method to account for its investments in associates.

Under the equity method, investments in associates are initially recognized at cost and adjusted thereafter to recognize the Company's share of the profit or loss and other comprehensive income of the associate. The Company also recognizes the changes in the Company's share of the equity of associates.

When the Company subscribes for additional new shares of an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus - changes in capital surplus from investments in associates accounted for using the equity method. If the Company's ownership interest is reduced due to its additional subscription of the new shares of the associate, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate is reclassified to profit or loss on the same basis as would be required had the investee directly disposed of the related assets or liabilities. When the adjustment should be debited to capital surplus, but the capital surplus recognized from investments accounted for using the equity method is insufficient, the shortage is debited to retained earnings.

The entire carrying amount of an investment is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is not allocated to any asset that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Company transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Company's parent company only financial statements only to the extent of interests in the associate that are not related to the Company.

g. Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment loss.

Depreciation of property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation methods are reviewed at the end of each year, with the effects of any changes in the estimates accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

h. Intangible assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful lives, residual values, and amortization methods are reviewed at the end of each year, with the effect of any changes in the estimates accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are measured at cost less accumulated impairment loss.

2) Internally-generated intangible assets - research and development expenditures

Expenditures on research activities are recognized as expenses in the period in which they are incurred.

An internally-generated intangible asset arising from the development phase of an internal project is recognized if, and only if, all of the following have been demonstrated:

a) The technical feasibility of completing the intangible asset so that it will be available for use or sale;

b) The intention to complete the intangible asset and use or sell it;

c) The ability to use or sell the intangible asset;

d) How the intangible asset will generate probable future economic benefits;

e) The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

f) The ability to measure reliably the expenditures attributable to the intangible asset during its development.

The amount initially recognized for internally-generated intangible assets is the sum of the expenditures incurred from the date when such an intangible asset first meets the recognition criteria listed above. Subsequent to initial recognition, such intangible assets are measured on the same basis as intangible assets that are acquired separately.

3) Derecognition of intangible assets

On derecognition of an intangible asset, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

i. Impairment of tangible and intangible assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets for any indication of impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of a corporate asset, the asset is tested for impairment in the context of the cash-generating unit (CGU) to which the asset belongs. If a portion of the carrying amount of the asset can be allocated on a reasonable and consistent basis to the CGU, the Company compares the carrying amount of the CGU, including the portion of the asset's carrying amount allocated to the CGU, with the recoverable amount of the CGU to which the asset belongs. If this reasonable and consistent basis of allocation cannot be applied to the CGU to which the asset belongs and can be applied instead to the smallest group of CGUs to which the CGU belongs, this smallest group is used for impairment testing.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the assets may be impaired.

The recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

When an impairment loss is subsequently reversed, the carrying amount of the corresponding asset, cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized on the asset, cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

j. Financial instruments

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss (FVTPL)) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognized immediately in profit or loss.

1) Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

a) Measurement categories

Financial assets are classified into the following categories: Financial assets at amortized cost and equity instruments at fair value through other comprehensive income (FVTOCI).

i. Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

i) The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

ii) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost, including cash, accounts receivable, other receivables, and other current assets, are measured at amortized cost, which equals the gross carrying amount determined using the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such a financial asset, except for:

i) Purchased or originated credit-impaired financial assets, for which interest income is calculated by applying the credit-adjusted effective interest rate to the amortized cost of such financial assets; and

ii) Financial assets that are not credit-impaired on purchase or origination but have subsequently become credit-impaired, for which interest income is calculated by applying the effective interest rate to the amortized cost of such financial assets in subsequent reporting periods.

A financial asset is credit impaired when one or more of the following events have occurred:

i) Significant financial difficulty of the issuer or the borrower;

ii) Breach of contract, such as a default;

iii) It is becoming probable that the borrower will enter bankruptcy or undergo a financial reorganization; or

iv) The disappearance of an active market for that financial asset because of financial difficulties.

Cash is highly liquid, and readily convertible to a known amount of cash, and is subject to an insignificant risk of changes in value. The Company's cash is held for the purpose of meeting short-term cash commitments.

ii. Investments in equity instruments at FVTOCI

On initial recognition, the Company may make an irrevocable election to designate investments in equity instruments as at FVTOCI. Designation as at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments; instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Company's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

b) Impairment of financial assets

The Company recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable).

The Company always recognizes lifetime expected credit losses (i.e., ECLs) for accounts receivable. For all other financial instruments, the Company recognizes lifetime ECLs when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on a financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECLs.

Expected credit losses reflect the weighted average of credit losses with the respective risks of default occurring as the weights. Lifetime ECLs represent the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECLs represent the portion of lifetime ECLs that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

For internal credit risk management purposes, the Company determines that the following situations indicate that a financial asset is in default (without taking into account any collateral held by the Company):

i. Internal or external information show that the debtor is unlikely to pay its creditors.

ii. When a financial asset is more than 90 days past due unless the Company has reasonable and corroborative information to support a more lagged default criterion.

The impairment loss of all financial assets is recognized in profit or loss by a reduction in their carrying amounts through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and the carrying amounts of such financial assets are not reduced.

c) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset’s carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss which had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the cumulative gain or loss is transferred directly to retained earnings, without recycling through profit or loss.

2) Equity instruments

Equity instruments issued by the Company are classified as equity in accordance with the substance of the contractual arrangements and the definitions of an equity instrument.

Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

The repurchase of the Company’s own equity instruments is recognized in and deducted directly from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issuance or cancellation of the Company’s own equity instruments.

3) Financial liabilities

a) Subsequent measurement

All financial liabilities are measured at amortized cost using the effective interest method.

b) Derecognition of financial liabilities

The difference between the carrying amount of a financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

k. Revenue recognition

The Company identifies contracts with customers, allocates the transaction price to the performance obligations and recognizes revenue when performance obligations are satisfied.

For contracts where the period between the date on which the Company transfers a promised good or service to a customer and the date on which the customer pays for that good or service is one year or less, the Company does not adjust the promised amount of consideration for the effects of a significant financing component.

1) Authorized revenue

a) Technical service revenue

The Company identifies performance obligations from contracts with customers and recognizes revenue when performance obligations are satisfied.

b) Royalty revenue

Revenue received from the intellectual property that remains operational without updated authorization or technical support is the royalty revenue. While customers use the intellectual property in mass production at the foundries, the royalty prices are determined based on production, sales or other measures and the revenue is recognized with reference to the underlying arrangements.

l. Leases

2019

At the inception of a contract, the Company assesses whether the contract is, or contains, a lease.

1) The Company as lessor

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

When the Company subleases a right-of-use asset, the sublease is classified by reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. However, if the head lease is a short-term lease that the Company, as a lessee, has accounted for applying recognition exemption, the sublease is classified as an operating lease.

Lease payments from operating leases are recognized as income on a straight-line basis over the terms of the relevant leases.

2) The Company as lessee

The Company recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, less any lease incentives received, and plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the parent company only balance sheets.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities are initially measured at the present value of the lease payments. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Company uses the lessee's incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the parent company only balance sheets.

Variable lease payments that do not depend on an index or a rate are recognized as expenses in the periods in which they are incurred.

2018

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

2) The Company as lessee

Operating lease payments are recognized as expenses on a straight-line basis over the lease term.

m. Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary conditions are that the Company should purchase, construct or otherwise acquire non-current assets are recognized as deferred revenue and transferred to profit or loss on a systematic basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Company with no future related costs are recognized in profit or loss in the period in which they are received.

n. Employee benefits

1) Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related services.

2) Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as expenses when employees have rendered services entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost) and net interest on the net defined benefit liabilities (assets) are recognized as employee benefits expense in the period in which they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which it occurs. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liabilities (assets) represent the actual deficit (surplus) in the Company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

3) Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plans except that remeasurement is recognized in profit or loss.

o. Share-based payment arrangements

1) Employee share options granted to employees

The fair value at the grant date of the employee share options is expensed on a straight-line basis over the vesting period, based on the Company's best estimates of the number of shares or options that are expected to ultimately vest, with a corresponding increase in capital surplus - employee share options. It is recognized as an expense in full at the grant date if vested immediately.

At the end of each reporting period, the Company revises its estimate of the number of employee share options expected to vest. The impact of the revision of the original estimates is recognized in profit or loss such that the cumulative expenses reflect the revised estimate, with a corresponding adjustment to capital surplus - employee share options.

2) Equity-settled share-based payment arrangements granted to the employees of a subsidiary

The grant by the Company of its equity instruments to the employees of a subsidiary under employee share options is treated as a capital contribution. The fair value of employee services received under the arrangement is measured by reference to the grant-date fair value and is recognized over the vesting period as an addition to the investment in the subsidiary, with a corresponding credit to capital surplus - employee share options.

p. Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

According to the Income Tax Law, an additional tax on unappropriated earnings is provided for as income tax in the year the shareholders approve to retain earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, research and development expenditures to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the assets to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the liabilities are settled or the assets are realized, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3) Current and deferred taxes

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity; in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity, respectively.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY

In the application of the Company's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Critical Accounting Judgements

a. Business model assessment for financial assets

The Company determines the business model at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. This assessment includes judgment about all relevant evidence including how the performance of the assets is evaluated and the risks that affect the performance of the assets. The Company monitors financial assets measured at amortized cost when assets are derecognized prior to their maturity, the Company understands the reasons for their disposal and whether the reasons are consistent with the objective of the business for which the assets were held. Monitoring is part of the Company's continuous assessment of whether the business model for which the remaining financial assets are held continues to be appropriate and, if it is not appropriate, whether there has been a change in the business model such that a prospective change to the classification of those assets is proper.

b. Lease terms - 2019

In determining a lease term, the Company considers all facts and circumstances that create an economic incentive to exercise or not to exercise an option, including any expected changes in facts and circumstances from the commencement date until the exercise date of the option. Main factors considered include contractual terms and conditions for the optional periods, significant leasehold improvements undertaken over the contract term, the importance of the underlying asset to the lessee's operations, etc. The lease term is reassessed if a significant change in circumstances that are within control of the Company occur.

Key Sources of Estimation and Uncertainty

a. Estimated impairment of financial assets

The provision for impairment of accounts receivables (include related parties) is based on assumptions about risk of default and expected loss rates. The Company uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Company's historical experience, existing market conditions and industrial economic trends. Where the actual future cash inflows are less than expected, a material impairment loss may arise.

b. Lessees' incremental borrowing rates

In determining a lessee's incremental borrowing rate used in discounting lease payments, a risk-free rate for the same currency and relevant duration is selected as a reference rate, and the lessee's credit spread adjustments and lease specific adjustments (such as asset type, secured position, etc.) are also taken into account.

6. CASH

	December 31	
	2019	2018
Bank deposits	$ 1,234,905	$ 1,301,978
Cash on hand	25	25
	$ 1,234,930	$ 1,302,003

The market rates of cash in bank at the end of the reporting period were as follows:

	December 31	
	2019	2018
Bank deposits	0.001%-2.75%	0.001%-3.55%

7. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31	
	2019	2018
Non-current		
Investments in equity instruments at FVTOCI	$ 15,530	$ 19,180
Domestic investments		
Unlisted shares		
Ordinary shares - Powerchip Technology Corporation	$ 8,540	$ 12,260
Ordinary shares - Syntronix Corporation	6,990	6,920
	$ 15,530	$ 19,180

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Company's strategy of holding these investments for long-term purposes.

8. FINANCIAL ASSETS AT AMORTIZED COST

	December 31	
	2019	2018
Non-current		
Domestic investments		
Time deposit with original maturity of more than 1 year	$ 33,500	$ 33,500
Pledged time deposits	113	112
	$ 33,613	$ 33,612

a. The ranges of interest rates for time deposits with original maturities of more than 1 year were approximately 1.015%-1.09% and 1.015%-1.09% per annum as of December 31, 2019 and 2018, respectively.

b. Refer to Note 25 for information relating to the credit risk management and impairment of financial assets at amortized cost.

c. Refer to Note 27 for information relating to investments in financial assets at amortized cost pledged as security.

9. ACCOUNTS RECEIVABLE, NET

	December 31	
	2019	**2018**
Accounts receivable	$ 133,917	$ 168,424
Less: Allowance for impairment loss	(7,105)	(10,089)
	$ 126,812	$ 158,335

The average credit term was 30 to 60 days. No interest was charged on accounts receivable. The Company uses other publicly available financial information or its own trading records to rate its major customers. The Company's exposure and the credit ratings of its counterparties are continuously monitored.

Credit exposure is controlled by counterparty limits that are reviewed and approved.

The Company applies the simplified approach to provide expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all accounts receivable. The lifetime expected credit losses are estimated considering past default experience and current financial position of the customers as well as industrial economic conditions. The Company's expected credit loss rates are set by individual customer based on historical credit loss experience.

The Company writes off an account receivable when there is information indicating that the debtor is in severe financial difficulty, and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation. For accounts receivable that have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

December 31, 2019

	Not Past Due	**1 to 30 Days**	**31 to 90 Days**	**91 to 180 Days**	**Over 181 Days**	**Total**
Gross carrying amount	$ 109,000	$ 6,146	$ 14,214	$ 1,679	$ 2,878	$ 133,917
Loss allowance (lifetime ECL)	(1,559)	(1,349)	(1,919)	(839)	(1,439)	(7,105)
Amortized cost	$ 107,441	$ 4,797	$ 12,295	$ 840	$ 1,439	$ 126,812

December 31, 2018

	Not Past Due	1 to 30 Days	31 to 90 Days	91 to 180 Days	Over 181 Days	Total
Gross carrying amount	$ 119,728	$ 11,010	$ 28,318	$ 9,368	$ -	$ 168,424
Loss allowance (lifetime ECL)	(3,165)	-	(5,542)	(1,382)	-	(10,089)
Amortized cost	$ 116,563	$ 11,010	$ 22,776	$ 7,986	$ -	$ 158,335

The movements of the loss allowance of accounts receivable were as follows:

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ 10,089	$ 2,071
Add: Net remeasurement of loss allowance	-	8,018
Less: Net remeasurement of loss allowance	(2,984)	-
Balance at December 31	$ 7,105	$ 10,089

10. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

	December 31	
	2019	2018
Investments in subsidiaries	$ 27,673	$ -
Investments in associates	5,382	6,046
	$ 33,055	$ 6,046

a. Investments in subsidiaries

	December 31	
	2019	2018
PUFsecurity Corporation	$ 27,673	$ -

	Proportion of Ownership and Voting Rights	
	December 31	
Name of Subsidiary	2019	2018
PUFsecurity Corporation	100%	-

The Company invested and established PUFsecurity Corporation in May 2019. The authorized capital and the total paid-up capital of PUFsecurity Corporation were NT$500,000 thousand and NT$50,000 thousand, respectively, divided into 50,000 thousand shares with a par value of NT$1.

The investments in subsidiaries accounted for using the equity method and the share of profit or loss and other comprehensive income (loss) of those investments for the years ended December 31, 2019 were based on the subsidiaries' financial statements which have been audited for the same years.

b. Investments in associates

	December 31	
	2019	2018
Associates that are not individually material		
iMQ Technology Inc.	$ 5,382	$ 6,046

	Proportion of Ownership and Voting Rights	
	December 31	
Name of Associate	2019	2018
iMQ Technology Inc.	3.38%	4.25%

	Year Ended December 31	
	2019	2018
The Company's share of :		
Loss from continuing operations	$ (4,336)	$ (4,356)
Other comprehensive income (loss)	(4)	-
Total comprehensive income (loss) for the period	$ (4,340)	$ (4,356)

Although the shareholding ratio is less than 20%, the Company is able to exercise significant influence over iMQ Technology Inc. since the chairman of the Company is the same person as the chairman of iMQ Technology Inc. and the Company acts as the director of iMQ Technology Inc.

As the information about business nature, main operation location and the registered country. Refer to Table 2.

The investments in associates accounted for using the equity method, and the share of profit or loss and other comprehensive income (loss) of those investments for the years ended December 31, 2019 and 2018 was based on the associates' financial statements which have been audited for the same years.

11. PROPERTY, PLANT AND EQUIPMENT

	December 31, 2019
Assets used by the Company	$ 444,855
Assets leased under operating leases	30,463
	$ 475,318

a. Assets used by the Company - 2019

	Freehold Land	Buildings	Research and Development Equipment	Office Equipment	Total
Cost					
Balance at January 1, 2019	$ 124,019	$ 383,910	$ 102,728	$ 10,451	$ 621,108
Additions	-	3,751	15,105	2,311	21,167
Disposals	-	(3,747)	(12,374)	(3,567)	(19,688)
Transfers to assets leased under operating leases	(10,289)	(23,927)	-	-	(34,216)
Balance at December 31, 2019	$ 113,730	$ 359,987	$ 105,459	$ 9,195	$ 588,371
Accumulated depreciation					
Balance at January 1, 2019	$ -	$ 78,766	$ 45,500	$ 5,309	$ 129,575
Depreciation expenses	-	10,529	24,583	1,801	36,913
Disposals	-	(3,747)	(12,374)	(3,567)	(19,688)
Transfers to assets leased under operating leases	-	(3,284)	-	-	(3,284)
Balance at December 31, 2019	$ -	$ 82,264	$ 57,709	$ 3,543	$ 143,516
Carrying amounts at December 31, 2019	$ 113,730	$ 277,723	$ 47,750	$ 5,652	$ 444,855

b. Assets leased under operating leases - 2019

	Freehold Land	Buildings	Total
Cost			
Balance at January 1, 2019	$ -	$ -	$ -
Transfers from assets used by the Company	10,289	23,927	34,216
Balance at December 31, 2019	$ 10,289	$ 23,927	$ 34,216
Accumulated depreciation			
Balance at January 1, 2019	$ -	$ -	$ -
Transfers from assets used by the Company	-	3,284	3,284
Depreciation expenses	-	469	469
Balance at December 31, 2019	$ -	$ 3,753	$ 3,753
Carrying amounts at December 31, 2019	$ 10,289	$ 20,174	$ 30,463

Operating leases are related to leases of buildings with lease terms between 1 to 3 years. The lessees do not have bargain purchase options to acquire the assets at the expiry of the lease periods.

The maturity analysis of lease payments receivable under operating lease payments was as follows:

	December 31, 2019
Year 1	$ 3,363
Year 2	1,666
	$ 5,029

c. 2018

	Freehold Land	Buildings	Research and Development Equipment	Office Equipment	Total
Cost					
Balance at January 1, 2018	$ 124,019	$ 384,646	$ 97,007	$ 9,785	$ 615,457
Additions	-	368	20,350	3,158	23,876
Disposals	-	(1,104)	(14,629)	(2,492)	(18,225)
Balance at December 31, 2018	$ 124,019	$ 383,910	$ 102,728	$ 10,451	$ 621,108
Accumulated depreciation					
Balance at January 1, 2018	$ -	$ 68,676	$ 35,723	$ 5,721	$ 110,120
Depreciation expense	-	10,968	24,354	2,080	37,402
Disposals	-	(878)	(14,577)	(2,492)	(17,947)
Balance at December 31, 2018	$ -	$ 78,766	$ 45,500	$ 5,309	$ 129,575
Carrying amounts at December 31, 2018	$ 124,019	$ 305,144	$ 57,228	$ 5,142	$ 491,533

The future minimum lease payments of non-cancellable operating leases are as follows:

	December 31, 2018
Not later than 1 year	$ 3,363

There was no indication of impairment for the years ended December 31, 2019 and 2018, respectively.

The Company’s property, plant and equipment are depreciated on a straight-line basis over the following estimated useful life:

Buildings	
Office main buildings	35-50 years
Electrical power equipment	5-10 years
Air-conditioning	5-8 years
Extinguishment equipment	5 years
Research and development equipment	3-8 years
Office equipment	3-5 years

12. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Buildings	$ 5,679
Office equipment	15
Transportation equipment	1,593
	$ 7,287

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 1,396
Depreciation charge for right-of-use assets	
Buildings	$ 1,790
Office equipment	30
Transportation equipment	1,275
	$ 3,095
Income from the subleasing of right-of-use assets (presented in other income)	$ (1,301)

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	
Current	$ 3,114
Non-current	$ 4,246

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Buildings	1.68%
Office equipment	3.05%
Transportation equipment	3.25%

c. Other lease information

Lease arrangements under operating leases for the leasing out of freehold property, plant and equipment are set out in Notes 11.

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 1,290
Total cash outflow for leases	$ (4,312)

The Company leases certain parking space and machine room which qualify as short-term leases. The Company has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease liabilities for these leases.

2018

The future minimum lease payments of non-cancellable operating lease commitments are as follows:

	December 31, 2018
Not later than 1 year	$ 1,549
Later than 1 year and not later than 5 years	550
	$ 2,099

The lease payments and sublease payments recognized in profit or loss were as follows:

	For the Year Ended December 31, 2018
Minimum lease payments	$ 1,596

13. INTANGIBLE ASSETS

	Patents	Software	Trademark	Total
Cost				
Balance at January 1, 2019	$ 112,921	$ 11,695	$ 4,418	$ 129,034
Additions	18,126	2,801	-	20,927
Disposals	(2,067)	(4,898)	(1,466)	(8,431)
Balance at December 31, 2019	$ 128,980	$ 9,598	$ 2,952	$ 141,530

(Continued)

	Patents	Software	Trademark	Total
Accumulated amortization				
Balance at January 1, 2019	$ 51,793	$ 6,556	$ 3,523	$ 61,872
Amortization expense	11,222	2,893	380	14,495
Disposals	(2,057)	(4,898)	(1,466)	(8,421)
Balance at December 31, 2019	$ 60,958	$ 4,551	$ 2,437	$ 67,946
Carrying amounts at December 31, 2019	$ 68,022	$ 5,047	$ 515	$ 73,584
Cost				
Balance at January 1, 2018	$ 97,611	$ 11,387	$ 4,411	$ 113,409
Additions	15,310	2,617	7	17,934
Disposals	-	(2,309)	-	(2,309)
Balance at December 31, 2018	$ 112,921	$ 11,695	$ 4,418	$ 129,034
Accumulated amortization				
Balance at January 1, 2018	$ 42,311	$ 5,571	$ 3,097	$ 50,979
Amortization expense	9,482	3,294	426	13,202
Disposals	-	(2,309)	-	(2,309)
Balance at December 31, 2018	$ 51,793	$ 6,556	$ 3,523	$ 61,872
Carrying amounts at December 31, 2018	$ 61,128	$ 5,139	$ 895	$ 67,162

(Concluded)

The Company's major products are NeoBit®, NeoFuse®, NeoPUF®, NeoEE®, and NeoMTP®, etc. There are 967 patents currently owned or applied in progress for the products mentioned above. According to the requirements of IAS 38, the research and development costs were recognized as research and development expenses, instead of capitalized, in the periods when incurred. The costs of the patents and the trademarks mentioned above were the costs of the relevant fees and professional service expenses for legal right applications.

The above intangible assets with finite useful lives are amortized on a straight-line basis over the following estimated useful life:

Patents	5 years
Software	3 years
Trademark	5 years

14. OTHER ASSETS

	December 31	
	2019	2018
Current		
Prepayments		
Prepayment for software	$ 10,925	$ 12,559
Prepayment for annual fee on the patents	4,866	4,680
Prepayment for software maintenance	1,503	1,107
Others	1,948	1,543
	$ 19,242	$ 19,889
Other assets		
Temporary payment	$ 4,278	$ 2,902

15. OTHER LIABILITIES

	December 31	
	2019	2018
Current		
Other payables		
Bonus	$ 43,848	$ 62,917
Payable for annual leave	3,371	3,343
Payable for professional service fee	1,494	1,056
Others	29,651	26,788
	$ 78,364	$ 94,104
Other liabilities		
Receipt under custody	$ 1,114	$ 1,008
Receipt in advance	550	550
Temporary receipt	22	58
	$ 1,686	$ 1,616

16. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The Company adopted a pension plan under the Labor Pension Act (the “LPA”), which is a state-managed defined contribution plan. Under the LPA, an entity makes monthly contributions to employees’ individual pension accounts at 6% of monthly salaries and wages.

b. Defined benefit plans

The defined benefit plan adopted by the Company in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the 6 months before retirement. The Company contributes amounts equal to 2% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Company assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor (the Bureau); the Company has no right to influence the investment policy and strategy.

The amounts based on the actuary report of the Company's defined benefit plans were as follows:

	December 31	
	2019	**2018**
Present value of funded defined benefit obligation	$ 31,041	$ 28,793
Fair value of plan assets	(9,657)	(8,459)
Net defined benefit liability	$ 21,384	$ 20,334

Movements in net defined benefit liabilities were as follows:

	Present Value of the Defined Benefit Obligation	**Fair Value of the Plan Assets**	**Net Defined Benefit Liabilities**
Balance at January 1, 2018	$ 26,575	$ (7,333)	$ 19,242
Net interest expense (income)	398	(116)	282
Recognized in profit or loss	398	(116)	282
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(170)	(170)
Actuarial loss			
Changes in demographic assumptions	352	-	352
Changes in financial assumptions	538	-	538
Experience adjustments	930	-	930
Recognized in other comprehensive loss (income)	1,820	(170)	1,650
Contributions from the employer	-	(840)	(840)
Balance at December 31, 2018	28,793	(8,459)	20,334
Net interest expense (income)	396	(122)	274
Recognized in profit or loss	396	(122)	274
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(248)	(248)
Actuarial loss (gain)			
Changes in demographic assumptions	375	-	375
Changes in financial assumptions	1,630	-	1,630
Experience adjustments	(153)	-	(153)
Recognized in other comprehensive loss (income)	1,852	(248)	1,604
Contributions from the employer	-	(828)	(828)
Balance at December 31, 2019	$ 31,041	$ (9,657)	$ 21,384

Through the defined benefit plans under the Labor Standards Law, the Company is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic and foreign equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets should not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plans' debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations were as follows:

	December 31	
	2019	**2018**
Discount rate	1.00%	1.375%
Expected rate of salary increase	4.00%	4.00%

If possible reasonable changes in each of the significant actuarial assumptions will occur and all other assumptions will remain constant, the present value of the defined benefit obligation would increase (decrease) as follows:

	December 31	
	2019	**2018**
Discount rate		
0.25% increase	$ (1,102)	$ (1,071)
0.25% decrease	$ 1,152	$ 1,121
Expected rate of salary increase		
0.25% increase	$ 1,103	$ 1,077
0.25% decrease	$ (1,061)	$ (1,035)

The sensitivity analysis presented above may not be representative of the actual changes in the present value of the defined benefit obligation as it is unlikely that changes in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

	December 31	
	2019	**2018**
Expected contributions to the plans for the next year	$ 863	$ 890
Average duration of the defined benefit obligation	14.5 years	15.3 years

17. EQUITY

a. Ordinary shares

	December 31	
	2019	2018
Numbers of shares authorized (in thousands)	100,000	100,000
Shares authorized	$ 1,000,000	$ 1,000,000
Number of shares issued and fully paid (in thousands)	75,834	75,791
Shares issued	$ 758,336	$ 757,908

For the year Ended December 31, 2019, the shares increased due to the employees' exercise of their employee share options.

b. Capital surplus

	December 31	
	2019	2018
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital (1)		
Arising from issuance of ordinary shares	$ 287,201	$ 310,759
May be used to offset a deficit only		
Arising from share of changes in capital surplus of associates	45,060	41,384
Arising from issuance of ordinary - exercised/invalid employee share options	9,160	2,445
May not be used for any purpose		
Arising from employee share options	63,025	61,949
	$ 404,446	$ 416,537

1) Such capital surplus may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or transferred to share capital (limited to a certain percentage of the Company's capital surplus and to once a year).

c. Retained earnings and dividend policy

The Company's Articles of Incorporation state that, where the Company made profit in a fiscal year, the profit shall be first utilized for paying taxes, offsetting accumulated losses, setting aside as legal reserve 10% of the remaining profit, setting aside or reversing a special reserve in accordance with the laws and regulations, and then any remaining profit together with any undistributed retained earnings shall be used by the Company's board of directors as the basis for proposing a distribution plan, which should be resolved in the shareholders' meeting for the distribution of dividends and bonuses to shareholders. For the policies on the distribution of employees' compensation and remuneration of directors after the amendment, refer to "Employees' compensation and remuneration of directors" in Note 20 (f).

The Company shall distribute dividend with considerations of the market situation and development stage, as well as future capital needs, long-term corporate development and the shareholders' cash flow needs. The Company's dividend policy, in principle, shall not be less than 50% of distributable earnings, of which at least 10% will be paid as cash dividend and the remainder will be in the form of stock dividend. The board of directors shall map out the distribution proposal in consideration of future operation and capital expenditure, and present the proposal at the shareholders' meeting for approval.

An appropriation of earnings to a legal reserve shall be made until the legal reserve equals the Company's paid-in capital. The legal reserve may be used to offset deficits. If the Company has no deficit and the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

Items referred to under Rule No. 1010012865, Rule No. 1010047490 and Rule No. 1030006415 issued by the FSC and the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Company.

The appropriations of earnings for 2018 and 2017 which had been approved in the shareholders' meetings on June 13, 2019 and June 14, 2018, respectively, were as follows:

	Appropriation of Earnings For the Year Ended December 31	
	2018	**2017**
Legal reserve	$ 61,311	$ 59,862
Special reserve	$ 61,006	$ -
Cash dividends	$ 556,678	$ 538,736
Cash dividends per share (NT$)	$ 7.50	$ 7.109

The Company's shareholders also resolved to issue cash dividends from capital surplus of $37,112 thousand and $29,631 thousand in the shareholders' meetings on June 13, 2019 and June 14, 2018, respectively.

The appropriations of earnings for 2019 had been proposed by the Company's board of directors on February 19, 2020. The appropriations and dividends per share were as follows:

	For the Year Ended December 31, 2019
Legal reserve	$ 54,047
Special reserve	$ 3,654
Cash dividends	$ 408,466
Cash dividends per share (NT$)	$ 5.5

Issuance of cash dividends from capital surplus of $111,400 thousand also had been proposed by the Company's board of directors on February 19, 2020.

The appropriations of earnings for 2019 are subject to the resolution of the shareholders' meeting to be held on June 10, 2020.

d. Other equity items

1) Exchange differences on translating the financial statements of foreign operations

	For the Year Ended December 31	
	2019	**2018**
Balance at January 1	$ -	$ -
Recognized for the year		
Share from associates accounted for using the equity method	(4)	-
Other comprehensive loss recognized for the year	(4)	-
Balance at December 31	$ (4)	$ -

2) Unrealized valuation gain (loss) on financial assets at FVTOCI

	For the Year Ended December 31	
	2019	**2018**
Balance at January 1	$ (61,932)	$ (62,992)
Recognized for the year		
Unrealized (loss) gain - equity instruments	(3,650)	1,060
Other comprehensive (loss) income recognized for the year	(3,650)	1,060
Balance at December 31	$ (65,582)	$ (61,932)

e. Treasury shares

Unit: In Thousands of Shares

Purpose of Buy-Back	**Number of Shares at January 1**	**Increase During the Year**	**Decrease During the Year**	**Number of Shares at December 31**
2019				
Shares transferred to employees	1,567	-	-	1,567
2018				
Shares transferred to employees	-	1,567	-	1,567

In September 2018, for shares transferred to employees, the Company's board of directors resolved to buy back 2,500 thousand shares of the Company's ordinary shares from the TPEx market from September 14, 2018 to November 13, 2018 with the price interval ranging from NT$177.80 to NT$400 per share. The Company has bought back 1,567 thousand shares with total cost of NT$404,238 thousand.

Under the Securities and Exchange Act, the Company shall neither pledge treasury shares nor exercise shareholders' rights on these shares, such as the rights to dividends and to vote.

18. SHARE-BASED PAYMENT

Employee share option plan of the Company

Qualified employees of the Company were granted 500 options in February, 2016. Each option entitles the holder to subscribe for one thousand ordinary shares of the Company. The options granted are valid for 10 years and exercisable at certain percentages after the second anniversary from the grant date. The options were granted at an exercise price equal to the closing price of the Company's ordinary shares listed on the TPEx on the grant date. For any subsequent changes in the Company's ordinary shares or for any cash dividends issued in excess of the ratio required in the issuance rule, the exercise price is adjusted accordingly.

The information of employee share options was as follows:

	Year Ended December 31			
	2019		2018	
	Number of Options (In Thousands)	Weighted-average Exercise Price (NT$)	Number of Options (In Thousands)	Weighted-average Exercise Price (NT$)
Balance at January 1	470	$ 331.6	487	$ 338.7
Options exercised	(43)	326.7	(8)	338.7
Options forfeited	(7)	324.2	(9)	338.7
Balance at December 31	420	324.2	470	331.6
Options exercisable, end of period	231	324.2	135	331.6

The weighted-average share prices on the exercise date of the share options for the years ended December 31, 2019 and 2018 were $369 and $378, respectively.

Information on outstanding options is as follows:

	December 31	
	2019	2018
Range of exercise price (NT$)	$ 324.2	$ 331.6
Weighted-average remaining contractual life (in years)	6.15 years	7.15 years

Options granted in February 2016 were priced using the Black-Scholes pricing model and the inputs in the model were as follows:

Grant-date share price (NT$)	$ 351
Exercise price (NT$)	$ 351
Expected volatility	43.24%
Expected life (in years)	6-7 years
Expected dividend yield	-
Risk-free interest rate	0.71-0.75%

Compensation costs recognized were NT$7,734 thousand and NT$15,869 thousand for the years ended December 31, 2019 and 2018, respectively.

19. REVENUE

	Year Ended December 31	
	2019	2018
Royalty revenue	$ 979,822	$ 1,026,710
Technical service revenue	429,507	449,806
	$ 1,409,329	$ 1,476,516

a. Contract balances

	December 31, 2019	December 31, 2018	January 1, 2018
Accounts receivables (Note 9)	$ 127,599	$ 158,335	$ 82,457
Contract liabilities			
Technical service revenue	$ 32,837	$ 37,822	$ 33,471

The changes in the balance of contract liabilities primarily result from the timing difference between the Company's performance and the respective customer's payment.

Revenue of the reporting period recognized from the beginning contract liabilities in the previous periods is as follows:

	Year Ended December 31	
	2019	2018
From the beginning contract liabilities		
Technical service revenue	$ 25,764	$ 22,390

b. Partially completed contracts

	Year Ended December 31	
	2019	2018
Taiwan (Company located)	$ 805,649	$ 880,511
China	299,718	267,184
Singapore	122,869	128,410
Korea	54,698	72,705
United States of America	40,378	36,755
Others	86,017	90,951
	$ 1,409,329	$ 1,476,516

20. NET PROFIT FROM CONTINUING OPERATIONS

a. Other income

	Year Ended December 31	
	2019	2018
Interest income		
Bank deposits	$ 9,493	$ 10,663
Remuneration of directors received	5,142	10,023
Rental income - operating lease (Note 11)	4,696	3,395
Dividend income	291	943
	$ 19,622	$ 25,024

b. Other gains and losses

	Year Ended December 31	
	2019	2018
Net foreign exchange (loss) gain	$ (5,287)	$ 5,615
Government grants income (Note 23)	1,691	-
Gain on disposal of investment	95	79
Loss on disposal of property, plant and equipment	-	(278)
Others	120	12
	$ (3,381)	$ 5,428

c. Finance costs

	Year Ended December 31	
	2019	2018
Interest on lease liabilities	$ 179	$ -

d. Depreciation and amortization

	Year Ended December 31	
	2019	2018
An analysis of depreciation by function		
Operating expenses	$ 40,477	$ 37,402
An analysis of amortization by function		
Selling and marketing expenses	$ -	$ -
General and administrative expenses	1,944	2,130
Research and development expenses	12,551	11,072
	$ 14,495	$ 13,202

e. Employee benefits expense

	Year Ended December 31	
	2019	2018
Post-employment benefits (see Note 16)		
Defined contribution plans	$ 15,811	$ 15,328
Defined benefit plans	274	282
	16,085	15,610
Share-based payments (see Note 18)		
Equity-settled	7,734	15,869
Other employee benefits	566,342	597,535
	$ 590,161	$ 629,014
An analysis of employee benefits expense by function		
Operating expenses	$ 590,161	$ 629,014

f. Employees' compensation and remuneration of directors

According to the Articles of Incorporation of the Company, the Company accrued employees' compensation and remuneration of directors at rates of 1-25% and no higher than 2%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. The employees' compensation and the remuneration of directors for the years ended December 31, 2019 and 2018, which were approved by the Company's board of directors on February 19, 2020 and February 26, 2019, respectively, are as follows:

Accrual rate

	Year Ended December 31	
	2019	2018
Employees' compensation	15%	15%
Remuneration of directors	1.5%	1.5%

Amount

	Year Ended December 31	
	2019	2018
Employees' compensation	$ 113,746	$ 125,538
Remuneration of directors	$ 11,374	$ 12,554

If there is a change in the amounts after the parent company only financial statements are authorized for issue, the differences are recorded as a change in the accounting estimate.

There is no difference between the actual amounts of employees' compensation and remuneration of directors paid and the amounts recognized in the parent company only financial statements for the years ended December 31, 2018 and 2017.

Information on the employees' compensation and remuneration of directors resolved by the Company's board of directors in 2020 and 2019 is available at the Market Observation Post System website of the Taiwan Stock Exchange.

21. INCOME TAXES RELATING TO CONTINUING OPERATIONS

a. Income tax recognized in profit or loss

The major components of tax expense (income) were as follows:

	Year Ended December 31	
	2019	2018
Current tax		
In respect of the current year	$ 91,829	$ 87,079
Adjustments for prior periods	9	(754)
	91,838	86,325
Deferred tax		
In respect of the current year	(726)	(228)
Adjustments to deferred tax attributable to changes in tax rates and laws	-	(372)
Income tax expense recognized in profit or loss	$ 91,112	$ 85,725

A reconciliation of accounting profit and income tax expense is as follows:

	Year Ended December 31	
	2019	2018
Profit before tax	$ 633,184	$ 698,831
Income tax expense calculated at the statutory rate	$ 126,637	$ 139,766
Nondeductible expenses in determining taxable income	5,333	741
Tax-exempt income	(84,175)	(93,488)
Additional income tax under the Alternative Minimum Tax Act	31,304	36,614
Unrecognized deductible temporary differences and investment credits	12,004	3,218
Adjustments to deferred tax attributable to changes in tax rates and laws	-	(372)
Adjustments for prior years' tax	9	(754)
Income tax expense recognized in profit or loss	$ 91,112	$ 85,725

The Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings was reduced from 10% to 5%.

In July 2019, the President of the ROC announced the amendments to the Statute for Industrial Innovation, which stipulate that the amounts of unappropriated earnings in 2018 and thereafter that are reinvested in the construction or purchase of certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings.

b. Current tax liabilities

	December 31	
	2019	2018
Current tax liabilities		
Income tax payable	$ 56,576	$ 71,897

c. Deferred tax assets

The movements of deferred tax assets and deferred tax liabilities were as follows:

Year ended December 31, 2019

	Opening Balance	Recognized in Profit or Loss	Closing Balance
Deferred tax assets			
Temporary differences	$ 2,708	$ 726	$ 3,434

Year ended December 31, 2018

	Opening Balance	Recognized in Profit or Loss	Closing Balance
Deferred tax assets			
Temporary differences	$ 2,108	$ 600	$ 2,708

d. Information about tax-exemption

As of December 31, 2019, profits attributable to the following expansion projects were exempted from income tax for a five-year period:

Expansion of Construction Project	Tax-exemption Period
Fifth expansion of the manufacturing plant	January 1, 2015-December 31, 2019
Sixth expansion of the manufacturing plant	January 1, 2016-December 31, 2020

e. Income tax assessments

The tax returns through 2017 have been assessed by the tax authorities.

22. EARNINGS PER SHARE

Unit: NT$ Per Share

	Year Ended December 31	
	2019	2018
Basic earnings per share	$ 7.30	$ 8.13
Diluted earnings per share	$ 7.26	$ 8.07

The earnings and weighted average number of ordinary shares outstanding used in the computation of earnings per share were as follows:

Net Profit for the Year

	Year Ended December 31	
	2019	**2018**
Earnings used in the computation of basic earnings per share	$ 542,072	$ 613,106
Effect of potentially dilutive ordinary shares:		
Employees' compensation	-	-
Employee share options	-	-
Earnings used in the computation of diluted earnings per share	$ 542,072	$ 613,106

Weighted average number of ordinary shares outstanding (in thousand shares):

	Year Ended December 31	
	2019	**2018**
Weighted average number of ordinary shares used in the computation of basic earnings per share	74,247	75,425
Effect of potentially dilutive ordinary shares:		
Employees' compensation	387	528
Employee share options	14	-
Weighted average number of ordinary shares used in the computation of diluted earnings per share	74,648	75,953

Since the Company can offer to settle bonus to employees in cash or shares, the Company assumes the entire amount of the bonus would be settled in shares and the resulting potential shares are included in the weighted average number of shares outstanding used in the computation of diluted earnings per share, if the effect is dilutive. Such dilutive effect of the potential shares is included in the computation of diluted earnings per share until the shareholders resolve the number of shares to be distributed to employees at their meeting in the following year.

Since the exercise price of the options or warrants issued by the Company exceeded the average market price of the shares during 2018, they are anti-dilutive and excluded from the computation of diluted earnings per share.

23. GOVERNMENT GRANTS

The Company applied for AI on the chip R&D subsidy program "The Industrial Technology Foresight Research Program of Reconfigurable Analog Artificial Intelligence Chip", proposed by the Ministry of Economic Affairs, and the program was approved on December 18, 2019. The total funds approved were NT$85,750 thousand, and the subsidies were NT$34,300 thousand. As of December 31, 2019, the accumulated government grants income recognized was NT$1,691 thousand. The collateral provided by the Company included cashier checks whose drawees are banking industries and guarantee letters and the amounts were NT$34,300 thousand and NT$10,080 thousand, respectively.

24. CAPITAL MANAGEMENT

The Company manages its capital to ensure that entities in the Company will be able to continue a going concern while maximizing the return to shareholders through the optimization of the debt and equity balance. The Company's overall strategy has no significant changes.

The capital structure of the Company consists of issued ordinary shares, capital surplus, retained earnings and other equity.

The Company is not subject to any externally imposed capital requirements.

25. FINANCIAL INSTRUMENTS

a. Fair value of financial instruments that are not measured at fair value

The management believes the carrying amounts of financial assets and financial liabilities not carried at fair value approximate their fair values or their fair values cannot be reliably measured.

b. Fair value of financial instruments that are measured at fair value on a recurring basis

1) Fair value hierarchy

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets at FVTOCI				
Investments in equity instruments at FVTOCI				
Unlisted shares	$ -	$ -	$ 15,530	$ 15,530

December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets at FVTOCI				
Investments in equity instruments at FVTOCI				
Unlisted shares	$ -	$ -	$ 19,180	$ 19,180

There were no transfers between Levels 1 and 2 in the current and prior periods.

2) Reconciliation of Level 3 fair value measurements of financial instruments

	Financial Assets at FVTOCI	
	Equity Instruments	
Financial Assets	2019	2018
Balance at January 1	$ 19,180	$ 18,120
Recognized in other comprehensive income (included in unrealized valuation gain (loss) on financial assets at FVTOCI)	(3,650)	1,060
Balance at December 31	$ 15,530	$ 19,180

3) Valuation techniques and inputs applied for Level 3 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Unlisted shares - ROC	Estimate the value of the target by estimating the assets and liabilities items or use the observable stocks price company comparing items of balance sheet or income statement, calculate the implied value multiplier for the price and evaluate the value of the target at balance sheet dates.

c. Categories of financial instruments

	December 31	
	2019	2018
Financial assets		
Financial asset at amortized cost (Note 1)	$ 1,420,734	$ 1,497,322
Investment in equity instrument at FVTOCI	15,530	19,180
Financial liabilities		
Amortized cost (Note 2)	25,362	24,171

Note 1: The balances include financial assets measured at amortized cost, which comprise cash, accounts receivables, accounts receivable - related parties, other receivables, other receivables - related parties and other current assets.

Note 2: The balances included financial liabilities measured at amortized cost, which comprise other payables and payables on equipment.

d. Financial risk management objectives and policies

The Company's major financial instruments included equity investments, accounts receivable, lease liabilities and other payables. The Company's corporate financial management function provides services to the business, coordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

The Company's main financial plans are reviewed by the board of directors in accordance with relevant regulations and internal control system.

1) Market risk

The Company's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (a) below) and interest rates (see (b) below).

There had been no change in the Company's exposure to market risks or the manner in which these risks were managed and measured.

a) Foreign currency risk

The Company's operating activities are partially denominated in foreign currencies and apply the natural hedge. The purpose of the Company's management of the foreign currency risk is to hedge the risk instead of making a profit.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities are set out in Note 28.

Sensitivity analysis

The Company is mainly exposed to the exchange rate fluctuation of USD, CNY and JPY.

The sensitivity analysis included only outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting period for a 5% change in foreign currency rates. A positive number below indicates an increase in pre-tax profit associated with the New Taiwan dollar weakening 5% against the relevant currency. For a 5% strengthening of the New Taiwan dollar against the relevant currency, there would be an equal and opposite impact on pre-tax profit and the balances below would be negative. The sensitivity analysis included cash, accounts receivable, accounts receivable - related parties, other receivables, payables on equipment and other payables.

	USD Impact		CNY Impact		JPY Impact	
	Year Ended December 31		Year Ended December 31		Year Ended December 31	
	2019	2018	2019	2018	2019	2018
Profit or loss	$ 10,341	$ 10,954	$ 434	$ 1,131	$ 20	$ 15

b) Interest rate risk

The Company is exposed to interest rate risk arising from financial assets both at fixed and floating interest rates.

The carrying amounts of the Company's financial assets with exposure to interest rates at the end of the reporting periods were as follows:

	December 31	
	2019	2018
Fair value interest rate risk		
Financial assets	$ 779,513	$ 843,230
Cash flow interest rate risk		
Financial assets	489,005	492,360

Sensitivity analysis

The sensitivity analyses below are determined based on the Company's exposure to interest rates for non-derivative instruments at the end of the reporting period. For floating rate assets, the analysis was prepared assuming the amount of the asset outstanding at the end of the reporting period was outstanding for the whole year.

If the market interest rates had increased/decreased by 0.1% and all other variables were held constant, the Company's pre-tax profit for the years ended December 31, 2019 and 2018 would increase/decrease by $489 thousand and $492 thousand, respectively, mainly due to the Company's exposure to floating interest rate assets.

2) Credit risk management

Credit risk refers to the risk that counterparty will default on its contractual obligations and result in financial loss to the Company. As at the end of the reporting period, the Company's maximum exposure to credit risk which will cause a financial loss to the Company due to failure of counterparties to discharge an obligation mainly arise from the carrying amount of the respective recognized financial assets as stated in the parent company only balance sheets.

In order to minimize credit risk, the Company has made credit and receivable management regulations to ensure that follow-up action is taken to recover overdue debts. In addition, the Company reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowances are made for irrecoverable amounts. In this regard, management believes the Company's credit risk was significantly reduced.

The credit risk on liquid funds was limited because the counterparties are banks with good credit.

Apart from the customers whose balances exceeded 5% of the accounts receivable, the Company did not have significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics.

The customers whose balances exceeded 5% of the accounts receivable are creditworthy counterparties. Therefore, the credit risk is limited.

3) Liquidity risk

The Company manages liquidity risk by monitoring and maintaining a level of cash deemed adequate to finance the Company's operations and mitigate the effects of fluctuations in cash flows.

Liquidity and interest risk rate tables

The following table details the Company's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities from the earliest date on which the Company can be required to pay. The tables included both interest and principal cash flows.

December 31, 2019

	On Demand or Less than 1 Month	**1-3 Months**	**3 Months to 1 Year**	**1+ Years**	**Total**
Non-derivative financial liabilities					
Non-interest bearing	$ 8,103	$ 16,881	$ 908	$ -	$ 25,892
Lease liabilities	270	540	2,414	4,343	7,567
	$ 8,373	$ 17,421	$ 3,322	$ 4,343	$ 33,459

Additional information about the maturity analysis for lease liabilities

	Less than 1 Year	**1-5 Years**	**5+ Years**
Lease liabilities	$ 3,224	$ 4,343	$ -

December 31, 2018

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	Total
Non-derivative financial liabilities				
Non-interest bearing	$ 8,106	$ 15,759	$ 836	$ 24,701

26. TRANSACTIONS WITH RELATED PARTIES

The transactions between the Company and its related parties, other than those disclosed in other notes, are summarized as follows:

a. Related party name and category

Related Party Name	Related Party Category
PUFsceurity Corporation	Subsidiaries
iMQ Technology Inc.	Associates
Powerchip Technology Corporation	Substantive related parties before May 24, 2018
Powerchip Semiconductor Manufacturing Corp.	Substantive related parties before May 24, 2018
HeFeChip Corporation Limited	Substantive related parties
Li-Jeng Chen	Key management personnel
T.C.Chen	Key management personnel
Evans Yang	Key management personnel
Chris Lu	Key management personnel

b. Operating revenue

Line Items	Related Party Category	Year Ended December 31 2019	2018
Sales	Substantive related parties	$ 1,815	$ 44,707
	Subsidiaries	756	-
	Associates	452	1,802
		$ 3,023	$ 46,509

The prices that the Company transferred and granted the professional technology to related parties were decided by the two sides. The payment term was open account 30 days.

c. Other income

Line Items	Related Party Category	Year Ended December 31 2019	2018
Remuneration of directors received	Substantive related parties		
	Powerchip Technology Corporation	$ -	$ 10,000
	Others	-	23
		$ -	$ 10,023
Other income	Key management personnel	$ 95	$ -

d. Receivables from related parties (excluding loans to related parties)

Line Items	Related Party Category	December 31 2019	2018
Accounts receivable - related parties	Subsidiaries		
	PUFsceurity Corporation	$ 787	$ -
Other receivables - related parties	Substantive related parties		
	HeFeChip Corporation Limited	$ 410	$ 251
	Subsidiaries	9	-
		$ 419	$ 251

The outstanding trade receivables from related parties are unsecured. For the years ended December 31, 2019 and 2018, no impairment losses were recognized for trade receivables from related parties.

e. Other current assets

Line Item	Related Party Category	December 31 2019	2018
Temporary payment	Subsidiaries	$ 3	$ -

f. Contract liabilities

Related Party Category	December 31 2019	2018
Substantive related parties	$ -	$ 1,312
Associates	-	452
	$ -	$ 1,764

g. Other current liabilities

Line Items	Related Party Category	December 31 2019	December 31 2018
Receipt in advance	Substantive related parties		
	HeFeChip Corporation Limited	$ 550	$ 550
Temporary receipt	Key management personnel	$ 10	$ 25

h. Guarantee deposits received

Line Items	Related Party Category	December 31 2019	December 31 2018
Guarantee deposits	Substantive related parties		
received	HeFeChip Corporation Limited	$ 520	$ 520

i. Lease arrangements

The Company is lessor under operating leases

The Company leases out offices, parking spaces and dormitories to its substantive related parties - HeFeChip Corporation Limited and key management personnel under operating leases with lease terms of 1 to 3 years. As of December 31, 2019 and 2018, the balance of the operating lease receivable was $6,191 thousand and $8,331 thousand, respectively. Lease income recognized for the years ended December 31, 2019 and 2018 was $3,692 thousand and $3,345 thousand, respectively.

Lease income was as follows:

Related Party Category	For the Year Ended December 31 2019	For the Year Ended December 31 2018
Substantive related parties		
HeFeChip Corporation Limited	$ 3,335	$ 3,335
Key management personnel	357	10
	$ 3,692	$ 3,345

j. Compensation of key management personnel

The compensation to directors and the key management personnel were as follows:

	Year Ended December 31 2019	Year Ended December 31 2018
Short-term employee benefits	$ 81,131	$ 85,100
Post-employment benefits	1,012	1,002
Share-based payment transactions	2,564	4,696
	$ 84,707	$ 90,798

The remuneration of directors and key management personnel, as determined by the remuneration committee, was based on the performance of individuals and market trends.

27. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets of the Company were provided as deposits for the tariff of imported raw materials:

	December 31	
	2019	2018
Pledged time deposits (classified as financial assets a amortized cost)	$ 113	$ 112

28. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The Company's significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currencies and the related exchange rates between foreign currencies and respective functional currencies were as follows:

December 31, 2019

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 6,899	29.980	$ 206,829
CNY	2,015	4.305	8,673
JPY	1,440	0.276	398
			$ 215,900

December 31, 2018

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 7,158	30.715	$ 219,843
CNY	5,057	4.472	22,614
JPY	1,087	0.2782	302
			$ 242,759
Financial liabilities			
Monetary items			
USD	25	30.715	$ 754

The significant unrealized foreign exchange gains (losses) were as follows:

	Year Ended December 31			
	2019		2018	
Foreign Currencies	Exchange Rate	Net Foreign Exchange Gains (Losses)	Exchange Rate	Net Foreign Exchange Gains (Losses)
USD	29.980 (USD:NTD)	$ (3,602)	30.715 (USD:NTD)	$ 2,070

29. SEPARATELY DISCLOSED ITEMS

a. Information about significant transactions and investees:

   1) Marketable securities held (excluding investment in subsidiaries, associates and jointly controlled entities). (Table 1)

   2) Information on investees. (Table 2)

b. Information on investments in mainland China: (None)

TABLE 1

EMEMORY TECHNOLOGY INC.

MARKETABLE SECURITIES HELD
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares (In Thousands)	Carrying Value	Percentage of Ownership (%)	Market Value or Net Asset Value	
eMemory Technology Inc.	Shares							
	Powerchip Technology Corporation	-	Financial assets at fair value through other comprehensive income - noncurrent	758	$ 8,540	0.02	$ 8,540	Note 2
	Syntronix Corporation	-	Financial assets at fair value through other comprehensive income - noncurrent	1,210	6,990	2.81	6,990	Note 2
	PowerFlash Technology Corp.	The Company is its director.	Financial assets at fair value through other comprehensive income - noncurrent	40	-	3.99	-	Note 2

Note 1: Marketable securities mentioned in the table include shares, bonds, beneficiary certificates and the derivative securities from aforementioned items, which is under the definition of IFRS 9.

Note 2: The market value was based on the fair value as of December 31, 2019.

Note 3: As of December 31, 2019, the above marketable securities had not been pledged or mortgaged.

TABLE 2

EMEMORY TECHNOLOGY INC.

INFORMATION ON INVESTEES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Share of Profits (Loss)	Note
				December 31, 2019	December 31, 2018	Shares (In Thousands)	Percentage of Ownership (%)	Carrying Amount			
eMemory Technology Inc.	PUFsceurity Corporation	Hsinchu County	Product designing, software services, data processing services, intellectual property, etc.	$ 50,000	$ -	50,000	100.00	$ 27,673	$ (22,384)	$ (22,384)	Subsidiary
	iMQ Technology Inc.	Hsinchu City	Electronic parts and components manufacturing	27,900	27,900	2,057	3.38	5,382	(108,225)	(4,336)	Investment accounted for using equity method

eMemory Technology Inc.

Chairman：Charles Hsu