

Stock Code: 3661



### **Alchip Technologies, Limited**

### 2019 Annual Report

Taiwan Stock Exchange Market Observation Post System: <u>http://mops.twse.com.tw</u> Alchip Annual Report is available at: <u>http://www.alchip.com/</u>

Printed on April 13, 2020

### I. Name, Title and Contact Information for Company's Spokesperson, Acting Spokesperson, Litigious and Non-litigious Agent

Spokesperson	Deputy Spokesperson	Litigious and Non-litigious Agent
Name: Daniel Wang	Name: Johnny Shen	Name: Nancy Chan
Title : Chief Financial Officer	Title : CEO	Title : Financial Controller
Tel: 886-2-2659-9357	Tel: 886-2-2799-2318	Tel: 886-2-2799-2318
E-mail: IR@alchip.com	E-mail: IR@alchip.com	E-mail: IR@alchip.com

### II. Contact Information of Company's Headquarters, Branches and Plant

Offi	ce	Address	Tel.
(I) T	The Company		
I	Alchip Technologies, Ltd.	PO Box 309, Ugland House, Grand Cayman, KY-1104, Cayman Islands	886-2-2799-2318
<b>(II</b> )	Subsidiaries		
1.	The subsidiary in Taiwan: Alchip Technologies, Inc.	9F., No.12, Wenhu St., Neihu Dist., Taipei, Taiwan 114	886-2-2799-2318
2.	The branch in Taiwan: Alchip Technologies, Ltd. Taiwan Branch	9F., No.12, Wenhu St., Neihu Dist., Taipei, Taiwan 114	886-2-2799-2318
3.	The subsidiary in Hong Kong: Alchip Technologies, Ltd.	Bank of America Tower,12 Harcourt Road Central,Hong Kong	852-2522-2922
4.	The sub-subsidiary in Shanghai: Alchip Technologies, Ltd. (Shanghai)	Registered Address: Room 632-19, 2 F., No. 351, Guoshoujing Rd., Zhangjiang Hi-Tech Park, Shanghai Business Address: 11F, East tower Greenland Center, 596 Middle Longhua Road, Shanghai, China 200032	86-21-5235-0999
5.	The subsidiary in Japan: アルチップ・テクノロジーズ Co., Ltd. (Alchip Technologies, K.K.)	10F Shin-Yokohama Square Bldg, 2-3-12 Shin-Yokohama, Kouhoku Yokohama Kanagawa Japan, 222-0033	81-45-470-1090
6.	The subsidiary in U.S.: AlChip Technologies, Inc.	1900 McCarthy Blvd, Suite 106, Milpitas, CA 95035	1-408-943-8296
7.	The sub-subsidiary in Wuxi: Alchip Technologies (Wuxi) Inc.	4F, Building A5, No.777, Jianzhuxi Road, Binhu District,Wuxi, Jiangsu, P.R.China	86-510-8512-0332
8.	Alchip's BVI incorporated subsidiary: Alchip Investment Inc.	Portcullis TrustNet Chambers, 4th Floor Ellen Skelton Building, 3076 Sir Francis Drake Highway, Road Town, Tortola,Birtish Virgin Islands VG1110	886-2-2799-2318
9.	The sub-subsidiary in Hefei: Alchip Technologies (Hefei) Inc.	Room 605-610, Building C4, Innovation Industrial Park, No.800 West Wangjiang Roard, Hefei, P.R.China	86-551-65655001
10.	The sub-subsidiary in Jinan: Alchip Technologies (Jinan) Inc.	1F,Building B, Qilu Software Park, No.1000 ShunHua Road, High-tech Development Zone, Ji'nan City, P.R.China	86-531-89017990

### III. Members of the Board of Directors

Title	Name	Nationality	Academic (	Qualifications and Principal Work Experience
Chairman	Kinying Kwan	U.S., R.O.C.	Academic Qualifications	• B.S. in Electronic Engineering, University of Illinois, U.S.
			Work Experience	<ul><li>CEO of the Company</li><li>Founder of Altius Solutions</li></ul>
Director	Herbert Chang	R.O.C.	Academic Qualifications	M.S. in Management Science, National Chiao Tung University
			Work Experience	Genearl Manager of Mutto Optronics Corporation
Director	Johnny Shyang-Lin	U.S., R.O.C.	Academic Qualifications	• B.S. of Electronic Engineering, California State University, Los Angeles, U.S.
	Shen		Work Experience	<ul> <li>COO of the Company</li> <li>GM of China Business Unit and VP of SoC Design Div. of the Company</li> </ul>
Director	Daniel Wang	R.O.C.	Academic Qualifications	• MBA of Baruch College-The City University of New York, U.S.
			Work Experience	Representative of Fubon Securities Co., Ltd. Shanghai Representative Office
Independent Director	Mao-Wei Hung	R.O.C.	Academic Qualifications	• Ph.D., Finance, Northwestern University, U.S.
			Work Experience	<ul> <li>Professor, Department of International Business, National Taiwan University</li> <li>Dean of College of Management, National Taiwan University</li> <li>Chairman of Board, Taiwan Academy of Banking and Finance</li> </ul>
Independent Director	Brian Chiang	R.O.C.	Academic Qualifications	• B.S. of Business Administration, University of Southern California, U.S.
			Work Experience	Managing Director of Walden International Taiwan Co., Ltd.
Independent Director	Binfu Chuang	U.S.	Academic Qualifications	• M.S. in Electical Engineering, Oregon State University, U.S.
			Work Experience	• Director and General Manager of Shanghai SyncMOS Semiconductor Co., Ltd.

### IV. Contact information of Share Transfer Agent

Name: Transfer Agent Department of CTBC Bank Address: 5F., No. 83, Section 1, Chongqing S. Rd., Zhongzheng District, Taipei City 100, Taiwan

Tel: 886-2-6636-5566 Website: https://www.ctbcbank.com

- V. Contact information of Auditing CPA CPA Firm: Deloitte & Touche Name of CPA: Yi-Wen Wang and Cheng-Ming Lee Address: 20F.,No. 100,Songren Rd., Xinyi District, Taipei 11073, Taiwan Tel: 886-2-2725-9988 Website: <u>http://www.deloitte.com.tw</u>
- VI. Names of stock exchanges where foreign securities are listed and inquiry on the information of foreign securities: None.
- VII. The Company's web address: http://www.alchip.com

### Notice to readers

This English-version annual report is a summary translation of the Chinese version and is not an official document of the shareholders' meeting. If there is any discrepancy between the English and Chinese versions, the Chinese version shall prevail.

I.	Letter to Shareholders	1
II.	Company Profile	
2.1	Date of Establishment and Company Introduction	3
2.2	Company Milestones	4
III.	Corporate Governance Report	6
	Organization	6
3.2	Information on the Company's Directors, Supervisors, General Managers, Vice Presidents,	
	Deputy Managers and Heads of All the Company's Divisions and Branches	8
3.3	Implementation Status of Corporate Governance	22
	Information on CPA Professional Fees	50
3.5	The Company's Chairman, Chief Executive Officer, Chief Financial Officer, and	
	Managers in Charge of its Finance and Accounting Matters Has Held a Position at the	
	Accounting Firm of its CPA or at an Affiliated Enterprise of Such Accounting Firm in	
	the Most Recent Year	50
3.6	Any Transfer, Pledge, or Other Change of Hands Involving the Equity Interests of a	
	Director, Managerial Officer, or Shareholders Holding More Than 10% of the Shares of	
	the Company during the Most Recent Year and the Current Year Up to the Date of the	
	Publication of the Annual Report	51
	Relationship among the Top Ten Shareholders	52
3.8	The Total Number of Shares and Total Equity Interest Held in any Single Enterprise by the	
	Company, its Directors, Managerial Officers, General Manager, and any Companies	
	Controlled Either Directly or Indirectly by the Company	
IV.	Capital Overview	
	Capital and Shares	
4.2	Implementation of Fund Usage Plan	
V.	Overview of Business Operations	
	Business Activities	
	Market and Sales Overview	
	Information on Employees	
	Expenditure on Environmental Protection	
	Labor Relations	
5.6	Material Contracts	
VI.	Financial Highlights	
	Financial Highlights	
	Financial Analysis	
	Audit Committee's Report for the Most Recent Year	96
6.4	Consolidated Financial Statement for the most recent year, including an auditor's report	
	prepared by a CPA, and 2-year comparative balance sheet, statement of comprehensive	
	income, statement of changes in equity, cash flow chart, and any related footnotes or	
	attached appendices	97
6.5	A Parent Company Only Financial Statement for the Most Recent Year, Certified by a	
	CPA, but not Including the Statements of Major Accounting Items	97
6.6	Financial Difficulties Encountered By the Company and the Related Party in the Most	
	Recent Year and Up to the Date of the Annual Report	
	Review of Financial Status, Financial Performance, and Risk Management	
	Analysis of Financial Status	
	Analysis of Financial Performance	
	Analysis of Cash Flow	.100
7.4	Major Capital Expenditure for the Most Recent Year and its Effect on Finance and	100
	Business operations of the Company	.100
7.5	Investment Policy for the Most Recent Year, Main Reasons for Profits or Losses,	4.0
_	Improvement Plans and Investment Plans for the Coming Year	
	Analysis of Risk Management	
	Other Material Matters	
	Special Disclosure	
8.1	Information of Subsidiaries	.105

8.2 Private Placement Securities During the Current Year up to the Date of Publication of	
the Annual Report	108
8.3 Holding or Disposal of Shares in the Company by Alchip's Subsidiaries During the	
Current Year up to the Date of Publication of the Annual Report	108
8.4 Other Necessary Supplements	108
8.5 Major Difference Between The Company's Articles of Association and the Regulations	
on the Protection of Shareholders' Equity of Taiwan	109
8.6 Any Events in 2019 and as of the Date of Publication of the Annual Report that Had	
Significant Impacts on Shareholders' Right or Security Prices as Stated in Article 36-3-2	
of the Securities and Exchange Law of Taiwan	131

### I. Letter to Shareholders

### Dear Shareholders,

With the rapid development of new applications such as AI, HPC and IoT, the global semiconductor market has become more competitive over the last few years, and the industry is experiencing a strong demand for high-end process application chips. Alchip has performed quite smoothly in this giant wave in 2019. We have completed a great number of HPC design projects. A few large orders of AI application projects are also expected to enter the mass production in 2020. In general, Alchip achieved an outstanding performance in AI and HPC markets in 2019. According to the track records, the majority of the design projects for Alchip have been migrating from 16nm to 7nm. On the customer side, the demand of HPC market has ushered in a rapid growth for the customers in Great China region. For the entire year of 2019, Alchip has taped out 7nm design projects. The second generation 16nm project of CPU chips has been successfully in the mass production in the fourth quarter. In conclusion, Alchip achieved a great success in the year of 2019.

On the R&D front, Alchip maintains its leading position within the ASIC design service industry. About 89% revenue of Alchip came from advanced process nodes (28nm and more advanced). For business development, we kept on partnering with tier-one system customers, and completed a number of 16nm and 7nm designs in fields such as artificial intelligence, networking and high performance computer. For the 5nm design projects, Alchip had received a few design cases for the big firms in 2019.

To analyze by sales territories, with the rapid growth of high demands in the HPC market, China was the first largest source of revenue. With the continuous support from the system customers in Japan, and with the high demands for AI application in North America, Japan and North America were the second largest source of revenue for Alchip. Benefit from the system customers, the Asia Pacific Region except for China, Japan and North America emerges as Alchip's third largest source of revenue.

### **Financial Performance**

On New Taiwan Dollars (NTD), Alchip's 2019 total revenue came at NTD4,332M, 25.54% increase YoY from NTD3,451M in 2018. The 2019 net income was NTD434M, 68.45% increase YoY from NTD257M in 2018. On US Dollars (USD) basis, the 2019 revenue came at USD140M, 22.44% increase YoY, and the net income was USD14M, 64.29% increase YoY. For other 2019 financial figures, the gross margin was 37.19%, operating margin was10.00%, and the ROA and ROE were 9.78% and 13.93%, respectively.

### **Technological Developments**

Given the increasing design demand for advanced process nodes from customers, Alchip had kept on investing in our design capability for advanced process nodes and customized IPs in 2019. Following the remarkable record of AI and HPC design cases, we have a large number of 7nm design projects which are currently working in progress. For the 5nm designs, Alchip has received a few cases from system customers in 2019. Alchip will continuously fortify our position within the advanced process node competition arena.

### **Corporate Developments**

In order to further enhance our engineering resource and business development, Alchip continues to expand its global influence to Great China region and set up an office in Jinan, China in 2018 and our new operation office in North America in 2019. For the strong demands of the Greater China and North America markets, Alchip is always ahead of the curve, and we are devoted to develop more advanced process design technology to customers. With our advanced technology and professional design ability, we expect to become the first leading brand in the ASIC industry for the future.

### **Outlook for the future**

Looking into 2020, Alchip will continue to explore market opportunities through our strengths in ability of advanced process nodes design and firmed strategic alliance with major IP partners. We believe new

applications such as high performance computing, artificial intelligenceand IoT, etc. will be our future main focus as we already saw signals of business opportunities coming. Furthermore, from the geographic prospective, we will endeavor to post significant potential of ASIC business opportunity in North America market. Last but not least, we believe that through our core competence of providing industry leading service for advanced processing nodes, Alchip will be able to post strong revenue and profit growth in 2020, and we will continuously create value to both our customers and shareholders.

Finally, thanks once again with sincerity for sustained efforts of all employees and long-term support and encouragement from shareholders to the Company. We would like to extend our deepest gratitude to all of you !

Best wishes for good health and prosperity!

\ lL

Kinying Kwan Chairman

### **II. Company Profile**

### 2.1 Date of Establishment and Company Introduction

Founded in British Cayman Islands on February 27, 2003 by the core technical team of the well-known System-on-Chip company from Silicon Valley under the Chairman Kinying Kwan's lead, Alchip Technologies, Limited (hereinafter referred to as the "Company" or "Alchip") is a leading provider of silicon design and manufacturing solutions for system companies developing high-complexity and high-volume applicationspecific integrated circuit (ASIC) and System-on-Chip (SoC) design. Headquartered in Taipei, Taiwan, it has established an ASIC manufacturing center in Hsinchu. Based on the consideration of global development policy, the Company built up subsidiaries in China, Japan, and America (hereinafter referred as the "Group"). The Company had a total of 404 employees in December 2019. The Group's management team has operated and deeply rooted in IC design services for years. The team is composed of SoC design experts from U.S. Silicon Valley and Japan with an average of over 20 years of management experience in the semiconductor industry and their capability for high-end process and chip design better than other competitors' in the industry. In just three years after its establishment, the Company had completed many ASIC design cases from 0.13um down to 65nm and put into mass production. In 2009, it started mass-production of 40 nm design cases for customers. Stepped into 28nm design cases in 2013, it began offering customers the latest 16nm process design service in 2014. The Company completed the 14nm design case and had wafer start successfully in September 2015. Moreover, several 28nm and 16nm design of super computer cases were completed in 2016 and 2017. At the end of 2019, Alchip has completed, prototyped, and began the volume production of a few 7nm design of AI and HPC cases.

Alchip focuses on ASIC and SoC solutions for deep submicron process (28nm and below). The goal is to help system customers complete low-cost and high-complexity chip design in the shortest time and to speed up the time to market for products of our customers. The Company has completed more than 400 design cases of high-end process SoC since its establishment. The three products application fields are AI/HPC/communication network equipment, other consumption electronic products (high definition television, digital cameras, entertainment systems, mobile broadband, etc.) as well as niche products (medical devices, monitoring systems, etc.). Alchip creates impressive results in the application fields as described above, which makes it the first-choice IC design partner among many world-class system manufacturers.

### **2.2 Company Milestones**

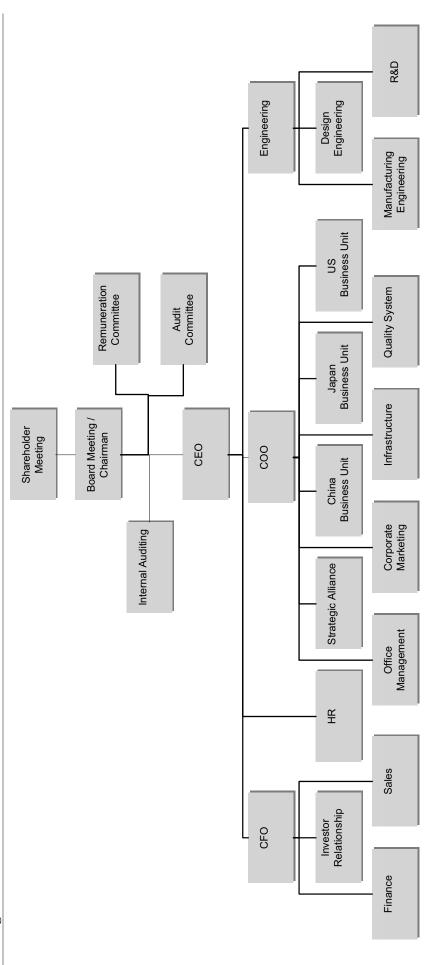
Aug. 2002The subsidiary was established in Hong Kong.Sep. 2002The subsidiary was established in Shanghai.	
San 2002 The subsidiary was established in Shanghai	
Feb. 2003 Established an exempted company in the Cayman Islands.	
Apr. 2003 Alchip Technologies (Cayman) invested in the subsidiaries in Hong Kong and Shanghai share exchange.	through
May 2003 The subsidiary was established in U.S.	
Aug. 2003 The first 0.13 um chip design was completed.	
Feb. 2004 The subsidiary was established in Japan.	
Jul. 2004 Joined the TSMC's Design Center Alliance (DCA).	
Sep. 2004 Obtained the order for 0.13 um, 16M gate design from Japan's big firm M Company.	
Completed the first SoC design for 90 nm 6M gate high-end consumer electronics and	entered
mass production in the second half of 2005.	entered
Jan. 2005 The subsidiary was established in Taiwan.	
Apr. 2005 Won the order for 90 nm, 500MHz high-speed calculation SoC design and became the first across the globe to enter 90G mass production at TSMC.	product
Aug. 2005     The monthly shipment reached 1 million units of System on Chip (SoC).	
Jun. 2006     Developed the 65 nm ARM 1176 embedded multi-core application processor.	
Sep. 2006         Won the order for digital cameras SoC design from Japan's system big firm.	
Nov. 2006Passed ISO9001 certification.Dec. 2006The monthly shipment reached 2 million units of SoC.	
Feb. 2007     Won the order for 65 nm SoC design.	
May 2007 Won the order for HDTV SoC design from Japan's system big firm.	
Jun. 2007 The monthly shipment reached 2.5 million units of SoC.	
Jul. 2007 Adopted the Verigy V93000 Pin-Scale 800 system as its new-generation chip testing mach	nine.
Jan. 2008 Won the order for mobile communication devices SoC design from a system big firm.	
Feb. 2008 Got ARM authorization.	
Mar. 2008 Won the order for digital TV SoC design from Japan's system big firm.	
Mar. 2008 Joined the Cadence (Power Forward Initiative, PFI) Alliance.	
Apr. 2008 Joined the ARM Connected Community to become an ARM partner.	
May 2008 Became a partner of packaging technology with SONY Semiconductor Group.	
Jun. 2008 Alchip was named as the "China's 10 Best Service IC Design House" by 2008 "El- Engineering Times".	ectronic
Aug. 2008 Adopted the Synopsys Eclypse's low-power design solutions.	
Oct. 2008 Mass-produced 65 nm turnkey solution.	
Nov. 2008 Won the first 65 nm design case for turnkey solution.	
Dec. 2008 Alchip was awarded the special honor to be a "Green Partner" of a Japan's system big firm	1.
Dec. 2008 Set up heat flow and automated sorting machine.	
Feb. 2009 Took part in the ebeam Initiative.	
Apr. 2009 Alchip was elected to one of TSMC's global top 9 members of VCA.	
Dec. 2009 The Company mass-produced 55 nm turnkey solution.	
Dec. 2009         Completed the 40 nm design case for Mobile Game of a system big firm.	
Mar. 2010 The monthly shipment reached 2.5 million units of SoC.	
Oct. 2010         Completed the 32 nm application design case for HDTV of a system big firm.	
Dec. 2010     The accumulated shipment of 55 nm design cases exceeded 10 million units of SoC.	
Jan. 2011 Set up a UF3000 Wafer Prober.	
Mar. 2011         Completed the 55 nm application design case for Tablet PC.	
Apr. 2011         The accumulated shipment of 55 nm design cases exceeded 18 million units of SoC.	
Jul. 2011 Alchip's Headquarters moved to Solar Technology Square, Taipei Neihu Technology Park	
Sep. 2011 Completed the 40 nm design case for imaging equipment.	
Dec. 2011         Passed ISO 9001 extended authentication.	
Feb. 2012 Gained the special honor to be a "2011 Best Supplier of the Year Award" of a Japan's big	firm
	111111.
Mar. 2012 Won the order for 28 nm SoC design.	
May 2012 Alchip's shipments in cooperation with ASE Group hit 50 million units of SoC.	
Aug. 2012 The subsidiary was established in Wuxi China.	
Sep. 2012         Completed the 28 nm design case for Mobile Game of a system big firm.	
Dec. 2012 Alchip was awarded the special honor to be the Deloitte Technology Fast 500 Asia Pacific	
Dec. 2012 The subsidiary in Japan passed ISO9001 certification.	

Jun. 2013	Won the No. 1 in the annual evaluation on partners of a Japan's big firm.
Jul. 2013	Completed the 28 nm design case for Bitcoin mining machine.
Aug. 2013	Completed the 40 nm design case for high-efficiency imaging equipment.
Sep. 2013	Completed the 28 nm design case for processor (supercomputer).
Nov. 2013	Passed ISO9001 certification.
Feb. 2014	Completed the 20 nm design case for Bitcoin mining machine.
May 2014	Completed the 28 nm design case for medical device of a Japan's big firm.
Jun. 2014	Won the No. 1 in the annual evaluation on partners of a Japan's big firm.
Jun. 2014	Completed the 28 nm design case for Litecoin mining machine.
Sep. 2014	Completed the 28 nm design case for entertainment machine of a Japan's big firm.
Oct. 2014	The Company's shares were publicly listed on the Taiwan Stock Exchange.
Jan. 2015	Alchip's BVI incorporated subsidiary and Alchip's Taiwan Branch were established.
Feb. 2015	Completed the 16 nm design case for Bitcoin mining machine.
Jul. 2015	Completed the 28 nm design case for high-efficiency imaging equipment of a Korea's firm.
Sep. 2015	Completed the 14 nm design case for Bitcoin mining machine.
Feb. 2016	Completed the 28 nm design case for imaging equipment of a Japan's big firm.
Jul. 2016	Completed the 28 nm design case for networking equipment of a China's big firm.
Oct. 2016	The subsidiary was established in Hefei China.
Dec. 2016	Completed the 16 nm design case for HPC equipment of a Japan's big firm.
Jan. 2017	Completed the 16 nm design case for networking equipment of a China's big firm.
Feb. 2017	Completed the 16 nm design case for high performance computer of a China's big firm.
Aug. 2017	The office was established in Guangzhou China.
Jan. 2018	Completed 7nm SoC Design for Bitcoin Mining Machines.
Apr. 2018	The subsidiary was established in Jinan China.
Oct. 2018	Completed 12nm SoC Design for AI application.
Mar. 2019	Completed 16nm SoC Design for AI application.
Jun. 2019	Expand NA business, new office established.
Sep. 2019	Completed the 16nm design case for high performcance computing (CPU) of a China's big firm.
Dec. 2019	Completed 16nm SoC Design for consumer automotive application.
Jan. 2020	Completed the 7nm design case for AI application of a China's big firm.
Feb. 2020	Completed the 12nm design case for networking application of a Japan's big firm.
Feb. 2020	Completed 16nm SoC Design for networking application.
Feb. 2020	Completed the 16nm design case for consumer automotavie application of a US's big firm.

**III. Corporate Governance Report** 

### 3.1 Organization

## **3.1.1 Organizational chart**



### 3.1.2 Major corporate functions

Department Name	Responsibilities
Finance	Responsible for the Company's fund allocation and accounting treatments.
Investor Relationship	<ol> <li>Handling all matters relating to the Taiwan Stock Exchange.</li> <li>Make routine communications with investors (natural persons and juridical persons).</li> <li>Hold Investment Conferences for potential investors.</li> <li>Invite investors to participate in negotiation conferences.</li> </ol>
Strategy Alliance	<ol> <li>Develop and maintain partnerships with strategic suppliers.</li> <li>Negotiate the target price with suppliers to provide pre-sales support for relevant departments.</li> <li>Develop new suppliers or introduce competitive / high-end technologies from current suppliers to achieve the cost-effectiveness.</li> <li>Develop and implement all procurement policies and ensure efficient operations of procurement and organizational interests.</li> </ol>
Corporate Marketing	Responsible for all matters relating to the Company's global marketing.
Design Engineering	Complete the design realization from RTL or netlist to GDSII for customers.
R&D	<ol> <li>Provide design SOP, flow &amp; methodology. Establish SoC design platform.</li> <li>Circuit &amp; customization. Define and optimize design SOP, flow &amp; methodology.</li> <li>Develop analog/mixed-signal silicon intellectual property. Customize high-performance/low-power digital circuit.</li> <li>Provide customized circuit design services and technical support for business units. Develop analog/mixed-signal silicon intellectual property.</li> <li>Provide 2.5D/3D chip design solution and technical support to business units.</li> </ol>
Manufacturing Engineering	<ol> <li>Develop and complete R&amp;D direction and objectives of the Company's production technologies.</li> <li>Provide advanced testing and packaging and solutions for product / component engineering.</li> </ol>
Japan Business Unit	Japan Business development, customer services and project management of business units.
US Business Unit	US Business development, customer services and project management of business units.
China Business Unit	China Business development, customer services and project management of business units.
Sales	Business development and customer services.
Quality System.	Responsible for the planning, implementation and management of the Company's quality policy.
Infrastructure	Responsible for the planning, implementation and management of information operations.
Internal Auditing.	Assist the Board of Directors, CEO, and management in the examination and assessment for the internal control system, measure the efficiency and effectiveness of operations, and provide timely proposals for improvement as the basis for amendment on the internal control systems so as to ensure its sustainable and effective operation.
Human Resources Management	Human Resources management and development.
Office Management	Control the whole administrative management such as the Company's administration & general affairs, and safety & hygiene.

3.2 Information on the Company's Directors, Supervisors, General Managers, Vice Presidents, Deputy Managers and Heads of All the Company's Divisions and Branches

## **3.2.1 Information on Directors**

April 13, 2020

Remark					
ctors or R no are in two	nship Relation		None	None	1
Executives, Directors or Supervisors who are spouses or within two	ees of kin Name F		None	None	I
Executives, Directors Supervisors who are spouses or within two degrees of kinship Title Name Relati			None	None	ı
Othor Docition			<ul> <li>Director of the Company's subsidiary in Taiwan</li> <li>Director of the Company's subsidiary in Japan</li> <li>Director of the Company's subsidiary in U.S.</li> <li>Director of the Company's subsidiary in Hong Kong</li> </ul>	<ul> <li>GM of the Company's subsidiary in Taiwan Managerial Officer of the Company's branch in Taiwan Supervisor of the Company's sub- subsidiary in Hefei Supervisor of the Company's sub- subsidiary in Hefei Supervisor of the Company's sub- subsidiary in Jinan</li> </ul>	ı
Academic Qualifications	& Major Experience		<ul> <li>B.S. in Electronic University of University of Illinois, U.S.</li> <li>CEO of the CEO of the Founder of Altius Solutions</li> </ul>	<ul> <li>B.S. in Electronic GM of the Company's Conforma State in Tawan University, Los Manageria Angeles, U.S.</li> <li>Angeles, U.S.</li> <li>Manageria the Company's Company's Company's subsidiary's Company's subsidiary's University of Company's subsidiary in Company's subsidiary in Company's subsidiary in Company's subsidiary in Company's subsidiary is subsidiary</li></ul>	ı
Academic	& Majo		Academic Qualifications: Work Experience:	Academic Qualifications: Work Experience:	
lding ninee	%	~	%0	%0	I
Shareholding by Nominee	Shares		0	0	
s & T ding	%	~	%0	%0	I
Spouse & Minor Shareholding	Shares		0	0	I
nt Iding	%	~ ~	%66.0	2.11%	ı
Current Shareholding	Shares		606,000	1.73% 1,291,652 2.11%	I
lding ected	%	~	1.13%	1.73%	
Shareholding when Elected	Shares		680,000	1,041,652	-
Gandar Date Term Date of	Elected		02/27/ 2003	05/18/ 2011	-
Term	Office		ς	m	
Date	Elected		06/21/ 2019	06/21/ 2019	
Gandar	TOPHOD		Male	Male	Male
	Adding		Kinying Kwan	Johnny Shyang-Lin Shen	Benjamin Jin- Ping Ng (Note 1)
	TAULUITAILLY		U.S.A, R.O.C.	U.S.A, R.O.C.	AUS.
17:41 -	1111		Chairman	Director	Director

None																
None																
None																
er of HHE CO., O., O., of t.CO, t.CO, t.CO, t.CO, t.CO, t.CO, t.CO, t.CO, t.CO, t.CO, t.S.News iRA egeck fding, cland																
•M.S. in Management     Director of Monolithic Pow Science, National       Science, National     Systems, Inc.       University     Stranklersts       STAINLESS S FRODUCTS C     Stranklersts       University     Representative)       Strain     Director (Legal       Representative)     Solutions Tech       Ltd.     Director (Legal       Representative)     Solutions Tech       Ltd.     Director (Legal       Representative)     Sky Tech       Ltd.     Director (Legal       Representative)     Sky Tech       Ltd.     Director (Legal       Representative)     Sky Tech       Optronics     Director of Tro       Optronics     Noregeek       Mutto     Co., Ltd       Optronics     Midastek       Binector of Vite     Director of Vite       Director of Vite     Director of Vite       Director of Moregeek     Director of Moregeek       Binector of More     Director of Moregeek       Director of Moregeek     Director of Moregeek <tr td=""> <t< td=""></t<></tr> <tr><td>Academic Qualifications: Work Experience:</td></tr> <tr><td><u> </u></td></tr> <tr><td>0</td></tr> <tr><td>% 0</td></tr> <tr><td>0</td></tr> <tr><td>%0</td></tr> <tr><td>0</td></tr> <tr><td>0%0</td></tr> <tr><td>0</td></tr> <tr><td>04/09/</td></tr> <tr><td>m</td></tr> <tr><td>2019</td></tr> <tr><td>Male</td></tr> <tr><td>Herbert Chang</td></tr> <tr><td>R.O.C.</td></tr> <tr><td>Director</td></tr>	Academic Qualifications: Work Experience:	<u> </u>	0	% 0	0	%0	0	0%0	0	04/09/	m	2019	Male	Herbert Chang	R.O.C.	Director
Academic Qualifications: Work Experience:																
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Herbert Chang																
R.O.C.																
Director																

None	None	None
None	None	None
None	None	None
<ul> <li>Director of Alchip's BVI incorporated subsidiary company's sub- subsidiary in Wuxi</li> <li>Director of the Company's sub- subsidiary in Hefei</li> <li>Director of the Company's sub- subsidiary in Jinan</li> </ul>	Professor of International Business Department, National Taiwan University Independent Director of Mutto Optronics Corporation Independent Director of Fubon Securities Co., Ltd.	<ul> <li>Managing Director of Walden International Taiwan Co., Ltd.</li> </ul>
<ul> <li>MBA of Baruch</li> <li>MBA of Baruch</li> <li>College-The City</li> <li>BV1 incorporate</li> <li>University of</li> <li>BV1 incorporate</li> <li>University of</li> <li>BV1 incorporate</li> <li>Company's subsidiary in We subsidiary in He</li> <li>Representative of =Director of the</li> <li>Company's subsidiary in He</li> <li>Shanghai</li> <li>Director of the</li> <li>Representative</li> <li>Company's subsidiary in He</li> <li>Shanghai</li> <li>Director of the</li> <li>Representative</li> <li>Company's subsidiary in Hi</li> </ul>	<ul> <li>Ph.D., Finance,</li> <li>Northwestern University,U.S.</li> <li>M.A. in Economics, University of Wisconsin- Madison, U.S.</li> <li>B.A. in Economics, National Taiwan University</li> <li>Professor, Department of International Business, National Taiwan University</li> <li>Deam of College of Management, National Taiwan University</li> <li>Business</li> <li>Deam of College of Management, National Taiwan</li> <li>Deam of College of Management, National Taiwan</li> </ul>	
Academic Qualifications: Work Experience:	Academic Qualifications: Work Experience:	Academic Qualifications: Work Experience:
%0	%0	%0
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0.08%	%0	%0
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0.08%	%0	%0
50,000	0	0
06/21/201 9	2010	11/05/ 2010
r,	m	ŝ
06/21/ 2019	2019	06/21/ 2019
Male	Male	Male
Daniel Wang (Note 2)	Mao-Wei Hung	Brian Chiang
R.O.C	с. К.	R.O.C.
Director	Independent Director	Independent Director

	None
	None
	None
	Vone
al ., Ltd.	on N rssity, d anager i ctor
International Taiwan Co., Lto	<ul> <li>M.S., Oregon N.S., Oregon State University, U.S.</li> <li>B.S., National Chiao Tung University</li> <li>Director and General Manager of Shanghai SyncMOS</li> <li>Semiconductor Co., Ltd.</li> </ul>
Int Ta	
	Academic •M.S., Oregon None Qualifications: State University, U.S. •B.S., National Chiao Tung University Work •Director and General Manager General Manager SyncMOS Semiconductor Co, Ltd.
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	dependent U.S.A, R.O.C. Binfu Chuang Male
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Note 1: Director, Mr. Benjamin Jin-Ping Ng resigned on June 21,2019.

Note 2: CFO, Mr. Daniel Wang was elected as Director on June 21, 2019.

# **Professional qualifications and independence analysis of Directors**

April 13, 2020

)ther	se anies tly an irector								
Number of Other	Taiwanese Public Companies Concurrently Serving as an Independent Director	0	0	ı	0	0	2	0	0
	12	>	>	,	>	>	>	>	>
	11	>	>		>	>	>	>	>
	10	>	>		>	>	>	>	>
e)	6	>	>		>	`	>	>	>
ria(Not	∞	>	>		>	>	>	>	>
Independence Criteria(Note)	7		>				>	>	>
endenc	9		>	1			>	>	>
Indepo	Ś	>	>	1	>	>	>	>	>
	4	>	>	'	>	>	>	>	>
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	5						>	>	>
			>	1			>	>	>
r with at Least Five Years	Have Work Experience in the Areas of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	>	>	1	>	>		>	~
Meet One of the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience	A Judge, Public Prosecutor, Attorney, Have Work Experience in Certified Public Accountant, or Other Professional or Technical Specialist Who has Passed a National Examination and Accounting, or Otherwise been Awarded a Certificate in a Profession Necessary for the Business Necessary for the Business of the Company Company								
Meet One of the Following Profe	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 on Private Junior College, College or University						>		
Criteria	Name	Kinying Kwan	Herbert Chang	Benjamin Jin-Ping Ng (Note 2)	Johnny Shyang- Lin Shen	Daniel Wang (Note 3)	Mao-Wei Hung	Brian Chiang	Binfu Chuang

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Note 1	

- 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. (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply.
- 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 managerial officer included in the 1<sup>st</sup> item above or a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the persons included in the 2<sup>nd</sup> or 3<sup>rd</sup> item above.
    - 5. Not a director, supervisor, or employee of a corporate shareholder who directly holds 5% or more of the total number of outstanding shares of the Company or who holds shares ranking in the top five holdings or the representative who is appointed based on 1 or 2 in Article 27 of the Company Act. (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply.)
- 6. Not a director, supervisor or employee of other company controlled by the same person when more than half of the company's director seat or voting shares. (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply.)
- 7. Not a director, supervisor or employee of other companies or institutions who is the same person or spouse with the company's chairman, General Manager or equivalent. (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply.)
- 8.Not a director, supervisor, managerial officer, or shareholder holding 5% or more of the shares, of a specified company or institution which has a financial or business relationship with the Company. (However, if a specific company or institution holds more than 20% but not more than 50% if the total issued shares of the company, and the independent directors set by the company and its parent company, subsidiaries, or subsidiaries of the same parent company in accordance with this law or local laws and regulations.)
- 9. Not a professional individual who, or an owner, partner, director, supervisor, or managerial officer and their spouse of a sole proprietorship, partnership, company, or institution that, provides audit or two years. Except for members of the remuneration committee, the public acquisition review committee or the special committee on mergers and acquisitions that perform their functions in accordance business, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company that have received cumulative remuneration which is not exceeding NT\$500,000 in past with the relevant laws of the Securities and Exchange Act or Business Mergers And Acquisitions Act.
  - 0. 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 Law.
- 12. Not a governmental, juridical person or its representative as defined in Article 27 of the Company Law.

Note 2: Director, Mr. Benjamin Jin-Ping Ng resigned on June 21,2019. Note 3: CFO, Mr. Daniel Wang was elected as Director on June 21, 2019.

	Remark						
April 13, 2020	Relative d Degree 10 is a fficer	Relation	None	ı	ı	None	None
April 1	With Spouse or Relative Within the Second Degree of Kinship who is a Managerial Officer	Name	None	ı	ı	None	None
	With 1 Within of Ja	Title	None	T	ı	None	None
	Position(s) Held Concurrently in any Other	Сопрану	<ul> <li>GM of the Company's subsidiary in Taiwan</li> <li>Managerial Officer of the Company's branch in Taiwan</li> <li>Supervisor of the Company's sub-subsidiary in Wuxi</li> <li>Supervisor of the Company's sub-subsidiary in Hefei</li> <li>Supervisor of the Company's sub-subsidiary in Jinan</li> </ul>	,	-	<ul> <li>Director of the Company's subsidiary in Japan</li> </ul>	<ul> <li>Chairman and GM of the Company's sub-subsidiary in Wuxi</li> <li>Chairman and GM of the Company's sub-subsidiary in Hefei</li> <li>Company's sub-subsidiary in Jinan</li> </ul>
	Academic Qualifications & Major Experience		Academic qualifications: -B.S. in Electronic Engineering, California State University, Los Angeles, U.S. Work experience: -COO of the Company -GM of China Business Unit and VP of SoC Design Div., the Company	-	-	Academic qualifications: B.A. in Economics, YOKOHAMA National University Work experience: Chief Financial Officer of the Company Chief Financial Officer of Inno Micro Corporation	Academic qualifications: •MBA, University of Oxford •B.S. in Business Administration, National Taiwan University Work experience: •VP of China Business Unit, the Company
	Shareholding by Nominee Arrangement	Holding Percentage	%0	ı		%0	%0
		Shares	0	T	ı	0	0
	Spouse & Minor Shareholding	Holding Percentage	0% 0			0%0	%0
	Spous	Shares	0	ı	ı	0	0
	Shareholding	Holding Percentage	2.11%			0.07%	0.26%
	Shareh	Shares	1,291,652			40,000	159,167
	Date of Inauguration	)	01/01/2010			07/02/2009	11/11/2016
	Gender		Male	Male	Male	Male	Male
	Name		Johnny Shyang-Lin Shen	Jacky Ni (Note 1)	Kozo Fujita (Note 2)	Junichiro Hosaka	Andy Lin
	Nationality		U.S., R.O.C.	China	Japan	Japan	R.O.C.
	Title		CEO	C00	Sales VP of Japan Business Unit	GM of Japan Business Unit	GM of China Business Unit

3.2.2 Inforamtion of General Managers, VPs, Deputy General Managers and Heads of All the Company's Divisions and Branches

Remark										
Relative id Degree no is a officer	Relation		None	None	None	None				
With Spouse or Relative Within the Second Degree of Kinship who is a Managerial Officer	Name		None	None	None	None				
With 9 Within of F Ma	Title		None	None	None	None				
Position(s) Held Concurrently in any Other	Сошрану	<ul> <li>Chairman and GM of the Company's subsidiary in Shanghai</li> </ul>		<ul> <li>Director of the Company's sub-subsidiary in Wuxi</li> <li>Director of the Company's sub-subsidiary in Hefei</li> <li>Director of the Company's sub-subsidiary in Jinan</li> </ul>	None	<ul> <li>Director of Alchip's BVI incorporated subsidiary incorporated subsidiary in Wuxi sub-subsidiary in Wuxi sub-subsidiary in Hefei sub-subsidiary in Hefei sub-subsidiary in Jinan sub-subsidiary in Jinan</li> </ul>				
Academic Qualifications & Maior Experience		<ul> <li>Sales Manager of Logitech International S.A.</li> </ul>	Academic qualifications: -B.S in Computer Science , Tokyo University of Science Work experience: -GM of Japan Business Unit, the Company - Senior Manager of Cadence Design System	Academic qualifications: -M.S. in Electronic Engineering, University of Southern California, U.S. Work experience: - Director, Design Engineering Div. of the Company	Academic qualifications: <b>B.S.</b> in Business Administration, Soochow Unversity Work experience: <b>•</b> AP BU Director of the Company	Academic qualifications: •MBA of Baruch College-The City University of New York, U.S. Work experience: •Representative of Fubon Securities Co., Ltd. Shanghai Representative Office				
Shareholding by Nominee Arrangement	Holding Percentage		%0	0%0	%0	~ ^ ^ ~				
	Shares		0	o	0	0				
Spouse & Minor Shareholding	Holding Percentage		0%	0%	%0	0%0				
Spous Shar	Shares		0	0	0	0				
Shareholding	Holding Percentage		%0	0.18%	0.02%	0.08%				
Sharel	Shares		0	109,026	10,000	50,000				
Date of Inauguration	)		03/15/2019	08/15/2012	11/03/2017	12/29/2011				
Gender			Male	Male	Male	Male				
Name			Hiroyuki Nagashima (Note 3)	Leo Cheng	Robert Chang	Daniel Wang				
Nationality			Japan	R.O.C.	R.O.C.	R.O.C.				
Title			GM of US Business Unit	Sr. VP of Design Engineering	Sales VP	CFO				

Remark														
Relative Id Degree 10 is a	Name Relation		None					None						
With Spouse or Relative Within the Second Degree of Kinship who is a Managerial Officer	Name		None			None								
With S Within of K Mar	Title		None			None								
Position(s) Held Concurrently in any Other	Сощрану	<ul> <li>Director of Alchip's BVI incorporated subsidiary</li> </ul>				None								
Academic Qualifications & Maior Experience		<.	■B.S. in Accounting, National Taiwan University	<ul> <li>Deputy Manager of Deloitte</li> </ul>	& Touche	Academic qualifications:	<ul> <li>B.S in Computer Science,</li> </ul>	University of Toronto	Work experience:	Sr. Director of Strategic	Alliance of the Company			
Shareholding by Nominee Arrangement	Shares Percentage		%0			%0								
Shar by N Arra	Shares		0											
Spouse & Minor Shareholding	Shares Percentage		%0											
Spous	Shares	0						0	ò					
Shareholding	Holding Percentage		%60.0					0 00%	0.0000					
Shareh	Shares		54,000			500								
Gender Inauguration	)	Female 09/18/2004 5					03/15/2019							
Gender			Female					Male	21011					
Name			Nancy Chan			Peter Teng Note 4)								
Nationality			R.O.C.					ROC						
Title		i	Financial Controller				-	VP of Strateov	Alliance					

Note 1 : Mr.Jacky Ni resigned from COO on March 15, 2019. Note 2 : Mr. Kozo Fujita is no longer as an insider as of March 15, 2019. Note 3 : Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019. Note 4 : Mr. Peter Teng becomes an insider as of March 15, 2019.

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rs, General Managers and Vice Presidents in the most recent year	
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	Compensation Paid to	Directors from an Invested Company Other than the Company's Subsidiary or	the Parent company				N/A							dividual	1emorandum		
f Total nsation	)+E+F+G) ome (%) e2)	Companie consolidated statem	l financial	13										ime of In	ig to the N		
Ratio of Total Compensation	(A+B+C+D+E+F+G) to Net Income (%) (Note2)	The con	npany				13.36%							engaged t	s accordir	r: None.	
Also	e Bonus	Companies in the consolidated	Stock				0							risk and	Director	cent vea	
Who are .	Profit Sharing- Employee Bonus (G) (Note2)	financial statements	Cash				0							nsibility,	bonus to	e most re	
Directors	Sharing- (G) (	The company	Stock				0							he respoi	ofits as l	ort in the	
teceived by Employees	Profit		Cash				0							veen tl	nual pr	y. ial rep	1
Relevant Remuneration Received by Directors Who are Also Employees	Severance Pay (F)	Companie consolidated statem	l financial				66							unce betv	of its and	n financ	
unerati	Severa (	The cor	npany				66							releva	an 2%	u paic stated i	ousand
vant Rem	onuses, wances	Companie consolidated statem	l financial				35,832							cribe the	more tha	Duaru ar anies is s	1,673 th
Rele	Salary, Bonuses, and Allowances (E)	The cor	5.07% 5.07% 35,832 3									also des	Iside no	I by une	is NT\$1		
Ratio of Total Remineration	(A+B+C+D) to Net Income (%)	Companie consolidatee statem										ctor and	y is set a	ipproved ided to a	irectors		
Ratio of Total Remineration	(A+B+C) Net Incc	The cor	npany				5.07%							al Direc	ompan	ce provi	ion to d
	Allowances (D)	Companie consolidated statem	l financial				2,504							Individu	of the (	the servi	distribut
	Allowar	The cor					2,504							paid for	lirectors	any for 1	nsation e
	to (C)	Companie consolidated statem	l financial				11,673							ation ]	id for (	as and Comp	compe
ration	Bonus to Directors (C) (Note 1)	The cor					11,673 11,673							remuner	ration pa	ectors of	ved that
Remuneration	ance (B)	Companie consolidated					0							iction of	remune	the Dir	ıy appro
	Severance Pay (B)	The con	npany				0							nd stru	1: The	an an r an an a	ompar
	pensation )	All companies in the consolidated financial statements								andard a	uneration	ompany. ation gaiı	of the C				
	Base Compensation (A)	The cor				7,792							system, st	unt of rem	e remuner	the Board	
	· ]	Name		Kinying Kwan	Herbert Chang	Benjamin Jin-Ping Ng(Note3)	Johnny Shyang-Lin Shen	Daniel Wang (Note4)	Mao-Wei Huno	Brian	Chiang	Binfu	Chuang	. Please describe the policy, system, standard and struction of remuneration paid for Individual Director and also describe the relevance between the responsibility, risk and engaged time of Individual	Directoretc. and the amount of remuneration: The remuneration paid for directors of the Company is set aside no more than 2% of its annual profits as bonus to Directors according to the Memorandum	and Articles of Association of the Company. The remunication paid as anowances to Directors is approved by the Doard and paid montuny. 2. Except the above table, the remuneration gained by the Directors of Company for the service provided to all companies is stated in financial report in the most recent year : None.	Note 1 : On March 6, 2020, the Board of the Company approved that compensation distribution to directors is NT\$11,673 thousand
		Title		Chairman	Director	Director	Director	Director	Independent Director	Independent	Director	Independent	Director	.Please descr	Directoretc	Except the a	ote 1 : On M

Note 3 : Director, Mr. Benjamin Jin-Ping Ng resigned on June 21, 2019. Note 4 : Mr. Daniel Wang was elected as Director at the Annual General Meeting on June 21,2019.

		Name of Directors	Directors	
Range of Remuneration	Total of (	Total of (A+B+C+D)	Total of (A+B+C+D+E+F+G)	C+D+E+F+G)
0	The Company	Companies in the Consolidated Financial Statements	The Company	Companies in the Consolidated Financial Statements
Under NT\$ 1,000,000	Benjamin Jin-Ping Ng (Note 1)	Benjamin Jin-Ping Ng (Note 1)	Benjamin Jin-Ping Ng (Note 1)	Benjamin Jin-Ping Ng (Note 1)
$\rm NT\$1,000,001 \sim NT\$2,000,000$	Johnny Shyang-Lin Shen, Daniel Wang	Johnny Shyang-Lin Shen, Daniel Wang	1	1
$\rm NT\$2,000,001 \sim NT\$3,500,000$	Herbert Chang, Mao-Wei Hung, Brian Chiang, Binfu Chuang	Herbert Chang, Mao-Wei Hung, Brian Chiang, Binfu Chuang	Herbert Chang, Mao-Wei Hung, Brian Chiang, Binfu Chuang	Herbert Chang, Mao-Wei Hung, Brian Chiang, Binfu Chuang
$\rm NT\$3,500,001 \sim NT\$5,000,000$	•	ı	ı	·
$\rm NT\$5,000,001 \sim NT\$10,000,000$	Kinying Kwan	Kinying Kwan	Kinying Kwan	Kinying Kwan
$\rm NT\$10,000,001 \sim NT\$15,000,000$	1	ı	ı	ı
$\rm NT\$15,000,001 \sim NT\$30,000,000$	1	I	Johnny Shyang-Lin Shen, Daniel Wang	Johnny Shyang-Lin Shen, Daniel Wang
$\rm NT330,000,001{\sim}$ $\rm NTS50,000,000$	ı	ı	I	I
$\rm NT\$50,000,001 \sim NT\$100,000,000$		ı	ı	I
Over NT\$100,000,000		-	I	I
Total	8	8	8	8
Nota 1 · Director Mr Danianin Iin Ding Ng regioned on June 21	In motion of the Data of 1010			

Note 1 : Director, Mr. Benjamin Jin-Ping Ng resigned on June 21, 2019.

B. Remuneration to Supervisors: It is not applicable as the Company does not have supervisors.

# C. Remuneration to General Managers and Vice Presidents

	Compensation Received from Non- consolidated subsidiary		1% N/A										
Ratio of total compensation (A+B+C+D) to net income after tax(%)	Companies in the Financial St	e Consolidated atements	27.21% 27.21%										
Ratio compe (A+B+C income a	The Con	npany											
) te1)	Companies in the Consolidated	Stock	0										
Compensation to Employees(D) (Note1)	Financial Statements	Cash	0										
Compen	The Company	Stock	0										
En		Cash	0										
Bonuses and Allowance (C)	Companies in the Financial St		0										
Bonu Allow	The Company			0									
Severance Pay and Pensions (B)	Companies in the Financial St	822 822											
Severano Pensi	The Con												
(Y)	Companies in the Financial St	e Consolidated atements	117,130										
Salary(A)	The Con	npany	117,130										
	Johnny Shyang- Lin Shen	Jacky Ni (Note 2)	Kozo Fujita (Note 3)	Junichiro Hosaka	Andy Lin	Hiroyuki Nagashima (Note 4)	Leo Cheng	Robert Chang	Daniel Wang	Nancy Chan	Peter Teng (Note 5)		
	Title				Sales VP of Japan Business Unit	GM of Japan Business Unit	GM of China Business Unit	GM of US Business Unit	Sr. VP of Design Engineering	Sales VP	CFO	Financial Controller	VP of Strategy Alliance

Unit : NT\$ thousand

Note 1 : On March 6, 2020 the Board of the Company approved that compensation distribution to employees is NT\$ Note 2 : Mr. Jacky Ni resigned from COO on March 15, 2019. Note 3 : Mr. Kozo Fujita is no longer as an insider as of March 15, 2019.

Note 4 : Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019. Note 5 : Mr. Peter Teng becomes an insider as of March 15, 2019.

## **Remuneration Scale Table**

Remuneration Scale to the Company's	Name of Gener	Name of General Managers and VPs
General Managers and VPs	The company	Companies in the Consolidated Financial Statements
Under NT\$ 1,000,000	-	1
NT\$1,000,000 (inclusive) $\sim$ NT\$2,000,000 (exclusive)	Jacky Ni (Note 1)	Jacky Ni (Note 1)
NT\$2,000,000 (inclusive) $\sim$ NT\$3,500,000 (exclusive)	Kozo Fujita (Note 2)	Kozo Fujita (Note 2)
NT\$3,500,000 (inclusive) $\sim$ NT\$5,000,000 (exclusive)	-	T
NT\$5,000,000 (inclusive) $\sim$ NT\$10,000,000 (exclusive)	Junichiro Hosaka /Hiroyuki Nagashima (Note 3)/ Nancy Chan / Peter Teng (Note 4)	Junichiro Hosaka /Hiroyuki Nagashima (Note 3)/ Nancy Chan / Peter Teng (Note 4)
NT\$10,000,000 (inclusive) $\sim$ NT\$15,000,000 (exclusive)	Daniel Wang / Robert Chang / Andy Lin	Daniel Wang / Robert Chang / Andy Lin
NT\$15,000,000 (inclusive) $\sim$ NT\$30,000,000 (exclusive)	Johnny Shyang-Lin Shen / Leo Cheng	Johnny Shyang-Lin Shen / Leo Cheng
NT $30,000,000$ (inclusive) ~ NT $50,000,000$ (exclusive)	-	
NT $$50,000,000$ (inclusive) ~ NT $$100,000,000$ (exclusive)	-	T
Over NT\$100,000,000	1	г
Total	11	11

Note 1 : Mr. Jacky Ni resigned from COO on March 15, 2019.

Note 2 : Mr. Kozo Fujita is no longer as an insider as of March 15, 2019.

Note 3 : Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019.

Note 4 : Mr. Peter Teng becomes an insider as of March 15, 2019.

Officers
Managerial
paid to
bonus paid
mployees'
D. E

December 31, 2019; Unit: NT\$ thousand

			Stock	Cash		Percentage of the Total
	Title	Name			Total	Amount to the Net Income
			Dividend(Note1)	Dividend(Note1) Dividend(Note1)		After Tax (%)
	CEO	Johnny Shyang-Lin Shen				
	C00	Jacky Ni (Note 2)				
	Sales VP of Japan Business Unit Kozo Fujita (	Kozo Fujita (Note 3)				
	GM of Japan Business Unit	Junichiro Hosaka				
	GM of China	Andy Lin				
Def and	GM of US Business Unit	Hiroyuki Nagashima (Note 4)	0	0	0	0%0
SID	Sr. VP of Design Engineering	Leo Cheng				
	Sales VP	Robert Chang				
	CFO	Daniel Wang				
	Financial Controller	Nancy Chan				
	VP of Strategy Alliance	Peter Teng (Note 5)				

Note 1 : On March 6, 2020, the Board of the Company approved that compensation distribution to employees is NT\$46,692 thousand. The detail of distribution has not been resolved.

Note 2 : Mr. Jacky Ni resigned from COO on March 15, 2019. Note 3 : Mr. Kozo Fujita is no longer as an insider as of March 15, 2019. Note 4 : Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019.

Note 5 : Mr. Peter Teng becomes an insider as of March 15, 2019.

- 3.2.4 Comparsion of the remunerations to Directors, General Managers, and VPs in proportion to the net income after tax from the Company and companies included in the consolidated financial statements in the most recent 2 years, and specify the policies, standards, combinations, procedures for determining remunerations and correlation with business performance
- A. The ratio of total remuneration paid by the Company and by all companies included in the consolifated financial statements for the two most recent years to Directors, General Managers, and VPs of the Company to the net income

	Ratio of the Total Remuneration Amount to the Net Income After Tax (%)					
	2	2018	2	2019		
Title		Companies in the		Companies in the		
Thic	The Company	Consolidated	The Company	Consolidated		
	The Company	Financial	The Company	Financial		
		Statements		Statements		
Directors	6.67%	6.67%	5.07%	5.07%		
GMs, and VPs	26.90%	26.90%	27.21%	27.21%		

- **B.** The policies, standards, and portfolios for the payment of remuneration, the procedures for determining remuneration, and the correlation with business performance
  - (1) Remuneration to Directors are determined by the position at the Company, participation and contribution.
  - (2) Remuneration to General Managers and VPs are determinded according to the Company's regulations and HR policies, while taking into account each individual's position, performance and contribution, and industry standards.

### **3.3.1 Operations of the Board**

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) 【B/A】	Remarks
Chairman	Kinying Kwan	6	0	100%	
Director	Herbert Chang	5	1	83%	
Director	Johnny Shyang-Lin Shen	6	0	100%	
Director	Daniel Wang	4	0	100%	Elected on June 21, 2019
Director	Benjamin Jin-Ping Ng	1	1	50%	Resigned on June 21, 2019
Independent Director	Mao-Wei Hung	5	1	83%	
Independent Director	Brian Chiang	6	0	100%	
Independent Director	Binfu Chuang	6	0	100%	

A total of six (A) meetings of the Board of Directors were held in 2019 and the current year up to the date of publication of the annual report with their attendance shown as follows.

Other mentionable items :

1. The operation of the Board with any of the following conditions, the date of Board meeting, term, agenda items, all opinions of Independent Directors, and how the company handles opinions of Independent Directors should be stated clearly :

	peeniea in 7 n	tiele 14-5 of the Securities Exchange ret.	1	
Date of Board meeting	Term	Agenda items	Opinions of from Independent Directors	The Company's Conduct for the opinions of Indpendent Directors
03/15/2019	The 1 <sup>st</sup> in 2019	<ul> <li>The evaluation and appointment of Certified Public Accountant was approved.</li> <li>The amendments to the "Memorandum and Articles of Association of the Company" was approved.</li> <li>The bonus scheme for the employees and directors for the year of 2018 was approved.</li> </ul>	None	None

(1)For matters specified in Article 14-3 of the Securities Exchange Act.

			<ul> <li>The amendments to"The Guideline for Acquisition and Disposal of Assets" was approved.</li> <li>The amendments to"Guideline for Engaging in Derivatives Transactions" was approved.</li> <li>The amendments to "The Guideline for Loaning Funds to Others" was approved.</li> <li>The amendments to "The Guideline for Endorsement and Guaranty" was approved.</li> <li>The prohibition on newly Directors elected at the Annual General Meeting to be released from the participation in competitive business was approved.</li> <li>The monthly remuneration scheme for the Director of the prohibition of the promotion of the promotion of the participation of the promotion of the participation of the particip</li></ul>		
			for the Directors for the year of 2019 was approved.		
05/03/	/2019	The 2 <sup>nd</sup> in 2019	<ul> <li>The amendments to"Memorandum and Articles of Association of the Company" was approved.</li> <li>The list of candidates of Director and the review of qualification of Director candidates were approved.</li> <li>The grant list of 2018 Employee Stock Option Plan was approved.</li> <li>The 2019 Employee Stock Option Plan was approved.</li> </ul>	None	None
06/21/	/2019	The 3 <sup>rd</sup> in 2019	• The election of the Chairman of Board of the Company was approved.	None	None
08/02/	/2019	The 4 <sup>th</sup> in 2019	<ul> <li>The appointment of members of Remuneration Committee was approved.</li> <li>The grant list of 2019 Employee Stock Option Plan was approved.</li> </ul>	None	None
11/01/	/2019	The 5 <sup>th</sup> in 2019	<ul> <li>The grant list of 2019 Employee Stock Option was approved.</li> </ul>	None	None
03/06/	/2020	The 1 <sup>st</sup> in 2020	<ul> <li>The evaluation of Certified Public Accountant was approved.</li> </ul>	None	None

1					
		٠	The bonus scheme for the		
			employees and Directors for the		
			year of 2019 was approved.		
		٠	The amendments to the		
			"Memorandum and Articles of		
			Association of the Company" was		
			approved.		
		٠	The amendments to the		
			"Management of the procedures for		
			preparation of financial statements"		
			was approved.		
		•	The remuneration packages for the		
			senior managers (executives) for the		
			year of 2020 was approved.		
			The grant list of 2019 Employee		
			Stock Option Plan was approved.		
		•	2020 Employee Stock Option Plan		
			was approved.		
				1	

(2)Except the former item, other Board resolutions where Independent Directors have expressed opposition or qualified opinions that have been noted in the record or declared in writing.

2. If there are Directors' avoidance of motions in conflict of interest, the Directors' names, contents of motion, causes for avoidance and voting should be specified : Director, Johnny Shyang-Lin Shen did not participate in the meeting of the Board of Directors held on March 15, 2019 and March 6, 2020 for discussion and voting on bonuses paid to Executives due to avoidance of conflict of interest. Moreover, Director, Daniel Wang did not participate in the meeting of the Board to Executives due to avoidance of conflict of interest. Moreover, 2020 for discussion and voting on bonuses paid to Executives due to avoidance of conflict of interest.

3. The information of the Evaluation cycles, evaluation periods, scope and method of evaluation for the Self-
evaluation(or Peer evaluaton) of the Board of Directors:

Evaluatio	evaluation	Scope of	Method of	Content of Evaluation
n cycles	periods	Evaluation	Evaluation	
Once a	1/1/2020~	The Board	The evaluation of the	The evaluation will be
year	12/31/2020	and each	board as a whole and	completed by the end of first
		board	Self-evaluation of	quarter of 2021. The criteria
		member	Board members	covers participation in the
				operation of the company,
				awareness of the duties of a
				director, the director's
				professionalismand continuing
				education and internal control,
				etc.

4. Measures taken to strengthen the functions of the Board (such as the establishment of audit committee,enhancement on information transparency) during the current year and past year and evaluation of measures :

The Audit Committee and Remuneration Committee were established on Oct. 29, 2010 and May 18, 2011 respectively and have assisted the Board in fulfilling its responsibilities in accordance with the Audit Committee Charter and Remuneration Committee Charter.

In order to improve the operation efficiency of the board of directors, we have established "Regulations Governing the Board Performance Evaluation" in March 6, 2020 to enhance the company's board functions.

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	©:Attend in Person, \(\forall :Proxy, \(\text{ :Absent})					
Term	The 1 <sup>st</sup>	The 2 <sup>nd</sup>	The 3 <sup>rd</sup>	The 4 <sup>th</sup>	The 5 <sup>th</sup>	The 1 <sup>st</sup>
Name	in 2019	in 2019	in 2019	in 2019	in 2019	in 2020
Mao-Wei Hung	Ø	Ø	☆	Ø	Ø	Ø
Brian Chiang	Ø	Ø	Ø	Ø	Ø	Ø
Binfu Chuang	Ø	O	Ø	Ø	O	Ø

5. The attendance of Independent Directors

### **3.3.2 Operation of Audit Committee**

A total of six (A) Audit Committee meetings were held in 2019 and the current year up to the date of publication of the annual report. Records of attendance by independent directors are shown as follows :

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) 【 B/A 】	Remarks
Independent Director	Mao-Wei Hung	5	1	83%	
Independent Director	Brian Chiang	6	0	100%	
Independent Director	Binfu Chuang	6	0	100%	

Other mentionable items :

1. The main function of the Committee is to supervise the following matters :

- (1)The reliability and integrity of the financial report of the Company.
- (2)Appointment(and dismissal), independence and performance of certified public accountants of the Company.

(3)The effective implementation of the internal control system of the Company.

(4)Compliance with relevant laws and regulations of the Company.

(5)Management of the existing or potential risks of the Company.

2. The operation of the Audit Committee with any of the following conditions, 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) For matters specified in Article 14-5 of the Securities and Exchange Act.

Date of Board meeting	Term	Contents of Motion	Resolutions of Audit Committee	The conduct of the Company for the comments from Audit Committee
03/15/2019	The 1 <sup>st</sup> in 2019	<ul> <li>The evaluation and appointment of Certified Public Accountant was approved.</li> <li>The amendments to the "Memorandum and Articles of Association of the Company" was approved.</li> <li>The consolidated financial statement for the year ended December 31, 2018 of the Company was approved.</li> <li>The proposal of 2018 Dividend Distribution was approved.</li> <li>The Business Report of 2018 was approved.</li> <li>The Internal Control System Statement for the year ended December 31, 2018 of the Company was approved.</li> <li>The Internal Control System Statement for the year ended December 31, 2018 of the Company was approved.</li> <li>The amendments to the "Rules Governing Procedures for Meetings of Board of Director" was approved.</li> <li>The amendments to the "Guideline for Acquisition and Disposal of Assets" was approved.</li> <li>The amendments to the "Guideline for Engaging in Derivatives Transactions" was approved.</li> <li>The amendments to the "Guideline for Loaning Funds to Others" was approved.</li> <li>The amendments to the "Guideline for Loaning Funds to Others" was approved.</li> </ul>	They were approved by Audit Committee.	None.
		"Guideline for Endorsement		

		and Guaranty" was		
		-		
05/03/2019	The 2 <sup>nd</sup> in 2019	<ul> <li>approved.</li> <li>The consolidated financial statements for the period ended March 31, 2019 of the Company was approved.</li> <li>The amendments to "Memorandum and Articles of Association of the Company" was approved.</li> <li>The amendments to the "Corporate Governance Best Practice Principles" was</li> </ul>	It was approved by Audit Committee.	None
08/02/2019	The 4 <sup>th</sup> in 2019	<ul> <li>approved.</li> <li>The semi-annual consolidated financial statement for the period ended June 30, 2019 of the Company was approved.</li> </ul>	They were approved by Audit Committee.	None.
11/01/2019	The 5 <sup>th</sup> in 2019	<ul> <li>Company was approved.</li> <li>The consolidated financial statements for the period ended September 30, 2019 of the Company was approved.</li> <li>The Audit Plan for the year of 2020 of the Company was approved.</li> </ul>	They were approved by Audit Committee.	None
03/06/2020	The 1 <sup>st</sup> in 2020	<ul> <li>The evaluation of Certified Public Accountant was approved.</li> <li>The consolidated financial statement for the year ended December 31, 2019 of the Company was approved</li> <li>The proposal of 2019 Dividend Distribution was approved.</li> <li>The business report of 2019 was approved.</li> <li>The Internal Control System Statement for the year ended December 31, 2019 of the</li> </ul>	They were approved by Audit Committee.	None.

• The amendments to the
"Memorandum and Articles
of Association of the
Company" was approved.
• The amendments to the
"Rules Governing
Procedures for Meetings of
Board of Director" was
approved.
• The amendments to the
"Rules of Responsibilities of
Independent Directors" was
approved.
• The amendments to the
"Management of the
procedures for preparation
of financial statements" was
approved.

- (2) Except the former item, other resolutions which were not approved by the Audit Committee but were approved by two thirds or more of all directors : None.
- 3. If there are Independent Directors' avoidance of motions in conflict of interest, the Directors' names, contents of motion, causes for avoidance and voting should be specified : None.
- 4. Communication between Independent Directors and Internal Auditors and Accounts (including major items, methods, and results that were communicated concerning the company's financial and business situations) :

The Internal Auditor submits the Internal Audit Report to each Independent Director monthly for review and reports in Board meeting quarterly for the audit operations and the implementation status. If there are any special circumstances, the Internal Auditors will immediately notify the audit committee.

Date	Communication material	Result of Communication
May 3, 2019	2019 Q1 Audti report	The communication between Independent
		Directors and Internal Auditor is well.
August 2, 2019	2019 Q2 Audit report	The communication between Independent
		Director and Internal Auditor is well.
November 1, 2019	2019 Q3 Audit report	The communication between Independent
		Director and Internal Auditor is well.
March 6, 2020	2019 Q4 Audit report	The communication between Independent
		Director and Internal Auditor is well.

The Company's Certified Public Accountant reported the audit results on 2019 financial statements and other communication matters required by relevant laws and regulations in the meeting of the audit committee on March 6, 2020. The communication between the Audit Committee and the CPAs has been good.

Date	Communication material	Result of Communication
March 15, 2019	1.Report for 2018 financial statements	The communication between
	audit result and discuss about update	Independent Directors and
	accounting principal and law effect.	CPAs is well.
	2. Report for Internal audit result.	
March 6, 2020	1.Report for 2019 financial statements	The communication between
	audit result and discuss about update	Independent Directors and
	accounting principal and law effect.	CPAs is well.
	2. Report for Internal audit result.	

			Tunal currentations Otatum	Doriotions from the "Commute
	ŀ	ŀ	Implementation Status	Deviations from the Corporate
Item	Yes	No	Brief Description	Governance Best Practice Principles for TWSE/GTSM Listed Companies" and Reasons
<ol> <li>Does the company establish and disclose the Corporate Governance Best Practice Principles based on "Corporate Governance Best Practice Principles for TWSE/GTSM Listed Companies"?</li> </ol>	>		The Company has considered the Company's operations and formulated the "Corporate Governance Principles" based on the "Corporate Governance Best Practice Principles for the TWSE/GTSM Listed Companies" and approved by the board of directors. In addition, the Company has implemented properly in accordance with relevant laws and regulations, and disclose them on the Market Observation Post System and the Company's website.	No material difference.
II. Shareholding Structure & Shareholders' rights 1. Does the company have an Internal Operation procedures for appropriate handling shareholders' suggestions, inquiries, disputes and litigation matters, and implement them in accordance with the procedures?	>		1. The Company has assigned the spokesperson to handle shareholders' suggestions, disputes, etc. and coordinate the relevant departments for implementation.	No material difference.
2. Does the company possess a list of major shareholders and beneficial owner of these major shareholders?	>	0	2. The Company tracks the shareholdings of directors, officers, and shareholders holding more than 10% of the outstanding shares of the Company.	No material difference.
3. Has the company built and executed a risk management system and firewall between and the Company and its affiliates?	>	S		No material difference.

3.3.3 Corporate governance implementation status and deviations from the "Corporate Governance Best Practice Principles for TWSE/GTSM

			Impleme	Implementation Status			Deviations from the "Corporate
Item	Yes	No	L ,	Brief Description			Governance Best Practice Principles for TWSE/GTSM Listed Companies" and Reasons
4. Has the company establish internal rules prohibiting insiders trading on undisclosed information?	7	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	risk control and firev internal audit system. 4. The Company has fo Internal Material Inf Prevention of Insid provided training or issue to the insiders.	risk control and firewalls mechanism through the internal audit system. The Company has formulated the "Procedures for Internal Material Information Handling and the Prevention of Insider Trading" and regularly provided training or relevant information on this issue to the insiders.	sm throu Procedu ndling an and reg mation o	gh the es for nd the ularly n this	No material difference.
III. Composition and Responsibilities of the Board of Directors 1. Has the company established a diversification policy for the composition of its Board of Directors and has it been implemented accordingly?	>		1. The Board cons three of them adopted in acc Governing Appo and Compliance The Company ha for composition Corporate Gover and adopted th corporate goverr own specialized The industry distribution of th Kinying Kwan Herbert Chang	The Board consists of seven directors, in which three of them are Independent Directors as adopted in accordance with the "Regulations Governing Appointment of Independent Directors as and Compliance Matters for Public Companies". The Company has stated the diversification policy for composition of the Board members in Corporate Governance Best Practice Principles and adopted the policy. To achieve the better corporate governance, each Board member has his own specialized field and knowledge of industry. The industry experience and professional distribution of the directors are shown as follows:         Name       Name         Mame       U.S.A · R.O.C         Kinying Kwan       U.S.A · R.O.C         Herbert Chang       R.O.C	tors, in which         Directors as         Directors as         ndent Directors         ndent Directors         ndent Directors         ification policy         members in         members in         members in         rice Principles         eve the better         wn as follows:         ersity         v         v         v	which which as ations ations ations ations bolicy bolicy bolicy bolicy bolicy bolicy bolicy bolicy bolicy	No material difference.
			Johnny Shyang-Lin Shen	U.S.A & R.O.C	Δ Δ		

			Implen	Implementation Status					Deviations from the "Corporate
Item	Yes	No		Brief Description	ion				Governance Best Practice Principles for TWSE/GTSM Listed Companies" and Reasons
			Daniel Wang	R.O.C	Λ	Λ	Δ	Δ	
			Mao-Wei Hung	R.O.C	Δ	Δ		Δ	
			Brian Chiang	R.O.C	Λ	Λ	Λ		
			Binfu Chuang	U.S.A • R.O.C	Λ	Δ	Δ		
2. Other than the Remuneration Committee and the Audit Committee which are required by law, does the		>	2.Other various functional committees have not been set up under the law by the Company in addition to	inctional comm taw by the Cor	uittees npany	have / in ac	not ł İditic		The Company has not set up other various functional committees.
Company plan to set up other Board committees? 3. Does the company establish methodology for	>		the remuneration committee and audit committee. 3 The Board of the Commany always conducts the	on committee ar he Commany a	nd auc	lit con	mmit		No material difference.
evaluating the performance of its Board Directors, on an annual basis and submit the results of performance			matters in accordance with the "Regulations Governing Procedure for Board of Directors	cordance with	the soard	. Re	gulat Direc		
assessments to the Board of Directors and use them as reference in determining compensation for individual			Meetings of Public Companies". Moreover, the	ublic Compan	nies". l	More	over,	the	
Directors, their nomination and additional office			the Board performance evaluation on March 6,	ormance evalu	ation	a un	Marc]	n 6,	
term.?			2020 and will conduct the performance evaluation	onduct the perf	forma	nce e	valua	tion	
			and submit the result to the Board by the end of	result to the E	3oard	by tł	le en	d of	
			first quarter of 2021.	2021.				J	No material difference
4. Does the company regularly evaluate its independence of CPAs?	>		4. The Company's Audit Committee and Board of Directors annually evaluate the independence,	s Audit Comm ially evaluate	the	and indep	Board	1 of nce,	
			competence, and professionalism of CPAs and	nd professiona	lism	of Ĉ	PAs	and	
			required CPAs to present the "Statement of	s to present	the '	'State	ment	of ,	
			Independence". The Company ensures that the	The Compan	iy en	sures 1 inte	that	the	
			business relationship with the Company except	onship with th	e Co	mpan	y ex	cept	
			certification fee and case expenses on finance or	e and case exp	enses	on fi	nanc	e or	
			taxation. When the Board of the Company	n the Board	of 1	the (	Comp	any	
			discusses and appoints CPAs, each accountant's	appoints CPAs	, eacl	1 acc	ounta	int's	
			personal resume and Statement of Independence	le and Stateme	nt of	Inde	pende	ence	
			101	n of the No. 10	Bulle	tin of	rioN'	n of	
			Protessional Ethics for Certified Accountant of the Rewiklic of China)	the Remiblic	Certified	ltied)	Public are also	Public	
				ATTONDANT ATTO	5	(prind)	2	OCTO	

			Imnlementation Status	Deviations from the "Cornorate
Ĩ				Governance Best Practice Principles
Item	Yes	No	Brief Description C	for TWSE/GTSM Listed Companies" and Reasons
			presented for the Board to discuss and evaluate their independence.	
IV. Does the company an adequate number of corporate governance personnel with appropriate qualifications and appoint a chief corporate governance officer to be in charge of corporate governance affairs (including but not limited to furnish information required for business execution by directors and supervisors, assisting directors and supervisors with legal compliance, handle matters relating to board meetings and shareholders meetings according to laws)?	>		The Company has set up a part time corporate No ma governance personnel to be in charge of corporate governance affairs.	No material difference.
V. Has the company established a means of communicating with its stakeholders (including but not limited to shareholders, employees, customers and suppliers) or created a Stakeholders Section on its company website? Does the company respond to stakeholders' questions on corporate responsibilities?	A		The Company has established a Stakeholders Section No ma on the Company's website to disclose Stakeholders identity, issue which have been concerned by major stakeholders and provide the channel for communication.	No material difference.
VI. Has the company appointed a professional registrar for its Shareholders' meetings?	Λ		The Company has appointed the Stock Affairs No ma Agency of CTBC Bank as our registrar for our Shareholders' meetings.	No material difference.
VII. Information disclosure 1. Has the company set up a website to disclose information regarding its finances, operations, and corporate governance status?	>		1. The Company has set up a website in No ma Chinese/English (http://www.alchip.com) which discloses the information regarding Company's finances, operations and corporate governance status. In addition, the Company also discloses the relevant information on the Market Observation Post System	No material difference.
2. Does the company use other information disclosure the channels (e.g. maintaining an English-language website, assigning staff to handle information	>		y has set up a website in English, ersonnel exclusively to handle collection and disclosure, such as the tion of investor conference. The	No material difference.

			Imulementation Status	Deviations from the "Cornorate
•				Contannon a Bact Duncting Duinning
Item	Yes No	No	Brief Description for TW Comparison	for TWSE/GTSM Listed Companies" and Reasons
collection and disclosure, appointing spokespersons, webcasting investors conference etc.)? 3. Does the company publish and report its annual financial report within two months after the end of a fiscal year, and publish 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?		V 3	Company also established a spokesperson system as required by the regulations. 3. The Company publishes and reports annual financial report within specified deadline and has no plan to publish and report financial report and operating status ahead of time.	difference.
VIII.Does the company have other information that would help better understand the Company's implementation of corporate governance? (including but not limited to employee rights and benefits, employees caring, investor relations, supplier relationship, the rights of related parties, continuing education for directors and supervisors, implementation of risk management policies and risk assessment standards, implementation of customer policies, liability insurance purchased by the Company directors and supervisors)?	>		<ol> <li>The Company has formulated and implemented relevant regulations in accordance with government acts regarding labor, welfare, safety, and health to protect employee rights and benefits and care employees' life.</li> <li>In accordance with applicable public company's business operations and financial status for investors, and maintains investor relations by properly dealing with inquiries from investors.</li> <li>The Company arranges the training institutions specified by the competent authority to provide further training for Directors every year.</li> <li>The Company annually purchases D&amp;O Insurance for Directors and Independent Directors to reduce trains.</li> </ol>	difference.
IX. In terms of the corporate governance evaluation results which has been disclosed by the Corporate Goveres recent year, describe the improved items and present the actions and amendment for unimproved items.	vhich actio	has b ns an	In terms of the corporate governance evaluation results which has been disclosed by the Corporate Governance Center of Taiwan Stock Exchange in the most recent year, describe the improved items and present the actions and amendment for unimproved items.	k Exchange in the most
1. Improved items : The Company has established "Re board functions.	gulati	ons (	Improved items : The Company has established "Regulations Governing the Board Performance Evaluation" on March 6, 2020 to enhance the company's board functions.	enhance the company's
<ol> <li>Remedy for unimproved items :         <ol> <li>The Company has disclosed the operation of Remuneration Committee with the date of me Directors, and how the company handles opinions of Independent Directors in annual report.</li> <li>The Company will disclosure the "Material information of TWSE listed companies" in Engli</li> </ol> </li> </ol>	Remur ons of ormat	nerati Inde ion o	edy for unimproved items : The Company has disclosed the operation of Remuneration Committee with the date of meeting, term, agenda items, all opinions of Independent Directors, and how the company handles opinions of Independent Directors in annual report. The Company will disclosure the "Material information of TWSE listed companies" in English version from Year 2020.	opinions of Independent

### **3.3.4** Composition, responsibilities and operations of the Remuneration Committee shall be disclosed if the company has a Remuneration Committee in place

The purpose of the Company's compensation committee is to assist the Board of Directors in implementation and evaluation of the Company's overall compensation and benefits policies and remuneration to managerial officers.

	Criteria	Qualification	of the Following Prot Requirements, Toget ve-year Work Experi	her with at		Ŀ	nde	epen (		nce te 1		teri	a			
Identity	Name	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	Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialist Who has Passed a National Examination and	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	Serving as a	Remarks
Convener	Mao- Wei Hung	$\checkmark$			~	~	~	~	~			~	~	~	0	
Committee Member	Brian Chiang			✓	~	~	~	~	~			~	~	~	0	(Note 2)
Committee Member				$\checkmark$	✓	~	✓	~	✓			~	~	~	0	

### A. Information on members of Remuneration Committee

Note 1 : Please tick the corresponding boxes if members have been any of the following 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. However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply.
- (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 three subparagraphs.
- (5) Not a director, supervisor, or employee of a corporate shareholder that directly holds 5% or more of the total number of outstanding shares of the Company or that holds shares ranking in the top five in holdings or the representative who is appointed based on 1 or 2 in Article 27 of the Company Act (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply).
- (6) Not a director, supervisor or employee of other company controlled by the same person when more than half of the company's director seat or voting shares (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply).
- (7) Not a director, supervisor or employee of other companies or institutions who is the same person or spouse with the company's chairman, General Manager or equivalent (However, in cases where the person is an independent director of the company, its parent company, or any subsidiary, or the subsidiary which belongs to the same parent company as appointed in accordance with the Act or with the laws of the country of the parent or subsidiary, it does not apply).

- (8) Not a director, supervisor, managerial officer, or shareholder holding 5% or more of the share, of a specified company or institution that has a financial or business relationship with the Company. (However, if a specific company or institution holds more than 20% but not more than 50% if the total issued shares of the company, and the independent directors set by the company and its parent company, subsidiaries, or subsidiaries of the same parent company in accordance with this law or local laws and regulations.)
- (9) Not a professional individual who, or an owner, partner, director, supervisor, or managerial officer and their spouse of a sole proprietorship, partnership, company, or institution that, provides audit or business, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company that have received cumulative remuneration which is not exceeding NT\$500,000 in past two years..Except for members of the remuneration committee, the public acquisition review committee or the special committee on mergers and acquisitions that perform their functions in accordance with the relevant laws of the Securities and Exchange Act or Business Mergers And Acquisitions Act.
- (10)Not been a person of any conditions defined in Article 30 of the Company Law.
- Note 2 : The Committee shall faithfully perform the following duties and present its recommendations to the board of directors for discussion.
  - (1) Periodically reviewing this Charter and making recommendations for amendments.
  - (2) Establishing and periodically reviewing the annual and long-term performance goals for the directors, supervisors, and managerial officers of this Corporation and the policies, systems, standards, and structure for their compensation.
  - (3) Periodically assessing the degree to which performance goals for the directors, supervisors, and managerial officers of this Corporation have been achieved, and setting the types and amounts of their individual compensation.

### **B.** Operations of the Remuneration Committee

- (1) The Company's remuneration committee consists of three members.
- (2) The members' term of office for this session : From June 21, 2019 to June 20, 2022. Mr. Mao-Wei Hung, the remuneration committee chair convened the regular meeting four (4) times in Year 2019. The records of attendance of members are shown as follows :

Title	Name	Attendance in Person(B)	By Proxy	Actual Attendance Rate (%) ( B/A)(Note)	Remarks
Convener	Mao-Wei Hung	4	0	100%	
Committee Member	Brian Chiang	4	0	100%	
Committee Member	Binfu Chuang	4	0	100%	

Other mentionable items :

1. The resolutions of Remuneration Committee :

1. The resolutions	of Remuneration			
The date of Remuneration Committee	The Committee	Motions	Resolutions	The conduct of the Company for the comments from Audit Committee
03/15/2019	The 1 <sup>st</sup> in 2019	<ul> <li>The bonus scheme for the employees and directors for the year of 2018.</li> <li>The replacement and appointment for senior managers (executives) of the Company .</li> <li>The remuneration packages for the senior managers</li> </ul>	They were approved by Remuneration Committee	They were all submitted to Board and approved by Directors of Board

		<ul> <li>(executives) for the year of 2019.</li> <li>The monthly remuneration scheme for the Directors for the year of 2019.</li> </ul>		
05/03/2019	The 2 <sup>nd</sup> in 2019	The 2019 Employee Stock Option Plan.	It was approved by Remuneration Committee	It was submitted to Board and approved by Directors of Board
08/02/2019	The 3 <sup>rd</sup> in 2019	The election for the chair of remuneration committee.	It was approved by Remuneration Committee	The resolution was approved
11/01/2019	The 4 <sup>th</sup> in 2019	The grant list of 2019 Employee Stock Option was approved.	It was approved by Remuneration Committee	It was submitted to Board and approved by Directors of Board

- 2. If the Board of Directors declines to adopt, or modifies a recommendation of the remuneration committee, the date of board meeting, term, agenda items, results of resolutions of the remuneration committee, and how the company handles opinions of the remuneration committee should be stated clearly (If the remuneration approved by the Board of Directors is better than the recommendation of the remuneration committee, the difference and the reason should be stated clearly.) : No such situation occurred.
- 3. If resolutions of the remuneration committee are objected by members or become subject to a qualified opinion, which have been recorded or declared in writing, then the date of the meeting, the session, the nature of the motion, all members' opinions and the response to members' opinion should be specified : No such situation occurred.

3.3.5 Corporate social responsibility

social and public interests, consumer rights and interests, human rights, safety and health, and other corporate social responsibilities and activities, and the state of Systems and measures that the company has adopted with respect to environmental protection, community participation, contributions to society, services to society, implementation.

IIIIprententauon.				
			Status of Implementatiocn	Deviations from the" Corporate Social Responsibility Best
Item	Yes	No	Brief Description	Practice Principles for TWSE/GTSM Listed Companies" and Reasons
<ol> <li>Does the company, in its corporate management guidelines and business operations, give due consideration to the rights and interests of stakeholders and, while pursuing sustainable operations and profits, also give due consideration to the environment, society and corporate governance?</li> </ol>	>		In fulfilling corporate social responsibility hinitiatives, the Company shall, in its corporate management and operations, give due consideration to the social mores and the rights and interest of the interested parties and, while pursuing sustainable operations and profits, also give due consideration to the environment, society and corporate governance.	No material difference.
II. Does the company establish an exclusively (or concurrently) dedicated unit to be in charge of proposing and enforcing the corporate social responsibility, have top management be authorized to handle it by the Board of Directors, and to report to the Board of Directors on a periodic basis?	Λ		The Company has an concurrently dedicated unit to be in charge of the promotion of corporate social responsibility, report on the implementation to the CEO regularly, collect and report the summary of implementation to the Board of Directors yearly.	No material difference.
III. Environmental issues 1. Does the company establish a proper environment management system based on the characteristics of its industry?	Λ		e n,	No material difference.
2. Does the company endeavor to utilize all resources more efficiently and use renewable materials that have a low impact on the environment?	>		and reduce samuary waste to achieve the goan for energy conservation and carbon reduction. 2. The Company mainly provides customers with NRE. The solutions to the back-end mass production engineering are all through outsourcing, including wafer fabrication, packaging, and testing so that the Company has neither other production equipment, nor other industrial pollution.	No material difference.

			Status of Implementatiocn	Deviations from the" Corporate Social Responsibility Best
Item	Yes	νo	Brief Description	Practice Principles for TWSE/GTSM Listed
	<b>1</b>			Companies" and Reasons
3.Does the company evaluate the climate change on its the protencial risk and chance for now and future and	$\boldsymbol{\wedge}$		3.The Company endeavors to provide and develop 1 low power and small size designs in product	No material difference.
take action which is related to the issues of climate?			development in accordance with the current environmental trends in energy conservation and	
-	,			
4.Does the company count the emissions of greenhouse- gas, water consumption and total weight of wastewater in the most two ways and set the policies for energy	>		4. We plan to reduce 5% off volume of electricity by 1 Year 2020 based on our volume of electricity in Very 2016	No material difference.
conservation and carbon reduction, greenhouse-gas reduction and water or other waste management?				
IV. Social issues				
1. Does the company adopt relevant management	>			No material difference.
policies and processes in compliance with relevant			benefits and formulates management procedures in	
iaws and regulations, and die michinational bill of Human Rights?			accordance with relevant labor laws where subsidiaries are located to protect legitimate rights	
00			and interests of employees.	
2. Does the company set and implement a reasonable	>			No material difference.
employee benefit plan(including remuneration, leaves and other benefits) and reflect the corporate business			benefit plan and issue profit sharing to employees in accordance with the regulations of dividend	
performance or achievements in the employee			distribution of the company.	
remuneration?	,			
3. Does the company provide safe and healthful work environments for its employees, organize training on	>		3. The Company provides safe and healthful work feature environments for our employees conducts health	No material difference.
safety, and health for its employees on a regular basis?			examination, and organizes training on safety of	
			working environment on a regular basis to prevent	
1 Door the communication officiality and and	11		occupational accidents.	Vo motoriol difforman
4. Does use company estabular effective training programs to foster career skills for its employees?	>		4.1 LIC COMPANY S TIX UPPARIMENTS ARE IN CHARGE OI INO MARCHAI UNIFICIENCE. career planning and implementation of the relevant	
			training based on each employee's job attributes and	
			skills.	
5. Does the company follow relevant laws, regulations, and international guidelines for the customer's health	>		5. The Company's unit of Quality System has established "Procedures for Customer Satisfaction	No material difference.

			Status of Implementatiocn	Deviations from the" Corporate Social Resonasibility Rest
Item	Yes	No	Brief Description	Practice Principles for TWSE/GTSM Listed Companies" and Reasons
and safety, customer's privacy, marketing and labeling of its products and services and also establish relevant policies on consumer rights and interests and procedure for accepting consumer complaints? 6. Does the company establish the supplier Management Policy for asking the suppliers to follow the relevant regulations and practice in the issues of environmental protection, occupational safety and health or Labor rights?	>		and Complaint" and set an avenue for complaint at the Stakeholders Section on the Company website to protect consumer rights and interests. 6. The Company assesses whether there is any record of a supplier's impact on the environmental protection, occupational safety and health or Labor rights and has included such record in the supplier assessment. If the supplier violates the related regulations, the Company will give a warning and ask for improvement within a limited peiord of time, and those who are in serious circumstances will no longer cooperate.	No material difference.
V. Does the company prepare the corporate social responsibility report and disclose non-financial information by referring to the internationally-used governing preparation or guide ? Has the report disclosed been assured, verified or certified by a third party.		$\wedge$	The Company does not prepare the corporate social The responsibility report.	The Company handles social responsibility related matters based on the "Corporate Social Responsibility Best Practice Principles"
VI. If the company promulgates its own corporate social responsibility principles in accordance with the "Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies", please state clearly the discrepancy in the operation thereof and the principles : The Company has established the "Corporate Social Responsibility Best Practice Principles" and followed such principles to handle relevant matters on the Company's corporate social responsibility.	ponsibi ily the e espons	llity pi discrej ibility	f the company promulgates its own corporate social responsibility principles in accordance with the "Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies", please state clearly the discrepancy in the operation thereof and the principles : The Company has established the "Corporate Social Responsibility Best Practice Principles" and followed such principles to handle relevant matters on the Company's corporate social responsibility.	nsibility Best Practice Principles o handle relevant matters on the
<ul> <li>VII.Other significant information which would help better understand the implementation of corporate social responsibility (such as environmental protection, community participation, contribution to society, service to society, social and public interests, consumer rights and interests, human rights, safety and health, other corporate social responsibilities and activities, and the state of implementation.</li> <li>(1) The Company received Green Partner certification from a world-class company in 2008 as its partner in green supply chain. The Company will continue to make efforts to provide excellent quality of environmentally friendly products and fulfill environmental responsibility as a citizen of the world.</li> <li>(2) The Company launches fundraising activities and donations of materials from time to time for socially disadvantaged minorities and objects affected.</li> </ul>	unders e to soo the sta rom a v umental umental	tand t ciety, s te of i vorld- ly frie s of m	Other significant information which would help better understand the implementation of corporate social responsibility (such as environmental protection, community participation, contribution to society, service to society, social and public interests, consumer rights and interests, human rights, safety and health, other corporate social responsibilities and activities, and the state of implementation. (1) The Company received Green Partner certification from a world-class company in 2008 as its partner in green supply chain. The Company will continue to make efforts to provide excellent quality of environmentally friendly products and fulfill environmental responsibility as a citizen of the world. (2) The Company launches fundraising activities and donations of materials from time to time for socially disadvantaged minorities and objects affected.	ich as environmental protection, human rights, safety and health, n. The Company will continue to a citizen of the world. orities and objects affected.

practices, and follow them to handle relevant matters	natter	S	ters (	)
			Status of Implementation	Discrepancy from the "Ethical
Item	Yes	No	Brief Description	Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies" and the Reasons
I. Establishment of ethical corporate management policies and programs 1.Does the company set the ethical management policy which has approved by the Board and clearly specify the ethical management policies, action in the rules and external documents of the Company and the commitment by the Board of Directors and Exectives for implementing the policies actively?	>		Ethical ational ardance at Best Listed ethical	No material difference.
2.Does the company establish a risk assessment mechanism agaist unethical conduct, analyze and assess on a regular basis business activities within the business scope which are at a higher risk of being involved in unethical conduct, and establish prevention programs and also adopt preventive measures which are at lease included any matter set forth in Paragraph 2, Article 7 of the "Ethical Corporate Management Best Practice Oracritical Conducts and Artica Guidebolt"?		>		The Company has not set a risk assessment mechanism against unethical conduct.
3.Does the company set implementation procedures, guidelines, consequence of violation and complaint procedures in relevant policies which are duly enforced to prevent unethical conduct?	>		3. The Company has stipulated "prohibition of offering or acceptance of any improper benefits", "prohibition of facilitating payments", "prohibition of illegal political donations", "prohibition of improper charitable donations or sponsorship" in the "Ethical Corporate Management Best Practice Operational Procedures and Action Guidebook" to ensure that our conduct meets the	No material difference.

3.3.6 Implementation of Ethical Corporate Management : The Company has formulated the "Operational Procedures and Guidelines for Ethical Management" to foster a corporate culture of ethical management and sound development and offer to establish good commercial

			Status of Implementation	Discrepancy from the "Ethical
Item	Yes	No	Brief Description	Corporate Management Best Practice Principles for TWSE/GTSM Listed
			highest legal and ethical standards, the Company periodically organizes training courses to enhance employees' concepts of ethics and self-discipline, and carry them out. If any personnel of this Corporation seriously violates ethical conduct, the Company shall dismiss the personnel from his or her position or terminate his or her employment in accordance with applicable laws and regulations or the personnel policy and procedures of Corporation.	
II. Implementation of ethical management 1.Does the company assess the ethics records of whom it has business relationship with and include business conduct and ethics related clauses in the business contracts?	Λ			No material difference.
2.Does the company establish a dedicated unit that is under the Board of Directors and responsible for promoting the ethical management, and report its ethical management policy, the prevention programs for misconduct and the status of supervision to the Board of Directors on a recular basic(at least once a year)?		>	understanding of the status of the other party's ethical management, and observes the related ethical management policy parts of the terms and conditions of the contract. 2.The Company has an concurrently dedicated unit to be in charge of the amendment, implementation, interpretation, and advisory services with respect to the Operational Procedures and Guidelines, the recording and filing of reports, and the monitoring of implementation	The Company reports to the Board aperiodically.
3.Does the company adopt policies for preventing conflicts of interest, offer appropriate means, and carry them out?	Λ		has clearly stated in the "Ethical agement Best Practice Operational I Action Guidebook" that when a take in a proposal at the meeting, that	No material difference.

			Status of Implementation	Discrenancy from the "Ethical
				Cornorate Management Best
Item				Practice Principles for
	Yes	No	Brief Description	TWSE/GTSM Listed
			C	Companies" and the Reasons
<ul> <li>4.Does the company establish effective accounting systems and internal control systems to facilitate ethical corporate management, and have the internal audit unit to set the related audit plan based on the assessment result of misconduct's risk and then examine the situation of compliance for preventing the case of unethical conduct or have a certified public accountant to carry out the audit?</li> </ul>	>		Director shall state the important aspects of the stake in the meeting and, where there is a likelihood that the interests of this Corporation would be prejudiced, may not participate in the discussion or vote on that proposal. If a personnel of the Company discovers that a potential conflict of interest exists involving himself/herself and the company that he/she represents when conducting the Company business, the personnel shall report the relevant matters to both her or his immediate supervisor and the Audit Dept, and the immediate supervisor shall provide the personnel with proper instructions. 4. The Company's accounting system is established referring to applicable laws and regulations the Company Act, Securities Exchange Act, Regulations Governing the Preparation of Financial Reporting Standards (IFRS), International Accounting Standards (IAS), and Interpretations developed by the International Financial Reporting Interpretations Committee (IFRIC) or the former Standing Interpretations Committee (SIC), as recognized by the Financial Supervisory Commission (FSC) and the Company's actual business situations. The Company's internal control has established and executed according to the Regulations Governing Establishment of Internal Control Systems by Public Company's internal control Systems by Public Companies. The Internal Auditor formulates annual audit plans and subsequently reports its audit findings and remedial issues to the Board and Management team on a regular basis. In addition, all	No material difference.
			departments and subsidiaries are also required to	

			Status of Implementation Discr	Discrenancy from the "Ethical
				Corporate Management Best
Item	Yes	No	Brief Description	Practice Principles for TWSE/GTSM Listed
			Com	Companies" and the Reasons
5.Does the company periodically organize training	>			No material difference.
internally and externally on the ethical management?			awareness programs on the ethical management for employees.	
III.State of implementation of the company's whistle - blowing system?				
1. Does the company adopt a concrete whistle-blowing	>			No material difference.
whistle-blowing channels, and appoint appropriate			Conducts". The employee or any whistleblower can	
dedicated personnel to handle whistle-blowing system?			report through phone or E-mail (IR@alchip.com)	
2. Does the company adopt standard operating procedures	>		2. The Company has established the "Reporting No ma	No material difference.
for the investigation of reported misconduct, the follow-			Regulations of Irregular, Immoral and Dishonest	
up after the investigation and relevant confidentiality			Conducts <sup>7</sup> which included a whistle-blowing system	
			to protect personal information and privacy for related parties.	
3. Does the company adopt measures for protecting	>			No material difference.
whistle-blowers from inappropriate disciplinary actions			for whistle-blowers and prohibits from disclosure of any information related to whistle-blowers to motect	
due to their whistle-blowing?			whistle-blowers from inappropriate disciplinary	
			actions due to their whistle-blowing.	
IV.Enhancing Disclosure of Information				
1.Does the company disclose its ethical corporate	>		The Company has set up a website No ma (http://www.alchin.com) and continued to disclose the	website No material difference.
of promotion on the company website and the Market			information regarding the latest financial statements.	
Observation Post System?			implementation of corborate governance, other statutory	
			public disclosure, etc.	
V. If the company has established its own ethical corporate 1	manag	ement	V. If the company has established its own ethical corporate management policies in accordance with the "Ethical Corporate Management Best Practice Principles 6: TWCE//CTEM Listed Companies" along state along the disconstruction theorem in the company of the minister.	ent Best Practice Principles
IOF I W DE/UT DIVI LISICU CUITIPATITES , PICASE STATE CICATI UT	iy une u	Iscrep	e discrepancy in the operation discrete and the principles $\cdot$ Details are shown as above.	DOWII as above.

			Status of Implementation Disc	Discrepancy from the "Ethical
			Co	Corporate Management Best
Item				<b>Practice Principles for</b>
	Yes	No	Brief Description	TWSE/GTSM Listed
			Col	Companies" and the Reasons
VI.Other significant information which would help better u	indersta	nd the	VI.Other significant information which would help better understand the implementation of ethical corporate management (such as the companies' resolve and	the companies' resolve and
policies to advocate the ethical corporate management to	busine	ss tran	policies to advocate the ethical corporate management to business transaction suppliers, invitation to them to participate the training, review and improvement	g, review and improvement
for adoption of the company's own ethical corporate management best practice principles) :	lagemer	nt best	practice principles) :	
The Company always keeps a close eye on the development	ent of re	elevan	of relevant local and international regulations concerning ethical corporate management in order to	ate management in order to
ensure the Company's "Ethical Corporate Management E	<b>3est Pra</b>	ictice (	ensure the Company's "Ethical Corporate Management Best Practice Operational Procedures and Action Guidebook" is being kept progressed and up-to-date,	progressed and up-to-date,
aiming to enhance and achieve the Company's better implement of ethical management.	lement	of eth	cal management.	

### 3.3.7 If the company has adopted corporate governance best-practice principles or related bylaws, disclose the methods of inquiry for such principles or bylaws

Principles or bylaws can be referred through the Market Observatory Post System.

### 3.3.8 Other significant information that will provide a better understanding of the company's implementation of corporate governance, if any, such information may also be disclosed

None.

- 3.3.9 The section on the implementation of the company's internal control systems shall disclose as belows
- A. A Statement on Internal Control : Details are shown on pages 54 and 55.
- **B.** Where a CPA has been engaged to carry out a special audit of the internal control systems, disclose the CPA audit report : None.
- 3.3.10 The penalties delivered to the company and the staffs of the company, or the penalties delivered by the company to the staffs for violations of internal control system, the major nonconformity, and the corrective action in the most recent years and up to the date of the anuual report

None.

### 3.3.11 Major resolutions of Board Meetings and Shareholders' Meeting during the most recent year and the current year up to the date of publication of the annual report

Date	Term	Major Resolutions
03/15/2019	The 1 <sup>st</sup> in 2019	<ol> <li>The evaluation and appointment of Certified Public Accountant was approved.</li> <li>The amendments to the "Memorandum and Articles of Association of the Company" was approved.</li> <li>The bonus scheme for the employees and directors for the year of 2018 was approved.</li> <li>The consolidated financial statement for the year ended December 31, 2018 of the Company was approved.</li> <li>The proposal of 2018 Dividend Distribution was approved.</li> <li>The Internal Control System Statement for the year ended December 31, 2018 of the Company was approved.</li> <li>The amendments to the "Rules Governing Procedures for Meetings of Board of Director" was approved.</li> <li>The amendments to the "Guideline for Acquisition and Disposal of Assets" was approved.</li> <li>The amendments to the "Guideline for Engaging in Derivatives Transactions" was approved.</li> <li>The amendments to the " Guideline for Loaning Funds to Others" was approved.</li> <li>The amendments to the "Guideline for Endorsement and Guaranty" was approved.</li> <li>The amendments to the "Guideline for Endorsement and Guaranty" was approved.</li> <li>The amendments to the " Guideline for Endorsement and Guaranty" was approved.</li> </ol>

A. Board Meeting :

		<ol> <li>The election of seven newly Directors (including three Independent Directors) at the upcoming Annual General Meeting scheduled on June 21, 2019 ("Annual General Meeting") was approved.</li> <li>The prohibition on newly Directors elected at the Annual General Meeting to be released from the participation in competitive business was approved.</li> <li>The date and meeting agenda of 2019 Annual General Meeting of the Company were approved.</li> <li>The period and place for shareholders who holding 1% or more of the total number of outstanding shares of the company to submit proposals to be discussed at the Annual General Meeting of the Company and submit the nomination of director candidates was approved.</li> <li>The remuneration packages for the senior managers (executives) for the year of 2019 were approved.</li> <li>The monthly remuneration scheme for the Directors for the year of 2019 was approved.</li> </ol>
05/03/2019	The 2 <sup>nd</sup> in 2019	<ol> <li>The consolidated financial statements for the period ended March 31, 2019 of the Company was approved.</li> <li>The amendments to "Memorandum and Articles of Association of the Company" was approved.</li> <li>The amendments to the "Corporate Governance Best Practice Principles" was approved.</li> <li>The list of candidates of Director and the review of qualification of Director candidates were approved.</li> <li>The grant list of 2018 Employee Stock Option Plan was approved.</li> <li>The 2019 Employee Stock Option Plan was approved.</li> </ol>
06/21/2019	The 3 <sup>rd</sup> in 2019	1. The election of the Chairman of Board of the Company was approved.
08/02/2019	The 4 <sup>th</sup> in 2019	<ol> <li>The consolidated financial statement for the year ended June 30, 2019 of the Company was approved.</li> <li>The record date of distribution of cash dividend was approved.</li> <li>The appointment of members of Remuneration Committee was approved.</li> <li>The grant list of 2019 Employee Stock Option Plan was approved.</li> </ol>
11/01/2019	The 5 <sup>th</sup> in 2019	<ol> <li>The consolidated financial statements for the period ended September 30, 2019 of the Company was approved.</li> <li>The Audit Plan for the year of 2020 of the Company was approved.</li> <li>The grant list of 2019 Employee Stock Option was approved.</li> </ol>
03/06/2020	The 1 <sup>st</sup> in 2020	<ol> <li>The evaluation of Certified Public Accountant was approved.</li> <li>The consolidated financial statement for the year ended December 31, 2019 of the Company was approved</li> <li>The proposal of 2019 Dividend Distribution was approved.</li> <li>The bonus scheme for the employees and Directors for the year of 2019 was approved.</li> <li>The business report of 2019 was approved.</li> <li>The Internal Control System Statement for the year ended December 31, 2019 of the Company was approved.</li> <li>The amendments to the "Memorandum and Articles of Association of the Company" was approved.</li> <li>The amendments to the "Corporate Social Responsibility Best Principles" was approved.</li> <li>The amendments to the "Ethical Corporate Management Best Practice Operational Procedures and Action Guidebook" was approved.</li> <li>The amendments to "Rules Governing the Procedures for Meetings of Shareholders" was approved.</li> <li>The "Regulations Governing the Board Performance Evaluation" was approved.</li> </ol>

12. The amendments to the "Rules Governing Procedures for Meetings of Board
of Director" was approved.
11
13. The amendments to "Corporate Governance Best-Practice Principles"
14. The amendments to the "Audit Committee Charter" was approved.
15. The amendments to the "Remuneration Committee Charter" was approved.
16. The amendments to the "Regulations Governing Appointment of
Independent Directors and Compliance Matters" was approved.
17. The amendments to the "Rules of Responsibilities of Independent Directors"
was approved.
18. The amendments to the "Management of the procedures for preparation of
financial statements" was approved.
19. The remuneration packages for the senior managers (executives) for the year
of 2020 was approved.
20. The monthly remuneration scheme for the Directors for the year of 2020 was
approved.
21. The grant list of 2019 Employee Stock Option Plan was approved.
22. 2020 Employee Stock Option Plan was approved.
23. The date and meeting agenda of 2020 Annual General Meeting of the
Company were approved.
24. The period and place for shareholders who holding 1% or more of the total
number of outstanding shares of the company to submit proposals to be
discussed at the Annual General Meeting of the Company and submit the
nomination of director candidates was approved.

### B. Shareholders' Meeting :

Date	Major Resolutions	Implementation			
	1. 2018 Business Report and the Consolidated Financial Statements for the year ended December 31, 2018 of the Company.	1. Approved and adopted.			
06/21/2019	<ol> <li>2. 2018 Dividend Distribution Proposal.</li> <li>3. Re-election of 7 Directors (including 3 Independent Directors).</li> </ol>	<ol> <li>Approved.         <ol> <li>(1)The Company distributed 2018 bonus, US\$2,915,450 to shareholders of the Company.</li> <li>(2)The Record date was set on August 30, 2019 and the dividend distribution was completed on September 26, 2019.</li> </ol> </li> <li>The list of newly Board Directors is shown below.         <ol> <li>Director: Kinying Kwan</li> <li>Director: Johnny Shyang-Lin Shen</li> <li>Director: Daniel Wang</li> </ol> </li> </ol>			
	<ol> <li>The amendments to the Memorandum and Articles of Association of the Company.</li> <li>The amendments to the "Guideline for</li> </ol>	<ul> <li>Independent Director: Mao-Wei Hung</li> <li>Independent Director: Brian Chiang</li> <li>Independent Director: Binfu Chuang</li> <li>4. Approved and adopted.</li> <li>5. Approved and adopted.</li> </ul>			
	<ol> <li>The amendments to the "Guideline for Acquisition and Disposal of Assets".</li> <li>The amendments to the "Guideline for Engaging in Derivatives Transactions".</li> <li>The amendments to the "Guideline for Loaning Funds to Others".</li> </ol>	<ul><li>6. Approved and adopted.</li><li>7. Approved and adopted.</li></ul>			

8.	The amendments to the "Guideline for	8. Approved and adopted.
	Endorsement and Guaranty".	
9.	Release the prohibition on Directors	9. Approved.
	from participation in competitive	
	industries.	

3.3.12 Major issues of record or written statements made by any Director or Independent Directors dissenting to important resolutions passed by the Board of Directors during the most recent year and the current year up to the date of publication of the annual report

None.

3.3.13 A summary of resignations and dismissals of persons connected with the company's financial report (including the chairman, General Manager, Chief Accounting Officer, Chief Financial Officer, Chief Internal Auditor, Chief Research and Development Officer, etc.) during the most recent year and the current year up to the date of the publication of the annual report

### **3.4 Information on CPA Professional Fees**

### 3.4.1 Audit Fee

	Period Covered by CPA's Audit	Remarks
Yi-WenWang	2019.01.01~2019.12.31	
(	Yi-WenWang Cheng-Ming Lee	Yi-WenWang 2019 01 01~2019 12 31

### Unit: NT\$ thousand

Fe	Fee Items ee Range	Audit Fee	Non-audit Fee	Total
1	Under NT\$ 2,000,000	-	1,562	1,565
2	NT\$2,000,000(inclusive)~ NT\$4,000,000	-	-	-
3	NT\$4,000,000(inclusive)~ NT\$6,000,000	5,873	-	5,873
4	NT\$6,000,000(inclusive)~ NT\$8,000,000	-	-	-
5	NT\$8,000,000(inclusive)~NT\$10,000,000	-	-	-
6	Over NT\$100,000,000 (inclusive)	-	-	-

In case of any of the following situations, the company shall disclose information as follows :

A. Amount of non-auditing relevant fees charged by the appointed independent auditors and related parties reaching 25% of the Company's annual auditing expenses :

-								Unit: NTS	5 thousand
Name of				Non-	audit Fee			Period	
Accounting	Name of	Audit						Covered by	Remarks
Firm	CPA	Fee	System of	·	Human		Subtotal	CPA's	Remarks
1 11 11			Design	Registration	Resources			Audit	
									Non-audit
	Yi-Wen							fee	
Deloitte &	Wang							2019.01.01	includes
Touche		5,873	-	-	-	1,562	7,435	~	price
Touche	Cheng-							2019.12.31	tranfer
	Ming Lee								and tax
	Ning Lee								return

- B. When the company changes its accounting firm and the audit fees paid for the year in which such change took place are lower than those for the previous year, the amounts of the audit fees before and after the change and the reasons for change shall be disclosed : Not applicable.
- C. When the audit fees paid for the current year is more than 15 percent less than those for the previous year, the reduction in the amount of audit fees, reduction percentage, and reasons therefor shall be disclosed : Not applicable.

### 3.5 The Company's Chairman, Chief Executive Officer, Chief Financial Officer, and Managers in Charge of its Finance and Accounting Matters Has Held a Position at the Accounting Firm of its CPA or at an Affiliated Enterprise of Such Accounting Firm in the Most Recent Year

### 3.6 Any Transfer, Pledge, or Other Change of Hands Involving the Equity Interests of a Director, Managerial Officer, or Shareholders Holding More Than 10% of the Shares of the Company during the Most Recent Year and the Current Year Up to the Date of the Publication of the Annual Report

					Unit: Shares
		201	-	As of Apr.	,
Title	Name	Holding Increase (Decrease)	Pledged Holding Increase (Decrease)	Holding Increase (Decrease)	Pledged Holding Increase (Decrease)
Chairman	Kinying Kwan	(9,000)	0	(65,000)	0
Director	Herbert Chang	0	0	0	0
Director/ CEO	Johnny Shyang-Lin Shen	0	0	250,000	0
Director/ CFO	Daniel Wang (Note 1)	0	0	0	0
Director	Benjamin Jin-Ping Ng (Note 2)	0	0	0	0
Independent Director	Mao Wei Hung	0	0	0	0
Independent Director	Brian Chiang	0	0	0	0
Independent Director	Binfu Chuang	0	0	0	0
СОО	Jacky Ni (Note 3)	0	0	0	0
Sales VP of Japan Business Unit	Kozo Fujita (Note 4)	0	0	0	0
GM of Japan Business Unit	Junichiro Hosaka	0	0	0	0
GM of US Business Unit	Hiroyuki Nagashima (Note 5)	0	0	0	0
GM of China Business Unit	Andy Lin	0	0	50,000	0
Sr. VP of Design Engineering	Leo Cheng	0	0	60,000	0
VP of Sales	Rober Chang	0	0	0	0
Financial Controller	Nancy Chan	0	0	16,500	0
VP of SA	Peter Teng (Note 6)	500	0	0	0

### 3.6.1 Change in equity interests by Directors, managerial officers, or major shareholders

Note 1 : Mr. Daniel Wang was elected as Director at the Annual General Meeting on June 21, 2019.

Note 2 : Mr. Benjamin Jin-Ping Ng resigned from Director on June 21, 2019.

Note 3 : Mr. Jacky Ni resigned from COO on March 15, 2019.

Note 4 : Mr. Kozo Fujita is no longer as an insider as of March 15, 2019.

Note 5: Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019.

Note 6 : Mr. Peter Teng becomes an insider as of March 15, 2019.

### **3.6.2 Information where the counterparty in any transfer of equity interests is a related party**

None.

### **3.7 Relationship among the Top Ten Shareholders**

Unit: shares

Name	Sharehold	ding	Spouse's/ Shareho		Shareho by Nor Arrange	ninee	Relationshi any of the C Top Ter hold	Company's Share	Remarks
	Shares	%	Shares	%	Shares	%	Name	Relation	
Cathay Life Insurance Co., Ltd.	2,950,000	4.83%	0	0	0	0	-	-	
Standard Chartered Bank (Taiwan) Limited as custodian of Credit Suisse Securities (Europe) Limited	2,191,000	3.59%	0	0	0	0	-	-	
Indus Select Master Fund, Ltd.	1,874,000	3.07%	0	0	0	0	-	-	
Morgan Standley Co. International PLC	1,362,229	2.23%	0	0	0	0	-	-	
JPMorgan Chase Bank N.A. Taipei Branch in custody for JPMorgan Funds	1,328,000	2.17%	0	0	0	0	-	-	
Johnny Shyang-Lin Shen	1,291,652	2.11%	0	0	0	0	-	-	
Public Service Pension Fund	1,284,000	2.10%	0	0	0	0	-	-	
Kadensa Master Fund	1,267,000	2.07%	0	0	0	0	-	-	
Nomura Taiwan Superior Equity Fund	1,197,000	1.96%	0	0	0	0	-	-	
UPAMC GREAT CHINA Fund	1,090,000	1.78%	0	0	0	0	-	-	

### 3.8 The Total Number of Shares and Total Equity Interest Held in any Single Enterprise by the Company, its Directors, Managerial Officers, General Manager, and any Companies Controlled Either Directly or Indirectly by the Company

				De	ecember 31, 2019;U	nit: shares/%
Investee Enterprise					Total Investment	
	Shares	%	Shares	%	Shares	%
Alchip(HK)	12,230,170,100	100%	-	-	12,230,170,100	100%
Alchip(US)	391,000,000	100%	-	-	391,000,000	100%
Alchip (JP)	2,000	100%	-	-	2,000	100%
Alchip(TW)	10,000	100%	-	-	10,000	100%
Alchip (SH)	(Note)	100%	-	-	(Note)	100%
Alchip(Wuxi)	(Note)	100%	-	-	(Note)	100%
Alchip BVI	50,000	100%	-	-	50,000	100%
Alchip(Hefei)	(Note)	100%	-	-	(Note)	100%
Alchip(Jinan)	(Note)	100%	-	-	(Note)	100%

Note : Alchip(SH), Alchip(Wuxi) , Alchip(Hefei) and Alchip(Jinan) are limited companies, so no shares issued.

### Alchip Technologies, Limited Statement on Internal Control System

### Date: March 6, 2020

Based on the results of self assessment of the internal control system conducted by the Company for the fiscal year 2019, we hereby declare as follows:

- I. The company acknowledges and understands that the establishment, enforcement and preservation of the internal control system are the responsibility of the Board, and that the company has already established such a system. The purpose is to provide reasonable assurance to the effectiveness and efficiency of business operations (including profitability, performance and security of assets), reliability, timeliness, transparency, and regulatory compliance of reporting, and compliance with applicable laws, regulations, and bylaws.
- II. There are inherent limitations to even the most well designed internal control system. As such, an effective internal control system can only reasonably ensure the achievement of the aforementioned goals. Moreover, the operating environment and situation may change, impacting the effectiveness of the internal control system. The internal control system of the Company features a self-monitoring mechanism. Once identified, any deficiency will be rectified immediately.
- III. The Company determines the effectiveness of the internal control system in design and enforcement in accordance with the "Regulations Governing Establishment of Internal Control Systems by Public Companies" (hereinafter referred to as "the Regulations"). The Regulations are instituted for judging the effectiveness of the design and enforcement of the internal control system. There are five components of effective internal control as specified in the Regulations with which the procedure for effective internal control is measured, namely: (1) Control environment, (2) Risk assessment, (3) Control activities, (4) Information and Communications, and (5) Monitoring activities. Each of the elements in turn contains certain audit items. Refer to the Regulations for details.
- IV. The Company has adopted the aforementioned internal control system for an internal audit on the effectiveness of the design and enforcement of the internal control system.
- V. Based on the aforementioned audit findings, the Company holds that it has reasonably preserved the achievement of the aforementioned with the internal control system as of December 31, 2019 (including the monitoring over the subsidiaries), including the effectiveness and efficiency in operation, reliability, timeliness, transparency, and regulatory compliance of reporting, and compliance with relevant regulatory requirements, and that the design and enforcement of internal control are effective.

- VI. This statement of declaration shall form an integral part of the annual report and prospectus of the company and will be publicly announced. If any fraudulent information, concealment or unlawful practices are discovered in the content of the aforementioned information, the Company shall be held liable under Article 20, Article 32, Article 171 and Article 174 of the Securities and Exchange Act.
- VII. This statement was approved by the Board on March 6, 2020 in the presence of seven (7) directors, who concurred unanimously.

Alchip Technologies, Limited

Som h\_

Kinying Kwan Chairman

Jold

Johnny Shyang-Lin Shen CEO

### **IV. Capital Overview**

### 4.1 Capital and Shares

### 4.1.1 Capitalization

### A. Issued shares

Unit:share/NT\$

		Authoriz	ed Capital	Paid-in	n capital	Ren	nark	
Month/ Year	Par Value (NT\$)	Shares	Amount	Shares	Amount (NT\$ thousand)	Sources of Capital	Capital Increased by Assets Other than Cash	Other
2010.07	10	100,000,000	1,000,000,000	52,420,842	523,364,710	Capital surplus transferred to capital	None	-
2010.07	10	100,000,000	1,000,000,000	53,871,342	538,713,420	New shares issued upon the exercise of share options	None	-
2013.11	10	100,000,000	1,000,000,000	53,947,342	539,473,420	New Shares issued upon the exercise of share options	None	-
2014.03	10	100,000,000	1,000,000,000	54,113,342	541,133,420	New Shares issued upon the exercise of share options	None	-
2014.04- 08	10	100,000,000	1,000,000,000	54,753,342	547,533,420	New Shares issued upon the exercise of share options	None	-
2014.09	10	100,000,000	1,000,000,000	54,784,842	547,848,420	New Shares issued upon the exercise of share options	None	-
2014.10- 12	10	100,000,000	1,000,000,000	62,465,842	624,658,420	New shares issued through capital increase by cash	None	-
2014.10- 12	10	100,000,000	1,000,000,000	63,481,815	634,818,150	New Shares issued upon the exercise of share options	None	-
2015.01- 03	10	100,000,000	1,000,000,000	63,766,815	637,668,150	New Shares issued upon the exercise of share options	None	-
2015.08	10	100,000,000	1,000,000,000	61,567,815	615,678,150	Cancellation of Treasury Stocks	None	-
2016.11	10	100,000,000	1,000,000,000	60,702,815	607,028,150	Cancellation of Treasury Stocks	None	-
2017.07- 12	10	100,000,000	1,000,000,000	61,001,038	610,010,380	New Shares issued upon the exercise of share options	None	-
2018.01- 11	10	100,000,000	1,000,000,000	61,698,098	616,980,980	New Shares issued upon the exercise of share options	None	-
2018.12	10	100,000,000	1,000,000,000	59,773,098	597,730,980	Cancellation of Treasury Stocks	None	-
2019.01- 12	10	100,000,000	1,000,000,000	60,612,932	606,129,320	New Shares issued upon the exercise of share options	None	-
2020.01- 04	10	100,000,000	1,000,000,000	61,110,926	611,109,260	New Shares issued upon the exercise of share options	None	-

### **B.** Capital and Shares

April 13, 2020; Unit: Share

Type of Steels		Authorized Capital		Domort
Type of Stock	Oustanding Shares	Un-issued Shares	Total Shares	Remark
Common Stock	61,110,926	33,689,057	100,000,000	-

### **C. Information for shelf registration :** Not applicable.

	Volur	ne to be issued	Issued A	mount	Purpose of	Scheduled	
Securities Type	Total Shares	Authorized Amount	Shares	Price (NT\$)	Issuance and Expected Benefits for Securities Issued	Issuance Period for Securities Unissue	Remarks
				N/A			

### 4.1.2 Status of shareholders

							April 13,2020
Item	Government Agencies	Financial Institutions	Treasury Stocks	Other Juridical Persons	Domestic Natural Persons	Foreign Institutions & Natural Persons	Total
Number of Shareholders	0	9	0	190	8,974	129	9,302
Shareholding (shares)	0	3,316,000	0	13,215,136	20,641,183	23,938,607	61,110,926
Shareholding Percentage	0%	5.43%	0%	21.62%	33.78%	39.17%	100.00%

Note: The percentage of shareholding for the capital investment from China is 0.25%.

### 4.1.3 Shareholding distribution status

	With par	value of \$10 per share;April	13,2020;Unit:shares/%
Class of Shareholding (Unit : Share)	Number of Shareholders	Shareholding (Shares)	Percentage
1 ~ 999	3,630	42,911	0.07%
1,000 ~ 5,000	4,918	8,044,648	13.16%
5,001 ~ 10,000	334	2,733,002	4.47%
10,001 ~ 15,000	101	1,335,382	2.19%
15,001 ~ 20,000	63	1,175,500	1.92%
20,001 ~ 30,000	50	1,312,135	2.15%
$30,001 \sim 40,000$	33	1,207,652	1.98%
$40,001 \sim 50,000$	22	1,035,000	1.69%
50,001 ~ 100,000	60	4,319,240	7.07%
100,001 ~ 200,000	41	5,978,677	9.78%
200,001 ~ 400,000	23	6,877,000	11.25%
400,001 ~ 600,000	7	3,689,915	6.04%
600,001 ~ 800,000	5	3,439,520	5.63%
800,001 ~ 1,000,000	6	5,377,115	8.80%
1,000,001 or over	9	14,543,229	23.80%
Total	9,302	61,110,926	100.00%

### 4.1.4 List of major shareholders: List all shareholders with a stake of 5 percent or rank in the top 10 in shareholding percentage, and specify the number of shares and stake held by each shareholder on the list

	April 13,2	2020;Unit:shares/%		
Shareholder's Name	Shareholding			
Shareholder's Name	Shares	Percentage		
Cathay Life Insurance Co., Ltd.	2,950,000	4.83%		
Standard Chartered Bank (Taiwan) Limited as custodian of Credit Suisse Securities (Europe) Limited	2,191,000	3.59%		
Indus Select Master Fund, Ltd.	1,874,000	3.07%		
Morgan Standley Co. International PLC	1,362,229	2.23%		
JPMorgan Chase Bank N.A. Taipei Branch in custody for JPMorgan Funds	1,328,000	2.17%		
Johnny Shyang-Lin Shen	1,291,652	2.11%		
Public Service Pension Fund	1,284,000	2.10%		
Kadensa Master Fund	1,267,000	2.07%		
Nomura Taiwan Superior Equity Fund	1,197,000	1.96%		
UPAMC GREAT CHINA Fund	1,090,000	1.78%		

### 4.1.5 Market price, net worth, earnings per share, dividends per common share

		Unit:	NT\$; Thousand of Share
Items	2018	2019	As of April 13,2020
Market Price per Share			•
Highest Market Price	165	255.50	266
Lowest Market Price	61.6	64.20	148.45
Average Market Price	109.91	123.13	216.54
Net Worth per Share			
Before Distribution	48.87	54.47	-
After Distribution	47.35	(Note 1)	-
Earnings per Share			
Weighted Average Shares(thousand shares)	61,039	60,176	-
BasicEarnings Per Share	4.22	7.20	-
Dividends per Share			
Cash Dividends	1.516	(Note1)	-
Stock Dividends			
Dividends from Retained Earnings	-	-	-
Dividends from Capital Surplus	-	-	-
Accumulated Undistributed Dividends	-	-	-
Return on Investment			
Price / Earnings Ratio (Note2)	26.05	17.10	-
Price / Dividend Ratio (Note 3)	72.50	(Note 1)	-
Cash Dividend Yield Rate (Note 4)	0.014	(Note 1)	-

Note 1 : Pending on the approval of 2020 shareholders' meeting.

Note 2 : Price / Earnings Ratio = Average Market Price / Earnings per Share

Note 3 : Price / Dividend Ratio = Average Market Price / Cash Dividends per Share

Note 4 : Cash Dividend Yield Rate = Cash Dividends per Share / Average Market Price

### 4.1.6 Company's Dividend Policy and Implementation Status

- A. The Company's Dividend Policy: The regulations of dividend distribution are shown below in accordance to the Memorandum and Articles of Association of the Company.
  - (1) The Company shall set aside no less than 1% of its annual profits (the annual profits specified in this Article refers to the annual income before tax and before bonuses are set aside for employees and Directors) as bonus to employees of the Company and set aside no more than 2% of its annual profits as bonus to Directors, provided however that the Company shall first offset its losses in previous years that have not been previously offset. The distribution of bonus to employees may be made by way of cash or Shares, which may be distributed under an incentive programme approved pursuant to Article 11.1 above. The employees under Article 34.1 may include certain employees of the Subsidiaries who meet the conditions prescribed by the Company. The distribution of bonus to employees and to Directors shall be approved by a majority of the Directors present at a meeting attended by two-thirds or more of the total number of the Directors and shall be reported to the Members at the general meeting. A Director who also serves as an executive officer of the Company and/or its Subsidiaries may receive a bonus in his capacity as a Director and a bonus in his capacity as an employee.
  - (2) As the Company is in the growing stage, the dividend distribution may take the form of a cash dividend and/or stock dividends and shall take into consideration the Company's capital expenditures, future expansion plans, and financial structure and funds requirement for sustainable development needs etc. The Company may distribute profits in accordance with a proposal for distribution of profits prepared by the Directors and approved by the Members by an Ordinary Resolution at any general meeting. The Directors shall prepare such proposal as follows: the proposal shall begin with the Company's Annual Net Income after tax and offset its losses in previous years that have not been previously offset, and set aside a special capital reserve, if one is required, in accordance with the Applicable Public Company Rules or as requested by the authorities in charge. Except otherwise stipulated by the applicable laws and the Applicable Public Company Rules, the Company may take into consideration the circumstances and development stage of the Company, in response to any future funding requirement and long term financial planning, while satisfying the shareholders expectation in respect of cashflow, propose profit distribution plan in connection with the retained earnings for approval at the meetings of the shareholders; the distribution of retained earnings may proceed by way of cash dividend or by applying such sum in paying up in full unissued Shares for allotment and distribution credited as fully paid-up pro rate to the Members, and the total amount of Dividends shall not be lower than 10% of the profit of the then current year after deducting the aforementioned amounts, and provided the total amount of cash dividend to be distributed shall be no lower than 10% of the aggregate dividend distributed to shareholders and no more than 100% of the aggregate dividend distributed to shareholders.
  - (3) Subject to the Statute, the Articles and the Applicable Public Company Rules, the Directors may declare Dividends and distributions on Shares in issue and authorise payment of the Dividends or distributions out of the funds of the Company lawfully available therefor. No Dividend or distribution shall be paid except out of the realised or unrealised profits of the Company, or out of the share premium account or as otherwise permitted by the Statute.
  - (4) Except as otherwise provided by the rights attached to Shares, all Dividends shall be declared and paid in proportion to the number of Shares that a Member holds. If any Share is issued on terms providing that it shall rank for Dividend as from a particular date that Share shall rank for Dividend accordingly.
  - (5) The Directors may deduct from any Dividend or distribution payable to any Member all sums of money (if any) then payable by him to the Company on any account.

- (6) The Directors may, after obtaining an Ordinary Resolution, declare that any distribution other than a Dividend be paid wholly or partly by the distribution of specific assets and in particular of shares, debentures, or securities of any other company or in any one or more of such ways and where any difficulty arises in regard to such distribution, the Directors may settle the same as they think expedient and fix the value for distribution of such specific assets or any part thereof and may determine that cash payments shall be made to any Members upon the basis of the value so fixed in order to adjust the rights of all Members and may vest any such specific assets in trustees as may seem expedient to the Directors.
- (7) Any Dividend, distribution, interest or other monies payable in cash in respect of Shares may be paid by wire transfer to the holder or by cheque or warrant sent through the post directed to the registered address of the holder. Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
- (8) No Dividend or distribution shall bear interest against the Company.
- (9) Any Dividend which cannot be paid to a Member and/or which remains unclaimed after six months from the date of declaration of such Dividend may, in the discretion of the Directors, be paid into a separate account in the Company's name, provided that the Company shall not be constituted as a trustee in respect of that account and the Dividend shall remain as a debt due to the Member. Any Dividend which remains unclaimed after a period of six years from the date of declaration of such Dividend shall be forfeited and shall revert to the Company.

### B. Proposed Distribution of Dividend for 2020Annual General Meeting

The company will propose distribution of cash dividend US\$7,216,415 (US\$0.11901 per share) at the 2020 Annual General Meeting.

### 4.1.7 The influence of stock dividend distribution resolved by 2019 Annual General Meeting on the Company's operating performance and earning per share (EPS)

Not applicable.

### 4.1.8 Directors' Remuneration and Employee Compensation

A. The percentages or ranges with respect to compensation to employees and Directors as set forth in the company's Articles of Incorporation:

The Company will allocate no less than 1% as compensation to employees and no more than 2% as compensation to Directors of its profits before tax prior to the deduction of compensation to employees and Directors for the year, respectively.

B. The basis for estimating the amount of compensation to employees and Directors, the basis for calculating the number of shares to be distributed as stock bonuses, and the accounting treatment of discrepancy, if any, between the actual distributed amount and the estimated figure, for the current period:

The Company estimated 2019 distribution of compensation to employees and directors are US\$1,510,478 and US\$377,619 respectively. If there is discrepancy between the actual distributed amount and the estimated figure, it will be adjusted to enter into accounts according to changes in accounting estimate at the year of distribution.

### C. Information on the distribution of compensation approved by the Board of Directors:

- (1) Distribution in cash or shares of compensation to employees and Directors. If there are any discrepancies between such an amount and the estimated figure for the year these expenses are recognized, the discrepancy, reasons therefor, and how it is treated shall be disclosed: None.
- (2) The amount of distribution in shares of compensation to employees, and as a percentage of the sum of the current after-tax net income on individual or separate financial statements and total compensation to employees: None.
- D. The actual distribution of compensation to employees and Directors for the previous year (including the share number, dollar amount, and stock price, of the shares distributed), and, if there is any discrepancy between the actual distribution and the recognized compensation to employees and directors, additionally the discrepancy, reasons therefor, and how it is treated: There is no discrepancy between the actual distribution and recognized compendation to employees and directors.

~	× •				
Batch Order	1 <sup>st</sup> Batch	2 <sup>nd</sup> Batch	3 <sup>rd</sup> Batch	4 <sup>th</sup> Batch	5 <sup>th</sup> Batch
Purpose of the Buyback	Maintain the company's credibility and shareholders' equity				
Actual Buyback period	2015/03/06~2015/05/05	2015/05/15~2015/06/12	2016/8/26~2016/9/26	2017/3/13~2017/5/9	2018/9/12-2018/10/30
Price range for Buybacks	NT\$50.05 to NT\$123.82	NT\$35.91 to NT\$87.58	$NT$19.01 \sim NT$41.21$	NT\$28.88 ~NT\$57.54	NT\$64.26 ~NT\$167.94
Number of shares bought back	1,015 thousand shares of common stock	1,184 thousand shares of common stock	865 thousand shares of common stock	0 shares of common stock	1,925 thousand shares of common stock
Total Value of Shares bought back	NT\$60,917,192	NT\$52,462,561	NT\$21,692,815	0\$LN	NT\$157,947,222
The ratio of number of shares buyback to number of expected shares buyback	50.75%	59.20%	86.50%	0%0	96.25%
Number of shares that have already been canceled and transferred	1,015 thousand shares of common stock	1,184 thousand shares of common stock	865 thousand shares of common stock	0 shares of common stock	1,925 thousand shares of common stock
Accumulated number of shares held by the Company	0 share of common stock	0 shares of common stock			
Ratio of the accumulated number of shares held by the Company to the total number of ordinary shares issued	0%0	0%0	0%0	0%0	0%0
4 1 10 T. C.					

## 4.1.10 Information on the Company's issuance of bonds

None.

### 4.1.11 Information on issuance of preferred shares

None.

# 4.1.12 Information on issuance of global depository receipts

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<b>Stock</b>
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March 31, 2020			February 7, 2018	95,000	0.16%			exercised.	5,000	NT\$477,000	65,000	NT\$95.40
March	Employee Stock Options in 2017	April 25, 2017	January 5, 2017	329,000	0.54%	eriod		c options can be	17,000	NT\$1,660,900 NT\$477,000	260,000	NT\$97.70
	ployee Stock	April 2	December 5, 2017	500,000	0.82%	: after such p		75% of stock xercised.	0	O\$SU	420,000	NT\$76.80
	Emj		November 28, 2017	330,000	0.54%	and shall expire		hree full years,	15,000	NT\$1,248,000	300,000	NT\$83.20
	Employee Stock Options in 2016	April 26, 2016	March 10, 2017	800,000	1.32%	the Grant date	Issuance of new shares	tock options can be exercised. After three full years, 75% of s After four full years, 100% of stock options can be exercised	249,250	NT\$10,313,175	377,000	NT\$41.10
	Employee Stc 20	April 2	November 11, 2016	1,200,000	1.98%	or 10 years from	Issuance of	pptions can be e	334,750	NT\$8,479,750	640,250	NT\$25.00
	Options in 2015	0, 2015	March 4, 2016	1,136,000	1.87%	The stock options shall be valid for 10 years from the Grant date and shall expire after such period		After two full years, 50% of stock options can be exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock options can be exercised.	445,244	NT\$16,735,720 NT\$8,479,750 NT\$10,313,175 NT\$1,248,000	508,256	NT\$37.20
	Employee Stock Options in 2015	March 30, 2015	April 24, 2015	864,000	1.42%	The stock optic		After two full ye:	322,859	NT\$18,428,685	486,141	NT\$56.50
	Employee Stock Options in 2003 (Note 2(1))	Not applicable	(Note 2(2))	14,518,700	23.90%			(Note 2(3))	7,488,633	US\$9,453,553.95	10,000	An average of US\$2.4706
	Types of Employee Stock Options	Approval date	Issue date	Units issued	Shares of stock options to be issued as a percentage of outstanding shares	Period	Method of performance	Period and percentage in which subscription is restricted (%)	Exercised shares	Amount of the shares exercised	Unexercised shares	Price per share of the unexercised shares

Percentage of unexercised shares to total issued shares	0.02%	0.80%	0.84%	1.05%	0.62%	0.49%	0.69%	0.43%	0.11%
Number of invalid shares (Note 1)	7,020,067	55,000	182,500	225,000	173,750	15,000	80,000	52,000	25,000
Impact on possible dilution of shareholdings	(Note 2(4))	Financial Statements will be presented in accordance with the International Accounting Standards. However, after two full years upon expiration of the employee stock options granted by the Company, 50% of the granted stock options can be exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock options can be exercised. The influence on shareholders' interests will be gradually diluted.	tts will be present tion of the employ ree full years, 75% uence on sharehol	ed in accordanc /ee stock option 6 of stock option ders' interests w	be presented in accordance with the International Accounting Standards. However, after two full he employee stock options granted by the Company, 50% of the granted stock options can be years, 75% of stock options can be exercised. After four full years, 100% of stock options can be a shareholders' interests will be gradually diluted.	national Accounte Company, 5 sed. After four diluted.	nting Standar 0% of the gr full years, 10	ls. However, a inted stock op )% of stock op	fter two full ions can be tions can be
Note 1: The numbe	r of invalid shares w	Note 1: The number of invalid shares were from employees' turnover	turnover and expire	and expired employee stock options.	coptions.	-			
Note 2: (1) Amend	ments to 2003 Empl	Note 2: (1) Amendments to 2003 Employee Stock Options have been	ave been adopted by	the Board of Di	adopted by the Board of Directors in July 2010 to replace the aforementioned rules.	10 to replace the	aforementione	l rules.	
(2) 1,500,0	000 shares were issu	(2) 1,500,000 shares were issued on 2003/04/09; 505,200 shares were issued on 2003/06/06; 940,000 shares were issued on 2003/08/08; 179,600 shares were issued on	05,200 shares were i	ssued on 2003/06	5/06; 940,000 sha	res were issued o	on 2003/08/08;	179,600 shares	were issued or
2003/1	0/13; 964,000 share	2003/10/13; 964,000 shares were issued on 2003/12/22; 374,200 shares were issued on 2004/04/02; 293,000 shares were issued on 2004/06/18; 732,400 shares were	8/12/22; 374,200 sha	res were issued o	n 2004/04/02; 29	3,000 shares wer	e issued on 200	4/06/18; 732,4	00 shares were
issued	on 2005/01/14; 219	issued on 2005/01/14; 219,000 shares were issued on 2005/04/15; 995,000 shares were issued on 2005/07/15; 318,000 shares were issued on 2005/12/16; 230,000	ied on 2005/04/15;	995,000 shares w	vere issued on 20	05/07/15; 318,00	00 shares were	issued on 2005/	12/16; 230,000
shares	were issued on 2006	shares were issued on 2006/01/17; 610,600 shares were issued on 2006/04/20; 412,000 shares were issued on 2006/07/31; 644,000 shares were issued on 2006/10/18;	es were issued on 20	06/04/20; 412,00	0 shares were iss	ued on 2006/07/3	31; 644,000 sh	res were issued	on 2006/10/18
474,00	0 shares were issue	474,000 shares were issued on 2007/01/29; 411,500 shares were issued on 2007/04/27; 950,000 shares were issued on 2007/09/21; 892,500 shares were issued on	.,500 shares were is	sued on 2007/04	'27; 950,000 shar	es were issued o	n 2007/09/21;	892,500 shares	were issued or
2007/1	0/19; 357,000 share	2007/10/19; 357,000 shares were issued on 2008/01/25; 627,300 shares were issued on 2008/04/29; 421,000 shares were issued on 2008/07/25; 530,000 shares were	8/01/25; 627,300 sh	ares were issued	on 2008/04/29; 4:	21,000 shares we	ere issued on 20	08/07/25; 530,0	00 shares were
issued	on 2008/10/30; 282	issued on 2008/10/30; 282,000 shares were issued on 2009/02/05; 248,000 shares were issued on 2009/04/24; 321,000 shares were issued on 2009/07/31; 424,000	ied on 2009/02/05;	248,000 shares v	vere issued on 20	09/04/24; 321,00	00 shares were	issued on 2009/	07/31; 424,000
shares	were issued on 2009	shares were issued on 2009/10/30; 392,000 shares were issued on 2010/01/15; 139,000 shares were issued on 2010/05/07.	es were issued on 20	10/01/15; 139,00	0 shares were issi	ued on 2010/05/0	17.		
(3) After of	ne full year, 25% of	(3) After one full year, 25% of stock options can be exercised, with 1/48 of the total shares vesting every month.	exercised, with 1/48	of the total share	ss vesting every m	ionth.			
(4) Financi	ial Statements will b	(4) Financial Statements will be presented in accordance with		ational Accountir	the International Accounting Standards. However, after one full year upon expiration of the employee stock	vever, after one f	ùll year upon e	xpiration of the	employee stock
options	s granted by the Con	options granted by the Company, 25% of the granted stock options can be exercised, with 1/48 of the total shares vesting every month. The influence on shareholders'	inted stock options o	an be exercised,	with 1/48 of the t	otal shares vestin	ig every month	The influence c	n shareholders

interests will be gradually diluted. There are 10,000 shares that are estimated to be able to subscribe by the end of 2020, accounted for 0.02% of 60,744,176 shares of

common stocks current issued and outstanding currently.

-64-

Types of Employee Stock Options	Employee Stock	Employee Stock Options in 2017		Employee Stock Options in 2018	ptions in 2018	
Approval date	April 2	April 25, 2017		May 21, 2018	2018	
Issue date	March 30, 2018	April 18, 2018	August 10, 2018	September 20, 2018	March 19, 2019	May 20, 2019
Units issued	250,000	200,000	500,000	500,000	500,000	500,000
Shares of stock options to be issued as a percentage of outstanding shares	0.41%	0.33%	0.82%	0.82%	0.82%	0.82%
Period	The stoc	The stock options shall be valid for 10 years from the Grant date and shall expire after such period	d for 10 years from t	he Grant date and shal	l expire after such pe	eriod
Method of performance			Issuance of new shares	ew shares		
Period and percentage in which subscription is restricted (%)	After two full years	After two full years, 50% of stock options can be exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock options can be exercised.	can be exercised. Af all years, 100% of stc	tock options can be exercised. After three full years, 75% of s After four full years, 100% of stock options can be exercised.	% of stock options c reised.	an be exercised.
Exercised shares	2,500	0	0	0	0	0
Amount of the shares exercised	NT\$294,250	0\$LN	0\$LN	0\$LN	0\$LN	NT\$0
Unexercised shares	227,500	177,000	455,000	461,000	497,000	485,000
Price per share of the unexercised shares	NT\$117.70	NT\$123.60	NT\$121.60	NT\$87.40	NT\$75.10	NT\$74.40
Percentage of unexercised shares to total issued shares	0.37%	%62	0.75%	0.76%	0.82%	0.80%
Number of invalid shares (Note 1)	20,000	23,000	45,000	39,000	3,000	15,000
Financial Statements will be presented in accordance with the International Accounting Standards. However, after two Impact on possible dilution of years upon expiration of the employee stock options granted by the Company, 50% of the granted stock options can be shareholdings exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock options ca exercised. The influence on shareholders' interests will be gradually diluted.	Financial Statements v years upon expiration exercised. After three exercised. The influen	Financial Statements will be presented in accordance with the International Accounting Standards. However, after two full years upon expiration of the employee stock options granted by the Company, 50% of the granted stock options can be exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock options can be exercised. The influence on shareholders' interests will be gradually diluted.	cordance with the Int options granted by the k options can be exer- erests will be gradua	ernational Accounting the Company, 50% of the reised. After four full Ily diluted.	Standards. However he granted stock opti years, 100% of stock	r, after two full ions can be : options can be
Note 1 : The number of invalid shares were from employees' turnover and expired employee stock options.	aares were from employee	es' turnover and expired	employee stock options	·		

Types of Employee Stock Options		Employee Stock Options in 2019	Options in 2019	
Approval date		May 21, 2019	1, 2019	
Issue date	August 7, 2019	November 7, 2019	November 7, 2019 November 22, 2019 February 18, 2020	February 18, 2020
Units issued	500,000	40,000	160,000	150,000
Shares of stock options to be issued as a percentage of outstanding shares	0.82%	0.07%	0.26%	0.25%
Period	The stock options s	The stock options shall be valid for 10 years from the Grant date and shall expire after such period	ears from the Grant d h period	ate and shall expire
Method of performance		Issuance of	Issuance of new shares	
Period and percentage in which subscription is	After two full years 75% of stock op	After two full years, 50% of stock options can be exercised. After three full years, 75% of stock options can be exercised. After four full years, 100% of stock	s can be exercised. A I. After four full year,	fter three full years, s, 100% of stock
Exercised shares	0	0	0	0
Amount of the shares exercised	0\$LN	0\$LN	0\$LN	0\$LN
Unexercised shares	490,000	40,000	153,000	150,000
Price per share of the unexercised shares	NT\$95.70	NT\$185.50	NT\$206.00	NT\$208.00
Percentage of unexercised shares to total issued shares	0.81%	0.07%	0.25%	0.25%
Number of invalid shares (Note 1)	10,000	0	7,000	0
Financial Statements will be presented in accordance with the InternationalAccounting Standards. However, after two full years upon expiration of theAccounting Standards. However, after two full years upon expiration of theImpact on possible dilution ofemployee stock options granted by the Company, 50% of the granted stock optionscan be exercised. After three full years, 75% of stock options can be exercised.After four full years, 100% of stock options can be exercised. The influence onshareholdingsAfter four full years, 100% of stock options can be exercised. The influence on	Financial Statement Accounting Standar employee stock opti can be exercised. Af After four full years shareholders' interes	Financial Statements will be presented in accordance with the International Accounting Standards. However, after two full years upon expiration of the employee stock options granted by the Company, 50% of the granted stock opt can be exercised. After three full years, 75% of stock options can be exercised. The influence on shareholders' interests will be gradually diluted.	accordance with the ] o full years upon exp impany, 50% of the g 5% of stock options c ins can be exercised. 7 iluted.	International iration of the ranted stock options an be exercised. The influence on
Note 1 : The number of invalid shares were from employees' turnover and expired employee stock options.	ares were from employ	ees' turnover and expir	ed employee stock opti	ons.

B. List of executives and the top ten employees receiving Employee Stock Options

March 31,2020

L O	i								
ised mount Ratio of US\$ Total US\$ Total Issued Shares 0 0%	0.66%	0.36%	1.56%	0.08%	0.12%	0.82%	0.02%	0.53%	0.59%
Unexercised Amount (US\$ (US\$ thousand) 1 0	719.97	395.93	752.60	65.47	185.54	1,223.30	46.69	1,239.62	861.30
Unex Price (US\$) 2.5901	1.7999 (Note1)	1.1851 (Note2)	0.7964 (Note3)	1.3093 (Note4)	2.6505 (Note5)	2.4466 (Note6)	3.1125 (Note7)	3.8738 (Note8)	2.3925 (Note9)
No. of Shares 0	400	219	945	50	70	500	15	320	360
Ratio of Shares to Total Issued Shares 0.07%	0.13%	0.07%	0.05%	0%0	%0	0%0	0%0	%0	%0
Exercised Amount (US\$ (US\$ thousand) 1 112.91	143.98	47.40	23.89	0	0	0	0	0	0
Exe Price (US\$) 2.5901	1.7999 (Note1)	1.1851 (Note2)	0.7964 (Note3)	1.3093 (Note4)	2.6505 (Note5)	2.4466 (Note6)	3.1125 (Note7)	3.8738 (Note8)	2.3925 (Note9)
No. of Shares 45	80	40	30	0	0	0	0	0	0
Ratio of Subscribed Shares to Total Issued Shares				5.06%					
No. of Subscribed Shares				3,074					
Name Johnny Shyang-Lin Shen	Jacky Ni (Note 16)	Kozo Fujıta (Note 17)	Junichiro Hosaka	Andy Lın Hiroyuki Nagashima	(Note 18)	Leo Uneng Rebert Chang	Daniel Wang	Nancy Chan	Peter Teng (Note 19)
			Unit	unit nit		gung			
Title	COO Solos VD of Ionon Durie	bates vr ut Japan Business Unit	GM of Japan Business Unit	GM of US Business Unit GM of US Business Unit	- - - - - - - - - 	VP of Design Engineering VP of Sales	CFO	Financial Controller	VP of SA

	Ratio of Shares to Total Issued Shares	%0	0.12%	0.16%	0.06%	0.03%	0.28%	0.05%	0.02%	0.14%	0.05%	0.08%	0.24%	0.05%	0.03%
cised	Amount (US\$ thousand)	0	125.99	111.99	30.86	24.77	450.59	93.38	37.50	329.27	82.42	119.63	343.68	91.46	135.04
Unexercised	Price (US\$)	2.5091	1.7999 (Note1)	1.1851 (Note2)	0.7964 (Note3)	1.3093 (Note4)	2.6505 (Note5)	3.1125 (Note7)	3.7496 (Note10)	3.8738 (Note8)	2.7843 (Note11)	2.3925 (Note9)	2.3702 (Note12)	3.0487 (Note13)	6.7519 (註 14)
	No. of Shares	0	70	94.5	38.75	19	170	30	10	85	29.6	50	145	30	20
	Ratio of Shares to Total Issued Shares	0.07%	0.18%	0.16%	0.06%	0.03%	%0	0%0	%0	%0	%0	0%0	%0	%0	0%0
cised	Amount (US\$ thousand)	107.89	197.99	116.73	28.87	24.88	0	0	0	0	0	0	0	0	0
Exercised	Price (US\$)	2.5091	1.7999 (Note1)	1.1851 (Note2)	0.7964 (Note3)	1.3093 (Note4)	2.6505 (Note5)	3.1125 (Note7)	3.7496 (Note10)	3.8738 (Note8)	2.7843 (Note11)	2.3925 (Note9)	2.3702 (Note12)	3.0487 (Note13)	6.7519 (註 14)
	No. of Shares	43	110	98.5	36.25	19	0	0	0	0	0	0	0	0	0
Ratio of	Subscribed Shares to Total Issued Shares							7000	1.9270						
	No. of Subscribed Shares							1 163 6	0.001,1						
	Name		Doni Ding	Hiroyuki Furuzono	David Chiang	Daisy Hsu	James Huang	Vincent Ku	Allan Lin	Mitsuya Takashima	Feiwei Wu	Jokie Zhou			
	Title		Director of Design Solution	Deputy GM of Japan Business Unit	VP of Corporate Marketing	Director of Corporate HR	VP of R&D	VP of MFG Engineering	Sr. Director of Circuit Technologies	Director of Design Engineering	Director of Design Engineering	Director of Design Engineering			
							Тој	o Ten E	Employ	rees					

	0	6.9103 (註 15)	0	0%0	65	6.9103 (註 15)	449.17	0.11%
Note 1: The price of the stock option is NT\$56.50. Note 2: The price of the stock option is NT\$57.20. Note 3: The price of the stock option is NT\$25.00. Note 4: The price of the stock option is NT\$41.10. Note 5: The price of the stock option is NT\$76.80. Note 6: The price of the stock option is NT\$76.80. Note 7: The price of the stock option is NT\$76.80. Note 8: The price of the stock option is NT\$75.10. Note 9: The price of the stock option is NT\$75.10. Note 10: The price of the stock option is NT\$71.70.	Note 11 Note 12 Note 13 Note 14 Note 15 Note 16 Note 17 Note 18 Note 19	Note 11: The price of the stock option is NT\$87.40. Note 12: The price of the stock option is NT\$74.40. Note 13: The price of the stock option is NT\$95.70. Note 14: The price of the stock option is NT\$206.00. Note 15: The price of the stock option is NT\$208.00. Note 16: Mr. Jacky Ni resigned from COO on March 15, 2019. Note 17: Mr. Kozo Fujita is no longer as an insider as of March 15 Note 18: Mr. Hiroyuki Nagashima becomes an insider as of March 15, Note 19: Mr. Peter Teng becomes an insider as of March 15, 2019.	the stock op the stock op the stock op the stock op the stock op i resigned fro i resigned fro jita is no lon i Nagashima ng becomes	tion is NT\$8 tion is NT\$7 tion is NT\$7 tion is NT\$2 tion is NT\$2 m COO on ger as an ins becomes an an insider as	7.40. 4.40. 5.70. 06.00. March 15, ider as of insider as of March	Note 11: The price of the stock option is NT\$87.40. Note 12: The price of the stock option is NT\$74.40. Note 13: The price of the stock option is NT\$95.70. Note 14: The price of the stock option is NT\$206.00. Note 15: The price of the stock option is NT\$208.00. Note 16: Mr. Jacky Ni resigned from COO on March 15, 2019. Note 17: Mr. Kozo Fujita is no longer as an insider as of March 15, 2019. Note 18: Mr. Hiroyuki Nagashima becomes an insider as of March 15, 2019. Note 19: Mr. Peter Teng becomes an insider as of March 15, 2019.	9. 2019.	
C. Status of any private placement of employee stock warrants during the 3 most recent years and up to the date of the publication of the Annual Report: None.	most rec	ent years an	id up to th	e date of tl	ie public	ation of the <sup>,</sup>	Annual Re	:port:
<b>4.1.14 Issuance of New Restricted Employee Shares</b> None.								
<b>4.1.15 Status of mergers or acquisitions</b> None.								
<b>4.1.16 Issuance of new shares for merging and transferring the stocks of other companies</b> None.	of other	companies						
<b>4.2 Implementation of Fund Usage Plan</b> None.								

-69-

# **5.1 Business Activities**

# **5.1.1 Business scope**

# A. Main areas of business operations

Alchip engages in Application Specific IC (ASIC) and System-on-Chip (SoC) design, manufacturing and production, and is especially good at deep-submicron and high-end processing chips with high complexity.

# **B.** Operational proportion

			Unit: N	T\$ thousand; %
Catagory	20	18	20	19
Category	Amount	%	Amount	%
ASIC and Chip production	3,302,059	95.69	4,314,253	99.59
NRE	30,720	0.89	13,372	0.31
Others	117,899	3.42	4,331	0.10
Total	3,450,678	100.00	4,331,956	100

# **C.** Main products and Services

- (1) ASIC and Chip production: Provide customers with Non-Recurring Engineering (NRE) of Application Specific Integrated Circuit (ASIC) and System on Chip (SoC), and mass production management of wafer manufacturing, packaging, and testing.
- (2) Non-Recurring Engineering (NRE): Mainly provide the circuit design component database and all kinds of Silicon Intellectual Property (SIP) required by product design, produce circuit diagrams for mask process, and manufacture masks, wafer, cutting, and packaging on a consign basis and then deliver the trial production samples after doing product testing by our engineers.
- (3) Others: Only provide customers with back-end wafer fabrication, packaging, and testing.

# **D.** New products development

The Company is committed to R&D and manufacturing of leading edge integrated circuit, including custom design utilities and Design Methodology to ensure quality services. It also provides the most effective solution for AI/HPC market demands and establishes corresponding platforms and Silicon Intellectual Property portfolio (including: DDR/PCIE/HBM/D2D/SERDES).

# 5.1.2 Industry overview

# A. Current status and Development of the Industry

With the great leap forward in semiconductor process technology, the complexity of chips is getting higher and higher. The semiconductor industry announces to enter an era of specialization. The Company specially provides design and manufacturing services of Application Specific Integrated Circuit (ASIC) and System on Chip (SoC) with high complexity and mass production. The current status and development of the industry is described as follows:

(1) Rise of fabless ASIC

In the past, a system company could choose to develop its own ASIC/SoC to getthe advantage of differentiation and stay competitive, or to entrust the turnkey production process including design, manufacturing, packaging, and testing to reliable ASIC partners (such as IBM and LSI Logic). However, as the process technology enters into the generation of deep submicron, expenditures on

R&D in technology, investments in machinery, equipment, and factories rise rapidly. The existing Integrated Design Manufacturers (IDMs) are unable to afford the investment in the infrastructure and overtaken by pure-play foundries. As a result, more system companies concentrate resources on product specifications and front-end design, and outsource the back-end design and production of products to professional fabless ASIC companies.

Through collaboration with strategic partners (including wafer fabrication, packaging, and testing house), a fabless ASIC company provides a complete solution from RTL/Netlist to chip manufacturing, packaging, and testing. Thus, the system company enjoys the faster time to market, lower costs, and more professional design capability.

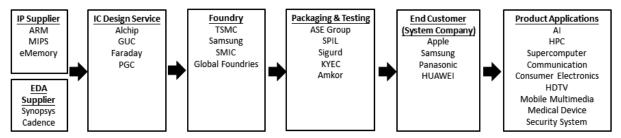
(2) Overview of System on Chip (SoC)

With the evolution of IC manufacturing process and many consumer electronics development towards miniaturization, the market demand for thin, short, power-saving multifunction increase dramatically, this makes SoC become the trend for the development of system companies in the future. SoC refers to the integration of the core processor, logic unit, memory unit, and a variety of I/O interfaces onto a single chip. One chip alone can get the system function completely and leave the extra space to chips performing other different functions, such as GPS positioning, WiMax, Audio/Video IC, camera IC, TV chip, etc. through which the operational functions of system products can be enhanced.

While foundry process is moving towards nanoscale node and external IPs are broadly adopted, SoC designer faces challenges from design validation and analysis. The growing SoC integration difficulty leads to surge of investment and risk in an SoC project. By preparing total design solutions tightly coupled with manufacturing process, the Company provides services with high add-on values to its customers. Very few fabless ASIC companies in the industry are capable of designing high-end SoC, therefore the Company's design capacity is fully occupied in most of time. Plenty of future growth can be expected that big system companies will outsource more SoC designs.

### B. Relevance among the upper-stream, middle-stream and down-stream in the industry

The fabless ASIC industry drives the development of all system applications, silicon intellectual property (SIP), manufacturing, packaging, testing, etc., forming the industry chain with specialization and division of labor. Each performs one's own functions as shown below :



### C. Trends of product development

(1) Application Specific Integrated Circuit (ASIC): It refers to an integrated circuit used in the particular application. On the circuit board, one unit of ASIC chip specifically designed by each company can always be found. Over the last few years, some of the outstanding tech breakthroughs such as AI chips, big data and AI algorithms stand out to be the new technology. These technologies become the main focus of ASIC application market. Artificial intelligence has rapidly expanded in the fields of cloud computing, deep learning, security monitoring, intelligent manufacturing and automatic driving, and has become the competitive target in semiconductor industry. In addition, the ASIC chip application market is broadly divided into six segments including Computers and Peripherals, Wired Communications, Wireless Communications, Consumer, Automotive, and Industrial and Others. In

which, consumer electronics still account for the highest proportion with the growth momentum mainly coming from mobile communications and high-definition TV applications, and wireless communications, computers, and peripherals coming in second.

(2) System on Chip (SoC): With the evolution of the process, all system functions can be integrated into a single chip. That is, the platform-based design method can be achieved through the highly integrated SoC. This design method can effectively solve issues such as the complexity and time to market of different grades of products. In the future, we can foresee that the consumer electronics can be platformized as a result of the design trend of SoC integrated chips.

### **D.** Market competition

The primary competitors of fabless ASIC companies are Integrated Design Manufacturer (IDM) and companies of the same type. As we shift into the generation of deep submicron, large IDMs begin to decline and find themselves unable to compete with fabless ASIC companies because of the high cost of production. Currently, most IDMs gradually transform into the Fab-lite/Fabless model. Moreover, in the competition with other companies of the same type, the time to market of products becomes the main appeal of fabless ASIC customers. With the continuous improvement of the processing speed of chips, and the algorithm of modulation and demodulation becoming more complex at the same time, the designers have to evaluate carefully how to define and optimize the low-power consumption strategy for the entire chip in the shortest design cycle, and think deeply about how the package design can tolerate the ultra-high power consumption to ensure the signal quality of high-speed interfaces. Therefore, with excellent integrated services of chip design technologies and manufacturing solutions, Alchip acts as a leading fabless ASIC company in this competitive global semiconductor market.

### 5.1.3 Research and Development

# A. In 2019 and 2018, the Company invested NT\$685,741 thousand and NT\$620,393 thousand in R&D respectively.

### B. Technologies have been developed successfully

Alchip combines the software tools for design (EDA) and design technologies that are researched and developed internally, including circuits, physical design, and unique software tools for design, to provide customers with services improving efficiency, reduced size, lower power consumption, and fast deployment. Technologies that are researched and developed internally are shown below:

- (1) Hierarchical physical design and timing budgeting method: Through this method, the chip design can be divided into multiple parts that can be designed at the same, grasp the timing of each part while controlling the timing for each part to meet timing requirements for chips.
- (2) Physical design method: Through this method, various types of Silicon Intellectual Property (IP) are used in the high-density chip design to reduce the chip size and achieve cost cutting goals.
- (3) Timing and electrical design method: This method can improve the defect-free rate by adjusting several parameters.
- (4) Power consumption distribution method: This method can reduce power consumption and enhance electrical efficiency.
- (5) Design for Testability (DFT): This method can maximize the scope of testability and reduce other unnecessary tests reduce the testing time and cost.
- (6) Technology in the stage of product planning and specification development: Alchip conducts the cost planning for customers, including the selection of System-on-Chip (SoC) or System in Package (SiP), planning of system cost and bill of material (BOM) costs, consideration of process maturity and Silicon

Intellectual Property (IP) stability, feasibility of next-generation process (half node), and evaluation on Static Random Access Memory (SRAM) repair. It also makes selection for testing of finished products and solutions, including the joint development of test solutions with IP vendors, establishment of built-in test module (DFT, BIST), and with testing machines to achieve mass production, adoption of two sets, four sets, or even eight sets of circuit boards being tested simultaneously while making mass production to save testing cost. Finally, it develops the most appropriate packaging approach and builds a good partnership with the packaging house to exploit the best quality of the finished product and market efficiency.

(7) Prototype and technology in the stage of production: In the prototype creation and chip mass production stage, Alchip works closely with suppliers via professional equipment and technology (built-in testing machines and test grips) to help customers reduce the time taken to enter mass production while analyzing product characteristics and sensitivity, and to formulate process conditions and test specifications for the mass production process. It also provides a small number of prototypes for customers to manufacture system engineering prototyping machines. In the final acceptance inspection process of prototyping machines of customers, Alchip prepares the mass production of chips, including the analysis on reliability/qualification. Upon entering mass production, it continues to improve the defect-free rate and shorten the testing time to reduce production costs for customers.

## C. Products have been developed successfully

Alchip have developed 420 units of products since its establishment. Products can be divided into three domains as described below:

Three domains	Product application	Current status/Process	Design outlook and planning
	AI	<ul> <li>Including 28nm/16nm/12nm</li> <li>2018: 2 design cases, have been in mass production</li> <li>2019: 2 design cases, have been in mass production</li> </ul>	Continued to design and mass produce the chips required by system big firms.
	HPC	<ul> <li>Including 40nm/16nm</li> <li>2018: 3 design cases, have been in mass production</li> <li>2019: 2 design cases, have been in mass production</li> </ul>	Continued to design and mass produce the chips required by system big firms.
AI/HPC/ Communication Category	Information Network Equipment	<ul> <li>Including 65nm/55nm/40nm/16nm</li> <li>2010: 1 design case, has been in mass production</li> <li>2011: 3 design cases, have been in mass production</li> <li>2012: 2 design cases, have been in mass production</li> <li>2013: 2 design cases, have been in mass production</li> <li>2019: 2 design cases, have been in mass production</li> </ul>	Continued to design and mass produce the chips required in communication network LTE, TD-SCDMA for communication big firms.
	Supercomputer	<ul> <li>Including 90nm/65nm/40nm/28nm/16nm</li> <li>2006: 1 design case, has been in mass production</li> </ul>	• Continue to mass produce supercomputer

		<ul> <li>2010: 1 design case, has been in mass production</li> <li>2012: 2 design cases, have been in mass production</li> <li>networking chips for academic institutions.</li> <li>Cooperate with Z University in 2006, as</li> </ul>
		• 2013: 2 design cases, have been in mass production the world's fastest supercomputer at that
		<ul> <li>2014: 1 design case, has been in mass production</li> <li>time.</li> </ul>
		• 2015: 2 design cases, have been in mass production
		• 2016: 3 design cases, have been in mass production
		2017: 3 design cases
	High-Definition Camera Recorder	<ul> <li>Including 65nm/55nm/40nm</li> <li>A total of 8 design cases, have been in mass production</li> <li>Continued to design and mass produce the chips required by Japan's DSC big firms.</li> </ul>
		<ul> <li>Including 65nm/40nm/32nm</li> <li>2010: 7 design cases, have been in mass production</li> </ul>
		<ul> <li>2011: 6 design cases, have been in mass production</li> </ul>
		• 2012: 5 design cases, have been in mass production
	High-Definition	<ul> <li>2013: 8 design cases, have been in mass production</li> <li>Continued to design and mass produce the</li> </ul>
	Digital TV Related	<ul> <li>2014: 1 design case, has been in mass production</li> <li>chips for Japan's digital TV big firms.</li> </ul>
	Applications	<ul> <li>2015: 3 design cases, have been in mass production</li> <li>2016: 1 design cases have been in products.</li> </ul>
Consumer Electronics Category		mass production
		• 2017: 1 design case, has been in mass production
		<ul> <li>2018: 1 design case, has been in mass production</li> <li>2010: 1 design case, has been in</li> </ul>
		<ul> <li>2019: 1 design case, has been in mass production</li> </ul>
		<ul> <li>Including 65nm/55nm/40nm/28nm/14nm</li> </ul>
		• 2010: 3 design cases, have been
		<ul> <li>In mass production</li> <li>2011: 3 design cases, have been in mass production</li> <li>Continued to design and mass produce the chips for the first</li> </ul>
	Digital Camera	<ul> <li>2012: 3 design cases, have been in mass production</li> <li>anufacturer in the world to develop digital</li> </ul>
		<ul> <li>2013: 2 design cases, have been in mass production</li> <li>cameras.</li> </ul>
		• 2015: 3 design cases, have been in mass production

	1		
		• 2016: 1 design case, has been in mass production	
		• 2017: 1 design case, has been in mass production	
		• 2018: 2 design cases, have	
		been in mass production     Including	
		90nm/55nm/40nm/28nm	
		• 2010: 2 design cases, have been in mass production	
		• 2011: 3 design cases, have	Continued to design and mass produce the chips
	Mobile Phone	<ul><li>been in mass production</li><li>2012: 2 design cases, have</li></ul>	required by
		been in mass production	communication big firms.
		• 2013: 1 design case, has been in mass production	
		• 2014: 1 design case, has been in mass production	
		• Including 180nm/130nm/90nm	
		• 2009: 4 design cases, have been in mass production	Continued to design and
	Multimedia Player	• 2011: 1 design case, has been	mass produce the chips required by multimedia
		<ul><li>in mass production</li><li>2012: 1 design case, has been</li></ul>	big firms.
		in mass production	
		• Including 55nm	Continued to design and mass produce the chips
	Tablet PC	• 2011: 1 design case, has been in mass production	required by multimedia big firms.
		• Including	Continued to design and
	Game Machine	<ul> <li>90nm/65nm/40nm/28nm</li> <li>2012: 1 design case, has been in mass production</li> </ul>	mass produce the chips required by video game machine big firms.
		Including 28nm/16nm	Continued to design and
	SSD Device	• 2019: 2 design cases, have been in mass production	mass produce the chips required by SSD storage device big firms.
		<ul> <li>Including 28nm/20nm/16nm/ 14nm/12nm/7nm</li> </ul>	Design and mass produce the world's
		<ul> <li>2013: 3 design cases, have been in mass production</li> </ul>	fastest Bitcoin mining 28nm chip for
	Bitcoin/Litecoin	• 2014: 5 design cases, have been	Swedish company; complete the design
	Mining	<ul><li>in mass production</li><li>2015: 2 design cases, have been</li></ul>	of next-generation
Niche Market Category	Machine	in mass production	<ul><li>16nm chip.</li><li>Design the chips for a</li></ul>
		• 2018: 2 design cases, have been in mass production	number of Chinese mining equipment &
		• 2019: 2 design cases, have been in mass production	machinery manufacturers.
	Game Machine	Including 28nm	Design and mass
			produce the 28nm game

		<ul> <li>2014: 1 design case, has been in mass production</li> <li>2016: 1 design case</li> </ul>	machine graphics chip for Japanese big firms.
	Medical Imaging Equipment	<ul> <li>Including 130nm/28nm</li> <li>A total of 3 design cases, have been in mass production</li> </ul>	Design and mass produce the chips for Japan's medical device big firm.
	Security System Equipment	<ul> <li>Including 180nm</li> <li>2010: 1 design case, has been in mass production</li> <li>2012: 1 design case, has been in mass production</li> <li>2013: 1 design case, has been in mass production</li> </ul>	Design and mass produce the chips for several security equipment big firms.
	Factory Automation Equipment	<ul> <li>Including 130nm</li> <li>A total of 1 design case, has been in mass production</li> </ul>	Design and mass produce the chips for factory automation equipment big firms.
Others Category	Automobile Electronics Equipment	<ul> <li>Including 180nm/16nm</li> <li>2011: 1 design case, has been in mass production</li> <li>2012: 1 design case, has been in mass production</li> <li>2019: 1 design case, has been in mass production</li> </ul>	Design and mass produce the chips for Japan's system big firms.

(1) Success case - the world's fastest supercomputer system chip

Alchip completed the communication network chip used in supercomputers for customers in 2011. This design of ultra high-speed computer system chip achieved one-pass design tapeout and one-pass silicon success. Alchip was responsible for the complete design integration which includes physical, electrical, timing and thermal design of this SoC project. The chip adopted TSMC's 65nm process and contained over 60 million logic gates aiming at 800MHz performance whole chip while consuming over 54 watts of power in 20mm by 17mm die size. Instead of the traditional ring method, the unique two-dimensional array of Area I/O technology was used to narrow the experience area. Finally, Alchip successfully made its output through the flip-chip packaging technology and won the championship of the world's fastest operator thanks to the computing power of its end products. As of now, Alchip has completed a number of supercomputer SoC solutions at 16nmFinFET, the end product's performance broke the world record and became the world's fastest super computer as soon as it released at that time. Alchip has also accomplished 2 design cases among TOP500.

- (2) Success cases tier-one system companies
  - A. A Company: The Japan's system firm has given its most important product lines to Alchip since 2003, including high-definition digital TV, game machine, digital camera, and video camera.
  - B. I Company: The Taiwanese I Company has cooperated with Alchip to produce the digital camera chips since 2009. The latest generation of products has been given to Alchip for production.
  - C. AC Company: One of Top Green 500 HPC supercomputer system firms in Japan has cooperated with Alchip to produce chips.

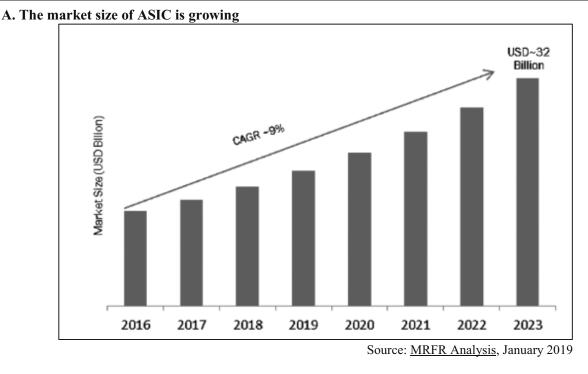
# 5.1.4 Long-term and short-term business development plans

In the future, Alchip will still continue to focus on its core businesses – R&D, design and manufacturing in high-end processing SoC, and work closely with world-class manufacturing suppliers to improve Taiwan's international status in the chip design industry through leading technologies. The Company's short- and long-term business development plans are described in three aspects of R&D, business, and production as follows.

	development plans are described in three aspec	
Item	Short-term business development plan	Long-term business development plan
R&D	<ol> <li>Provide service for custom digital/analog circuits.</li> <li>Optimize design procedures and shorten design Turn Around Time (TAT).</li> <li>Strengthen capability and quality of SoC design for advanced process node.</li> <li>Invest in R&amp;D for power saving design technologies.</li> <li>Improve DFT/DFM strategy for better predictability and controllability of mass- production cost.</li> </ol>	<ol> <li>Expand Silicon Intellectual Property library by investing in R&amp;D of high-end custom digital/analog circuit</li> <li>Collaborate with foundries for early deployment of SoC design in advanced process node</li> <li>Continuously standardize design procedure in order to shorten design TAT and maximize resource allocation efficiency.</li> <li>Improve performance and energy saving of silicon intellectual property such as ARM high-end processors.</li> <li>Enhance SoC front-end design service and develop various application platforms.</li> <li>Provide system-level verification service, such as SI/PI/Thermal, to ensure customer's fast system bring-up.</li> </ol>
Business	<ol> <li>Focus on system customers, and choose products with a high market potential, especially in HPC/AI related products.</li> <li>Introduce the existing products of system customers into the advanced process to reduce costs and power consumption.</li> <li>Increase the system integration such as SoC or SiP.</li> <li>Develop customers through market orientation, find customers with the development potential, and focus on customers of four domains of the Company.</li> </ol>	<ol> <li>Build service bases for major customers in the world, thoroughly develop long- term partnerships with customers and core technologies, and visibility and market share</li> <li>Strengthen the strategic alliance with silicon intellectual property suppliers and long-term partnerships.</li> <li>Working with customers to develop various application platform architecture, help customers establish cooperative alliances, and increase the competitiveness of system integration e.g. SoC or SiP.</li> <li>Continue to enhance the cooperation between the upstream and downstream firms, and broaden the scope to include market information.</li> </ol>
Production	<ol> <li>Enhance the cooperation among the upstream, midstream, and downstream.</li> <li>Provide customers with high-quality supply chain management to create the added value of the production.</li> <li>Build long-term partnerships with foundries.</li> </ol>	<ol> <li>Strengthen the link between design and production, continuously reduce production costs, and improve the defect- free rate.</li> <li>Provide customers with higher-quality supply chain management and more professional back-end consulting capability to create added values of production.</li> <li>Build long-term close partnerships with foundries, including verification and R&amp;D in the Silicon Intellectual Property.</li> </ol>

# 5.2 Market and Sales Overview

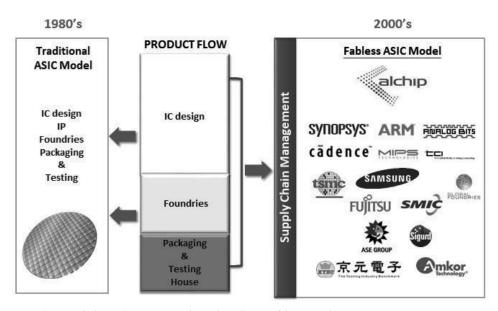
## 5.2.1 Market analysis



Since its invention, semiconductors have been developed for 60 years. Looking at the development of the semiconductor industry after entering the generation of deep submicron, there are three key trends: the business model from system companies' vertical integration to specialization and division of labor nowadays; process technology following Moore's Law developed to date already moving towards 7nm (and more advanced) process node; system products adopting package stacking technology (SiP) and integrated System-on-Chip (SoC) mode to achieve the greatest market competitiveness.

(1) Trend I: The industry with specialization and division of labor

The semiconductor industry was mainly a closed production system vertically integrating the upstream, midstream, and downstream until the early 1980s, and the system company undertakes to do everything by itself. The pure play foundry business model was formally established with the foundation of the first pure-play foundry, TSMC, and UMC in 1987. After 2000, the specialization and division of labor in the semiconductor industry is increasingly apparent except that large IDMs still have IC design and foundries. Today, system companies concentrate on the R&D in core technology and engagement in brand marketing, and give the back-end design and production supply chain management to fabless ASIC companies. The fabless ASIC companies allied with their strategic partners to form the industry with specialization and division of labor.



- (2) Trend II : High-end process takes the place of low-end process ASIC design seeks the high-end process to reduce costs, power consumption, and size. In respect of wafer fabrication, as we shift into the generation of submicron and deep submicron, one unit of medium-scaled (5~10M gate) SoC cost millions of dollars. Mask for 90nm cost approximately 0.7 millions of dollars that exceeded one million dollars after entering the 65nm process. Mask for 40nm process cost approximately 2 million dollars and cost more than 5 million dollars for 16nm process. According to global market research institution, TrendForce, the market scale of the global foundries is approximately 65.4 billion dollars in 2019. The global foundry industry is expected to grow by a CAGR of 5.3% from 2019 to 2024, driven by the increasing demand of 5G, artificial intelligence (AI) and high-performance computing (HPC) applications, and the well-prepared technology of advanced process and 3D IC packaging.
- (3) Trend III: The system integration gradually moves to SoC (system design) / SiP (Packaging technology) System products are faced with intense market competition. Shorter development time and cost effective design are the primary requriements of customers. ASIC design is not only SIP integration but also a system-level integration. To pursue the high-end process, we have to take the chip packaging and testing technology into account to gain the competitive advantage of cost, power consumption, and volume. In response to the whole new SoC, it may be required to take a lot of time and money, which results in the SiP package stacking technology. Compared with the traditional IC packaging, the SiP package stacking technology can reduce design time, increase packaging density, lower risks, and save system costs. In the future, the SoC will gradually move towards the cross-platform collaboration to make the most competitive integration across platforms through SiP / SoC integration mode.
- (4) Trend IV: System manufacturers will gradually move towards outsourcing ASIC design and production

Under the pressure from functional diversity and cost competitiveness, major manufacturers of system products with large demand in markets, such as cameras, tablet PCs, smart phones, etc. have to face cost pressures and future competitiveness. Therefore, they begin to think about the adoption of self-developed ASIC strategy in order to gain advantages of differentiation and competitiveness. System manufactures will concentrate more on keeping core firmware in hand and gradually move towards outsourcing ASIC design and production in terms of software technology.

### **B.** Sales by region

Unit:NT\$thousand

Pagions of salas	20	18	20	19
Regions of sales	Amount	%	Amount	%
Taiwan	211,552	6.13	260,117	6.00
Japan	1,320,636	38.27	758,097	17.50
Mainland China	1,577,129	45.70	2,611,565	60.29
Europe	183,574	5.32	53,608	1.24
United States	45,572	1.32	644,164	14.87
Others	112,215	3.26	4,405	0.1
Total	3,450,678	100.00	4,331,956	100.00

### C. Market share

According to financial information bulletins of companies, the total sales of the domestic design service industry was approximately NT\$20.3 billion in 2019. The Company's operating revenue was approximately NT\$4.33 billion, with market share of 21.29% ranked as the third.

### D. Demand and Supply Conditions for the Market in the Future, and Market Growth Potential

With applications of SoC more widely and diverse needs of end products, IC manufacturers and IC design companies clearly sense that their design productivity is far less than the process technology advanced. To achieve purposes of faster time to market and lower IC design costs, system manufacturers must work with fabless ASIC companies with the capability to integrate various Silicon Intellectual Property. As a result, the demand for fabless ASIC will grow more and more.

From the perspective of growth in all regions, Asia-Pacific region remains the center of future growth, driven by the growth momentum coming from the huge domestic market in Mainland China. The Company constantly researches and develops the design process and technology of advanced processes (28 nm and below) over a long period of time, makes improvements on the use of general commercial software for R&D design (EDA), and enhances its supplier chain management to make products of customer groups lead the market through abundant design resources and technical support while the Company's operating revenue increasing in 2019.

## **E.** Competitive Niche

(1) High-end process experience:

Currently the technical experience of fabless ASIC companies for the most part still remains in 90nm note and above. The design team of Alchip focuses on the design cases with high complexity (over 20 million gates) for advanced processes (28nm and below), develops and mass produces a series of System on Chip successfully for world-class system companies. It can effectively overcome challenges from electrical closure (including power management, timing convergence, system interface, and signal completeness), Design for Test (DFT), Design for Manufacturing (DFM), or the system-level, and further shorten the design time and enhance the efficiency of chips to help customers reduce costs, increase production efficiency, decrease power consumption, and optimize of chip size.

(2) Customization service:

To satisfy customer needs, the Company provides moderate flexibility and creates customized design for customers. Alchip recognizes its market position in SoC design with high complexity for advanced processes. It always has a full communication and understanding first for any customer's requirement, offers all-round services from design to mass production, and includes Silicon Intellectual Property required by products of customers going on the market for the future in the Company's R&D plan and prepares them in advance to shorten the design time in the future.

(3) Quality Assurance:

Alchip's goal is to develop and provide the highest-quality solutions to customers, achieve the highest standard of excellence, and continue to boost creativity. To help customers seize the market opportunity, the Company introduces the Design for Test (DFT) method in the design stage. The hardware circuit is additionally installed on a chip, which allows the faults and manufacturing defects to be detected when testing the chip, and further the testing cost is reduced and the defect-free rate of chip mass production is improved, making all tasks certain to be completed rapidly and effectively and reducing risks in IC design. Meanwhile, Alchip also implements strict quality policies, continuously reviews and enhances its services in order to complete tasks given by customers in a time-sensitive, highly cost-effective manner and ensure products and quality meeting customers' requirements.

(4) Master the advanced process design technologies:

The Company's core team masters design capabilities of advanced processes, and has quite the understanding of the variability in advanced processes. Risks resulting from the lack of the variability in advanced processes of general commercial EDA software can be properly predicted and prevented. It is more complex for advanced processes systems. In the chip design and packaging process, the system analysis is also taken into consideration to ensure the predictability that customers get chips integrated into systems, such as: Signal Integrity (SI) and Power Integrity (PI). Alchip's advanced process design solutions have also obtained empirical results from more than 200 million units of mass-production chips. After adoption of Alchip's design programs, customers can complete product design goals in the shortest time and gain the cost-effectiveness under high-volume mass production.

(5) Reliability:

High-complexity SoC design faces challenges in reliability, quality, cost, and time for products to market. The Company has completed more than 420 design projects since its establishment in 2003, and obtained the world's and system company's quality certification. Regardless of high-end system chips, high-complexity chips, and advanced-process chips, success has been achieved for all wafer start at the first attempt by far. Alchip considers environment variation factors that may occur at early design stage of circuits to reduce time and costs in re-designs and re-spins, and achieve high defect-free rate. Alchip accomplishes the reliability assurance through careful planning and implementation, concentration on the reliability, pre-sale support, and continuous improvement in the reliability for related products.

(6) Long-term customer relationships and strategic alliance partners:

The Company has long-term relationships with all customers, and pursues shared goals for better, faster results and lower costs. In respect of supply chain management, it also maintains good partnership with upstream and downstream strategic partners, and provides customers with complete solutions and products that are more competitive.

### F. Advantages, disadvantages and responsive strategies in the development of perspective

- (1) Advantageous factors:
  - i. Complete supply chain of Taiwan's semiconductor industry: The semiconductor has division of labor based on specialization and close relationship between upstream and downstream. Taiwan has advanced-process wafer fab, packaging, and testing houses and complete satellite suppliers, which has a comparative advantage in the development of IC design services. Besides, the convenience of location attracts manufacturers around the globe to place orders in Taiwan in view of the first-class international competitiveness.
  - ii. Heavy demand for semiconductor products from Taiwan: Taiwan's OEM/ODM business mode has very high production efficiency and economies of scale in sub-contract manufacturing for not only semiconductor but also system products. Therefore, there is a huge demand in Taiwan's domestic market to support orders from foreign manufacturers.

- iii. Support by government policy: The electronics industry has been strongly supported by the government through investments OEM/ODM in the semiconductor sector, and fostering information technology, consumer electronics, and IC manufacturing industries. Thus, talented people and industrial structure are both beneficial for long-term development.
- (2) Disadvantageous factors and responsive measures:
  - i. Since engineers with advanced-process experience are very few, talented people are not easy to find and develop.Retaining professional personnel has become increasingly competitive because of the flourishing of IC industry.Companies often have to pay a high price for recruiting outstanding talents. As a result, to enhance employees' cohesion and sense of belonging towards the Company, the Company has to pay higher cost of human resource.

[Responsive Measure]

- ① The Company develops its own talents over a long period through internal and external professional education and training as well as on-the-job training, and improves employee benefits and reduces turnover rate.
- <sup>②</sup> Adoption of employee stock options to keep talents.
- ii. As the industry looks promising and capacity requirements are going up, the Company needs to steadily expand its production capacity to improve service quality. Additionally, IDM industry mode is no longer competitive. The market trend for system customers to look for partners is becoming more and more obvious. Currently, the design service industry is limited in size, and requires expanding its scale to gain big orders from world-class system companies.

[Responsive Measure]

- ① Simplify the development and design process to improve productivity.
- <sup>(2)</sup> Build the application specific Silicon Intellectual Property platform to shorten the design time and resource input.

# 5.2.2 Main Product Application and Production Flow

## A. Main product application

Alchip's major products are divided into three categories:

- (1) AI/HPC/Communication market: The market for network, storage, and computing devices is growing. To meet higher standards for performance, these devices must use increasingly complex highefficiency and high-density System on Chips. The Company collaborated with China's large system manufacturing firm to complete multiple 3M, GO TD/LTE mobile communications baseband chips and put them into mass production. It also continued to mass-produce supercomputer networking chips for academic institutions, and the project product was chosen as the world's fastest supercomputer. The characteristics lies in a multitude of customized design with high degree of complexity and difficulty or particularly rigorous process conditions and testing, such as master chips of communications equipment with tens of millions units of logic gates frequently. The complexity and difficulty is found in not only design, but also testing and packaging that will be taken into account consequently.
- (2) Consumer electronics products: including designs for applications such as HDTV, mobile phones, digital cameras/video cameras, entertainment systems, portable media players, tablet PC master chips, and peripheral chips. Among which, mobile communication devices have integrated with features of MP3, camera, GPS, mobile TV, wireless surfing, gaming machine, etc., and they will become a personal finance and identification tool in the future. In the semiconductor sector, the consumer market is the fastest growing segment. In response to the fierce competition in the market, Alchip provides

predicable chip realization time, adopts the applied efficiency circuits with empirical experiences, completes prototype chips and enters mass production as soon as possible so that customers can get maximum returns on their investments.

(3) Niche market products: including ASIC design in special applications such as surveillance systems, entertainment machines, and medical equipment and instruments.

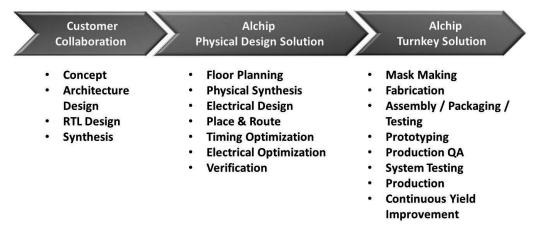


# **B.** Production process of major products:

Chip design is composed of front-end design and back-end design. The front-end design is provided by the system company, and back-end design, production, and manufacturing, on the other hand, are subcontracted to Alchip.

At the front-end design, the concept of a product is decided by the customer. RTL (Register Transform Level) is used to describe functions required by IC and determine the operating speed of the product. Finally, the target database containing all the details (basic functional logic) is established. Through the use of synthesis software, RTL is converted to net list, in which, electronic circuits are converted to logic gates, and the function defined therein is realized through Synthesis Software while the operating clock defined by designer is optimized, and the completed design is given to the fabless ASIC supplier for back-end design.

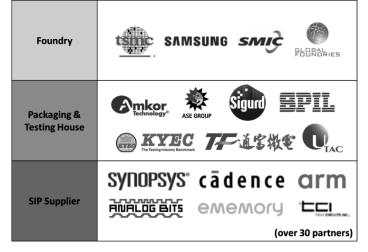
The back-end design is divided into two phases. The first phase begins with the initialization of the design case and ends in receipt of customer's final net list, which takes about 6 to 8 weeks. The second phase in which engineers use physical design software to convert Net List to the actual layout, and generate the file named GDSII for manufacturing masks (commonly known as tape out). This phase takes about 4 to 6 weeks.



Alchip provides not only the back-end design service, but also a complete turn-key service from design to wafer fabrication, packaging, and testing for customers. In Alchip's service process, the wafer fabrication phase begins after delivery of GDSII file to foundries for manufacturing. The period from delivery of GDSII to completion of chip's finished product testing takes about 8 to 12 weeks. The chip manufacturing process is roughly divided into the following steps: wafer fabrication (wafer fab for short), wafer probe, assembling, initial test and final test. Alchip builds close working relationships with suppliers for overall back-end design and production.

- (1) Silicon Intellectual Property suppliers: Alchip works closely with silicon intellectual Property suppliers and seeks the most appropriate capacity/price ratio. Alchip can provide products of principal IP suppliers around the globe. Customers can adopt their own IP and then combine them flexibly with IP provided by Alchip.
- (2) Foundries: Alchip chooses cooperative firms based on customer's needs. Alchip adopts the open foundries business mode that it does not need to depend on the limited design capability and development of a fixed foundry. The Company keeps good partnerships with most foundries (such as: TSMC, Samsung, SMIC, Global Foundries, etc.). It also cooperates closely with TSMC in R&D at the back-end design for deep-submicron and high-end processing SoC.
- (3) Packaging/testing house: Considering the packaging/testing when manufacturing products, in the early design stage, the manufacturing & production team and design & engineering team of Alchip will work together with customers and packaging/testing houses in the supply chain and ensure that each part is correct in the process of commercialization. In the meantime, the logistics group of Alchip makes chips produce timely and delivers them to customers through sound planning production process, and good interaction with supply chain companies.

The following is a list of individual suppliers in the semiconductor industry chain:



# 5.2.3 Raw Material Supply

Main raw material	Main source	Supply status
Wafer	Taiwan	Good

## 5.2.4 Major suppliers and customers

### A. Major suppliers contributing more than 10% of total purchase amount in years 2019 and 2018

Unit: NT\$ thousand/%

		20				2019			
Item	Supplier	$\Delta mount$	Percentage of full-year net purchase (%)	w/iin ine	Supplier	Amount	Percentage of full-year net purchase (%)	Relationship with the issuer	
1	TSMC	561,316	84.02	None	TSMC	963,060	100.00	None	
2	Others	106,727	15.98	None	-	-	-	-	

Explanation: Alchip is a professional IC design company, and its main purchase item is wafer. Alchip pursues quality and ensures delivery time, and has the long-term cooperation and builds stable partnership with wafer foundries.

## B. Major customers contributing more than 10% of total sales amount in years 2019 and 2018

						Unit: NT\$	thousand/%	
			2018			20	)19	
Item	Customer	Amount	Percentage of full-year net sales (%)	Relationship with the issuer	Customer	Amount	Percentage of full-year net sales (%)	Relationship with the issuer
	AB Company	499,045	14.46	None	S Company	1,208,388	27.89	None
2	K Compnay	463,834	13.44	None	Y Company	817,391	18.87	None
3	S Comoany	460,434	13.34	None	AB Company	(Note)	(Note)	None
4	YCompany	331,015	9.56	None	K Company	(Note)	(Note)	None

Note: Revenue from the customer for the indicated period was less than 10% of the Company's revenue. Explanation: The increase in the sales amount of S Company and Y Company was resulting from revenue recognition of the increase of chip production and design service completion, respectively. The decrease in the sales amount of AB Company and K Company was resulting from the decrease in design service and decrease in demand for chip production in 2019, respectively.

### 5.2.5 Production output in years 2019 and 2018

			Unit:thousa	and;NT\$thousand		
Year	20	18	20	2019		
Output Major Products	Quantity	Value	Quantity	Value		
ASIC and Chip production	13,726	1,124,174	8,973	2,077,920		
NRE	-	-				
Others	529	118,852	69	2,357		
Total	14,255	1,243,026	9,042	2,080,277		

Note: Alchip is a professional IC design company, and has no its own wafer fabrication capacity. The capacity of general manufacturing industry is not applicable. NRE refers to IC design services coming into contract. Since contracts for cost input is different to each project, it is not applicable to calculation of quantity and value.

Year		2018				2019			
Shipments & Sales	Domestic sales		Overseas sales		Domestic sales		Overseas sales		
Major Products	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
ASIC and Chip production	4,488	211,552	10,445	3,090,507	2,497	260,117	6,852	4,054,136	
NRE	-	-	-	30,720	-	-	-	13,372	
Others	-	-	470	117,899	-	-	66	4,331	
Total	4,488	211,552	10,915	3,239,126	2,497	260,117	6,918	4,071,839	

### 5.2.6 Sales amount in years 2019 and 2018

Unit: NT\$ thousand

# **5.3 Information on Employees**

The Company's number of employees employed, their average years of service, average age, the percentage of employees at each education level for the two most recent years:

	Year	2018	2019	The Current Year up to March 31, 2020
Number of	Supervisor of Managerial Level or Above	102	102	102
Employees	General staff	292	302	300
	Total	394	404	402
Ave	rage age	31.9	32.3	32.6
Average y	ears of service	5.4	5.5	5.4
	Ph.D.	1%	1%	1%
Percentage of	Master	34%	31%	31%
Employees at	College	62%	65%	65%
Each Education Level	Senior High School and below (inclusive)	3%	3%	3%

# **5.4 Expenditure on Environmental Protection**

Total losses (including damage awards) and fines for environmental pollution in the most recent year as well as the current year up to the date of the publication of the annual report, and describe the responsive measures (including corrective measures) and possible disbursements to be made in the future (including an estimate of losses, fines, and compensation resulting from any failure to adopt responsive measures. If the loss cannot be reasonably estimated, make a statement to that effect.): None.

# 5.5 Labor Relations

# 5.5.1 Describe employee benefit plans, continuing education, training, retirement systems, and the status of their implementation, and labor-management agreements and measures for upholding employees' rights and interests

### A. Employee benefit plans

The Group's employee benefit plans are implemented in accordance with relevant laws and regulations where subsidiaries are located, including labor and health insurance, group insurance, pension distribution, and annual physical examination. The subsidiaries of the Group also establish employee welfare committees responsible for planning and handling employees' welfare matters including cash gifts for holidays and festivals, outing and related activities and year-end party.

## B. Continuing education and training

To enhance employees' professional capabilities and achieve the company's goals in cultivation of talent, the Company makes annual training programs for employees based on the Company's development strategy and employees' needs, scrupulously implements training, and conducts reviews and auditing on training performance in accordance with ISO Standard for Training Management and Process.

### C. Retirement systems and status of their implementation

Alchip's retirement systems are implemented in accordance with Labor Standards Act and Labor Pension Act of the republic of China to provide protection for employees' security.

### D. Labor-management agreements and measures for upholding employees' rights and interests

The Group has always valued employees' rights and interests as well as their opinions. We keep labor relations harmonious, and employees may make communications and submit their suggestions on the company's operations through regular labor-management conference. Therefore, no material labor dispute has occurred up to now.

# 5.5.2 Describe any loss sustained as a result of labor disputes in the most recent year and the current year up to the date of the publication of the annual report, disclose an estimate of losses incurred to date or likely to be incurred in the future, and mitigation measures. If the loss cannot be reasonably estimated, make a statement to that effect

The Group has always maintained harmonious labor relations. There is no loss sustained as a result of labor disputes, and no losses incurred as a result of labor disputes are estimated to be incurred in the future year.

# **5.6 Material Contracts**

Supply and sales contracts, technical cooperation contracts, engineering/construction contracts, long-term loan contracts, and other contracts that would affect shareholders' equity, where said contracts are either still effective as of the date of the publication of annual report, or expired in the most recent year are listed as follows:

Agreement	Counterparty	Start/end Dates of contracts	Major content	Restrictive clauses
Design and production	S Company	Five years from September 15, 2013 (auto-renew for additional 5 years)	Alchip (Holdco) provides product R&D services, manufactures, and sells integrated circuit products to S Company based on the Statement of Work attached with the contract.	None
Design and production	Y Company	Five years from April 1, 2019	Alchip (Holdco) provides product R&D services, manufactures, and sells integrated circuit products to Y Company based on the Statement of Work attached with the contract.	None
Partner	F Company	One year from March 13, 2009 (automatically extended for one year annually)	F Company appointed Alchip (Holdco) as its "Value Chain Aggregator".	None
Software licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco), Alchip (TW), Alchip (JP), Alchip (Wuxi), and Alchip (Shanghai) on October 31, 2019. G Company licensed Alchip (Holdco), Alchip (TW), Alchip (JP), Alchip (Wuxi), and Alchip (Shanghai) the right to use Licensed Products and patented technologies with expiration date on October 30, 2022).	None
Technology licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco) and Alchip(Shanghai) on October 24, 2017. G Company licensed relevant patents on technologies to Alchip (Holdco) and Alchip(Shanghai) for use with expiration date on January 23, 2021).	None
Technology licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco) and Alchip(Shanghai) on October 26, 2018. G Company licensed relevant patents on technologies to Alchip (Holdco) and Alchip(Shanghai) for use with expiration date on Decenber 16, 2021).	None

561 Alchi	o Technologies,	Limited Alchi	n(Holdco)
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T. 1 1.		E	C = C	
Technology	G Company	From April 1, 2003 to	G Company licensed Alchip (Holdco) the	
licensing		this day	right to use Licensed Products (and it	
			signed an amendment to the contract of	
			software license with Alchip (Holdco) and	
			Alchip(Shanghai) on May 6, 2019. G	None
			Company licensed relevant patents on	
			technologies to Alchip (Holdco) and	
			Alchip(Shanghai) for use with expiration	
			date on May 5,2022).	
Technology	G Company	From April 1, 2003 to	G Company licensed Alchip (Holdco) the	
licensing		this day	right to use Licensed Products (and it	
			signed an amendment to the contract of	
			software license with Alchip (Holdco) and	
			Alchip(Shanghai) on October 28, 2019. G	None
			Company licensed relevant patents on	
			technologies to Alchip (Holdco) and	
			Alchip(Shanghai) for use with expiration	
			date on October 27, 2022).	
Software	H Company	From June 29, 2006 to	H Company licensed Alchip (Holdco) the	
licensing		the termination by H	right to use Licensed Materials.	<b>)</b> T
		Company as agreed in		None
		the contract		
Technology	H Company	From June 30, 2017 to	H Company licensed relevant patents on	NT
licensing	1 5	March 30, 2020	technologies to Alchip (Holdco) for use.	None

# 5.6.2 Alchip Technologies, Inc., Alchip(Taiwan)

Agreement	Counterparty Start/end dates of contracts		Major content	Restrictive clauses
Lease contract	•	to July 31, 2024	Lease the property located in "9F., No. 12, Wenhu St., Neihu Dist., Taipei City" and "9F1, No. 12, Wenhu St., Neihu Dist., Taipei City" as office space.	None

# 5.6.3 Alchip Technologies, Limited, TW Branch

Agreement	Counterparty Start/end dates or contracts		Major content	Restrictive clauses
Lease	TAI YUAN	From January 1, 2019	Lease the property located in "11F1, No.	
contract	TESTILE	to December 31, 2023	1, Taiyuan 1st St., Zhubei Vil., Zhubei	None
			City, Hsinchu County" as office space.	

# 5.6.4 Alchip Technologies, Limited, Alchip(Shanghai)

Agreement         Counterparty         Start/end dates of contracts         Major content	nt Restrictive clauses
Technology licensingG CompanyFrom April 1, 2003 to this dayG Company licensed Alchi right to use Licensed Pro 	oducts (and it the contract of p (Holdco) and ber 24, 2017. G None int patents on (Holdco) and

Tashnalagu	C Compony	From April 1, 2002 to	G Company licensed Alabin (Holdee) the	
Technology licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco) and Alchip (Shanghai) on October 26, 2018. G Company licensed relevant patents on technologies to Alchip (Holdco) and Alchip (Shanghai) for use with expiration date on December 16, 2021.	None
Technology licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco) and Alchip(Shanghai) on May 6, 2019. G Company licensed relevant patents on technologies to Alchip (Holdco) and Alchip(Shanghai) for use with expiration date on May 5,2022).	None
Technology licensing	G Company	From April 1, 2003 to this day	G Company licensed Alchip (Holdco) the right to use Licensed Products (and it signed an amendment to the contract of software license with Alchip (Holdco) and Alchip(Shanghai) on October 28, 2019. G Company licensed relevant patents on technologies to Alchip (Holdco) and Alchip(Shanghai) for use with expiration date on October 27, 2022).	None
Lease contract	10 Landlords	From July 1, 2019 to June 30, 2022	Lease the property located in "11F, East Building, Greenland Center, No. 596, Middle Longhua Rd., Xuhui District, Shanghai City" as office space.	None

# VI. Financial Highlights

# **6.1 Financial Highlights**

# 6.1.1 Condensed balance sheet and statements of comprehensive income/ statements of income(Consolidated)

# A. Balance sheet (Consolidated)

Unit: NT\$ thousand

	Year	Financ	Financial Summary for The Last Five Years(Note 1)				
Item		2015	2016	2017	2018	2019	
Current assets		2,581,575	2,266,456	2,332,005	2,883,785	4,108,247	
Property, Plant a	nd Equipment	444,654	216,976	269,326	316,836	389,422	
Intangible assets		143,811	117,058	87,192	146,759	221,553	
Other Non-Curre	ent assets	744,971	688,160	427,395	370,024	505,844	
Total assets		3,915,011	3,288,650	3,115,918	3,717,404	5,225,066	
Current liabilities	Before distribution	1,087,814	731,082	358,056	768,574	1,815,666	
	After distribution	1,117,493	731,082	422,064	677,889	(Note 2)	
Non-current liab	ilities	-	-	43,417	27,931	107,655	
Total liabilities	Before distribution	1,087,814	731,082	401,473	796,505	1,923,321	
	After distribution	1,117,493	731,082	465,481	705,820	(Note 2)	
Equity attributat company	ole to owner of the	2,827,197	2,557,568	2,714,445	2,920,899	3,301,745	
Share capital		615,678	607,028	610,010	597,731	606,129	
Capital surplus		1,392,250	1,388,223	1,425,312	1,456,360	1,534,620	
Retained	Before distribution	662,507	421,432	730,175	821,922	1,164,749	
earnings	After distribution	632,828	421,432	666,167	731,237	(Note 2)	
Other equity		156,762	140,885	(51,052)	44,886	(3,753)	
Treasury stock		-	-	-	-	-	
Non-controlling	interest	-	-	-	-	-	
Total equity	Before distribution	2,827,197	2,557,568	2,714,445	2,920,899	3,301,745	
	After distribution	2,797,518	2,557,568	2,650,437	2,830,214	(Note 2)	

Note 1 : Financial information for the year  $2015 \sim 2019$  is audited by CPAs.

Note 2 : Pending on the approval of 2020 shareholders' meeting.

# B. Statements of comprehensive income(Consolidated)

Unit: NT\$ thousand

Year	Financial Summary for The Last Five Years (Note)				
Item	2015	2016	2017	2018	2019
Operating revenues	3,785,741	3,690,977	4,265,643	3,450,678	4,331,956
Gross profit	822,497	487,833	1,201,130	1,291,441	1,611,042
Profit (loss) from operations	140,827	(209,745)	320,051	321,925	432,878
Non-operating income & expenses	27,409	8,432	38,934	12,880	92,405
Profit(loss)before income tax	168,236	(201,313)	358,985	334,805	525,283
Net profit(loss) from operations of continued segments	128,936	(211,396)	308,743	257,357	433,512
Net profit(loss)	128,936	(211,396)	308,743	257,357	433,512
Other comprehensive income(loss) (net of income tax)	46,851	(15,877)	(191,937)	81,936	(48,639)
Total comprehensive income(loss)	175,787	(227,273)	116,806	339,293	384,873
Net income attributable to shareholders of the parent	128,936	(211,396)	308,743	257,357	433,512
Net income attributable to non- controlling interest	-	-	-	-	-
Comprehensive income attributable to Shareholders of the parent	175,787	(227,273)	116,806	339,293	384,873
Comprehensive income attributable to non-controlling interest	-	-	-	-	-
Earnings(loss) per share (NT\$)	2.07	(3.45)	5.08	4.22	7.20

Note : Financial information for the year 2015~2019 is audited by CPAs.

6.1.3 CPA opinions from 2015to 2019

Year	СРА	Accounting Firm	Auditor's Opinion
2015	Yi-Wen Wang, S.C. Huang	Deloitte & Touche	Unqualified opinion
2016	Cheng-Ming Lee, S.C. Huang	Deloitte & Touche	Unqualified opinion
2017	Cheng-Ming Lee, S.C. Huang	Deloitte & Touche	Unqualified opinion
2018	Yi-Wen Wang, Cheng-Ming Lee	Deloitte & Touche	Unqualified opinion
2019	Yi-Wen Wang, Cheng-Ming Lee	Deloitte & Touche	Unqualified opinion

# 6.2 Financial Analysis

	Year	Financi	al Analysis	for the Las	t Five Years	s(Note1)
Item		2015	2016	2017	2018	2019
Financial	Debt ratio	27.79	22.23	12.88	21.43	36.81
structure (%)	Ratio of long-term capital to property, plant and equipment	635.82	1,178.73	1,023.99	930.71	875.50
	Current ratio	237.32	310.01	651.30	375.21	226.27
Liquitity (%)	Quick ratio	198.84	273.68	603.09	322.36	189.67
	Interest earned ratio (times)	29.45	(58.83)	198.79	376.76	117.32
	Accounts receivable turnover (times)	5.06	4.00	6.00	6.26	5.37
	Days sales outstanding	72	91	61	58	68
Omenatina	Inventory turnover (times)	11.11	12.20	17.09	9.20	5.49
Operating performance	Accounts payable turnover (times)	25.48	16.40	18.43	23.67	9.88
performance	Average inventory turnover days	33	30	21	40	66
	Property, plant and equipment turnover (times)	9.43	11.16	17.54	11.77	12.27
	Total assets turnover (times)	1.05	1.02	1.33	1.01	0.97
	Return on total assets (%)	3.70	(5.79)	9.69	7.55	9.78
	Return on equity (%)	4.60	(7.85)	11.71	9.13	13.93
Profitability	Pre-tax income to paid-in capital (%)	27.33	(33.16)	58.85	56.01	86.66
	Net margin(%)	3.41	(5.73)	7.24	7.46	10.01
	Basic earnings per share (NT\$)	2.07	(3.45)	5.08	4.22	7.20
	Cash flow ratio (%)	56.75	73.22	347.00	132.66	91.67
Cash flow	Cash flow adequacy ratio (%)	97.75	99.43	118.46	112.50	122.29
	Cash reinvestment ratio (%)	15.13	12.57	27.04	16.64	26.07
Leverage	Operating leverage	14.86	(6.87)	6.44	7.55	6.53
Levelage	Financial leverage	1.04	0.98	1.01	1.00	1.01

### A. Consolidated financial analysis from 2015 to 2019

Analysis of deviation of 2019 vs. 2018 over 20%

(1) Debt Ratio : Increased by 71.77% in 2019, mainly due to the increase in accounts payable and receive in advance from customer.

(2) Current Ratio, Quick Ratio : Decreased by 39.17% and 41.16%, respectively, mainly resultinng from the increase in accounts payable and receive in advance from customer in 2019.

(3) Interest Coverage Ratio :Dncreased by 68.86%, due to apply IFRS 16 "Lease" and increase in lease liabilities increase, resulting increase in interest expenses in 2019.

(4) Inventory Turnover Rate, Average inventory turnover days : Decreased by 40.33% and increased 65%, respectively, mainly resulting from the increase in inventory in 2019.

(5) Accounts Payable Turnover Rate : Decreased by 58.26%, mainly resulting from the increase in average accounts payable in 2019.

(6) Return on Assets, Return on Equity : Increased by 29.54% and 52.57% ,respectively, mainly resulting from the increase of net profit in 2019.

(7) Pre-tax income to paid-in capital, Net margin, EPS: Increased by 54.72%,34.18% and 70.2%,respectively,mainly resulting from the increase of net profit in 2019.

(8) Cash Flow Ratio : Decreased by 30.9%, resulting from the increase in accounts payable and receive in advance from customer and increase in current liabilities in 2019.

- (9) Cash reinvestment ratio : Increased by 56.67%, resulting from the increase in net profit, increase in cash generated from operating activities in 2019.
- (10)Operating leverage: Decreased by 13.51%, resulting from the increase in revenue in 2019.

Note 1: Financial information for the year 2015~2019 is audited by CPAs.

- Note 2: Financial analysis equations:
  - 1. Financial structure
    - (1) Ratio of liabilities to assets= Total liabilities/Total assets
    - (2) Ratio of long-term assets to Property, plant and equipment=(total equity+non-current liabilities)/ property, plant and equipment, net
  - 2. Solvency
    - (1) Current ratio=Current assets/Current liabilities
    - (2) Quick ratio=(Current assets-inventory-prepaid expense)/Current liabilities
    - (3) Multiple of interest protection=income tax and interest expenses net income before income tax/interest expenses in the current period
  - 3. Operating ability
    - (1) Account receivable turnover(times)=Net sales/Average accounts receivable and notes receivable(net)
    - (2) Days sales in account receivable=365/Account receivable turnover(times)
    - (3) Inventory turnover= Cost of goods sold/Average inventory
    - (4) Payables (including accounts payable and notes payable resulting from operation) turnover = net sales / balance (gross) of average accounts payable (including accounts payable and notes payable resulting from operation)
    - (5) Average days in sales=365/Inventory turnover
    - (6) Property, plant and equipment turnover(times)=Net sales/ net sales/average property, plant and equipment, net
    - (7) Total assets turnover=Net sales/Average assets
  - 4. Profitability
    - (1) Ratio of return on total assets=[net income+interest expense(1-tax rate)/Average assets]
    - (2) Ratio of equity= Net income/Average total Equity
    - (3) Profit ratio=New income/Net sales
    - (4) Earnings per share=(Net income- preferred stock dividend)/Weighted average stock issued (Note 4)
  - 5. Cash flow
    - (1) Cash flow ratio=Net cash flow from operating activity/Current liabilities
    - (2) Cash flow adequacy ratio=Net cash flow from operating activities in five years/(Capital expenditure+inventory increase+cash dividend) in five years
    - (3) Cash reinvestment ratio=(Net cash flow from operating activity –cash dividend)/ gross of property, plant and equipment+long-term investment+other non-current assets+working capital)(Note 5)
  - 6. Leverage
    - (1) Operation leverage=(Net operating income-operating cost and expense)/Operating income (Note 6)
  - (2) Financial ratio= Operating income/(Operating income-Interest expense)
- Note 3: When the above formula for calculation of earnings per share is used during measurement, give special attention to the following matters:
  - 1. Measurement should be based on the weighted average number of common shares, not the number of issued shares at year end.
  - 2. In any case where there is a cash capital increase or treasury stock transaction, the period of time in circulation shall be considered in calculating the weighted average number of shares.
  - 3. In the case of capital increase out of earnings or capital surplus, the calculation of earnings per share for the past year and the half-year shall be retrospectively adjusted based on the capital increase ratio, without the need to consider the issuance period for the capital increase.
  - 4. If the preferred shares are non-convertible cumulative preferred shares, the dividend of the current year (whether issued or not) shall be subtracted from the net profit after tax, or added to the net loss after tax. In the case of non-cumulative preferred shares, if there is net profit after tax, dividend on preferred shares shall be subtracted from the net profit after tax; if there is loss, then no adjustment need be made.

Note 4: Give special attention to the following matters when carrying out cash flow analysis:

- 1. Net cash flow from operating activities means net cash in-flows from operating activities listed in the statement of cash flows.
- 2. Capital expenditures means the amounts of cash out-flows for annual capital investment.
- 3. Inventory increase will only be entered when the ending balance is larger than the beginning balance. An inventory decrease at year end will be deemed zero for calculation.
- 4. Cash dividend includes cash dividends from both common shares and preferred shares.

- 5. Gross fixed assets value means the total value of fixed assets prior to the subtraction of accumulated depreciation.
- Note 5: Issuers shall separate operating costs and operating expenses by their nature into fixed and variable categories. When estimations or subjective judgments are involved, give special attention to their reasonableness and to maintaining consistency.
- Note 6: In the case of a company whose shares have no par value or have a par value other than NT\$10, for the calculation of the above-mentioned paid-in capital ratio, the ratio of equity attributable to owners of the parent as stated in the balance sheet shall be substituted.

# Alchip Technologies, Limited AUDIT COMMITTEE'S REVIEW REPORT

To: Shareholders' Annual General Meeting for Year 2020, Alchip Technologies, Limited

The Board of Directors has prepared and submitted to the undersigned, Audit Committee of Alchip Technologies, Limited 2019 Business Report, Consolidated Financial Statements and Dividend Distribution proposal. The Consolidated Financial Statements have been duly audited by Certified Public Accountants Janice Wang and Jamie Lee of Deloitte & Touche. The above Business Report, Consolidated Financial Statements and Dividend Distribution proposal have been examined and determined to be correct and accurate by the undersigned. This Report is duly submitted in accordance with Article 14-4 of Securities and Exchange Law and Article 219 of the Company Law.

The Audit Committee, Chairman:

Mr. Mao-Wei Hung

Maoline Hy

6.4 Consolidated Financial Statement for the most recent year, including an auditor's report prepared by a CPA, and 2-year comparative balance sheet, statement of comprehensive income, statement of changes in equity, cash flow chart, and any related footnotes or attached appendices

Please refer to pages 132 to 196.

6.5 A Parent Company Only Financial Statement for the Most Recent Year, Certified by a CPA, but not Including the Statements of Major Accounting Items

Not applicable.

# 6.6 Financial Difficulties Encountered By the Company and the Related Party in the Most Recent Year and Up to the Date of the Annual Report

None.

# VII. Review of Financial Status, Financial Performance, and Risk Management

# 7.1 Analysis of Financial Status

### A. Comparability and analysis on financial status

			Unit: NT	\$ thousand; %
Year	2018	2019	Difference	
Item	2010 2017	Amount	%	
Current Assets	2,883,785	4,108,247	1,224,462	42.46
Property, Plant and Equipment	316,836	389,422	72,586	22.91
Intangible Assets	146,759	221,553	74,794	50.96
Other Non-Current Assets	370,024	505,844	135,820	36.71
Total Assets	3,717,404	5,225,066	1,507,662	40.56
Current Liabilities	768,574	1,815,666	1,047,092	136.24
Non-Current Liabilities	27,931	107,655	79,724	285.43
Other Liabilities	-	-	-	-
Total Liabilities	796,505	1,923,321	1,126,816	141.47
Share Capital	597,731	606,129	8,398	1.40
Capital Surplus	1,456,360	1,534,620	78,260	5.37
Retained Earnings	821,922	1,164,749	342,827	41.71
Other Equity	44,886	(3,753)	(48,639)	(108.41)
Total Equity	2,920,899	3,301,745	380,846	13.04

1. Analysis of Deviation over 10% and the amount of change reaches 1% of total assets for the current year

(1) Current Assets : Resulting from increase in cash and cash equivalents in 2019.

(2) Property, plant and equipment : Resulting from the increase in purchase of machinery equipment in 2019.

(3) Intangible Assets : Resulting from the increase in purchase of intellectual property in 2019.

(4) Other Non-Current Assets : Due to apply IFRS 16 "Lease" and resulting increase in Right -of-use Asset in 2019.

(5) Current liabilities : Resulting from the increase in accounts payable and receive in advance from customer in 2019.

(6) Non-Current liabilities : Due to apply IFRS 16 "Lease" and resulting increase in lease liabilities in 2019.

(7) Capital Surplus: Resulting from increase in employee option expenses in 2019.

(8) Retained Earnings : Resulting from the increase in net profit in 2019.

(9) Other Equity : Resulting from the changes of Exchange differences arising on translation to the presentation currency.

(10)Total Equity : Resulting from increase in other equity in 2019.

2. The above deviations had no major impact on Alchip's financial position.

# 7.2 Analysis of Financial Performance

			Unit: N	NT\$ thousand;%
Year	2018	2019	Difference	
Item	2018	2017	Amount	%
Operating revenues	3,450,678	4,331,956	881,278	25.54
Operating costs	2,159,237	2,720,914	561,677	26.01
Gross profit	1,291,441	1,611,042	319,601	24.75
Operating expenses	969,516	1,178,164	208,648	21.52
Profit (loss) from operations	321,925	432,878	110,953	34.47
Non-operating income and expenses	12,880	92,405	79,525	617.43
Profit(loss) before income tax	334,805	525,283	190,478	56.89
Income tax expense	77,448	91,771	14,323	18.49
Net profit (loss)	257,357	433,512	176,155	68.45
Other comprehensive income(loss)	81,936	(48,639)	(130,575)	(159.36)
Total comprehensive income(loss) for the year	339,293	384,873	45,580	13.43

### A. Comparability and analysis on business performance

1. Analysis of Deviation: (over 10% and the amount of change reaches 1% of total assets for the current year.)

(1) Operating revenue : Resulting from the increase in the revenue of chip production in 2019.

(2) Operating costs : Resulting from the increase in chip production business as well as increase in production cost in 2019.

(3) Operating expenses : Due to the increase in pay raise, resulting increase in salay expenses in 2019.

(4) Non-operating income and expenses : Resulting from the decrease in expected credit losses from bond investment in and increase in obtain China government subsidy 2019.

(5)Net profit(loss) : Resulting from the increase in operating revenues and Non-operating income in 2019.

(6) Other comprehensive income(loss) : Resulting from exchange differences arising on translation to the presentation currency.

2. The above deviations had no major impact on Alchip's financial position.

# 7.3 Analysis of Cash Flow

## 7.3.1 Cash flow analysis for the most recent year

Unit: NT\$ thousand;%

Year	2018	2019	Increase/Decrease		
zem 2018		2019	Amount	%	
Operating activities	1,019,620	1,664,379	644,759	63.24	
Investing activities	(1,258,449)	(294,549)	(963,900)	(76.59)	
Financing activities	(223,946)	(76,446)	(147,500)	(65.86)	

Analysis of changes:

 Operating activities : A increase of NT\$644,759 thousand in cash generated from operating activities is resulting from the increase in net profit and receive in advance from customers in 2019.

(2) Investing activities : A decrease of NT\$963,900 thousand in cash used in investing activities is resulting from the decrease in amount of time deposit in 2019.

(3) Financing activities : A decrease of NT\$147,500 thousand in cash used in financing activities is resulting from none of executing share buyback in 2019.

# 7.3.2 Cash flow analysis for the coming year (2020) and remedy for cash deficit and liquidity analysis

The Company has adequate own funds and it shows that cash is provided by operating activities, which should be able to response to cash used in investing activities and financing activities. It is unlikely that insufficient liquidity will be a problem.

# 7.4 Major Capital Expenditure for the Most Recent Year and its Effect on Finance and Business operations of the Company

None.

# 7.5 Investment Policy for the Most Recent Year, Main Reasons for Profits or Losses, Improvement Plans and Investment Plans for the Coming Year

# 7.5.1 Investment policy of the Company

The company's current policy is to invest in targets associated with its basic businesses mainly and not invest in other industries. It is conducted by the relevant operating department in compliance with the "Investment Cycle" internal control system and "Guideline for Acquisition and Disposal of Assets". The above regulations or procedures have been discussed and resolved by the Board of Directors or shareholders' meeting.

### 7.5.2 Main reasons for profits or losses generated from investment for the most recent year

Item	Profit (Loss) in 2019	Investment Policy	Reasons for the Profits/Losses	Improvement Plan
Alchip (HK)	101,346	Invest in subsidiaries in China	Recognized investment loss under equity method.	Not applicable
Alchip (US)	(1,258)	A sales office for the U.S. market	Maintained a stable operating status	Not applicable
Alchip (JP)	(6,644)	An office to develop Japan marke	Maintained a stable operating status	Not applicable
Alchip (TW)	(18,098)	Provide ASIC and SoC services	Maintained a stable operating status	Not applicable
Alchip BVI	16,450	General investment	Recognized investment profit from bond investment	Not applicable
Alchip (SH)	1,045	An office to develop the China market, and provide support for sales and R&D.	Maintained a stable operating status	Not applicable
Alchip (Wuxi)	29,109	Provide R&D support	Maintained a stable operating status	Not applicable
Alchip (Hefei)	46,019	Provide R&D support	Maintained a stable operating status	Not applicable
Alchip (Jinan)	25,269	Provide R&D support	Maintained a stable operating status	Not applicable

# 7.6 Analysis of Risk Management

Analyze and assess the following circumstances for the most recent year and up to the date of publication of the annual report:

# 7.6.1 Effects of changes in interest rates, foreign exchange rates and inflation on the Company's finance, and future countermeasures

## A. Interest rate

The Company's interest expenses was NT\$4,516 thousand in 2019, accounted for 0.104% of annual operating income. Therefore, changes in future interest rates have no material impact on the Company's operation and profit.

## **B.** Foreign exchange rates

The Group has the U.S. Dollar and Japanese Yen as its functional currency, as the Group's sales and purchases were mainly settled in U.S. Dollar. It also holds other currencies to meet subsidiaries' working capital requirements. The Company's foreign exchange (losses) gains were NT\$ 2,479 thousand and NT\$(3,694) thousand in 2019 and 2018, accounted for 0.06% and 0.11% of annual operating income, respectively, which have little impact on the Company's operations and profits.

The Group currently has no material risk of exchange rate fluctuations. However, it is anticipated that Cayman Holdings Company applying for listing on the Taiwan Stock Exchange may probably pay NTD dividends to domestic investors, or acquire NTD funding from domestic fundraising that will be required to convert it to USD for use in the future, the risk of changes in USD to NTD exchange rates in which may be incurred. Response measures will be possibly adopted by the financial department of the Company as follows:

- (1) Financial personnel maintain appropriate foreign exchange positions at the right time based on future foreign exchange rate trends required for operations of the Group's subsidiaries, and reduce the impact of exchange rate fluctuation on the listing company's profit ability.
- (2) Keep close contact with main banks and monitor changes in the foreign exchange market to provide relevant heads of divisions and branches with a full grasp of the trend in exchange rate fluctuation to make timely adjustments in response to contingent circumstances of change in the currency of collection and payment.
- (3) Adopt the natural write-off principle (namely, the whole overseas and domestic sales are quoted in Dollars) to external currency risks, and apply methods such as forward exchange agreements and taking foreign currency debts at the right as needed to reduce the impact of exchange rate fluctuation on the company's profit or loss.

# C. Inflation/deflation

Prices of raw materials required by the Company remain stable. The Company's future profit or loss is not much affected by the short-term inflation.

# 7.6.2 Policies, main causes of gain or loss and future countermeasures with respect to high-risk, high-leveraged investments, lending or endorsement guarantees, and derivatives transactions

The Company remains true to its principle of stable operation on the prerequisite of financial soundness for the development, and has not engaged in any high-risk, high-leveraged investments, or derivatives transactions for the most recent year. Any lending or endorsement guarantees will be conducted in accordance with relevant requirements prescribed in the Company's "Guideline for Acquisition and Disposal of Assets", "The Guideline for Loaning Funds to Others", and "The Guideline For Endorsement and Guaranty". No loss has occurred by now.

# 7.6.3 Future research & development projects and corresponding budget

In response to future growth, the Company will continuously invest R&D resources in development of highend System on Chip (SoC) for advanced processes (16, 12 and 7nm) and R&D in design for customized circuit Silicon Intellectual Property (IP). Major R&D items include: Low Power Design Flow, Clocking Optimization technique, Signal Integrity management technology, design and development of customized circuit Silicon Intellectual Property, such as design and development of high-speed Mobile Industry Processor Interface (MIPI) circuit, performance enhancement of high-end microprocessor and peripheral Silicon Intellectual Property, high-end multi-chip packaging design technology, and so on.

In 2019 and 2018, the Company invested NT\$685,741 thousand and NT\$620.393 thousand in R&D, respectively, both reached hundred million NT dollars. It will continue to invest R&D resources in the future depending on the product development plan. However, if the Company does not continue to invest R&D in the future, products development and relevant R&D plans will be limited. Moreoverthe Company may be unable to meet customer needs or market trends and then even will loss orders. As a result, it will have a material adverse effect on the company's operations.

# 7.6.4 Effect of major foreign and domestic policy and regulatory changes on the company's finance and business operations, and countermeasures

The country of registration place of the Company is Cayman Island. The Cayman government issued International Tax Co-Operation(Economic Substance) Law on December 27,2018, effective on January 1, 2019, and announced its guidance on Feburary 22, 2019. The Economic Substance Law has material impact

on the Company's operation. The Company has consulted with consultancy to come up with responsive measures and continuously track the changes of the laws and regulations to formulate policies to counteract the effects. The major places of operation of the Company are Taiwan and China with businesses performed in accordance with relevant laws and regulations of competent authorities at major places of operation.

# 7.6.5 Effect of technological and industry changes on the Company's finance and business operations, and countermeasures

The Company has always emphasized the improvement of R&D capabilities. Currently the chips designed and produced by it are mostly products in 28nm and below processes. No material adverse effect of technological and industry changes on the company's finance and business operations in medium- and long-term is expected. The Company reviews and recognizes IT security risk topic every year, based on the severity and the possibility of risk occurs to assess the risks. If the result of risk assessment is "High Risk", the corresponding of risk control will be performed. There is no High Risk of IT security risk at this current assessment.

# 7.6.6 The impact of changes in corporate image on corporate risk management, and the Company's countermeasures

None.

### **7.6.7 Expected benefits and potential risks of mergers and acquisitions, and countermeasures** Not applicable.

Not applicable.

### **7.6.8 Expected benefitsexpected benefits and possible risks associated with plant expansion** Not applicable.

#### 7.6.9 Risks from concentralized purchasing or selling, and countermeasures

#### A. Concentration of purchasing

The Company's main raw material is wafer, and 90% of which are purchased from Taiwan Semiconductor Manufacturing Company Limited (hereinafter referred to as "TSMC"). There has indeed been a concentration phenomenon in purchasing operations. Since the Company does not sign a long-term supply contract with the wafer foundry, once the wafer foundry does not give adequate support capacity, risks of shortage or interruptions may occur in the Company. However, the Company develops relationships of strategic alliance and business bond with suppliers for wafer capacity, and provides timely the latest application trends in products on the market and estimated sales of products in order for wafer foundries to support the capacity requirements. Meanwhile, it obtains TSMC's capacity plan for more than half a year to meet the demand for material preparation of production. In addition, the Company has built the second source of supply to increase the flexibility of source of supply and avoid any circumstance such as shortage or interruptions of supply.

#### **B.** Concentration of Selling

The top sales customers of the Company were the customer of S Company and Y Comapny, with proportion of 27.89% and 18.87%, respectively, there is no concentration selling issue. The Company constantly endeavored to develop new customers and diversify customer base in the past year. The benefit thereof will be revealed in 2020.

### 7.6.10 Impact and risk associated with large share transfers or changes in shareholdings of Directors, or shareholders who hold more than 10% of the Company's shares, and countermeasures

There is no significant impact and risk on share transfers or changes in shareholdings of directors, supervisors, or shareholders who hold more than 10% of the Company's shares up to the date of publication of the annual report.

#### 7.6.11 Impact and risk associated with changes in management rights, and countermeasures

No such case during the most recent year and the current year up to the date of publication of the annual report.

#### 7.6.12 Litigation or non-litigation matters

If the outcome of a concluded or pending litigious, non-litigious or administrative litigation event involving the company, director, general manager, de facto responsible person major shareholders holding more than 10% equity interest, or subsidiary of the company might have material impact on shareholders' equity or the prices of the company's securities, disclose the facts of dispute, amount of claim, lawsuit start date, main parties concerned and current status as of the date of the publication of annual report.

- A. For litigious or non-litigious proceedings or administrative disputes involving the company with respect to which a judgment has become final and unappealable in the most recent two years or in the current year up to the date of the publication of the annual report, and for any such matter still pending. If the outcome could materially impact shareholders' equity or the prices of the company's securities, the annual report shall list the facts of the dispute, amount of money at stake in the dispute, the date of commencement of proceedings, the main parties to the dispute, and current status of the dispute's handling: None.
- **B.** For litigious or non-litigious proceedings or administrative disputes involving a company director, the general manager, a de facto responsible person, a 10 percent or greater major shareholder, or a controlled company, if a judgment has become final and unappealable in the most recent two years and the current year up to the date of the publication of the annual report, or if such a matter is still pending, if the outcome could materially impact shareholders' equity or the prices of the company's securities, the annual report shall list the facts of the dispute, amount of money at stake in the dispute, the date of commencement of proceedings, the main parties to the dispute, and current status of the dispute's handling: None.
- C. Where any of the situations set out under Article 157 of the Securities and Exchange Act has occurred with respect to a company director, managerial officer, or 10 percent or greater major shareholder within the preceding two years, or in the current year up to the date of publication of the annual report, the prospectus shall indicate that fact and describe the current status of the company's handling of the matter: None.

7.6.13 Other Material Risks

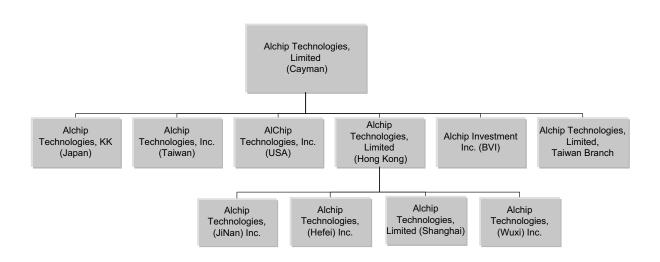
None.

#### 7.7 Other Material Matters

None.

## 8.1 Information of Subsidiaries

#### 8.1.1 Subsidiaries chart



#### 8.1.2 Profiles of subsidiaries

				Decembe	er 31, 2019;Unit:	NT\$thousand
Name	Principal Businesses	Date of Incorporation	Paid-in Capital	Purpose of the Investment	Shareholding %	Method of Accounting Treatment
Alchip HK	General investment	2002	520,687 (Note2)	Invest in subsidiaries in China	100%	Equity Method
Alchip US	ASIC and SoC sales	2003	114,922	A sales office for the U.S. market	100%	Equity Method
Alchip Japan	ASIC and SoC sales	2004	62,587	An office to develop the Japan market,	100%	Equity Method
Alchip Taiwan	Provide ASIC and SoC services	2005	100	Provide ASIC and SoC services	100%	Equity Method
Alchip Shanghai	Research, develop, and design ASIC and SoC, and provide relevant services and sales	2002	383,744	An office to develop the China market, and provide support for sales and R&D	100%	Equity Method
Alchip Wuxi	Research, develop, and design ASIC and SoC, and provide relevant services	2012	59,960	Provide R&D support	100%	Equity Method
Alchip BVI	General investment	2015	473,317 (Note1)	General investment	100%	Equity Method
Alchip Hefei	Research, develop, and design ASIC and SoC, and provide relevant services	2016	14,990	Provide R&D support	100%	Equity Method
Alchip Jinan	Research, develop, and design ASIC and SoC, and provide relevant services	2018	23,504	Provide R&D support	100%	Equity Method

Note1 : The amount of NT\$471,735 thousand (US\$15,050 thousand) has been remitted. However, the procedure of capitalincrease has not been completed.

Note2: The amount of NT\$24,288 thousand (US\$820 thousand) has been remitted. However, the procedure of capital-increase has not been completed.

# 8.1.3 For companies presumed to have a relationship of control and subordination and information on their shareholders in common

None.

#### 8.1.4 Industries covered by the business operated by the subsidiaries overall

The Company's affiliates all engage in professional Application Specific IC (ASIC) and System-on-Chip (SoC) design, manufacturing and production.

## 8.1.5 Rosters of Directors, Supervisors, and Presidents of Alchip's subsidiaries

				April 13, 2020
Name of		Name or	Shareholding	
Affiliated Enterprise	Title	Representative	Number of Shares	%
Alchip Taiwan	Chairman CEO Director	Kinying Kwan Johnny Shyang-Lin Shen Kinying Kwan	Alchip Technologies (Cayman) holds 10,000 shares	100%
Alchip Japan	Chairman GM Director Director Director Supervisor	Junichiro Hosaka Junichiro Hosaka Junichiro Hosaka Kozo Fujita Kinying Kwan Hiroyuki Furuzono	Alchip Technologies (Cayman) holds 2,000 shares	100%
Alchip US	Director GM	Kinying Kwan HiroyukiNagashima	Alchip Technologies (Cayman) holds 391,000,000 shares	100%
Alchip HK	Chairman Director	Kinying Kwan Kinying Kwan	Alchip Technologies (Cayman) holds 12,230,170,100 shares	100%
Alchip Shanghai	Chairman GM	Andy Lin Andy Lin	Alchip Technologies (Cayman) has a capital contribution of US\$12,800 thousand	100%
Alchip Wuxi	Chairman GM Director Supervisor	Andy Lin Andy Lin Daniel Wang Leo Cheng Johnny Shyang- Lin Shen	Alchip Technologies (Cayman) has a capital contribution of US\$2,000 thousand	100%
Alchip BVI	Director Director	Daniel Wang Nancy Chan	Alchip Technologies (Cayman) holds 50,000 shares	100%
Alchip Hefei	Chairman GM Director Supervisor	Andy Lin Andy Lin Daniel Wang Leo Cheng Johnny Shyang- Lin Shen	Alchip Technologies (Cayman) has a capital contribution of US\$500 thousand	100%
Alchip Jinan	Chairman GM Director Supervisor	Andy Lin Andy Lin Daniel Wang Leo Cheng Johnny Shyang- Lin Shen	Alchip Technologies (Cayman) has a capital contribution of US\$784 thousand	100%

#### 8.1.6 Operation highlights of Alchip subsidiaries

					December 3	1, 2019;Unit:N	T\$thousand
Company	Total Assets	Total Liabilities	Total Equity	Revenue	Operating Profit(Loss)	Net Profit(Loss)	EPS (NT\$Dollar)
Alchip Taiwan	602,805	33,409	569,396	-	(31,581)	(18,098)	-
Alchip Japan	235,112	177,101	58,011	438,937	(3,313)	(6,644)	-
Alchip US	28,373	7,586	20,787	15,659	(1,258)	(1,258)	-
Alchip Shanghai	495,532	112,431	383,101	340,539	8,457	1,045	-
Alchip Wuxi	149,897	32,491	117,406	178,980	30,824	29,109	-
Alchip HK	589,319	468	588,851	-	(106)	101,346	-
Alchip BVI	544,812	15,550	529,262	-	117	16,450	-
Alchip Hefei	119,328	73,918	45,410	142,498	1,148	46,019	-
Alchip Jinan	65,940	26,604	39,336	90,572	24,928	25,269	-

#### 8.1.7 Consolidated financial statements of subsidiaries

Not applicable.

# 8.2 Private Placement Securities During the Current Year up to the Date of Publication of the Annual Report

None.

### 8.3 Holding or Disposal of Shares in the Company by Alchip's Subsidiaries During the Current Year up to the Date of Publication of the Annual Report

None.

#### **8.4 Other Necessary Supplements**

None.

8.5 Major Difference Between The Company's Articles of Association and the Regulations on the Protection of Shareholders' **Equity of Taiwan** 

Ľ	Matter of material circuit and a	A united and used of the A	Damlations unlating to the laws of	Durricians in the Community Auticlas
t]	the protection of shareholders' rights	"Company Act" or "Securities and	the foreign issuer's country of	of Association and reasons for the
	and interests	Exchange Act"	registration place	discrepancy
Ι.	I. Formation and change of equity capital of a company	al of a company		
Ļ.	. A company shall not cancel its	Article 168 of the Company Act	1. The Company may, pursuant to	There's a slight difference in the Article
	shares, unless a resolution on capital		Article 14 of the Company Law of	10.7 of the company's Articles of
	reduction has been adopted by its		Cayman Islands, reduce its capital	Association and the matters of material
	shareholders' meeting; and capital		previously issued only after a Special	significance on the protection of
	reduction shall be effected based on		Resolution adopted by the	shareholders' rights and interests as
	the percentage of shareholding of		shareholders' meeting and confirmed	stated left. Under the Company Law of
			by the court of the Cayman Islands.	Cayman Islands, the Company may
сi	. A company reducing its capital may		2. Except as required by Article 14 of	reduce shares previously issued only
	return share prices (or the capital		the Company Law of Cayman	after a Special Resolution adopted by the
	stock) to shareholders by properties		Islands, the Company's capital	shareholders' meeting and confirmed by
	other than cash; the returned		previously issued can be cancelled	the court of the Cayman Islands. In view
	property and the amount of such		only when they are purchased,	of this, as the procedure prescribed in
	substitutive capital contribution		returned, or redeemed by the	Article 14.1 and Article 10.7 of the
	shall require a prior approval of the		Company in accordance with Article	company's Articles of Association, the
	shareholders' meeting and obtain		37 or Article 37B of the Company	Company may reduce its capital through
	consents from the shareholders who			the purchase of shares. Reasons for such
	receive such property.		3. Subject to Article 37 of the Company	difference are due to the requirements in
ω.	-		Law of Cayman Islands, the	the Company Law of Cayman Islands.
	have the value of such property and		Company may purchase its own	However, the company's Articles of
	the amount of such substitutive		shares on such terms and in such	Association does not set limits on the
	capital contribution set forth in the		manners as prescribed in the	procedure for capital reduction.
	preceding Paragraph audited and		company's Articles of Association or	Therefore, such differences should not
	certified by a Certified Public		resolved by the shareholders'	have a material adverse effect on the
	Accountant of the Republic of China		meeting. Except as required by	Company's shareholders' rights and
	before the shareholders' meeting.		Article 37 of the Company Law of	interests.
			Cayman Islands, the following are	
			not prescribed in the Company Law	
			n Islands: (1) repurc	
			shall be effected based on the	

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
		percentage of shareholding of the shareholders pro rata, (2) return share prices (or the capital stock) to shareholders by properties other than cash shall require a prior approval, or (3) shall have the value of property returned assessed; however, it may be prescribed in the company's Articles of Association.	
<ol> <li>Procedures for the Company to enter into a stock option agreement with its employees or issue employee stock options.</li> <li>The stock option obtained by any employee of the issuing company shall be non-assignment, except to the heir(s) of the said employee.</li> </ol>	Article 167-2 of the Company Act	There is no particular regulation in the Company Law of Cayman Islands for employee stock option agreement or procedures of employee stock options issuance. Issuance of employee stock options and whether the options can be assigned should be prescribed in the employees' stock option agreement or stock option plan.	Although there have been amendments to Articles 11.1 to 11.4 of the company's Articles of Association based on the matters of material significance on the protection of shareholders' rights and interests as stated left, any restriction on assignment of employee stock options should be prescribed in the employees' stock option agreement or stock option plan in accordance with the Company Law of Cayman Islands. Such difference should not have a material adverse effect on the Company's shareholders' rights and interests.
II. Procedure for convening a sharehold	II. Procedure for convening a shareholders' meeting or the method of resolutions	SU	
<ol> <li>A regular meeting of shareholders shall be held at least once every year and convened within six months after close of each fiscal year. A shareholders meeting shall be convened by the Board of Directors.</li> <li>A shareholders' meeting shall be convened within the territory of the Republic of China. Where a shareholders' meeting is to be</li> </ol>	<ol> <li>Article 170 of the Company Act</li> <li>Article 172-1 of the Company Act</li> <li>Paragraph 1 &amp; 2, Article 173 of the Company Act</li> <li>Article 172 of the Company Act, Article 26-1 &amp; 43-6 of the Securities and Exchange Act</li> <li>Article 173-1 of the Company Act</li> </ol>	<ol> <li>I.</li> <li>I. (a)Except for an exempted company, the shareholders' meeting shall be held by each company at least once every year as set forth in Article 58 of the Company Law of Cayman Islands.</li> <li>(b)An exempted company is not mandatorily required to convene the regular meeting of shareholders</li> </ol>	For a foreign issuer being an exempted company under the Company Law of Cayman Islands, there is no need to hold an annual shareholders' meeting every year in accordance with the Company Law of the Cayman Islands provided that "The Company shall hold a general meeting as its annual general meeting within six months following the end of each fiscal year, and shall specify the

<ul> <li>tritory of the tritory of the company Law of Cayman approval of a transmitting the number of approval and any present approval of approval of a transmitting or an authority in a Articles of Association.</li> <li>2. The shareholders' meeting of an exempted company is not restricted to be convened at a present approval of the company is not restricted to be convened at a present any present and accelle approxant is not restricted to be conversed at a present approval of the company is not restricted to be conversed at a nutiting or nutiting or nutiting or nutiting or nutiting or an articles of Association.</li> <li>3. The shareholders' meeting conversed that accelle approxal right is not required by the company is not required by the company is not required by the company Law of Cayman Islands; however, the relevant procedures and accelled accellers is less than accelled and accelled accel</li></ul>	Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
<ul> <li>wrystender of shareholders' meetings required to be convened supported of shareholders' meeting structure the number of shareholders' meeting structure to be company very year in its Articles of Association.</li> <li>2. The shareholders' meeting of an shareholders' meeting is not restricted to be convened by the company very year in its Articles of Association.</li> <li>3. Shareholders' meeting is such as preserved to be convened at a specific place by the company. Law of Cayman is the proposal involves matters which company very structed to be convened by the control of the company. Law of Cayman is shall accept the proposal involves matters which company very structes and the proposal involves matters which company very structes and the proposal involves matters which camote be resolved at a shareholders' meeting convered the proposal involves matters which camote be resolved at a shareholders' meeting converses and the proposal involves matters which camote be resolved at a shareholders' meeting converses and the proposal involves matters which camote be resolved at a shareholders' meeting converses and the proposal involves matters which camote be resolved at a shareholders' meeting converses and the proposal involves matters which camote be resolved at a shareholders' meeting converses and the proposal moves (ii) the number of shareholders' meeting converses and the proposal moves (iii) the number of shareholders' meeting converses and the proposal moves (iii) the number of shareholders' meeting converses and the proposal moves (iii) the number of a stareholders' meeting converses and the proposal resolved at a shareholders' meeting converses and the proposal moves (iii) the number of the proposal moves (iii) the continuous of the contain solution of the shareholders' meeting converses and the proposal moves (iii) the number of the proposal moves (iii) the contain solution (ii) the</li></ul>	convened outside the territory of the		by the Company Law of Cayman	meeting as such in the notices calling it.
<ul> <li>TWSE within two days after the Board resolution or obtaining the approval of the competent authority to convert day the company the company the company is an trestricted to be convened at a specific place by the convend at a specific place by the convend at a specific place by the convend at a specific place by the total issued shares may present the total issued shares may present the total issued shares much proposal at a specific place by the company. Law of Cayman is the proposal involves matters which campot be prescribed in the company's Articles of Association.</li> <li>Shareholders' meeting is writing or the foreign issuer approval at a specific place by the contract of the total issued shares much proposal at a specific place by the contract of the specific place by the company Law of Cayman Islands: meeting (i) the number of shares much be accepted at a shareholders' meeting converts the proposal involves matters which camoot be resolved at a shareholders' meeting converts the proposal involves matters which camoot be resolved at a shareholders' in the Articles of Association.</li> <li>A the proposal involves matters which camoot be resolved at a shareholders' meeting converts the proposal involves matters which camoot be resolved at a shareholders' meeting converts the proposal involves matters which camoot be resolved at a shareholders' meeting converts the proposal involves matters which camoot be resolved at a shareholders' meeting converts the proposal moves of the shareholders' meeting converts the proposal moves of the shareholders' meeting converts the proposal moves the relevant procedures in the proposal involves matter shore of the contents of the shareholders' meeting converts the proposal moves of the proposal moves the proposal moves of the proposal moves the proposal moves of the proposal moves the proposal mo</li></ul>	<b>→</b>		the number of shareholders'	Directors (if any) shall be presented." as
<ul> <li>Board resolution cobtaining the approval of the company very year in its approval of the competent authority to convence the meeting by the approval of the company very year in its hareholders; however, it may be the total issued shares may present to the foreign issuer approval at a shareholders; meeting of an exempted company is not restricted the total issued shares may present to the foreign issuer approval at a shareholders insuer a proposal at a shareholders insuer a proposal at a shareholders meeting in writing or the total issued shares may present to the foreign issuer a proposal at a shareholders meeting of an exempted company issuer electronically. The foreign issuer a proposal is work is the company 's Articles of Association.</li> <li>2. The shareholders index is a shareholder submitted by shareholders meeting or the proposal involves matters which the munuced accepted to the proposal involves matters which the shareholders' interests or fulfil in the announced accepted to the proposal involves the propos</li></ul>	TWSE within two days after the		meetings required to be convened	prescribed in Article 16.2 of the
<ol> <li>The shareholders' meeting by the company is not restricted the neeting by the company is not restricted the total issued shares may present to the toral issued shares may present to the toral issued shares may present to the toragin sister a proposal at a shareholders' meeting or the toral issued shares may present to the toragin sister a proposal is writing or the toral issued shares may present to the toragin sister and proposal is writing or the toragin sister a proposal is writing or the toragin sister and proposal is such proposal is such a shareholders' meeting or the toragin sister a proposal is such a shareholders' meeting or the toragin sister a proposal is writing or the toragin sister a shareholders' meeting or the proposal involves matters which accept such proposal is phase to the toragin sister a shareholders' meeting converted by the proposal involves matters which accept a such proposal is the proposal is of the total issued shares (iii) the number of shares (iii) the proposal was submitted by the shareholders' meeting on the total sister of a mounced accepted period of time, or (iv) the proposal was submitted by the company Law of Cayman Islands; however, it may be prescribed in the company taw of the content of the proposal meeting notice is not required by the company taw of the content of the proposal was submitted by the company Law of the total sister to promosal exceed 300 words or includes more of the total sister to promosal exceed 300 words or includes more of the total sister to promosal the proposal.</li> <li>Any or a plural number of a some proposal.</li> <li>Any or a plural number of the total accepted by the company the total sisteres of a soci</li></ol>	Board resolution or obtaining the		by the company every year in its	Company's Articles of Association.
<ul> <li>shareholder(s).</li> <li>Shareholder(s).</li> <li>Shareholder(s)</li> /ul>	to convene the meeting by the			Other matters are prescribed
<ul> <li>Shareholders holding 1% or more of the total issued shares may present in the company Law of Cayman Islands; however, it may be prescribed in the company's Articles shareholders' meeting in writing or electronically. The foreign issuer a proposal a shareholders' meeting convened at a specific place, or Association.</li> <li>3. The shareholders' meeting convened at shareholders' meeting convened submitted by shareholders maters which cannot be resolved at a shareholders' meeting (ii) the number of shares hold by the shareholders' meeting (iii) the number of shares held by the shareholders' meeting (iii) the number of shares held by the shareholders' meeting on the company Law of Cayman Islands; however, the relevant procedures meeting (ii) the number of shares held by the shareholders' meeting notice is less than held by the shareholders' meeting notice is less than held by the shareholders' meeting not required by the company Law of Cayman Islands; however, the relevant procedures of the proposal mays as submitted not unsistend shares, (iii) the proposal resolution of any tawn of (iv) the proposal was submitted not urging the foreign issuer to promosal for the convention of shareholders' meeting notice is not required by the company Law of cayman Islands; however, the relevant procedures may be prescribed in the Articles of Association.</li> <li>5. The detail of the convention of required by the relevant procedures may be prescribed in the Articles of the proposal meeting is not required by the company taw of cayman lands; however, the relevant procedures may be shareholder(s) of a company taw of a convention of the proposal.</li> <li>7. The detail of the convention of the proposal or the</li></ul>			exempted company is not restricted	respectively in Articles 16.2, 16.3, 16.4,
the total issued shares may present the total issued shares may present to the foreign issuer a proposal at a shall accept such proposal electronically. The foreign issuer shall accept such proposal submitted by shareholders' meeting convened by the proposal involves matters which cannot be resolved at a shareholders' meeting (ii) the number of shares held by the shareholders in less than 1% of the total issued shares, (iii) 1% of the total number of 1% of the total number of 1% or a plural number of 2% nameloder(s) of a company who have of the total number of 2% not of t			to be convened at a specific place by	18.9, 16.5 to 16.8, and 17.5 of the
<ul> <li>shareholders' meeting in writing or electronically. The foreign issuers</li> <li>shareholders' meeting convened by shareholders' meeting convened by shareholders' meeting convened by shareholders' or shareholders' meeting (ii) the number of shares meeting (ii) the number of shares may be prescribed in the Articles of Association.</li> <li>A. The contents of the shareholders' meeting notice is not required by the Company Law of Cayman Islands; however, it may be prescribed in the company Law of Cayman Islands; however, it may be prescribed in the company law of cayman usplands; how ords or includes more public interests or includes more</li></ul>	the total issued shares may present to the foreign issuer a proposal at a		the Company Law of Cayman Islands: however. it may be	company's Articles of Association.
electronically. The foreign issuer shall accept such proposals submitted by shareholders unless (i) the proposal involves matters which cannot be resolved at a shareholders' meeting (ii) the number of shares needing (ii) the number of shares held by the Shareholders' meeting notice is less than 1% of the total issued shares, (iii) the proposal was submitted not within the announced accepted period of time; or (iv) the proposal period of the contents of the convention of shareholders' meetings is not responsibility, the board shall accept public interests or fulfil it social responsibility, the board shall accept public interests or fulfil it social responsibility, the board shall accept public interests or fulfil it social responsibility, the total number of public interests or fulfil it social responsibility the total number of public interest or fulfil it social responsibility the total number of public interest or fulfil it social responsibility the total number of public interest or fulfil it soc	shareholders' meeting in writing or		prescribed in the company's Articles	Per Letter Tai-Zheng-Shang-Zi No.
<ul> <li>shall accept such proposals</li> <li>a. The shareholders' meeting convened by shareholders unless (i) the proposal involves matters which cannot be resolved at a shareholders' meeting (ii) the number of shares (iii) the proposal right is not required by the Company Law of Cayman Islands; however, the relevant procedures meeting (ii) the number of shares (iii) the proposal may be prescribed in the Articles of Association.</li> <li>a. The shareholders' meeting of the shareholders' meeting for the total issued shares (iii) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal issuer to promote than one proposal issuer to promote than one proposal. For proposal was submitted not urging the foreign issuer to promote than one proposal. For proposal was submitted to the contents of the contents of the shareholders' meeting in the Company's Articles of Association.</li> <li>b. The detail of the convention of shareholders' meetings is not required by the Company's however, the transported in the Articles of Association.</li> <li>c. Any or a plural number of shareholders' meetings is not required by the Company's however, the transported in the convention of shareholders' not required by the convention of shareholders' not required by the company be prescribed in the Articles of Association.</li> </ul>	electronically. The foreign issuer		of Association.	0991701319 filed on April 13, 2010 by
submitted by shareholders unless (i) the proposal involves matters which cannot be resolved at a shareholders' meeting (ii) the number of shares held by the shareholder is less than 1% of the total issued shares, (iii) the proposal was submitted not within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal seceed 300 words or includes more than one proposal. For proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted period of time, or (iv) the proposal within the amounced accepted proposal. For proposal accepted in the Articles of Association. 5. The detail of the convention of shareholder(s) of a company who has (have) continuously held 3% or more of the total number of Association.	shall accept such proposals			the TWSE, "Explanation 2 (3): To the
the proposal nucless matters which meeting (ii) the number of shares meeting (ii) the number of shares head by the cannot be resolved at a shareholders' meeting (iii) the number of shares head by the Shareholders' iii) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not write than one proposal. For proposal was submitted to the convention of shareholders' meeting the convention of shareholders' meeting in the convention of shareholders' or the convention of shareholders' or the vertices of Association. 5. The detail of the convention of shareholders' or the vertices of the total number of the total number of the proposal.	submitted by shareholders unless (i)		by shareholder(s) or shareholders'	extent that the laws of the place of
cannot be resolved at a statemolders meeting (ii) the number of shares held by the shareholders is less than 1% of the total issued shares, (iii) 1% of the total issued shares, (iii) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal exceed 300 words or includes more than one proposal. For proposal exceed 300 words or includes more than one proposal. For proposal exceed 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social responsibility, the board shall accept such proposal. Any or a plural number of shareholder(s) of a company be prescribed in the Articles of Association. 5. The detail of the company Law of cayman Islands; however, the relevant procedures may be prescribed in the Articles of Association.	the proposal involves matters which		proposal right is not required by the	registration are not contradicted, a
<ul> <li>and the total issues than the proposal was submitted not within the announced excepted prescribed in the Articles of the total issued shares, (ii) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted not within the announced accepted period of time, or (iv) the proposal was submitted to the company's Articles of Association. "If the board target the tornote public interests or fulfit is social treasing the foreign is not treasing the company. Law of the active the notice of an extraording treasponsibility, the board shall accept the tornote proposal. Any or a plural number of the deposit of the requisition that (have) company who has (have) company had of the total number of the</li></ul>	cannot be resolved at a shareholders		Company Law of Cayman Islands;	uoreign issuer may remove the part of
1% of the total issued shares, (iii)Association.the proposal was submitted not within the announced accepted period of time, or (iv) the proposal acced 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social responsibility, the board shall accept accepted bublic interests or fulfil it social responsibility, the board shall accept accepted bublic interests or fulfil it social responsibility, the board shall accept such proposal.Anticles of Association. a special shareholders' meeting in a subject to Article 16.8 of the compary subject to Article 16.8 of the compary fare board shareholders' meetings is not responsibility, the board shall accept shareholders' meetings is not responsibility, the board shall accept shareholders' meetings is not required by the Company Law of fare to an extraordir fare to an extraordir required by the Company Law of fare to an extraordir required by the Company Law of fare to an extraordir percent mover, the prescribed in the Any or a plural number of has (have) continuously held 3% or has (have) continuously held 3% or has or a plural number of has or a price of an extraordir prescribed in the Articles of Applicable Public Company Rul has or a price of an extraordir prescribed in the Articles of an extraordir prescribed in the Articles of Applicable Public Company Rul has or a price of an extraordir prescribed in the Articles of Applicable Public Company Rul has or an evide of the det of the det of the det of the dual prescribed in the Articles of Applicable Public Company Rul has a prived of prescribed in the Articles of Applicable Public Company Rul has a prived of prescribed in the Articles of Applicable Public Company Rul has a prived of prescribed in the Artic	held by the shareholder is less than		may be prescribed in the Articles of	competent authority" from the clause on
the proposal was submitted not within the announced accepted period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social uresponsibility, the board shall accept and and announced accepted public interests or fulfil it social uresponsibility, the board shall accept and and announced accedance4. The contents of the shareholders' meeting in the announced accepted provers, it may be prescribed in the company's Articles of Association." Therefore than one proposal than one proposal.a special shareholders' meeting in the company's Articles of Association." Therefore the detail of the convention of shareholders' meetings is not the attect of the requisitionists is shareholders' or a plural number of and a company who has (have) continuously held 3% or house of the company Law of the attect of the requisitionists is and the company be general neting, the requisitionists is and the total number of the attect of an extraordir trequired by the Company Law of the attect of an extraordir trequisitionists is the attect of an extraordir trequisitionists is trequired by the Company Law of the attect of an extraordir trequisitionists is the attect of an extraordir trequisitionists is trequised by the Company Law of the attect of an extraordir the attect of an extraordir trequised by the Company Law of the attect of an extraordir the attect of an extraordir trequised by the Company Law of the attect of an extraordir the attect of an extraordir trequised by the Company Law of the attect of an extraordir trequised by the Company Law of the attect of an extraordir trequised by the Company Law of the attect of an extraordir trequised by the Company Law of the attec	1% of the total issued shares, (iii)		Association.	the right of minority shareholders to call
within the announced accepted period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal exceed 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social responsibility, the board shall accept and proposal. Any or a plural number of shareholder(s) of a company Law of the total of the convention of shareholders' meetings is not required by the Company Law of general meeting, the requisitionists i shareholders' meetings is not required by the Company Law of general meeting, the requisitionists i shareholder(s) of a company who has (have) continuously held 3% or more of the total adverse effect on outstanding shares for a meeting in accordance with prescribed in the Articles of Association." Therefore the total mumber of adverse effect on outstanding shares for a meeting in accordance with prescribed in the Articles of Applicable Public Company Rul adverse effect on	the proposal was submitted not			a special shareholders' meeting in the
period of time, or (iv) the proposal exceed 300 words or includes more than one proposal. For proposal exceed 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social responsibility, the board shall accept such proposal. Any or a plural number of shareholder(s) of a company below the total number of however, the televant procedures may be prescribed in the Articles of Association, "If the board shareholders' meetings is not requised by the Company Law of the attrictes of the requisitionists i such proposal. Any or a plural number of shareholder(s) of a company who has (have) continuously held 3% or more of the total number of outstanding shares for a neriod of prescribed in the Articles of Applicable Public Company Rul Any outstanding shares for a neriod of prescribed in the Articles of Applicable Public Company Rul adverse effect on public interest on the attrictes of the total number of prescribed in the Articles of Applicable Public Company Rul adverse effect on	within the announced accepted		meeting notice is not required by the	articles of association." Therefore,
exceed 300 words or includes more than one proposal. For proposal urging the foreign issuer to promote public interests or fulfil it social responsibility, the board shall accept responsibility, the board shall accept such proposal. Any or a plural number of shareholders' meetings is not required by the Company Law of prescribed in the Articles of Association. Any or a plural number of shareholders' meetings is not relevant procedures may be prescribed in the Articles of Association. Any or a plural number of shareholders' meetings is not relevant procedures may be prescribed in the Articles of Association. Any or a plural number of shareholders' neeting in accordance with shareholders' neeting in accordance with prescribed in the Articles of Such difference should not have more of the total number of shareholder a meeting in accordance with the total number of shareholder a meeting in accordance with accordance with the total number of shareholder a meeting in accordance with the total number of the total number of shareholder a meeting in accordance with the total number of the total	period of time, or (iv) the proposal		Company Law of Cayman Islands;	subject to Article 16.8 of the company's
tuan one proposal. For proposal for proposal for proposal for proposal for proposal for proposal for proble interests or fulfil it social urging the foreign issuer to promote public interests or fulfil it social for proposal for the convention of the convention of the detail of the convention of the detail of the requisitionists is not responsibility, the board shall accept such a proposal for the board shall accept and the procedures is not dispatch the notice of an extraordir requisition is a plural number of the total	exceed 300 words or includes more		however, it may be prescribed in the	Articles of Association, "If the board of
under out of the control of the convention of the	than one proposal. For proposal		Company's Articles of Association.	Directors do not within fifteen days from
responsibility, the board shall accept such proposal. Any or a plural number of shareholder(s) of a company who has (have) continuously held 3% or more of the total number of outstanding shares for a meriod of material adverse effect on	public interests or fulfil it social		State detail of the convention of shareholders' meetings is not	dispatch the notice of an extraordinary
such proposal. Any or a plural number of cayman islands; however, the themselves convene an extraordir hareholder(s) of a company who has (not be been a contance with prescribed in the Articles of Applicable Public Company Rul has (have) continuously held 3% or have be been a contance with prescribed in the Articles of Such difference should not have more of the total number of material adverse effect on has a prescribed of the total number of the total numb	responsibility, the board shall accept		required by the Company Law of	general meeting, the requisitionists may
Any or a plural number of relevant procedures may be general meeting in accordance with shareholder(s) of a company who has (have) continuously held 3% or has (have) continuously held 3% or more of the total number of material adverse effect on material adverse ef	such proposal.		Islands; however,	themselves convene an extraordinary
prescribed in the Articles of Applicable Public Company Rul Association. Association. Such difference should not have material adverse effect on			procedures may	general meeting in accordance with the
/ held 3% or Such difference should not have number of material adverse effect on a neriod of	shareholder(s) of a company who		in the Articles	Applicable Public Company Rules."
number of material adverse effect on a neriod of	ave) continuously held 3%		Association.	Such difference should not have a
	of the total number ading shares for a period			adverse ellect on

1 th	Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
	one year or a longer time may, by filing a written monosal setting forth			Company's shareholders' rights and interests
	therein the subjects for discussion			
	and the reasons, request the Board of			
	Directors to call a special meeting of shareholders If the Board of			
	a notice			
	convening a special meeting of			
	shareholders within 15 days after the			
	filing of the request, the proposing			
	shareholder(s) may, after obtaining			
	an approval from the competent			
	of shareholders on his/their own.			
5.				
	shares for three months or longer are			
	eligible to convene a special general			
	meeting. The calculation of the			
	holding period and holding number			
	of shares shall be based on the			
	holding at the time of share transfer			
`				
o.	I ne following matters shall not shall be itemized in the causes or subjects			
	to be described in the notice to			
	convene a meeting of shareholders			
	and explained about the important			
	contents thereof, and shall not be			
	brought up as extemporary motions;			
	the main content can be announced			
	at the website designated by Taiwan			
	securities authority or by the foreign			
	issuer, and the toreign issuer shall			

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
specify the link to the website on the notice			
(1) Election or discharge of Directors			
and supervisors; (2) Alteration of the Articles of Association:			
<ul><li>(3) Capital reduction;</li><li>(4) Application to terminate public</li></ul>			
offering; (5) Dissolution, merger, conversion of			
shares, spin-off of the company; (6) Enter into, amend, or terminate any			
business in whole, or for entrusted business, or for regular joint			
operation with others; (7) Transfer the whole or any essential			
part of its business or assets;			
(8) Accept the transfer of another's			
whole pushess or assets, which has great bearing on the business			
(9) Private placement of any equity- type securifies:			
(10)Granting waiver to the Director's			
engaging in any business within			
the scope of business of the			
Company; (11)Distributing part or all of its			
dividends or bonus by way of			
issuance of new Shares; and			
(12)Distribution of legal reserve fund			
from profit and capital reserve			

t	Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
	from share premium or gift, by means of rights issue or cash payment to existing shareholders.			
1	The voting power at a shareholders' meeting may be exercised in writing	Article 177-1 of the	1. A shareholder shall not exercise his/her/its voting power in writing or	As prescribed in Article 19.6 of the company's Articles of Association, "A
	or by way of electronic transmission Where the commany	2. Article 177-2 of the Company Act	by way of electronic transmission. Unless otherwise provided by the	Member exercising voting power by
	meeting the "Range of Companies		company's Articles of Association;	electronic transmission shall be deemed
	Subject to Electronic Voting Requirement" promulgated by the		however, a shareholder may authorize a proxy in writing or by	to have appointed the chairman of the general meeting as his proxy to exercise
	securities authority of the Republic		way of electronic transmission to	his or her voting right at such general
	of China; however, shall adopt the electronic transmission as one of the		exercise the voting rights of his/her/its shares at the meeting.	meeting in accordance with the instructions stipulated in the written or
	methods for exercising the voting		2. In case a shareholder exercises the	electronic document." Although the
2	power. Where a shareholders' meeting is to		voting power in his/her/its behalf through a proxy, he/she/it will not be	Company Law of Cayman Islands considers a shareholder exercising the
	—		deemed to have attended the	voting power in such manner not to be
	the Republic of China, the Company		3 The Community Arricles of	deemed to have attended the
	exercise the votes and cast the votes		Association may prescribe t	shareholder is still entitled to all the
	in writing or by way of electronic		delivery of the power of attorney.	rights of a shareholder who has
3	transmission		4. There is no stipulation that a	exercised his/her/its voting power in
C			attorney in the Company Law of	transmission in accordance with the
	the shareholders' meeting notice to		Cayman Islands. However, under	applicable laws and regulations of the
	voting power will be exercised in		principles of common law, notwithstanding anything in the	should not have a material adverse effect
	writing or by way of electronic		Company's Articles of Association to	on the Company's shareholders' rights
	a by the con		the contrary, shareholders who attend	and interests.
	snarenolder who exercises his/her/its voting power at a		to exercise their voting power shall	
	shareholders meeting in writing or		have the preemptive effect, provided	
	by way of electronic transmission		that the Company's Articles of	
			may presented	

Matters of material significance on the protection of shareholders' rights and interests	on Applicable laws and regulations of hts "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
said shareholders' meeting in person, but shall be deemed to have waived his/her/its voting power in	in ave r in	revocation of the power of attorney when shareholders do not attend the shareholders' meeting in person.	
respective of any extemporary motion(s) and/or the amendment(s)	ary ((s)	0	
to the contents of the original proposal(s) at the said shareholders'	inal ers'		
meeting. 4. In case a shareholder elects to	to		
exercise his/her/its voting power in writing or hy way of electronic	r in mic		
transmission, his/her/its declaration of intention shall be served to the	the		
company two (2) days prior to the scheduled meeting date of the	the		
shareholders' meeting, whereas if	s if		
same intention are served to the	the		
company, the first declaration of such intention received shall	of hall		
prevail; unless an explicit statement	lent		
to revoke the previous declaration is made in the declaration which	n is lich		
<ol> <li>III case a shareholder who has exercised his/her/its voting power in</li> </ol>	nas r in		
writing or by way of electronic	nic ++		
shareholders' meeting in person,	ure son,		
he/she/it shall, two days prior to the	the		
meeting date of the scheduled shareholders' meeting and in the	uled the		
same manner previously used in evercient his/her/its voting power	in ver		
od Sunov en livingin Suiciviono	VU5		

laws of         Provisions in the Company's Articles           ry of         of Association and reasons for the discrepancy		238 of There's a slight difference in the Article slands, it 22.3 of the Company's Articles of espect to Association and the matters of material ber, who significance on the protection of shareholders' rights and interests as stated left. Under the Article § 238 of Companies Law of Cayman Islands, it has set forth the relevant regulations with respect to the rights of dissenting Member. The Article 22.2 and 22.3 of the Company's Articles of Association are amended in compliance with the protection of shareholders' rights and
Regulations relating to the laws of the foreign issuer's country of registration place		<ul> <li>According to Article § 238 of Companies Law of Cayman Islands, it sets forth the regulation with respect to the rights of dissenting Member, who execute the right of redemption against the Company.</li> </ul>
Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"		<ol> <li>Article § 186 and 317 of Company Act of Taiwan</li> <li>Article § 12 of Business Mergers And Acquisitions Act of Taiwan</li> </ol>
Matters of material significance on the protection of shareholders' rights and interests	serve a separate declaration of intention to rescind his/her/its previous declaration of intention made in exercising the voting power under the preceding paragraph. In the absence of a timely rescission of the previous declaration of intention, the voting power exercised in writing or by way of electronic transmission shall prevail. 6. In case a shareholder has exercised his/her/its voting power in writing or by way of electronic transmission, and has also authorized a proxy to attend the shareholders' meeting in his/her/its behalf, then the voting power exercised by the authorized proxy for the said shareholder shall prevail.	<ol> <li>If any of the following proposal is adopted via the resolution of the shareholders' meeting, the dissenting Member shall execute the right of the redemption against the Company:         <ol> <li>Any Spin-off, Merger, acquisition or Share Swap;</li> <li>Enter into, amend, or terminate any contract for lease of the Company's business in whole, or for entrusted business, or for regular joint operation with others;</li> </ol> </li> </ol>

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
part of its business or assets; or			Article 22.3 of the Company's Articles
Accept the transfer of another's whole business or assets, which			of Association is also amended to specify that dissenting Member will
has great bearing on the business			reserve the right under the Article § 238
			of Companies Law of Cayman Islands.
2. The requesting Member, in the prior			Reasons for such difference are due to
			the requirements in the Company Law of
twenty days after the adoption of			differences should not have a material
resolution made by Shareholders'			adverse effect on the Company's
meeting, stating therein the			shareholders' rights and interests.
appraisal price of shares. In the			
event the requesting Member and			
the Company have reached an			
agreement in regard to the appraisal			
plice of the Shares lield by such			
shall nav such price within ninety			
days after the date on which the			
resolution was adopted. In the			
event the requesting Member and			
the Company fail to reach any			
agreement with respect to the			
appraisal price, the Company shall			
pay use price to writch the Company considers to be fair price, to the			
requesting Member within ninety			
days after the date of the relevant			
resolution. If the Company fails to			
pay the price to which the Company			
considers to be the fair price within			
date in w			
the resolution was adopted, the Company shall be deemed to have			

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
agreed to the appraisal price requested by the dissenting Member. 3. In the event the Company and the requesting Member, who executes the right under the Paragraph I of Section I, fail to reach the agreement with respect to the appraisal price within sixty days after the resolution date, the Company shall, within thirty days after such sixty-day period, file a petition to Taipei District Court or a ruling on the appraisal price against all the requesting Members as the opposing party.			
Any of the following proposats involving material rights or interests of shareholders shall not be adopted without a resolution adopted by a majority of the shareholders present who represent two-thirds or more of the total number of its outstanding shares. If the total number of shares represented by the shareholders present at shareholders' meeting is not sufficient to meet the criteria specified in the above mentioned, the resolution to be made thereto may be adopted by two-thirds or more of the attending shares. I. A company enters into, amend, or of its outstanding shares:	<ol> <li>Article 105 of the Company Act</li> <li>Article 227 of the Company Act</li> <li>Paragraph 1, Article 240 of the Company Act</li> <li>Article 316 of the Company Act</li> </ol>	Company Law of Cayman Islands, a special resolution means a resolution that has been passed by a majority of not less than two-thirds (where there is any higher percentage of the total number of the voting rights is required in the Articles of Association, such higher percentage shall prevail) of such members as, being entitled to do so, vote in person or, where a power of attorney is allowed, by a proxy at a shareholders' meeting. As usually prescribed by a general Cayman Company's Articles of Association, a special resolution by which such proposal should be adopted shall be	<ul> <li>Autore 1.1 or une Company's Autores of Association</li> <li>(a) Provisions of the Company's Articles of Association</li> <li>Articles of Association</li> <li>According to Article 1.1 of the Company's Articles of Association, a special resolution means "a resolution passed by a majority of not less than two-thirds of votes cast by such Members as, being entitled so to do, vote in person or, where proxies are allowed, by proxy at a general meeting of which notice specifying the intention to propose the resolution as a special resolution as a special resolution has been duly given. means a resolution passed by a majority of the resolution passed by a majority of the resolution as a provise at a general meeting of which notice specifying the intention to propose the resolution passed by a majority of the resolution passed by a majority of the resolution passed by a majority of the resolution as a special resolution as a special resolution as a special resolution based by a majority of the resolution passed by a majority of the resolution passed by a majority of the resolution based by a majority of</li> </ul>

t	Matters of material significance on the protection of shareholders' rights	Applicable laws and regulations of "Company Act" or "Securities and Exchance Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrements
	the company's business in whole, or		notice. A written resolution signed by	by such Members as, being entitled
	for entrusted business, or for regular		all shareholders, provided that it has	so to do, vote in person or, where
	joint operation with others, transfer		been authorized by the company's	proxies are allowed, by proxy at a
	the whole or any essential part of its		Articles of Association, is also	general meeting of which notice
	business or assets, accept the		deemed as a special resolution made.	specifying the intention to propose
	transfer of another's whole business		When the number of votes is required	the resolution as a special resolution
	or assets, which has great bearing on		in the manner for exercising the	has been duly given." According to
	the business operation of the		voting power to calculate whether it	the Cayman Islands legal opinions,
	company		belongs to a majority of special	matters that require a special
ц.			resolution, the company's Articles of	resolution include but are not limited
	Articles of Association		Association may specify the total	to: (i) change the company name; (ii)
ς.	1		number of votes entitled to each	alter or add to Articles of
	Articles of Association prejudicial		shareholder.	Association; (iii) alter or add to the
	to the privileges of special		2. According to the Company Law of	memorandums of association with
	shareholders shall be adopted by a		Cayman Islands, matters that require	respect to any objects, powers or
	meeting of special shareholders		a special resolution include: (i)	other matters specified therein; (iv)
	additionally		change the company name (Article	reduce share capital and any capital
4.			31); (ii) alter or add to articles of	redemption reserve; (v) wind up
	surplus profit distributable as		association (Article 24); (iii) alter or	voluntarily for reasons other than
	dividends and bonuses distributed in		add to the memorandums of	that the company is unable to pay its
	the form of new shares to be issued		association with respect to any	debts as they fall due; and (vi)
	ą		objects, powers or other matters	merger or consolidation with other
5.			specified therein (Article 10); (iv)	company. Additionally, according to
	consolidation or merger, or split-up		reduce share capital and any capital	Article 18.1 of the Company's
	of a company		redemption reserve (Article 14 and	Articles of Association, "No
			37(4)(d)); (v) wind up voluntarily for	business shall be transacted at any
			reasons other than that the company is	general meeting unless a quorum is
			unable to pay its debts as they fall due	present. Unless otherwise provided
			(Article $90(b)(i)$ and $116(c)$ ); and $(vi)$	in the Statute, the Articles and the
			merger or consolidation with other	Applicable Public Company Rules,
			company.	Members present in person or by
			g to the Compa	proxy, representing more than one-
			Cayman Islands, any resolution	Shores shall constitute a mornin for
			auption of siturcitoriacia nower titati	DITATES, SITATI COLISCITUCE a AUDIVITI TOI

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
		the majority threshold for a matter	any general meeting." That is, a
		that requires a special resolution is deemed invalid	special resolution may be adopted at a shareholders' meeting attended by
		3. For matters other than those stated	shareholders representing the
		above, the Company Law of Cayman	majority of shares issued and
		Islands does not require them to be	outstanding in person or by a proxy,
		adopted by a certain majority;	and in which at least two-thirds of
		however, it may be prescribed in the	the votes cast by the shareholders
		company's Articles of Association.	present (including shareholders
			the resolution.
			(b) Reasons for discrepancy
			According to the Cayman Islands
			legal opinions, the special resolution
			is subject to the Company Law of
			Cayman Islands, and according to
			which, any resolution adopted by
			shareholders lower than the majority
			threshold for a matter that requires a
			special resolution is deemed invalid.
			And Article 1.1 of the company's
			of Assoc
			separately "Supermajority
			Resolution" as "a resolution adopted
			by a majority vote of the Members
			present and entitled to vote on such
			resolution at a general meeting
			attended in person or by proxy by
			Members who represent two-thirds
			or more of the total issued,
			outstanding Shares of the Company
			or, (ii) if the total number of Shares
			represented by the Members present
			at the general meeting is less than

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
			two-thirds of the total issued,
			outstanding Shares of the Company, but more than half of the total issued,
			outstanding Shares of the Company,
			a resolution adopted at such general
			meeting by the Members who
			represent two-thirds or more of the
			Shares present and entitled to vote on such resolution."
			For any matter of material
			significance on the protection of
			shareholders' rights and interests as
			stated left, if it should be adopted by
			a special resolution pursuant to the
			Company Law of Cayman Islands, it
			will be still listed as one of matters
			under "Special Kesolution" in the
			company's Articles of Association;
			se, it will be
			matters under "Supermajority
			2. Article 14.3 of the company's
			5
			Article 14.4 if the proposed
			amendment to the Articles of
			Association is adopted at the annual
			ing of 2018)
			(a) Provisions of the company's
			Articles of Association:
			According to Article 14.3 of the
			company's Articles of Association,
			to the provisions of
			Statute, the Articles, and the
			Applicative 1 uuliv vullipality ivalus,

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
			with regard to the dissolution procedures of the Company the
			Company shall pass
			(a)a Supermajority Resolution, if the
			Company resolves that it be wound up voluntarily because it is unable to
			pay its debts as they fall due; or
			(b)a Special Resolution, if the
			up voluntarily for reasons other than
			H
			between it and the matters of motorial significants on the
			on of shareholders' ris
			and interests as stated left lies in:
			based on the reasons for resolution to
			dissolve, the company's Articles of
			Association lists the resolution for
			dissolution as one of matters under "Sumermaiority" or
			୍
			In comparison, the matters of
			material significance on the
			protection of shareholders' rights
			rrests always
			adopted by "Supermajority
			Kesolution.
			(b) Keasons for discrepancy:
			According to the Cayman Islands
			Cavman Islands provides that a
			company shall resolve that it be
			wound up voluntarily for reasons

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
			other than being unable to pay its debts as they fall due by a special resolution. Thus the difference arises out of the laws of Cayman Islands. From the above, we can know that such difference comes from what is limited by law of Cayman Islands. Therefore, "if the Company resolves that it be wound up voluntarily because it is unable to pay its debts as they fall due," a Supermajority Resolution shall be adopted at the shareholders' meeting as prescribed in the company's Articles of Association, while a company is being wound up voluntarily for reasons other than the reason stated in Article 14.3(a), it will be listed as one of matters under "Special Resolution" as required by the Company Law of Cayman Islands. Such difference comes from what is limited by law of Cayman Islands, which should not have a material adverse effect on the Company's shareholdere, rights and interest
III. Authorities and responsibilities of directors and supervisors	rectors and supervisors		
The remuneration of directors, if not prescribed in the Articles of Association, shall be determined by a meeting of shareholders and cannot be ratified by a meeting of shareholders.	Paragraph 1, Article 196 of the Company Act	The Company Law of Cayman Islands does not clearly specify how to determine remuneration of directors; however, it may be prescribed in the company's Articles of Association.	Although neither the remuneration of directors is clearly specified nor it shall be determined by a meeting of shareholders is specified in the company's Articles of Association, referring to per Explanation Shang-Zi No. 09302030870 filed on March 8,

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
			2004 by the Ministry of Economic Affairs and 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," the Company's Board of Director has established a remuneration committee. Therefore, the provisions as stated left should not have a material adverse effect on the Company's shareholders' rights and interests.
In case a director has, in the course of performing his/her duties, committed any act resulting in material damages to the company or in serious violation of applicable laws and/or regulations, but not discharged by a resolution of the shareholders' meeting, the shareholder(s) holding 3% or more of the total number of outstanding shares of the total number of outstanding shares of that shareholders' meeting, institute a lawsuit in the court for a judgment in respect of such matter. The Taiwan Taipei District Court, R.O.C, may be the court of the first instance for this matter.	Article 200 of the Company Act	<ol> <li>The Company Law of Cayman Islands does not clearly specify that the minority shareholders may institute a lawsuit in the court of Cayman Islands for discharge of directors.</li> <li>In general, the procedure for discharge of directors is prescribed in the company's Articles of Association, and that an ordinary resolution should be adopted at the shareholders' meeting is typically prescribed.</li> <li>According to shareholders' remedies required by the common law, in a lawsuit accusing a director of bringing about infringement to the company, the proper plaintiff in form should be the company per se and not an individual shareholder or minority shareholders. There are only a few of exceptions for the above principle,</li> </ol>	(1)Provisions of the company's Articles of Association: According to Article 28.2 (j) of the company's Articles of Association, "Subject to the provisions of the Statute, and the Articles or the Applicable Public Company Rules, in the event that he has, in the course of performing his duties, committed any act resulting in material damage to the Company or in serious violation of applicable laws and/or regulations or the Memorandum and the Articles, but has not been removed by the Company pursuant to a Supermajority Resolution vote, then any Member(s) holding 3% or more of the total number of issued, outstanding Shares shall have the right, within thirty days after that general meeting, to petition any competent court for the removal of such Director, at the Company's

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
		including that when the conduct of a director constitutes a fraud against the minority shareholders and the	expense and such Director shall be removed upon the final judgment by such court. For clarification, if a
		person who commits such fraud is a company's controller, the minority	relevant court has competent jurisdiction to adjudicate all of the
			toregoing matters in a single or a series of proceedings, then, for the purpose of this paragraph (j), final
		4. Since the court of the Cayman Islands cannot ratify and enforce foreign non-monetary judgments before re-	judgment shall be given by such competent court." It is slightly different from the matters of material
		examination on the legal basis of the said dispute, such stipulation added in the company's Articles of	significance on the protection of shareholders' rights and interests as stated left
		Association may not be executed under the Company Law of Cayman Islands Directors may be discharged	(2)Reasons for discrepancy: The Company Law of Cayman Islands does not clearly specify that
		according to the procedure prescribed in the Company's Articles of Association.	the minority shareholders are allowed to enter a petition in the court of Cavman Islands for discharge of
			directors. Under the common law, the subrogation litigation of shareholders will be claimed only under rare
			Articles of Association prescribes that a shareholder shall institute a lawsuit in a competent court. Since
			6 2 2 7
			interests.

th	Matters of material significance on the protection of shareholders' rights	Applicable laws and regulations of "Company Act" or "Securities and	Regulations relating to the laws of the foreign issuer's country of	<b>Provisions in the Company's Articles</b> of Association and reasons for the
	and interests	Exchange Act"	registration place	discrepancy
1.	Supervisors of a company shall be	Article 216 to 222 of the Company Act	The Company Law of Cayman Islands	Article 32.6 of the company's Articles
	elected by the meeting of		esponding concept	of Association
	shareholders, among them at least		"Supervisor." The effect that	
	one supervisor shall have a domicile		are installed in accordar	
	within the territory of the Republic		with the company's Articles of	
	of China.		Association is not clear.	Stock Exchange Corporation Rules
ч.	The term of office of a supervisor			Governing Review of Securities Listings
	shall not exceed three years, but he			"A foreign issuer shall install either an
	may be eligible for re-election.			audit committee or supervisors". The
ы.	ē			Company has installed an audit
	are discharged, the Board of			committee by all independent directors
	Directors shall, within sixty (60)			(Article 32.6 of Articles of Association);
	days, convene a special meeting of			therefore, supervisors are not required to
	shareholders to elect new			be installed additionally. Such
	supervisors.			difference should not have a material
4.	Supervisors shall supervise the			adverse effect on the Company's
	execution of business operations of			shareholders' rights and interests.
	the company, and may at any time or			
	from time to time investigate the			
	business and financial conditions of			
	the company, examine the			
	accounting books and documents,			
	and request the Board of Directors			
	or managerial personnel to make			
	reports thereon.			
5.	Supervisors shall audit the various			
	statements and records prepared for			
	submission to the shareholders'			
	meeting by the Board of Directors,			
	and shall make a report of their			
	findings and opinions at the meeting			
	of shareholders.			
6.	In performing their functional duties of auditing. the supervisors may			

ag in their many may many may protections regulations. Frequisions regulations	th	Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
Supervisors of a company may and the meeting of the Board of Directors on their opinions. In carrying out the business operations director commits any act, in carrying out the business operations of the company, in a manner in violation of the laws, regulations, the Articles of Incorporation or the resolutions of the hars, regulations, the Articles of Incorporation or the resolutions of the hars, regulations, the appervisors may acid vector, a meeting, the supervisors shall forthwith advise, by a notice, to the Board of Directors on the resolutions of the hars, regulations, the supervisors may acid vector, a managerial officer or other managerial officer or other mo					
Directors to give ther options. In carrying out the business operations of the compary, in a manner in violation of the laws, regulations, in a manner in violation of the compary, in a manner in violation of the supervisors shall contract or the previsors shall not the supervisor the birector, a manner in the supervison power individually. A supervison power individually. A supervison power individually. A supervisor shall not be company is a director, a manuage of the company is a moner in management of the company is the supervisor shall not be company.     In the company is a notice, in the supervisor shall not be company is an each each manuely and the supervison power individually. A supervisor shall not be company and the company version manuagement of the company version manuagement of the company version manuagement is a director, a months may request in a director, a supervisor of the company shall of the company shall of the company is buding 1% or more of company buding 1% or more of company version.     In the Company Law of Cayman Article 256 of the company's Articles 20, 214, 220 and 227 of the I. The Company Law of Cayman Article 256 of the company version. The effect that submotion concept the total number of the company version. The effect that submotion concept the total manuely of the company version. The apprvisor of the company version. The apprvisor of the company total number of the company total is an exceedance with the company is succept the total manue of the company. The Taiwan Taipel District Court, the there are installed in the former provisor. The reflex that is not the norter of the norter of the company. The Taiwan Taipel District Court, the apprvisor of the company the norter of the norether of the norter of the norter of the norter of the nore	7.				
arrying out the basiness operations of the company, in a manner in violation of the laws, regulations, the Articles of Incorporation or the resolutions of the laws, regulations, the supervisons will and use as the supervison may each exercise the supervison of the company. An exercise of the company is a staffeenployee of the company is a staffeenployee of the company is a supervison at the company is a supervison of the company is a supervison so of the company is a supervisons. The Taiwan Taipei District Court, the Taiwan Taipei District Court, the Taiwan Taipei District Court, the Taiwan Taipei District Court, the Taiwan traper of the first the supervisons of the company is substantion to be company is a substantion and the company is a substantis a substantion and the co		Directors to give their opinions. In case the Board of Directors or any director commits any act in			
violation of the laws, regulations, the Articles of Incorporation or the resolutions of the supervisors shall forthwith advise, by a notice, to the Board of Directors or the Director, as the ease may be, to case such act. The supervisors may each exercise the supervisors may each exercise the supervisors may be to case such act. The supervisor shall not be concurrently a director, a a supervisor shall not be concurrently a director, a managerial officer or other anargerial officer or other staff/employee of the company. Shareholder(s) who hashave been Article 20, 214, 220 and 227 of the 1. The Company Law of Cayman at for the outstanding the total number of the company ver is months may request in writing the supervisors of the company ver against a director of the company to supervisors of the company ver months may request in writing the supervisors of the company is the Taiwan Taipei District Court, The Taiwan Taipei District Court, C. may be the court of the first instance for this common law, in a brinsting a dout infringement to be company base installed in the common law in a '' foreign issuer shall installed the instance for this matter.		carrying out the business operations of the company, in a manner in			
resolutions of the shareholders' meeting, the supervisors shall forthwith advise, by a notice, to the Board of Directors or the Director, as the case may be, to cases such act. The supervisors may each exercise the supervisors may each exercise a managerial officer or other staff/employee of the company. A supervisor shall not be concurrently a director, a managerial officer or other staff/employee of the company. Shareholder(s) who has/have been staff/employee of the company case the company to managerial officer or other staff/employee of the company. The supervisors are installed in As described in the former sectin supervisors are installed in As described in the former sectin supervisors of the company to the total number of the outpany to supervisors of the company to supervisors of the company to supervisors of the company. The Taiwan Taipei District Court, Ro.C, may be the cont of the first the Corrent of the former with the company in a director of addition against a director of the company. The Taiwan Taipei District Court, Ro.C, may be the cont of the first the content for this former parties in a director of the company the company the sinstalled an instanter for this the momer halinific first form commute or supervisors.		violation of the laws, regulations, the Articles of Incorporation or the			
metug, the supervisors shall board of Directors on the Directors of the Supervisors may each exercise the supervisors may each exercise the supervisors may each exercise the supervisor may each exercise the supervisor may each exercise the supervisor may each exercise the supervisor and incrotive a managerial officer or other stiffermbloyee of the company Law of Cayman Article 25.6 of the company's Art Shareholder(s) who has/have been supervisors of the company ver six the total number of the outpany Act the total number of the outpany over six supervisors of the company or supervisors of the company or supervisors are installed in the former section of "Supervisors" The effect that supervisors are installed in the former section against a director of the company. The Taiwan Tapiei District Court, The Taiwan Ta		resolutions of the shareholders'			
Board of Directors or the Director, as the case such set: The supervisor may each exercise the supervisor may each exercise the supervisor shall not be concurrently a director, a managerial officer or other staff/employee of the company.       A supervisor shall not be concurrently a director, a managerial officer or other staff/employee of the company.         A supervisor shall not be concurrently a director, a managerial officer or other staff/employee of the company.       A fricte 256 of the company's AI islands has no corresponding concept of "Supervisor." The effect that supervisors are installed in supervisors of the company to institute, for the company an action against a director of the company has instance for this matter the total muther of the company.         C, may be the count of the first for C, may be the count of the first instance for this matter       A foreign issuer shall install eith active committee hor the company in a instance for the matter.		meeting, the supervisors shall forthwith advise, by a notice, to the			
The supervisors may each exercise the supervisors shall not be concurrently a director, a managerial officer or other starffemployee of the company. Shareholder(s) who has/have been afficient of the company Law of Cayman shares of the company Law of Cayman restricted the company but is a managerial of "Supervisors are installed in supervisors of the company's Ar supervisors are installed in the former section months may request in writing the supervisors of the company to institute, for the company to institute, for the company an action against a director of the company has installed in supervisors of the company in a company to institute for the company and the company in supervisors of the company to institute for the company to institute for the company to institute for the company to institute for the company in a corting the supervisors of the company in a corting the supervisors of the company in a corting the common law, in a institute for the former section institute for the company the supervisors of the company in a corting the common law, in a institute for the former section institute for the former section in the former section institute for the company to institute for the company		Board of Directors or the Director,			
A supervision power individually.       A supervision power individually.         A supervision shall not be concurrently a director, a managerial officer or other staffemployee of the company.       A supervision shall not be concurrently a director, a managerial officer or other staffemployee of the company.         Shareholder(s) who has/have been article 200, 214, 220 and 227 of the loans of continuously holding 1% or more of company Act continuously holding 1% or more of the oursanding concept of the company ver six months may request in writing the supervisors are installed in accordance with the company's Paragraph 2, Article 28-4 of Ti supervisors of the company to institute, for the company to institute, for the company an action against a director of the company.       A described in the former section accordance with the company's Articles 24 of Ti supervisors are installed in accordance with the company's transfer that supervisors are installed in accordance with the company's Articles 28-4 of Ti supervisors of the company to institute, for the company an action against a director of the company.       A described in the former section accordance with the company's Articles 24 of Ti supervisors are installed in accordance with the company's Articles 24 of Ti supervisors of the company.         Rock Exchange Court, The Taiwa Taipei District Court, R.O.C, may be the court of the first brance for the company.       A dorign issuer shall install eith the company in the former section against a director of a d	<u></u> .	The supervisors may each exercise			
A supervisor shall not be concurrently a director, a managerial officer on other staff/employee of the company's Ar of "Supervisor." The effect that supervisors of the company's Ar supervisors of the company's Ar supervisors of the company's Ar supervisors of the company's Ar accordance with the company's Ar supervisors of the company's Ar against a director of the company. The fraivan Taipei District Court, R.O.C, may be the court of the first institute, for the company.	Ċ	the supervision power individual			
Article 200, 214, 220 and 227 of the       1. The Company Law of Cayman       Article 25.6 of the company's Article 200, 214, 220 and 227 of the         Company Act       1. The Company Law of Cayman       Article 25.6 of the company's Article 25.6 of the company's Article 200, 214, 220 and 227 of the section         Company Act       1. The Company Law of Cayman       Article 25.6 of the company's Article 25.6 of the company's Article 200, 214, 220 and 227 of the company are installed in accordance with the company's Article 28-4 of Ta Articles of Association is not clear.         2. According to shareholders' remedies       Stock Exchange Corporation accounce with the common law, in a lawsuit accusing a director of bringing about infringement to the Company has installed an commutee by all independent director of bringing about infringement to the common law, in a committee by all independent director of bringing about infringement to the common law in a committee by all independent director of bringing about infringement to the common law in a commune law in a commune law in a lawsuit committee by all independent director of bringing about infringement to the common law in a lawsuit committee by all independent director of bringing about infringement to the common law in a lawsuit committee by all independent director of bringing about infringement to the common law in a lawsuit committee by all independent director be bringing about infringement to the common law in a lawsuit committee by all independent director be bringing about infringement to the common law in a lawsuit committee by all independent director be bringing about infringement to the common law in a lawsuit committee bringing about infringement lawsuit committee bringingement about the common law in a lawsuit common law in a lawsuit common law in a lawsuit common law in a l	<i>.</i>	A supervisor shair not concurrently a director,			
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<ul> <li>accordance with the company's Paragraph 2, Article 28-4 of Ta accordance with the company's Paragraph 2, Article 28-4 of Ta Articles of Association is not clear. Stock Exchange Corporation</li> <li>2. According to shareholders' remedies Governing Review of Securities Li required by the common law, in a "A foreign issuer shall install eith lawsuit accusing a director of audit committee or supervisors." bringing about infringement to the Company has installed an communy the proper plantiff in form</li> </ul>		continuously holding 1% or more of the total number of the outstanding	Company Act	esponding col The effect	of Association
accordance with the company's Paragraph 2, Article 28-4 of Ta Articles of Association is not clear. Stock Exchange Corporation 2. According to shareholders' remedies required by the common law, in a "A foreign issuer shall install eith lawsuit accusing a director of audit committee or supervisors." bringing about infringement to the Company has installed an commany the proper plaintiff in form committee by all independent dire		shares of the company over six		installed	As described in the former section of
Articles of Association is not clear. Stock Exchange Corporation 2. According to shareholders' remedies Governing Review of Securities Linequired by the common law, in a "A foreign issuer shall install eith lawsuit accusing a director of audit committee or supervisors." bringing about infringement to the Company has installed an commany the proper plaintiff in form committee by all independent dire		months may request in writing the		accordance with the company's	Paragraph 2, Article 28-4 of Taiwan
2. Accounting to strate forces, fended as the common law, in a "A foreign issuer shall install eith lawsuit accusing a director of audit committee or supervisors." bringing about infringement to the Company has installed an communy the proper plantiff in form committee by all independent dire		supervisors of the company to			Stock Exchange Corporation Rules
strict Court, accusing a director of audit committee or supervisors." bringing about infringement to the Company has installed an company the proper plaintiff in form committee by all independent dire		against a director of the company.			"A foreign issuer shall install either an
rt of the first company has installed an company the proper plaintiff in form committee by all independent dire		The Taiwan Taipei District Court,		lawsuit accusing a director of	audit committee or supervisors."
		R.O.C, may be the court of the first instance for this matter.		bringing about infringement to the company, the proper plaintiff in form	Company has committee by all

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
<ol> <li>In case the supervisors fail to institute an action within 30 days after having received the request made by shareholder(s), then the shareholders filing such request may institute the action for the company. The Taiwan Taipei District Court, R.O.C, may be the court of the first instance for this matter.</li> <li>In addition to the events that the board of directors does not or is unable to convene a shareholders meeting, the supervisors or audit committee may, for the benefit of the company, convene shareholders meeting when necessary.</li> </ol>		should be the company per se and not an individual shareholder or minority shareholders. There are only a few of exceptions for the above principle, including that when the conduct of a director constitutes a fraud against the minority shareholders and the person who commits such fraud is a company's controller, the minority shareholders who have suffered the fraud may institute a lawsuit in the court. 3. Since the court of the Cayman Islands count. 3. Succetors may be discharged according to the procedure prescribed in the company's Articles of Association.	therefore, supervisors are not required to be installed additionally. Such difference should not have a material adverse effect on the Company's shareholders' rights and interests.
In case a director or supervisor (applicable to companies who install supervisors) of a company whose shares are issued to the public has created a pledge on the company's shares more than half of the company's shares being held by him/her/it at the time he/she/it is elected, the voting power of the excessive portion of shares shall not be exercised and the excessive portion of	Article 197-1 of the Company Act	The fact that shares held by directors shall have no voting power (under which circumstances) is not required by the Company Law of Cayman Islands; however, the relevant procedures may be prescribed in the Articles of Association.	Article 24.3 of the company's Articles of Association In addition, as described in the former section of Paragraph 2, Article 28-4 of Taiwan Stock Exchange Corporation Rules Governing Review of Securities Listings "A foreign issuer shall install either an audit committee or supervisors".The Company has installed

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
shares shall not be counted in the number of votes of shareholders present at the meeting.			an audit committee by all independent directors; therefore, supervisors are not required to be installed additionally. Such difference should not have a material adverse effect on the Company's shareholders' rights and interests. Thus supervisors are not included in the above mentioned Articles of Association. Such difference should not have a material adverse effect on the Company's shareholders' rights and interests.
<ol> <li>The director of a company shall have the loyalty and shall exercise the due care of a good administrator in conducting the business operation of the company; and if he/she has acted contrary to this provision, shall be liable for the damages to be sustained by the company therefrom. In case the director of a company does anything for himself/herself or on behalf of another person, the meeting of shareholders may, by a resolution, consider the earnings in such an act as earnings of the company.</li> <li>If the director of a company.</li> <li>If the director of a company.</li> </ol>	Paragraph 2, Article 8, Paragraph 3, Article 23 of the Company Act	<ol> <li>The Company Law of Cayman Islands includes specifically obligations of directors as clear directions. According to the common law of Cayman Islands, each shareholder being liable to (1) fiduciary duties, and (2) exercise the due care of a good administrator for the company (duty of care). The company may claim compensation against the directors who have violated the above duties. In addition, directors who have violated their duties acquire interests shall be bound to return the same to the company.</li> <li>Based on principles of common law, in the course of operation for management of the company's businesses, the acts of a director representing the company will be deemed as the acts of the company</li> </ol>	Article 26.5 of the company's Articles of Association However, if the director of a company has, in the course of conducting the business operations, violated any provision of the applicable laws and/or regulations and thus caused damage to any other person, such other person may not be able to claim compensation directly from such director under the law of Cayman Islands. Even the company's Articles of Association requires that the director shall be jointly liable for compensation with the company to the other person, the base of such claim will be unable to be created. In addition, although Article 26.5 of the company's Articles of Association has required that such clause of obligation is also applicable to managerial officers;

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
shall be liable, jointly and severally, for the damage to such other person. 3. The managerial officer or supervisor of a company, acting within the scope of their duties, shall assume the liabilities for the damage in the same manner as directors of a company do.		per se. If the conduct thereof causes damage of any third party, the company, not the director, shall be bound to be liable the third party for the acts. The third party caused by the damage cannot demand from the company the compensation and impose obligations on the directors according to the company's Articles of Association. Any third party who is not a shareholder cannot execute it according to the company's Articles of Association. The company who is liable for the damage to be sustained by the third party because the directors who have violated the duties may claim reimbursement against the directors caused the damage. 3. The managerial officer generally has no fiduciary duties for the company. Since managerial officers are not the parties pursuant to the Articles of Association, no execution effect is present even it is prescribed in the Articles of Association. The above duties shall be entered into the contracts with managerial officer.	however, it shall be entered into the contracts with managerial officers in accordance with the law of Cayman Islands. Therefore, if the responsibilities of managerial officers for the matters of material significance on the protection of shareholders' rights and interests as stated left will be implemented, the Company shall enter into the contracts with managerial officers. Such difference should not have a material adverse effect on the Company's shareholders' rights and interests.
Where a juristic person acts as a shareholder of a company, its authorized representative may be elected as a director or supervisor of the company. If there is a plural number of such authorized representatives, each of them	Paragraph 2, Article 27 of the Company Act	1.The fact that an authorized representative of a juristic person acting as a shareholder being elected as a director is not regulated by the Company Law of Cayman Islands;	Article 27.4 of the Company's Articles of Association As described in the former section of Paragraph 2, Article 28-4 of Taiwan Stock Exchange Corporation Rules

Matters of material significance on the protection of shareholders' rights and interests	Applicable laws and regulations of "Company Act" or "Securities and Exchange Act"	Regulations relating to the laws of the foreign issuer's country of registration place	Provisions in the Company's Articles of Association and reasons for the discrepancy
may be so elected, but such authorized representatives may not concurrently be		however, it may be prescribed in the Articles of Association.	Governing Review of Securities Listings "A foreign issuer shall install either an
selected or serve as the director or supervisor of the company.		2.The Company Law of Cayman Islands has no corresponding concept of	The Company Law of Cayman Islands audit committee or supervisors." The has no corresponding concept of Company has installed an audit
		"Supervisor." The effect that supervisors are installed in accordance	"Supervisor." The effect that committee by all independent directors; supervisors are installed in accordance therefore, supervisors are not required to
		with the company's Articles of Association is not clear	with the company's Articles of be installed additionally. Such Association is not clear
			adverse effect on the Company's shareholders' rights and interests Thus
			supervisors are not included in the above mentioned Articles of Association. Such
			difference should not have a material adverse effect on the Company's
			shareholders' rights and interests.

8.6 Any Events in 2019 and as of the Date of Publication of the Annual Report that Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Article 36-3-2 of the Securities and Exchange Law of Taiwan

None.

#### **INDEPENDENT AUDITORS' REPORT**

The Board of Directors and Shareholders Alchip Technologies, Limited:

#### Opinion

We have audited the accompanying consolidated financial statements of Alchip Technologies, Limited and its subsidiaries (collectively referred to as the Company), 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 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 Company as of December 31, 2018 and 2017, 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 audit 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 Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethicsfor Certificate Public Account of Republic of China, and we have fulfilled our other ethical responsibilities in accordance with the requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for the opinion.

#### Key Audit Matters

Key audit matters are matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters have been reflected in the entirety of the audited consolidated financial statements and throughout the process of the opinion formation. We do not provide opinions separately for these matters.

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

#### Impairment Assessment of Equipment

As described in Note 5 of the consolidated financial statements, when the equipment related to chip production has any indication of impairment, the Company evaluates impairment loss based on the recoverable amount of equipment (Which is higher of its fair value less costs to sell or value-in-use). The recoverable amount, which is estimated based on the anticipation of the production life cycle of chips, projected production volume, and market price, is subject to a risk of changes in relation to the assumptions that could result in additional impairment loss or reversal of impairment loss. Consequently, the impairment assessment of equipment is deemed to be a key audit matter.

Our main audit procedures in respect of assessment thereof included as following:1. Assessed the underlying information the management used when assessing whether there is any indication of impairment. 2. Reviewed the methodologies applied for the determination of the recoverable amount and the projected sales forecasts prepared by the management and evaluated the appropriateness of the impairment assessment which the management performed.

# Responsibilities of the 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 the 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, the 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's 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.

#### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance on whether the entirety of the consolidated financial statements contain any material misstatement caused by fraud or error, and to issue an auditor's 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 be reasonably be expected to influence the economic decision 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 judgement 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 the 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 the 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 significat doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty esists, we are required to draw attention in our auditor's 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 auditor's 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 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 for the financial information of entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for dirction, supervision and performance of the Company 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 statements that we have complied with relevant ethical requirements regarding regarding independence, and 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 determined those matters that were of most significance in the audit of consolidated financial statements for the year ended December 31, 2019, and are therefore the key audit matter. We describe thematter in our auditor's report unless law or regulations 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 Yi-Wen Wang and Cheng-Ming Lee.

The independent auditors' report and the accompanying consolidated financial statements have been translated into English from 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 consolidatd financial statements shall prevail.

March 6, 2020

## ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

CONSOLIDITIED DILLITICE SHEET	
(In Thousands of New Taiwan Dollars)	

		December 31, 2019		December 31, 2018	
Code	ASSETS	Amount	%	Amount	%
	CURRENT ASSETS				
1100	Cash and Cash Equivalents (Note 6)	\$ 2,377,250	46	\$ 1,142,113	31
1120	Financial Assets at Fair Value Through Other Comprehensive				
	Income (Note 7)	103,208	2	20,889	1
1136	Financial Assets atAmortized Cost (Note 8)		-	601,565	16
1170	Accounts Receivable, Net (Note 10)	898,115	17	670,738	18
1200	Other Receivables	22,230	-	22,140	1
130X	Inventories (Note 11)	581,577	11	281,278	8
1410	Prepayments (Note 16)	82,871	2	124,914	3
1470	Other Current Assets	42,996	1	20,148	
11XX	Total Current Assets	4,108,247	79	2,883,785	
	NON-CURRENT ASSETS				
1517	Financial Assets at Fair Value Through Other Comprehensive Income (Note 7)	354,372	7	318,809	9
1600	Property, Plants, and Equipment (Note 13)	389,422	7	316,836	8
1755	Right-of-use Asset(Note 14)	110,085	2	510,050	-
1780	Intangible Assets (Note 15)	221,553	4	146,759	4
1840	Deferred Tax Assets (Note 25)	26,400	1	34,889	1
1900	Other Non-current Assets	14,987	-	16,326	-
15XX	Total Non-current Assets	1,116,819	21	833,619	22
1XXX	TOTAL ASSETS	<u>\$ 5,225,066</u>	_100	<u>\$ 3,717,404</u>	100
Code	LIABILITIES AND EQUITY				
coue	CURRENT LIABILITIES				
2100	Short-term Borrowings (Note 17)	\$ 15,496	-	\$ -	_
2130	Contract Liabilities(Note 23)	774,994	15	316,979	8
2170	Accounts Payable	415,035	8	135,734	4
2200	Other Payables (Note 18)	474,897	9	204,706	5
2230	Current Tax Liabilities (Note 25)	44,984	1	64,461	2
2280	Lease Liabilities(Note 14)	37,692	1	-	-
2313	Deferred Revenue (Note 22)	43,951	1	44,813	1
2399	Other Current Liabilities	8,617		1,881	
21XX	Total Current Liabilities	1,815,666	35	768,574	20
	NON-CURRENT LIABILITIES				
2570	Deferred Tax Liabilities (Note 25)	12,209	-	9,986	-
2580	Lease Liabilities(Note 14)	73,689	1	-	-
2630	Deferred Revenue	21,757	1	17,945	1
25XX	Total Non-current Liabilities	107,655	2	27,931	1
2XXX	Total Liabilities	<u>1,923,321</u>	37	796,505	21
	EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY				
	(Notes 20 and 21)				
3110	Share Capital	606,129	12	597,731	16
3200	Capital Surplus	1,534,620	29	1,456,360	39
	Retained Earnings				
3320	Special Reserve	67,693	1	67,693	2
3350	Unappropriated Earnings	1,097,056	21	754,229	20
3300	Total Retained Earnings	1,164,749	22	821,922	22
3400	Other Equity	( <u>3,753</u> )		44,886	2
3XXX	Total Equity	3,301,745	63	2,920,899	79
	TOTAL	<u>\$ 5,225,066</u>	_100	<u>\$_3,717,404</u>	_100

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

# ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

CONSCRIPTING BUILDINGE SHI	
(In Thousands of U.S. Dollars)	

		December 31, 2019		December 31, 2018		
Code	ASSETS	Amount	%	Amount	%	
	CURRENT ASSETS					
1100	Cash and Cash Equivalents (Note 6)	\$ 79,295	46	\$ 37,184	31	
1120	Financial Assets at Fair Value Through Other Comprehensive					
	Income (Note 7)	3,443	2	680	1	
1136	Financial Assets at Amortized Cost (Note 8)	-	-	19,585	16	
1170	Accounts Receivable, Net (Note 10)	29,957	17	21,837	18	
1200	Other Receivables	742	-	720	1	
130X	Inventories (Note 11)	19,399	11	9,158	8	
1410	Prepayments (Note 16)	2,764	2	4,067	3	
1470	Other Current Assets	1,433		656	<u> </u>	
11XX	Total Current Assets	137,033	79	93,887		
	NON-CURRENT ASSETS					
1517	Financial Assets at Fair Value Through Other Comprehensive					
	Income (Note 7)	11,820	7	10,380	9	
1600	Property, Plants, and Equipment (Note 13)	12,989	7	10,315	8	
1755	Right-of-use Asset(Note 14)	3,672	2	-	-	
1780	Intangible Assets (Note 15)	7,390	4	4,778	4	
1840	Deferred Tax Assets (Note 25)	881	1	1,136	1	
1900	Other Non-current Assets	500		532		
15XX	Total Non-current Assets	37,252	21	27,141	22	
1XXX	TOTAL ASSETS	<u>\$ 174,285</u>	100	<u>\$ 121,028</u>	100	
Code	LIABILITIES AND EQUITY					
	CURRENT LIABILITIES					
2100	Short-term Borrowing (Note 17)	\$ 517	-	\$ -	-	
2130	Contract Liabilities(Note23)	25,850	15	10,320	8	
2170	Accounts Payable	13,844	8	4,419	4	
2200	Other Payables (Note 18)	15,840	9	6,665	5	
2230	Current Tax Liabilities (Note 25)	1,500	1	2,099	2	
2280	Lease Liabilities(Note 14)	1,257	1	-	-	
2313	Deferred Revenue (Note 22)	1,466	1	1,459	1	
2399	Other Current Liabilities	288		61		
21XX	Total Current Liabilities	60,562	35	25,023	20	
	NON-CURRENT LIABILITIES					
2570	Deferred Tax Liabilities (Note 25)	407	-	325	-	
2280	Lease Liabilities(Note 14)	2,458	1	-	-	
2630	Deferred Revenue	726	<u> </u>	584		
25XX	Total Non-current Liabilities	3,591	2	909	1	
2XXX	Total Liabilities	64,153	37	25,932	21	
	EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY					
	(Notes 20 and 21)					
3110	Share Capital	19,034	<u>    11    </u>	18,761	15	
3200	Capital Surplus	49,324	28	46,788	39	
	Retained Earnings					
3320	Special Reserve	2,799	2	2,799	2	
3350	Unappropriated Earnings	38,183	22	27,074	23	
3300	Total Retained Earnings	40,982	24	29,873	25	
3400	Other Equity	792		( <u>326</u> )		
3XXX	Total Equity	110,132	63	95,096	79	
	TOTAL	<u>\$ 174,285</u>	100	<u>\$ 121,028</u>	100	

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

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#### ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In Thousands of U.S. Dollars and New Taiwan Dollars, Except Earnings (Loss) Per Share)

<u>(III III0</u>	busanus of U.S. Donars and New Taiw	an Donars, Exce	2019	Ter Share)		2018	
Code		US\$	NT\$	%	US\$	NT\$	%
4000	OPERATING REVENUE (Note 23)	\$ 140,138	\$ 4,331,956	100	\$ 114,454	\$ 3,450,678	100
5000	OPERATING COST (Notes 12 and						
5000	24)	88,021	2,720,914	63	71,619	2,159,237	63
5900	GROSS PROFIT	52,117	1,611,042	37	42,835	1,291,441	37
6100 6200	OPERATING EXPENSES (Note 24) Selling and Marketing Expenses General and Administrative	4,468	138,114	3	4,705	141,839	4
6200	Expenses	10,258	317,082	7	6,875	207,308	6
6300 6450	Research and Development Expenses Expected Credit Losses	22,183	68,5741	16	20,577	620,393	18
6000	Impairment loss(reversed) on trade receivables Total Operating Expenses	<u>1,204</u> 38,113	37,227 1,178,164	<u>1</u> 27	(1) 32,157	( <u>24)</u> <u>969,516</u>	
6900	INCOME FROM OPERATIONS	14,004	432,878	10	10,678	321,925	9
7010 7020	NON-OPERATING INCOME AND EXPENSES (Note 24) Other Income Other Gains and Losses	3,332 66	103,014 2,030	2	2,109 ( 217 )	63,587 ( 6,544 )	2
7050 7055	Finance Costs Expected Credit Losses	( 146 ) ( 263 )	( 4,516 ) ( 8,123 )	-	( 30 ) ( 1,435 )	( 891 $)($ 43,272 $)$	( 1)
7000	Total Non-operating	()	()		()	()	( <u></u> )
	Income and Expenses	2,989	92,405	2	427	12,880	1
7900	INCOME BEFORE INCOME TAX	16,993	525,283	12	11,105	334,805	10
7950	INCOME TAX EXPENSES (Note 25)	2,969	91,771	2	2,569	77,448	2
8200	NET INCOME	14,024	433,512	10	8,536	257,357	8
8310 8341 8360 8361	OTHER COMPREHENSIVE INCOME (LOSS) Items that May not be Reclassified Subsequently to Profit or Loss Exchange Differences Arising on Translation to the Presentation Currency Items that May be Reclassified Subsequently to Profit or Loss Exchange Differences Arising on Translating	-	( 83,190)	( 2)	-	93,288	3
	Foreign Operations (Note 4)	32	975	-	32	970	-
8367	Unrealized Loss on investments in Debt Instrument at Fair Value Through Other Comprehensive Income	1,086	33,576	1	( 408_)	(	( <u>_1</u> )
8300	Other Comprehensive Income (Loss) for the	1 110	( 48 (20 )	( 1)	( )7( )	01.026	2
8500	Year, Net of Income Tax TOTAL COMPREHENSIVE INCOME (LOSS) FOR THE YEAR	<u> </u>	( <u>48,639</u> ) <u>\$ 384,873</u>	( <u>1</u> )	( <u>376</u> ) <u>\$8,160</u>	<u>81,936</u> <u>\$339,293</u>	<u>2</u> <u>10</u>
8610	NET INCOME (LOSS) ATTRIBUTABLE TO Shareholders of the Company	<u>\$ 14,024</u>	<u>\$ 433,512</u>	10	<u>\$ 8,536</u>	<u>\$ 257,357</u>	7
8710	TOTAL COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO Shareholders of the Company	<u>\$ 15,142</u>	<u>\$ 384,873</u>	9	<u>\$ 8,160</u>	<u>\$ 339,293</u>	10
9710 9810	EARINGS PER SHARE (Note 26) Basic Earnings per Share Diluted Earnings per Share	<u>\$ 0.23</u> <u>\$ 0.22</u>	<u>\$ 7.20</u> <u>\$ 6.89</u>		<u>\$ 0.14</u> <u>\$ 0.13</u>	<u>\$ 4.22</u> <u>\$ 4.03</u>	

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

ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (In Thousands of New Taiwan Dollars)

(In	(In Thousands of New Taiwan Dollars)													
				Capital	Capital Surplus			Retained Earnings		Exchange Differences on	Other Equity Unrealized Gain (Loss) on	Unrealized Gain(Loss) on Financial Assets at Fair Value		
Code		Share Capital	Share Premium	Share Options	Treasury Shares	Total	Special Reserve	Unappropriated Earnings	Total	Translating Foreign Operations	Available-for- sale Financial Assets	Through Other Comprehensive Income	Treasury Shares	Total Equity
A1	BALANCE, JANUARY 1, 2018	I	\$ 1,365,773	\$ 53,418	\$ 6,121	\$ 1,425,312	\$ 67,693	\$ 662,482	\$ 730,175	(\$ 44,559)	(\$ 6,493)	s	s	\$ 2,714,445
A3	Effects of Retrospective Application							(13,194)	( 13,194)		6,493	7,509		808
A5	Adjusted Balance ,January 1, 2018	610,010	1,365,773	53,418	6,121	1,425,312	67,693	649,288	716,981	( 44,559)		7,509		2,715,253
B5	Appropriation of 2017 Earnings Cash Dividends	'			'			( 64,008)	( 64,008)					( 64,008)
Iz	Share-based Compensation	ı	ı	47,675	ı	47,675	'	ı	'	ı	ı	ı	ı	47,675
KI	Issue of Ordinary Shares Under the Employee Share Options	6,971	55,056	( 21,457)		33,599								40,570
LI	Buy-back of Treasury Shares	ı	I	•				ı					( 157,884)	( 157,884)
L3	Cancellation of Treasury Shares	( 19,250)	( 44,105)		( 6,121)	( 50,226)	ı	( 88,408)	( 88,408)	ı	,	,	157,884	,
DI	Net Income in 2018		T					257,357	257,357					257,357
D3	Other Comprehensive Income (Loss) for the Year Ended December 31, 2018		"	1		1				94,258		(12,322)		81,936
D5	Total Comprehensive Income (Loss) for the Year Ended December 31, 2018		"	1		1		257,357	257,357	94,258	"	( 12,322)		339,293
Z1	BALANCE, DECEMBER 31, 2018	597,731	1,376,724	79,636		1,456,360	61,693	754,229	821,922	49,699		( 4,813)		2,920,899
B5	Appropriation of 2018 Earnings Cash Dividends							( 90,685)	( 90,685)					( 90,685)
N	Share-based Compensation	I	ı	52,884	I	52,884	·	ı		·	ı	ı	ı	52,884
KI	Issue of Ordinary Shares Under the Employee Share Options	8,398	43,702	( 18,326)	,	25,376								33,774
DI	Net Income in 2019	ı	·	ı	ı	I		433,512	433,512	·	I	I	ı	433,512
D3	Other Comprehensive Income (Loss) for the Year Ended December 31, 2019			1			ľ			(82,215)		33,576		(
DS	Total Comprehensive Income (Loss) for the Year Ended December 31, 2019			'				433,512	433,512	(82,215)		33,576		384,873
Z1	BALANCE, DECEMBER 31, 2019	\$ 606,129	<u>\$ 1,420,426</u>	<u>\$ 114,194</u>	S	\$ 1,534,620	\$ 67,693	<u>\$ 1,097,056</u>	<u>\$ 1,164,749</u>	( <u>\$ 32,516)</u>	S	\$ 28,673	5	\$ 3,301,745

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

ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (In Thousands of U.S. Dollars)

(In ]	(In Thousands of U.S. Dollars)													
				Capital	Capital Surplus			Retained Earnings		Exchange Differences on	Other Equity Unrealized Gain (Loss) on	Unrealized Gain(Loss) on Financial Assets at Fair Value		
Code		Share Capital	Share Premium	Share Or	Treasury Shares	Total	Special Reserve	Unappropriated Earnings	Total	Translating Foreign Operations	Available-for- sale Financial Assets	Through Other Comprehensive Income	Treasury Shares	Total Equity
Al	BALANCE, JANUARY 1, 2018	I	\$ 43,795	1	\$ 199	\$ 45,682	\$ 2,799	\$ 24,021	\$ 26,820	(\$ 267)	(\$ 153)	- S	s	\$ 91,211
A3	Effects of Retrospective Application		1		1			(	()		153	317	1	27
A5	Adjusted Balance ,January 1, 2018	19,129	43,795	1,688	199	45,682	2,799	23,578	26,377	( 267)		317	ı	91,238
B5	Appropriation of 2017 Earnings Cash Dividends			·		·		( 2,135)	( 2,135)					( 2,135)
NI	Share-based Compensation	I	I	1,581	I	1,581		ı	ı	ı	ı	ı	ı	1,581
KI	Issue of Ordinary Shares Under the Employee Share Options	236	1,831	( 691)		1,140				'				1,376
E	Buy-back of Treasury Shares					I							( 5,124)	( 5,124)
L3	Cancellation of Treasury Shares	( 604)	( 1,416)		( 199)	( 1,615)	'	( 2,905)	( 2,905)	,			5,124	
DI	Net Income in 2018					·		8,536	8,536		,			8,536
D3	Other Comprehensive Income (Loss) for the Year Ended December 31, 2018	•								32		()		(376)
D5	Total Comprehensive Income (Loss) for the Year Ended December 31, 2018	1				1		8,536	8,536	32		( 408)		8,160
Z1	BALANCE, DECEMBER 31, 2018	18,761	44,210	2,578		46,788	2,799	27,074	29,873	( 235)		(10 )		95,096
B5	Appropriation of 2018 Earnings Cash Dividends							( 2,915)	( 2,915)					( 2,915)
ĨZ	Share-based Compensation	I	I	1,711	I	1,711	1	I	I	ı	ı	I	I	1,711
KI	Issue of Ordinary Shares Under the Employee Share Options	273	1,418	( 593)		825								1,098
DI	Net Income in 2019	I	I	1	I		1	14,024	14,024		I	I	I	14,024
D3	Other Comprehensive Income (Loss) for the Year Ended December 31, 2019	1	'		'		'			32		1,086	'	1,118
D5	Total Comprehensive Income (Loss) for the Year Ended December 31, 2019	•						14,024	14,024	32		1,086		15,142
Z1	BALANCE, DECEMBER 31, 2019	<u>\$ 19,034</u>	\$ 45,628	\$ 3,696	S	\$ 49,324	<u>s 2,799</u>	\$ 38,183	\$ 40,982	( <u>\$</u> 203)	S	\$ 995	S	<u>\$ 110,132</u>

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

#### ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands of U.S. Dollars and New Taiwan Dollars)

			2.0	19			20	)18	
Code			US\$	1/	NT\$		US\$		NT\$
	CASH FLOWS FROM OPERATING ACTIVITIES								
A10000	Income Before Income Tax	\$	16,993	\$	525,283	\$	11,105	\$	334,805
A20010	Adjustments For:								
A20100	Depreciation and								
	Amortization		30,045		928,748		26,072		786,037
A20300	Expected Credit Losses								
	Impairment loss(reversed) on								
	trade receivables		1,467		45,350		1,434		43,248
A20900	Interest Expenses		146		4,516		30		891
A21200	Interest Income	(	1,840	(	56,840	(	1,535)	(	46,286)
A21900	Share-based Compensation		1,711		52,884		1,581		47,675
A22500	Loss on Disposal of								
	Equipment		3		90		16		491
A23100	Net Loss on Disposal of						60		
	Financial Assets		9		271		69		2,072
A23800	(Reversal of) Write-down of	,		,					
	Inventories	(	503)	(	15,556)		618		18,627
A24100	Net (Gain) Loss on Foreign	,		,	>				
	Currency Exchange	(	237)	(	7,352)		227		6,854
A29900	Amortization of Prepayments		3,246		100,327		2,995		90,290
A30000	Net Changes in Operating Assets								
4.2.1.1.50	and Liabilities	,	0.000	,	207 120 \	(	7.024	,	22(204)
A31150	Accounts Receivable	(	9,289)	(	287,130)	(	7,834)	(	236,204)
A31180	Other Receivables	(	351)	(	10,846)	(	49)	(	1,478)
A31200	Inventories	(	9,738)	(	301,019)	(	7,743)	(	233,414)
A31230	Prepayments Other Current Assets	(	2,362)	(	73,019)	(	3,652)	$\left( \right)$	110,098)
A31240		(	777)	(	24,055)	C	231)	(	6,952)
A32125 A32150	Contract Liabilities		15,530 8,546		480,063 264,157		9,817		295,980 85,937
A32130 A32180	Accounts Payable Other Payables		8,340 4,292		132,664		2,850 7		253
A32180 A32230	Other Current Liabilities		4,292		7,023	(	341)	(	10,279)
A32990	Deferred Revenue		149		4,600	(	<u>584</u>	C	17,614
A33000	Cash Generated from Operations		52,267		1,770,159		36,020		1,086,063
A33300	Interest Paid	(	133)	(	4,118)	(	35)	(	1,060,069
A33500	Income Tax Paid	à	3,291)	$\tilde{c}$	101,662)	è	2,167)	$\hat{i}$	<u>65,374</u> )
AAAA	Net Cash Generated from	(	<u> </u>	(	101,002)	(	2,107)	(	)
1 11 11 11 1	Operating Activities		53,843		1,664,379		33,818		1,019,620
	operating red thes		55,615		1,001,072		55,010		1,019,020
	CASH FLOWS FROM INVESTING ACTIVITIES								
B00010	Acquisition of Financial Assets at								
D00010	Fair Value through Other								
	Comprehensive Income								
	Acquired	(	4,702)	(	145,374)	(	633)	(	19,081)
B00020	Proceeds from Disposal of	(	1,702)	(	115,571)	C	055 )	(	19,001 )
<b>D</b> 00020	Financial Assets at Fair Value								
	Through Other Comprehensive								
	Income		1,232		38,068		5,894		177,693
B00040	Acquisition of Financial Assets at		1,202		20,000		2,071		1,1,075
DOODIO	Amortized Cost	(	11,797)	(	364,660)	(	23,287)	(	702,085)
B00050	Proceeds from Disposal of Financial	(	,	(	201,000 )	(	23,207 )	(	, 02,000 )
200000	Assets atAmortized Cost		31,384		970,139		3,700		111,551
			21,201		2,0,109		2,700		,
	1								

(Continued on next page)

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			20	19			20	18	
Code			US\$		NT\$		US\$		NT\$
B02700	Payments for Property, Plants, and Equipment	(	16,518)	(	510,604)	(	23,628)	(	712,420)
B02800	Proceeds from Disposal of Property, Plants, and		. ,		, ,	<sup>×</sup>	, ,		, ,
	Equipment		-		6		-		7
B03700	Decrease(Increase) in Refundable Deposits	(	5)	(	154)		32		987
B04500	Payments for Intangible Assets	$\tilde{(}$	11,420)	(	352,973)	(	5,068)	(	152,801)
B07500	Interest Received	`	2,296	`_	71,003	` <u> </u>	1,250	`	37,700
BBBB	Net Cash Used in Investing	,	a <b>53</b> a x	,	<b>0</b> 04 <b>5</b> 40 \	,		,	
	Activities	(	9,530)	(	294,549)	(	41,740)	(	1,258,449)
	CASH FLOWS FROM								
	FINANCING ACTIVITIES								
C00100	Increase(Decrease)Short-term		500		15 450	(	1 414)	(	42 (24)
C04020	Borrowing Repayment of Lease	(	500 1,132)	(	15,456 34,991 )	(	1,414)	(	42,624)
C04500	Cash Dividends	$\tilde{(}$	2,915)	(	90,685)	(	2,135)	(	64,008)
C04800	Proceeds from Exercise of		, ,		, ,		, ,		, ,
G0 4000	Employee Share Options		1,098		33,774		1,376		40,570
C04900	Payments for Buy-back of Ordinary Shares		_		_	(	5,124)	(	157,884)
CCCC	Net Cash Used in			-		(	<u> </u>	(	<u> </u>
	Financing Activities	(	2,449)	(	76,446)	(	7,297)	(	223,946)
DDDD	EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE								
	OF CASH HELD IN FOREIGN		2.47	(	50 0 47 )	(	07)		10 707
	CURRENCIES		247	(	58,247)	(	<u> </u>		42,797
EEEE	NET INCREASE(DECREASE)IN								
	CASH AND CASH		40 111		1 005 105	,	15.20()	,	410.070.)
	EQUIVALENTS		42,111		1,235,137	(	15,306)	(	419,978)
E00100	CASH AND CASH EQUIVALENTS								
	AT THE BEGINNING OF THE		27 104	1	1 40 110		52 400		1 5 ( 2 0 0 1
	YEAR		37,184	1	,142,113		52,490		1,562,091
E00200	CASH AND CASH EQUIVALENTS								
	AT THE END OF THE YEAR	<u>\$</u>	79,295	<u>\$</u>	2,377,250	<u>\$</u>	37,184	<u>\$</u>	1,142,113

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

# ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018 (In Thousands of US Dollars and New Taiwan Dollars, Unless Stated Otherwise)

# 1. GENERAL INFORMATION

Alchip Technologies, Limited (the Company) was incorporated in the Cayman Islands on February 27, 2003. The Company is mainly engaged in the research and development, design, and manufacture of fabless application specific integrated circuits (ASIC) and system on a chip (SoC) and the rendering of related services.

The Company's shares have been listed on the Taiwan Stock Exchange (TWSE) since October 28, 2014.

# 2. APPROVAL OF STATEMENTS

The consolidated financial statements of the Company and its subsidiaries (collectively referred to as the Company) were approved by the Company's Board of Directors and authorized for issue on March 6, 2020.

# 3. APPLICATION OF NEW AND REVISED STANDARDS, AMENDMENTS 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), Interpretations of IFRS (IFRIC), and Interpretations of IAS (SIC) (collectively, the "IFRSs") endorsed and issued into effect by the 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:

# IFRS 16 "Leases"

IFRS 16 sets out the accounting standards for leases that will supersede IAS 17 "Lease", IFRIC 4 "Determining Whether an Arrangement Contains a Lease", and a number of related interpretation, refer to Note 4 for information relating to the relevant accounting policies.

# Definition of 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 consolidated balance sheets except for short-term leases are recognized as expenses on a straight-line basis. On the consolidated statements of comprehensive income, the Company will present the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liability; interest is computed using the effective interest method. On the consolidated statements of cash flows, cash payments for the principle portion of lease liability and cash payments for the interest portion were classified within financing activities and operating activities respectivly. Prior to the application of IFRS 16, payments for operating lease contracts were recognized as expenses on a straight-line basis. Cash flow for operating leases were classified within the operating activities on the consolidated statements of cash flows.

The Company elects to apply IFRS 16 restrospectively with the cumulative effect of the initial application of this standard recognized on January 1, 2019. Comparative information is not restated.

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 the amount equal to the carrying value of lease liabilities (adjusted by the amount of any prepaid or accred lease payments). The Company applies IAS 36 to all right-of-use assets. The Company also applies the following practical expedients:

- 1) The Company applies a single discount rate to a portfolio of leases with reasonably similar characteristics to measure lease liabilities.
- 2) The Company accounts for those leases for which the lease term ends on or before December 31, 2019 as short-term leases.
- 3) The Company excludes initial direct costs from the measurement of right-of-use assets on January 1, 2019.
- 4) 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 was 3.58%. The difference between the (i) lease liabilities recognized and (ii) operating lease commitments disclosed under IAS 17 on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018 Less: Recognition exemption for short-term leases	\$(	146,898 7,913)
Undiscounted amounts on January 1, 2019	<u>\$</u>	138,985
Discounted amounts using the incremental borrowing rate on January 1, 2019 Add: Adjustments as a result of a different treatment of extension options	\$	129,674 9,154
Lease liabilities recognized on January 1, 2019	<u>\$</u>	138,828

# The Company as Lessor

The Compnay does not make any adjustments for leases in which it is a lessor, and accounts for those leases under IFRS 16 starting from 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:

				justments		
	As (	Driginally	Ari	ising from		
	St	ated on		Initial	Re	stated on
	Janua	ary 1,2019	Aŗ	oplication	Janu	ary 1, 2019
Right-of-use Assets	\$	-	\$	140,206	\$	140,206
Other Non-current Assets		16,326	(	1,378)		14,948
Total Effect on Assets	<u>\$</u>	16,326	<u>\$</u>	138,828	<u>\$</u>	155,154
Lease Liabilities - Current	\$	-	\$	34,096	\$	34,096
Lease Liabilities -						
Non-current				104,732		104,732
Total Effect on Liabilities	\$		\$	138,828	\$	138,828

b. The IFRSs issued by International Accounting Standards Board (IASB) and endorsed by the FSC from the starting day of 2020

	Effective Date Announced
New IFRSs	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	January 1, 2020 (Note 2)
Rate Benchmark Reform	
Amendments to IAS 1 and IAS 8 "Definition of	January 1, 2020 (Note 3)
Material"	

- 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

Amendments to IFRS 3 "Definition of a Business"

The amendments require that to be considered a business, anacquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. To judge whether the acquired process is substantive, there will be different judgement requirements depending on whether there is output on the acquisition date. In addition, the amendments introduce an optional concentration test that permits a simplified assessment of whether or not an acquired set of activities and assets is a business.

As of the date the consolidated financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of 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. The IFRSs issued by IASB but not yet endorsed and issued into effect by the FSC

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

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 Company is continuously assessing the possible impact that the application of 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 POLICY

#### **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.

# **Basics of Preparation**

The consolidated financial statements have been prepared on the historical cost basis expect for financial instruments that are measured at fair values.

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

- a. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;
- b. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- c. Level 3 inputs are unobservable inputs for the asset or liability.

The functional currencies of the Company are U.S. dollars and Japanese yen. For greater comparability and consistency of financial reporting, the consolidated financial statements are presented in New Taiwan dollars since the Company's shares are listed on the Taiwan Stock Exchange. The assets and liabilities items are translated into New Taiwan dollars using exchange rates prevailing at the end of each reporting period, the equity items are translated at the historical exchange rates, and the income and expense items are translated at the average exchange rates for the period. Exchange differences arising are recognized in exchange differences on translating foreign operations.

# Classification of Current and Non-current Assets and Liabilities

Current Assets Include:

- a. Assets held primarily for the purpose of trading;
- b. Assets expected to be realized within twelve months after the reporting period; and
- c. Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

Current Liabilities Include:

- a. Liabilities held primarily for the purpose of trading;
- b. Liabilities due to be settled within twelve months after the reporting period; and
- c. Liabilities for which the Company does not have an unconditional right to defer settlement for at least twelve months after the reporting period.

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

# **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). Adjustments have been made to the financial statements of subsidiaries to bring their accounting policies to be consistent with those used by the Company. All intercompany transactions, balance, income and expenses are eliminated in full upon consolidatation. For subsidiaries' details, percentage of ownership, and main businesses and products, see Note 12, Table 5 and Table 6 to the consolidated financial statements.

# Foreign Currencies

In preparing the financial statements of each individual Company entity, transactions in currencies other than the entity's functional currency (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 translatiuon 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 on 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 to which gains and losses are recognized directly in other comprehensive income, in which case, 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 purposes of presenting consolidated financial statements, the assets and liabilities of the Company are translated into New Taiwan Dollar using exchange rates prevailing at the end of each reporting period. Income and expense items are translated

at the average exchange rates for the period. Exchange differences arising are recognized in other comprehensive income. The exchange differences accumulated in equity which resulted from the translation of assets and liabilities into the presentation currency are not subsequently reclassified to profit and loss.

# Inventories

Inventories include raw materials, materials, finished products, and works in progressand are stated at the lower of cost or net realizable value. Inventories write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. Inventory are recorded atweighted average cost on the balance sheet dated.

# Property, Plants, and Equipment

Property, plants, and equipment are stated at cost, less subsequent accumulated depreciation and subsequent accumulated impairment loss.

Depreciation is recognized based on the straight-line basis. Each significant part is depreciated separately. The Company reviews the estimated useful lives, residual values, and depreciation method at the end of each reporting period, with the effect of any changes in estimates accounted for on a prospective basis.

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

# **Intangible Assets**

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

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.

# **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 to determine whether there is any indication that those assets have suffered an 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 an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Corporate assets are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis.

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 asset or 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 for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

# **Financial Instruments**

Financial assets and financial liabilities are recognized when a Company entity 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 issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) 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 fair value through profit or loss are recognized immediately in profit or loss

# Financial Assets

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

Financial assets are classified into the following categories: financial assets at amortized cost and investments in debt instruments at FVTOCI.

1) Financial assets at amortized cost

Financial assets that satisfy the following two conditions are measured at amortized cost:

i.Financial assets are held within a business model whose objective is to collect contractual cash flows; and

ii. The contractual terms of financial assets give rise on specified dates that cash flows are soley payments of principal and interest on principal outstanding.

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

Cash equivalents include time deposits with original maturities within three months from the date of acquisition, high liquidity, readily convertible to a known amount of cash, and are subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

2) Investments in debt instrument at FVTOCI

Investments in debt instruments that satisfy the following two conditions are measured at financial assets at FVTOCI:

- i. Financial assets are held within a business model whose objective is to collect contractual cash flows and sell financial assets; and
- ii. The contractual terms of financial assets give rise on specified dates that cash flows are soley payments of principal and interest on principal outstanding.

Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment gains or losses on investments in debt instruments at FVTOCT are recognized in profit or loss. Other changes in the carrying amount of these debt instruments are recognized in other comprehensive income and will be reclassified to profit or loss when these debt instruments are disposed.

# Impairment of financial assets

The Company recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable) and investments in debt instruments measured at FVTOCI at the end of each reporting period.

The loss allowance for accounts receivable is measured at lifetime expected credit loss. For other financial assets, the Company recognizes lifetime expected credit losses when there have been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial assets have not increased significantly since initial recognition, the Company measures the loss allowance of the financial assets at an amount equal to 12-month expected credit losses.

Expected credit losses reflect the weighted average of credit loss with the respective risks of default occurring. Lifttime expected credit losses 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 expected credit losses represent the portion of lifetime expected credit losses that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The Company recognizes an impairment loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance accout, except for investmens in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in the other comprehensive incomeand does not recduce the carrying amount of the financial assets.

#### **Revenue Recognition**

The Company identifies the contract performance obligations and recognizes revenue when all of the contract performance obligations are satisfied.

a. Revenue from sales of goods

The Company recognizes revenue and accounts receivale when promised goods are deliverd to the customer's specified location, customer obtains control of goods and performance obligation is satisfied.

b. Revenue from rendering of non-recruuing engineering (NRE) service The Company provides NRE service which does not create assets of other purposes to the Company, and the Company has the executable rights on the receivables for the completed contract performance, the revenue is recognized when service is provided. NRE service measures its level of completeness based on the output method and milestones achieved.

#### Leases

# 2019

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

a. The Company as the lessor

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

b. The Company as the 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 recognizion 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. 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, which comprise fixed 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 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 consolidated balance sheets.

#### 2018

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

a. The Company as the lessor Lease income from operating leases is recognized on a straight-line basis over the lease term. b. The Company as the lessee

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

# **Government Grants**

Government grants are recognized when there is a reasonable assurance that the Company is able to comply with the conditions specified and that the grants is received.

Government grants that are receivables as compensation for relvant cost already incurred are recognized in profit or loss in the period in which cost is recogned as expenses. Government grants whose primary condition is the Company should purchase, construct or otherwise acquire noncurrent assets are recognized as deferred income, and tranferred deferred income to profit and loss over the useful lives of related assets..

# **Employee Benefits**

- 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 service.
- Post-employment benefits
   Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

#### **Share-based Payment Arrangements**

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 vesting 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 expense reflects the revised estimate, with a corresponding adjustment to the capital surplus - employee share options.

# Taxation

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

a. Current tax

According to the Income Tax law. an additional tax of 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.

b. 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, unused loss carry forward, and unused tax credits to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

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 asset 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 Companyexpects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

c. Current and deferred tax for the year

Current and deferred tax 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 tax are also recognized in other comprehensive income or directly in equity respectively.

# 5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION 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 revisions affect only that period or in the period of the revisions and future periods if the revisions affect both current and future periods.

#### Impairment of equipment and intangible assets

The impairment of equipment and intangible assets in relation to the design and production of chips is based on the recoverable amount of those assets, which is the higher of fair value less costs to sell or value-in-use of those assets. Any changes in the market price or future cash flows will affect the recoverable amount of those assets and may lead to a recognition of additional or a reversal of impairment losses.

#### 6. CASH AND CASH EQUIVALENTS

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Demand Deposits	\$ 2,365,883	\$ 716,405
Time Deposits with Original		
Maturities Within Three		
Months from the Date of		
Acquisition	-	399,295
Checking Accounts	10,985	25,562
Petty Cash	382	851
	<u>\$2,377,250</u>	<u>\$1,142,113</u>
<u>US</u> \$		
Demand Deposits	\$ 78,915	\$ 23,324
Time Deposits with Original		
Maturities Within Three		
Months from the Date of		
Acquisition	-	13,000
Checking Accounts	366	832
Petty Cash	14	28
-	<u>\$ 79,295</u>	<u>\$ 37,184</u>

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

	December 31, 2019	December 31, 2018
Bank Balance	0.01%~1.90%	0.01%~2.93%

# 7. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31, 2019	December 31, 2018
Current		
<u>NT\$</u>		
Foreign Bonds Investments	<u>\$ 103,208</u>	<u>\$ 20,889</u>
<u>US\$</u>		
Foreign Bonds Investments	<u>\$ 3,443</u>	<u>\$ 680</u>
Non-current		
<u>NT\$</u>		
Foreign Bonds Investments	<u>\$ 354,372</u>	<u>\$ 318,809</u>
<u>US\$</u>		
Foreign Bonds Investments	<u>\$ 11,820</u>	<u>\$ 10,380</u>

Foreign corporate bonds obtained by the Company for the year ended December 31, 2019 was as follows:

Company Name	Coupon Rate	Effective Rate	Period
CNAC (HK) SYNBRIDGE	5%	3.99%	3
COMPANY			
ICICI BANK LIMITED	3.5%	3.59%	5.5
KOREA AIR LINES CO	5.88%	5.23%	3
LTD			
ROYAL BANK	3.88%/6.13%	4.24%/4.18%	10
VEDANTA RESOURCES	6.38%	6.74%	5.5
PLC			
VIRGIN AUSTRALIA	7.88%	6.13%	5
HOLDINGS LTD			

Refer to Note 9 for information on credit risk management and impairment assessment related to financial assets at FVTOCI.

#### 8. FINANCIAL ASSETS AT AMORTIZED COST

	December	31, 2019	Decem	ber 31, 2018
Current				
<u>NT\$</u>				
Time Deposits with Original				
Maturities Exceeding Three				
Months from the Date of				
Acquisition	\$	-	\$	460,725
Other Debt Instruments		-		140,896
Less: Loss Allowance			(	<u> </u>
	\$		<u>\$</u>	601,565
US\$				
Time Deposits with Original				
Maturities Exceeding Three				
Months from the Date of				
Acquisition	\$	-	\$	15,000
Other Debt Instruments	+	-	+	4,587
Less: Loss Allowance		-	(	2)
	\$	-	<u>\$</u>	19,585

Refer to Note 9 for information on credit risk management and impairment loss assessment related to financial assets at amortized cost.

# 9. CREDIT RISK MANAGEMENT OF DEBT INSTRUMENTS

The investments in debt instrument are classified to the financial assets at FVTOCI and Financial Assets at amortized cost respectively.

#### Year ended December 31, 2019

	Financial Asset	ts at FVTOCI	Financial Assets a	at Amortized Cost
	NT\$	US\$	NT\$	US\$
Total Carrying Amount	\$ 484,330	\$ 16,155	\$ -	\$ -
Loss Allowance	$(\underline{56,603})$	( <u>1,888</u> )		
Amortized Cost	427,727	14,267	<u>\$                                    </u>	<u>\$</u>
Fair Value Adjustment	29,853	996		
2	<u>\$ 457,580</u>	<u>\$ 15,263</u>		

# Year ended December 31, 2018

	Financial Asset	ts at FVTOCI	Financial Assets at .	Amortized Cost
	NT\$	US\$	NT\$	US\$
Total Carrying Amount	\$ 392,509	\$ 12,780	\$ 601,621	\$ 19,587
Loss Allowance	(50,033)	( <u>1,629</u> )	( <u>56</u> )	$(\underline{})$
Amortized Cost	342,476	11,151	<u>\$ 601,565</u>	<u>\$ 19,585</u>
Fair Value Adjustment	$(\underline{}2,778)$	( <u>91</u> )		
Ū.	<u>\$ 339,698</u>	<u>\$ 11,060</u>		

The Company obtains credit rating information provided by an independent credit rating agency (CRA) in order to continuously track and supervise the credit risk change of the investments in debt instrument. At the same time, the Company reviews the information of bond yield rate curve, debtor material information, and etc. to assess whether the credit risk of investments in debt instrument has significantly increased since the initial recognition.

The Company considers the historical loss given default (LGD) of each level provided by CRA, the current financial status of the debtor, and its business outlook prediction in order to measure the 12-month expected credit loss or lifetime expected credit loss of the investments in debt instrument. The current credit risk rating mechanism used by the Company is as follows:

1 1		
		Expected Credit Loss
Credit Rating	Definition	Recognition Basis
Normal	The credit risk of debtor is low, and it has sufficient ability to repay the contractual cash flow, i.e. the Moody's rating is above Level B.	12-month Expected Credit Loss Rate
Abnormal	The credit risk has significantly increased since the initial recognition, i.e. the Moody's rating has moved from above Level B to below Level B.	Lifetime Expected Credit Loss (expected credit loss increases but no credit impairment)
Default	Credit impairment evidence already available	Lifetime Expected Credit Loss (with credit impairment)
Write-off	There is evidence indicating that the debtor is under severe financial difficulty and repayment cannot be reasonably expected.	Write-off

#### Year ended December 31, 2019

		Total Carrying Amount		
	Expected Credit Loss	Financial Asse	ets at FVTOCI	
Credit Rating	Rate	NT\$	US\$	
Normal	0.1%~2.06%	\$ 430,313	\$ 14,353	
Abnormal	-	-	-	
Default	100%	54,017	1,802	
Write-off	-	-	-	

#### Year ended December 31, 2018

		Total Carrying Amount			
				Financial Asset	ts at Amortized
Credit	Expected Credit	Financial Asse	ts at FVTOCI	Co	ost
Rating	Loss Rate	NT\$	US\$	NT\$	US\$
Normal	0%~2.14%	\$ 337,168	\$ 10,978	\$ 601,621	\$ 19,587
Abnormal	-	-	-	-	-
Default	65.08%~100%	55,341	1,802	-	-
Write-off	-	-	-	-	-

Regarding the investments in debt instrument of financial assets at FVTOCI and amortized cost, the loss allowance change information based on the credit risk rating is summarized as follows:

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Note: For the bonds issued by China Energy Reserve and Chemicals Group Overseas Capital Company Limited and matured in May, 2018, due to the principle was failed to be paid upon maturity, the credit rating was changed to default from normal resulting the increase of loss allowance for default by NT\$29,915 thousand (US\$1,000 thousand). For the bonds issued by China Energy Reserve and Chemicals Group International Holding Limited that matured in November 2019, due to the interest payment was suspended from the first quarter of 2019 and principle was failed to be paid upon maturity, the credit rating was changed to default from normal resulting the increase of loss allowance for default by NT\$26,121 thousand (US\$865 thousand).

#### **10. ACCOUNTS RECEIVABLE**

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Accounts Receivable		
Total Carrying Amount at		
Amortized Cost	\$938,391	\$676,344
Less: Loss Allowance	(40,276)	( <u>5,606</u> )
	<u>\$898,115</u>	<u>\$670,738</u>
<u>US\$</u>		
Accounts Receivable		
Total Carrying Amount at		
Amortized Cost	\$ 31,300	\$ 22,019
Less: Loss Allowance	$(\underline{1,343})$	( <u>182</u> )
	<u>\$ 29,957</u>	<u>\$ 21,837</u>

The payment term granted to customers is 30 days to 90 days according to the factors of customers' financial conditions and historical payment records. In addition, when it is considered necessary, customers are requested to make pre-payments in order to reduce the risk of financial loss due to delay of payment.

The Company measures the loss allowance for accounts receivables at an amount equal to lifetime expected credit losses. The lifetime expected credit losses are estimated using a provision matrix by reference to the past defult records of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors and an assessment of all the gross domestic product growth rates, unemployment rates and industrial indicators at the reporting date. The Company determines expected credit loss ratio by the factors including payment term, country of customers and the status of public listing or non public listing.

In the event there is an evidence indicating that the customer is under severe financial difficulty and the Compnay cannot reasonably estimate recoverable amounts, the Company writes off relevant accounts receivable. However, the Company continues to engage in enforcement activity to attempt to receover the receivables which are due. Where recoveries are made, the recoverable amounts are recognized in profit or loss.

#### Aging analysis of accounts receivable

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
0-60 Days	\$ 649,064	\$ 445,994
61-120 Days	188,514	179,539
More Than and Including 121		
Days	100,813	50,811
TOTAL	<u>\$ 938,391</u>	<u>\$ 676,344</u>

<u>US\$</u>		
0-60 Days	\$ 21,650	\$ 14,520
61-120 Days	6,288	5,845
More Than and Including 121		
Days	3,362	1,654
TOTAL	<u>\$ 31,300</u>	<u>\$ 22,019</u>

The movements of the loss allowance for accounts receivable was as follows:

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Balance at January 1,2019	\$ 5,606	\$ 5,456
Less: CreditImpairment Losses		
(Reversed)	35,887	( 24)
Foreign Exchange Translation		
Gains and Losses	$(\underline{1,217})$	174
Balance at December 31,2019	<u>\$ 40,276</u>	<u>\$ 5,606</u>
IICO		
<u>US\$</u>	¢ 19 <b>2</b>	ф 10 <b>2</b>
Balance at January 1,2019	\$ 182	\$ 183
Less: CreditImpairment Losses	1 1 / 1	( 1)
(Reversed)	$\frac{1,161}{0,1,242}$	$\left( \frac{1}{100} \right)$
Balance at December 31,2019	<u>\$ 1,343</u>	<u>\$ 182</u>

#### **11. INVENTORIES**

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Finished Products	\$ 91,077	\$ 7,770
Work in Progress	482,923	267,433
Raw Materials	7,577	6,075
	<u>\$581,577</u>	<u>\$281,278</u>
<u>US\$</u> Finished Products Work in Progress Raw Materials	\$ 3,038 16,108 253	\$    253 8,707 198
	<u>\$ 19,399</u>	<u>\$ 9,158</u>

The cost of chip inventories recognized as cost of goods sold for the years ended December 31, 2019 and 2018 were NT\$1,967,680 thousand (US\$63,654 thousand) and NT\$1,561,849 thousand (US\$51,804 thousand), respectively.

The cost of goods sold included reversals of inventory write-downs of NT\$15,556 (US\$503 thousand) and inventory write-downs of NT\$18,627 thousand (US\$618 thousand) for the year ended December 31, 2019 and 2018, respectively. The reversals of inventory net realizable value for the year ended December 31, 2019 was due to the decrease of inventory write-down for the year ended December 31, 2018 which resulting the increase of overall inventory net realizable value.

# **12. SUBSIDIARIES**

#### a. Subsidiaries included in the consolidated financial statements

			Percentage of	Ownership (%)	
			2019	2018	
Investor	Subsidiary	Nature of Business	December 31	December 31	Description
The Company	Alchip Technologies, Limited (registered in Hong Kong) (referred to as "Alchip HK")	Investments	100%	100%	_
	AlChip Technologies, Inc. (registered in the U.S.A.) (referred to as "Alchip USA")	Sales of ASIC and SOC.	100%	100%	_
	Alchip Technologies, KK (registered in Japan) (referred to as "Alchip KK")	Sales of ASIC and SOC.	100%	100%	
	Alchip Technologies, Inc. (registered in Taiwan) ("Al-chip TW")	Provide ASIC and SOC services.	100%	100%	—
	Alchip Investment, Inc. (registered in the British Virgin Islands) (referred to as "Alchip BVI")	Investments	100%	100%	_
Alchip HK	Alchip Technologies (Shanghai) (registered in China) (referred to as "Alchip Shanghai")	Research and development, design, and sales of ASIC and SOC and rendering of related services.	100%	100%	_
	Alchip Technologies (Wuxi) (registered in China) (referred to as "Alchip Wuxi")	Research and development and design of ASIC and SOC and rendering of related services.	100%	100%	_
	Alchip Technologies (Hefei) (registered in China) (referred to as "Alchip Hefei")	Research and development and design of ASIC and SOC and rendering of related services.	100%	100%	_
	Alchip Technologies Jinan (registered in China) (referred to as "Alchip Jinan")	Research and development and design of ASIC and SOC and rendering of related services.	100%	100%	—

# b. Subsidiaries excluded from the consolidated financial statements: None.

# 13. PROPERTY, PLANTS AND EQUIPMENT

NT\$	Machinery Equipment	Computer Equipment	Office Equipment	Leasehold Improvements	Transportation Equipment	Total
<u>Cost</u> Balance January 1, 2018 Addition Disposals Effect of Foreign Currency	\$ 1,843,401 660,282 ( 160,489)	\$ 126,117 13,507 ( 4,383)	\$ 15,258 2,110 ( 171)	\$ 32,262 10,110 ( 6,737)	\$ 6,758 - -	\$ 2,023,796 686,009 ( 171,780)
Exchange Differences Balance December 31, 2018	<u>68,539</u> <u>\$ 2,411,733</u>	<u>6,903</u> <u>\$ 142,144</u>	<u>602</u> <u>\$ 17,799</u>	<u>1,099</u> <u>\$36,734</u>	<u>217</u> <u>\$ 6,975</u>	<u>77,360</u> <u>\$ 2,615,385</u>
<u>Accumulated Depreciation</u> Balance January 1, 2018 Depreciation Disposals Effect of Foreign Currency	(\$ 1,648,179) ( 620,878) 160,489	(\$ 78,457) ( 16,619) 3,914	(\$ 6,750) ( 2,609) 142	(\$ 19,778) ( 6,083) 6,737	(\$ 1,306) ( 1,232)	(\$ 1,754,470) ( 647,421) 171,282
Exchange Differences Balance December 31, 2018	$(\underline{61,534})$ $(\underline{\$\ 2,170,102})$	$(\underline{5,438})$ $(\underline{\$96,600})$	( <u>281</u> ) ( <u>\$ 9,498</u> )	( <u>622</u> ) ( <u>\$ 19,746</u> )	$(\underline{65})$ $(\underline{$2,603})$	$(\underline{67,940})$ $(\underline{\$\ 2,298,549})$
Carrying Amounts at December 31, 2018	<u>\$ 241,631</u>	<u>\$ 45,544</u>	<u>\$ 8,301</u>	<u>\$ 16,988</u>	<u>\$ 4,372</u>	<u>\$ 316,836</u>
Cost Balance January 1, 2019 Addition Disposals	\$ 2,411,733 521,336	\$ 142,144 12,940 ( 1,342)	\$ 17,799 674 ( 288)	\$ 36,734	\$ 6,975	\$ 2,615,385 534,950 ( 1,630)
Effect of Foreign Currency Exchange Differences Balance December 31, 2019	( <u>73,430</u> ) <u>\$ 2,859,639</u>	( <u>3,615</u> ) <u>\$150,127</u>	<u>365</u> <u>\$ 17,820</u>	( <u> </u>	( <u>167</u> ) <u>\$6,808</u>	( <u>78,456</u> ) <u>\$ 3,070,249</u>
<u>Accumulated Depreciation</u> Balance January 1, 2019 Depreciation Disposals Effect of Foreign Currency	(\$ 2,170,102) ( 423,885)	(\$ 96,600) ( 16,101) 1,280	(\$ 9,498) ( 2,557) 254	(\$ 19,746) ( 8,526)	(\$ 2,603) ( 1,178)	(\$ 2,298,549) ( 452,247) 1,534
Exchange Differences Balance December 31, 2019	<u>64,710</u> ( <u>\$ 2,529,277</u> )	<u>2,626</u> ( <u>\$ 108,795</u> )	<u>272</u> ( <u>\$ 11,529</u> )	<u>729</u> ( <u>\$ 27,543</u> )	<u>98</u> ( <u>\$3,683</u> )	<u>68,435</u> ( <u>\$ 2,680,827</u> )
Carrying Amounts at December 31, 2019	<u>\$ 330,362</u>	<u>\$ 41,332</u>	<u>\$ 6,291</u>	<u>\$ 8,312</u>	<u>\$ 3,125</u>	<u>\$ 389,422</u>

US\$ Cost Balance January 1, 2018 Addition Disposals Effect of Foreign Currency Exchange Differences Balance December 31, 2018	\$ ( <u>\$</u>	61,942 21,901 5,323 ) - - - 78,520	\$ (	4,332 448 145) <u>8</u> ) <u>4,627</u>	\$ ( <u></u>	515 70 6) <u>-</u> 579	\$ ( <u>\$</u>	1,083 335 223) <u>1</u> <u>1,196</u>	\$ ( <u>\$</u>	228 1) 227	\$ (	68,100 22,754 5,697) <u>8</u> ) <u>85,149</u>
Accumulated Depreciation Balance January 1, 2018 Depreciation Disposals Effect of Foreign Currency Exchange Differences Balance December 31, 2019	(\$ (	55,381) 20,593) 5,323 <u>1</u> )	(\$	2,730) 551) 130 <u>6</u>	(\$	229) 87) 5 2	(\$	664) 202) 223	(\$	46) 41) - 2	(\$	59,050) 21,474) 5,681 <u>9</u>
2018 Carrying Amounts at December 31, 2018 Cost	( <u>\$</u>	<u>70,652</u> ) <u>7,868</u>	( <u>\$</u>	<u>3,145</u> ) <u>1,482</u>	( <u>\$</u>	<u>309</u> ) <u>270</u>	( <u>\$</u>	<u>643</u> ) <u>553</u>	( <u>\$</u>	<u> </u>	( <u>\$</u>	<u>74,834</u> ) <u>10,315</u>
Balance January 1, 2019         Addition         Disposals         Effect of Foreign Currency         Exchange Differences         Balance December 31,	\$	78,520 16,865 -	\$ (	4,627 419 43) <u>3</u>	\$ (	579 22 9) <u>2</u>	\$	1,196 - -	\$	227	\$ (	85,149 17,306 52) <u>5</u>
2019 Accumulated Depreciation Balance January 1, 2019	<u>\$</u> (\$	<u>95,385</u> 70,652)	<u>\$</u> (\$	<u>5,006</u> 3,145)	<u>\$</u> (\$	<u> </u>	<u>\$</u> (\$	<u>1,196</u> 643 )	<u>\$</u> (\$	<u>227</u> 85)	<u>\$</u> (\$	<u>102,408</u> 74,834)
Depreciation Disposals Effect of Foreign Currency Exchange Differences Balance December 31, 2010	(	13,712) - 1 84.2(2)	(	521) 41 41	(	83) 8 1)	(	276)	(	38)	(	14,630) 49 <u>4</u> )
2019 Carrying Amounts at December 31, 2019	( <u>\$</u>	<u>84,363</u> ) <u>11,022</u>	( <u>\$</u>	<u>3,629</u> ) <u>1,377</u>	( <u>\$</u>	<u>385</u> ) <u>209</u>	( <u>\$</u>	<u>919</u> ) <u>277</u>	( <u>\$</u>	<u>123</u> )	( <u>\$</u>	<u>89,419</u> ) <u>12,989</u>

The above items of property, plants, and equipment are depreciated on a straight-line basis over the estimated useful lives as follows:

Machinery Equipment	1-5 Years
Computer Equipment	3-5 Years
Office Equipment	3-5 Years
Leasehold Improvements	3-5 Years
Transportation Equipment	5 Years

# 14. LEASE AGREEMENTS

# a. Right-of-use assets – 2019

Right-of-use assets 2017				
	December 31, 2019			
	NT\$	US\$		
Carrying Amounts				
Buildings	\$ 109,923	\$ 3,667		
Transportation Equipment	162	5		
	<u>\$ 110,085</u>	<u>\$ 3,672</u>		
Depreciation				
Buildings	\$ 37,365	\$ 1,209		
Transportation Equipment	167	5		
	<u>\$ 37,532</u>	<u>\$ 1,214</u>		

#### b. Lease liabilities – 2019

	December 31, 2019				
	NT\$	US\$			
Carrying Amounts					
Buildings	<u>\$ 37,692</u>	<u>\$ 1,257</u>			
Transportation Equipment	\$ 73,689	<u>\$ 2,458</u>			
Lease liabilities discount rate:					
		December 31, 2019			
Buildings		$\frac{0.98\% \sim 5.50\%}{0.98\% \sim 5.50\%}$			
Dunungs		0.7070 - 5.5070			

3.00%

# c. Material lease-in activities and terms

**Transportation Equipment** 

The Company leases buildings for the use of offices with lease terms of 2 to 5 years. The Company does not have bargain purchase options to acquire the buildings at the end of the lease terms.

#### d. Other lease information

#### 2019

	December 31, 2019			
	NT\$	US\$		
Expenses relating to short-term leases Total cash outflow for leases	$\frac{\$ 11,254}{(\$ 50,363})$	( <u>\$ 364</u> ( <u>\$ 1,629</u> )		

The Company leases certain buildings and parking spaces 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 were as follows:

	December	r 31, 2018
	NT\$	US\$
<u>NT\$</u> Not later than 1 year Later than 1 year and not later	\$ 42,371	\$ 1,380
than 5 years	<u>    104,527</u> <u>\$   146,898</u>	<u>3,403</u> <u>\$4,783</u>

# **15. INTANGIBLE ASSETS**

	Silicon Intellectual		
	Property (SIP)	Software Cost	Total
<u>NT\$</u>			
Cost			
Balance January 1, 2018	\$ 745,727	\$ 13,313	\$ 759,040
Additions	193,293	1,046	194,339
Effect of Foreign Currency			
Exchange Differences	20,132	447	20,579
Balance December 31, 2018	\$ 959,152	\$ 14,806	\$ 973,958
,	<u>,</u>		
Accumulated Amortization			
Balance January 1, 2018	(\$ 659,113)	(\$ 12,735)	(\$ 671,848)
Amortization	(138,144)	( 472)	( 138,616)
Effect of Foreign Currency	( 150,111)	( 1/2)	( 150,010)
Exchange Differences	( <u>16,318</u> )	(417)	( 16,735 )
Balance December 31, 2018	$(\underline{\$10,518})$	$(\underline{417})$ ( <u>\$ 13,624</u> )	$(\underline{\$ 827,199})$
Balance December 51, 2018	$\left(\underline{\mathfrak{s}},\underline{\mathfrak{o}},$	$(\underline{\$} 13,024)$	$(\underline{3} \underline{627,199})$
Complex Amounts of December 21			
Carrying Amounts at December 31,	ф 14 <i>с с</i> <b>л</b> л	ф <u>110</u>	
2018	<u>\$ 145,577</u>	<u>\$ 1,182</u>	<u>\$ 146,759</u>
Cost			
Balance January 1, 2019	\$ 959,152	\$ 14,806	\$ 973,958
Additions	513,864	5,845	519,709
Disposals	793	-	( 793)
Effect of Foreign Currency			
Exchange Differences	$(\underline{38,421})$	(531)	$(\underline{38,952})$
Balance December 31, 2019	\$ 1,433,802	\$ 20,120	\$ 1,453,922
	<u>, , , , , , , , , , , , , , , , , , , </u>		<u> </u>
Accumulated Amortization			
Balance January 1, 2019	(\$ 813,575)	(\$ 13,624)	(\$ 827,199)
Amortization	( 437,901 )	( 0 13,024 ) ( 1,068 )	
	( 437,901) 793	( 1,008)	
Disposals	/93	-	793
Effect of Foreign Currency	22 (10	250	22.000
Exchange Differences	32,648	358	33,006
Balance December 31, 2019	( <u>\$ 1,218,035</u> )	( <u>\$ 14,334</u> )	$(\underline{\$ 1,232,369})$
Carrying Amounts at December 31,			
2019	<u>\$ 215,767</u>	<u>\$ 5,786</u>	<u>\$ 221,553</u>
<u>US\$</u>			
Cost			
Balance January 1, 2018	\$ 24,818	\$ 446	\$ 25,264
Additions	6,411	35	6,446
Effect of Foreign Currency	<u> </u>		<u>.</u>
Exchange Differences	<u>\$ 31,229</u>	<u>\$ 481</u>	<u>\$ 31,710</u>
	<u>*,==/</u>	<u>*</u>	<u>*</u>
Accumulated Amortization			
Balance January 1, 2018	(\$ 21,906)	(\$ 428)	(\$ 22,334)
Amortization		(3 +26) (	
	(4,582)		$(\underbrace{4,598}_{0,22})$
Balance December 31, 2018	( <u>\$ 26,488</u> )	( <u>\$ 444</u> )	( <u>\$ 26,932</u> )
Carrying Amounts at December 31,	• • • • • • • •	<b>•</b> • • • • • • • • • • • • • • • • • •	ф <b>1</b>
2018	<u>\$ 4,741</u>	<u>\$ 37</u>	<u>\$ 4,778</u>
Cost			
Balance January 1, 2019	\$ 31,229	\$ 481	\$ 31,710
Additions	16,624	189	16,813
Disposals	( <u>26</u> )		$(\underline{})$
Balance December 31, 2019	\$ 47,827	\$ 670	\$ 48,497
,			

Accumulated Amortization						
Balance January 1, 2019	(\$	26,488)	(\$	444)	(\$	26,932)
Amortization	(	14,166)	(	35)	(	14,201)
Disposals		26				26
Balance December 31, 2019	( <u>\$</u>	40,628)	( <u>\$</u>	<u> </u>	( <u>\$</u>	41,107)
Corruing Amounts at December 21						
Carrying Amounts at December 31, 2019	<u>\$</u>	7,199	<u>\$</u>	191	<u>\$</u>	7,390

The above items of intangible assets were depreciated on a straight-line basis over the estimated useful lives as follows:

	Silicon Intellectual Property	r (SIP) 1-3 Y	ears
	Software Cost	3-5 Y	ears
16.	PREPAYMENTS		
		December 31, 2019	December 31, 2018
	<u>NT\$</u>		
	Prepayment for Electronic Design		
	Automation (EDA) Tools	\$ 31,932	\$ 65,348
	Prepayment for SIP	28,353	41,925
	Prepayment for Raw Materials	9,242	7,703
	Others	13,344	9,938
		<u>\$ 82,871</u>	<u>\$124,914</u>
	US\$		
	Prepayment for Electronic Design		
	Automation (EDA) Tools	\$ 1,065	\$ 2,128
	Prepayment for SIP	946	1,365
	Prepayment for Raw Materials	308	251
	Others	445	323
		<u>\$ 2,764</u>	<u>\$ 4,067</u>

#### 17. SHORT TERM BORROWING

Loans were financed from Morgan Stanley Asia International Limited, Singapore Branch with Open Fed Fund+110bps borrowing rate (interest rate range were between 1.25% to 4.73% and 2.61% to 2.98% for the years ended December 31, 2019 and 2018, respectively). Net assets in Morgan Stanley account (bond values minus loan amount) are required to be higher than minimum margin requirement. As of December 31, 2019, net assets in the account was NT\$314,931 thousand (US\$10,505 thousand) higher than the minimum margin requirement.

#### **18. OTHER PAYABLES**

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Payables for Salaries and Bonuses	\$201,427	\$108,824
Payables for SIP	180,338	31,964
Payables for Technical Services	20,688	27,883
Payables for Professional Services	6,564	7,434
Payables for Software	14,199	921
Payables for Sales Tax	110	3,756
Payables for Purchase of		
Equipment	23,845	206
Others	27,726	23,718
	<u>\$474,897</u>	<u>\$204,706</u>
<u>US\$</u>		
Payables for Salaries and Bonuses	\$ 6,719	\$ 3,543
Payables for SIP	6,015	1,041
Payables for Technical Services	690	908
Payables for Professional Services	219	242
Payables for Software	474	30
Payables for Sales Tax	4	122
Payables for Purchase of		
Equipment	795	7
Others	924	772
	<u>\$ 15,840</u>	<u>\$ 6,665</u>

#### **19. RETIREMENT BENEFITS PLANS**

#### **Defined Contribution Plans**

Alchip TW and the Alchip Taiwan Branch 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.

Subsidiaries in the People's Republic of China and Japan take part in the defined contribution pension plans operated by the local governments, to which the subsidiaries make monthly contributions.

#### 20. EQUITY

a. Share Captial

	December 31, 2019	December 31, 2018
Number of Shares Authorized (in		
thousands)	100,000	100,000
Shares Authorized (NT\$)	<u>\$ 1,000,000</u>	<u>\$ 1,000,000</u>
Number of Shares Issued and		
Fully Paid (in thousands)	60,613	59,773
Shares Issued		
NT\$	<u>\$ 606,129</u>	<u>\$ 597,731</u>
US\$	<u>\$ 19,034</u>	\$ 18,761

Fully paid ordinary shares, which have a par value per share of NT\$10, carry one vote per share and carry one right to dividens. The change of share capital was mainly due to the execution of employee stock option and cancellation of treasury stocks.

b. Retained Earnings and Dividend Policy

According to the dividend policy as set forth in the Articles of Incorporation, the Company's annual net income after tax shall offset its losses in previous years, then set aside a special reserve in accordance with the Applicable Public Company Rules or as requested by the authorities in charge, 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 distribution of dividens to shareholders. For the policy on the distribution of employees' compensation and directors' remuneration specified in the Articles of Incorporation, refer to Note 24-(6) Employees' Compensation and Directors' Remuneration.

The Company's Articles of Incorporation also stipulate a dividend policy that distribution of retained earnings may proceed by way of cash or share dividends, but the cash dividend to be distributed shall be no lower than 10% of the aggregate dividend distributed to shareholders and no more than 100% of the aggregate dividend distributed to shareholders.

The appropriation of earnings for 2018 and 2017 was approved through the resolution of the ordinary shareholders' meeting on June 21,2019 and May 30, 2018

	2018			
	Appropriation of Earnings		<b>Dividends Per Share</b>	
	(In Thousands)		(In Dollars)	
	US\$	NT\$	US\$	NT\$
Cash Dividends	\$ 2,915	\$ 90,685	\$ 0.049	\$ 1.516
	201		)17	
	Appropriation of Earnings		Dividends	Per Share
	(In Thousands)		(In Do	ollars)
	US\$ NT\$		US\$	NT\$
Cash Dividends	\$ 2,135	\$ 64,008	\$ 0.035	\$ 1.049

The appropriation of earnings for 2019 is proposed by Company's board of directors on March 6, 2020.

	2019			
	Appropriation of Earnings (In Thousands)		Dividends	Per Share
			(In Dollars)	
	US\$	NT\$	US\$	NT\$
Cash Dividends	\$ 7,216	\$216,384	\$ 0.119	\$ 3.570

The appropriation of earnings for 2019 are subject to the resolution of the shareholders' meeting to be held on June 11, 2020.

c. Special Reserve

Under Rule No. 1010012865 and Rule No. 1010047490 issued by the FSC and the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs", the Company should appropriate or reverse to a special reserve.

The increase in retained earnings that resulted from all IFRSs adjustments was NT\$63,380 thousand (US\$3,221 thousand). Special reserve from cumulative translation adjustments at the first-time adoption of IFRSs was NT\$67,693 thousand (around US\$2,799 thousand). As of December 31, 2019, the amounts of the special reserve remained unchanged.

# 21. SHARE BASED PAYMENT AGREEMENTS

# Employee Share Option Plan of the Company and Subsidiaries

According to the Company's Employee Share Option Plan, each option entitles the holder to subscribe for 1,000 ordinary shares of the Comapny. The qualified employee includes employees of the Company and its subsidiaries satisfying specific requirements. The option granted are valid for 10 years and exercisable at 50% after second anniversary from the grant date, and one-fourth thereof be received annually for subsequent years. The option were granted at an exercise price equal to the closing price of the Company's ordinary shares listed on the Taiwan Stock Exchange on the grant date. After the options are granted, upon the occurrence of certain events relating to the change in the number of common shares or a distribution of cash dividend for common shares where the amount distributed per share to the market price of each share exceeds 1.5%, the exercise price of each option shall be subject to adjustment in accordance with the specific formula. The Company's annual general meeting, held on June 21, 2019, resolved to distribute cash dividend at NT\$1.516 (US\$0.049) per share by the appropriation of earnings. The Company's board meeting, held on August 2, 2019, resolved the ex-dividend date on August 22, 2019. Due to cash dividend per share to the market price of each share exceeds 1.5%, the exercise price of each option was adjusted in accordance with the specific formula and announced on August 7, 2019.

Information on employee share options as follows:

	2019		2018	
		Weighted-		Weighted-
		average		average
		Exercise		Exercise
	Number of	Price	Number of	Price
Employee Share Option	Options	(US\$)	Options	(US\$)
Balance at January 1	5,963,413	\$ 2.17	4,985,473	\$ 1.59
Options Granted	1,700,000	3.07	1,874,000	3.60
Options Exercised	( 839,834)	1.31	( 697,060)	1.97
Options Expired	( <u>618,188</u> )	2.08	( <u>199,000</u> )	1.84
Balance at December 31	6,205,391	2.46	5,963,413	2.18
Options Exercisable, End of				
Year	1,763,391	1.53	1,386,413	1.35
Weighted-Average Fair Value of				
Options granted(US\$)	<u>\$ 1.61</u>		<u>\$ 1.84</u>	

December	r 31, 2019	December	r 31, 2018
	Weighted-average		Weighted-average
	Remaining		Remaining
<b>Exercise Price</b>	Contractual Life	<b>Exercise Price</b>	Contractual Life
(US\$)	(Years)	(US\$)	(Years)
\$ 0.79	6.87	\$ 0.80	7.87
1.18	6.18	1.19	7.18
1.31	7.19	1.34	8.19
1.79	5.32	1.81	6.32
2.36	9.39	2.51	0.91
2.38	9.22	2.60	8.93
2.44	7.93	2.82	8.92
2.47	0.19	2.88	9.73
2.64	7.92	3.31	9.11
2.78	8.73	3.36	9.02
3.03	8.11	4.02	9.62
3.04	9.61	4.11	9.25
3.10	8.02	4.28	9.30
3.74	8.25		
3.86	8.62		
3.93	8.30		
6.11	9.86		
6.75	9.90		

Options granted in 2019 and 2018 were priced byBlack-Scholes pricing model and the inputs to the model on each grant-date were as follows:

	November 22,2019	November 7,2019	August 7,2019	May 20,2019	March 19,2019
Grant-date Share					
Price(NT\$)	206	185.5	97.20	75.60	76.30
Exercise					
Price(NT\$)	206	185.5	97.20	75.60	76.30
Expected					
Volatility	54.05%	53.78%	53.45%	53.97%	54.35%
Expected					
Life(years)	6~7	$6 \sim 7$	$6 \sim 7$	$6 \sim 7$	$6 \sim 7$
Expected					
Dividend Yield	-	-	-	-	-
Risk-Free					
Interest Rate	$0.62\% \sim 0.64\%$	$0.62\% \sim 0.65\%$	$0.60\% \sim 0.62\%$	0.63%~0.66%	0.69%~0.72%

	September 20, 2018	August 10, 2018	April 18, 2018	March 30, 2018	February 7, 2018	January 5, 2018
Grant-date Share	e		<b>•</b> · · · · ·			• · · · · · · · · · · · · · · · · · · ·
Price(NT\$)	88.80	123.50	125.50	119.50	96.90	99.20
Exercise						
Price(NT\$)	88.80	123.50	125.50	119.50	96.90	99.20
Expected						
Volatility	54.28%	53.47%	53.39%	53.41%	52.68%	51.92%
Expected						
Life(years)	6~7	6~7	6~7	6~7	6~7	6~7
Expected						
Dividend Yield	-	-	-	-	-	-
Risk-Free						
Interest Rate	$0.77\% \sim 0.80\%$	$0.75\% \sim 0.77\%$	0.79%~0.85%	$0.78\% \sim 0.84\%$	$6 0.77\% \sim 0.85\%$	$0.75\% \sim 0.82\%$

Compensation cost recognized was NT\$52,884 thousand (US\$1,711 thousand) and NT\$47,675 thousand (US\$1,581 thousand) for the years ended December 31, 2019 and 2018, respectively.

# 22. GOVERNMENT GRANTS

The Company's subsidiary, Alchip Technologies (Hefei), signed a financial support fund agreement entitled "Advanced Soc Chip Design and Service Platform" with Hefei High-tech Industrial Development Area Merchants (the "Merchants") in April 2017. The term of the agreement was from January 2017 to December 2018. According to the agreement, the subsidiary shall receive the grants prior to the assessment. The grants (with additional interest) will be repayable on demand if there is any breach of the agreement. The performance indicators set out in the agreement are as follows:

- a. Investment Projects
  - 1) Investments in fixed assets shall amount to RMB 20 million.
  - 2) R&D investments shall amount to RMB 60 million during the period.
- b. Innovation Output

The cumulative number of patent applications shall not be less than 6 for the year ended December 31, 2018.

The grant amounting to NT\$43,738 thousand (US\$1,459 thousand) was received and recognized as deferred revenue for the year ended December 31, 2019 due to the Mechant having not yet performed the review of application.

The Company's subsidiary, Alchip Technologies (Hefei) received subsidy of NT\$40,830 thousand (US\$1,321 thousand) in the year ended December 31, 2019 due to the purchases of Silicon Intellectual Property (SIP), and was recognized as income over the estimated useful lives of the SIP.

#### 23. REVENUE

#### a. Contract Balance

The change in the contract liability balances was mainly due to the timing difference between the satisfication of performance obligation and the customer's payment. The Company recognized NT\$232,865 thousand (US\$7,533 thousand) and NT\$14,075 thousand (US\$471 thousand) as revenue from the beginning of contract liability for the year ended of December 31, 2019 and 2018.

b. Revenue from Contracts with Customers

	2019		2018	
	NT\$	US\$	NT\$	US\$
<u>Product</u>				
ASIC and Chip				
Production	\$4,314,253	\$ 139,566	\$3,302,059	\$ 109,525
NRE	13,372	433	30,720	1,019
Others	4,331	139	117,899	3,910
	<u>\$4,331,956</u>	<u>\$ 140,138</u>	<u>\$3,450,678</u>	<u>\$ 114,454</u>
Geography				
China	\$2,611,565	\$ 84,484	\$1,577,129	\$ 52,311
Japan	758,097	24,524	1,320,636	43,804
United States	644,164	20,839	45,572	1,512
Taiwan	260,117	8,415	211,552	7,017
Europe	53,608	1,734	183,574	6,089
Others	4,405	142	112,215	3,721
	<u>\$4,331,956</u>	<u>\$ 140,138</u>	<u>\$3,450,678</u>	<u>\$ 114,454</u>
Application Type				
High Performance				
Computing	\$2,590,962	\$ 83,817	\$1,053,531	\$ 34,944
Niche Market	796,781	25,776	1,408,311	46,712
Communication	558,504	18,067	460,743	15,282
Consumer	385,709	12,478	528,093	17,516
	<u>\$4,331,956</u>	<u>\$ 140,138</u>	<u>\$3,450,678</u>	<u>\$ 114,454</u>
<u>Resolution</u>				
7- nanometer	\$ 860,374	\$ 27,833	\$ 595,533	\$ 19,753
12- nanometer	315,520	10,207	409,876	13,595
16- nanometer	1,427,610	46,183	726,741	24,105
28- nanometer	1,253,914	40,564	1,051,176	34,866
40- nanometer	264,483	8,556	310,294	10,292
Above 55-				
nanometer	205,445	6,646	240,740	7,985
Others	4,610	149	116,318	3,858
	<u>\$4,331,956</u>	<u>\$ 140,138</u>	<u>\$3,450,678</u>	<u>\$ 114,454</u>

# 24. NET PROFIT(LOSS)

Net profit (loss) included the following items

a. Other Income

	2019	2018
<u>NT\$</u> Interest Income Government Grants Others		\$ 46,286 14,575 <u>2,726</u> <u>\$ 63,587</u>
<u>US\$</u> Interest Income Government Grants Others		
b. Other Gains and Losses	2019	2018
<u>NT\$</u> Net Foreign Exchange Gains (losses) Investment In Debt Instrument at FVTOCI Loss on Disposal of Equipment Others	$ \begin{array}{c}  & 2,479 \\ ( & 271) \\ ( & 90) \\ ( & 88) \\  & \underline{\$ & 2,030} \end{array} $	(\$ 3,694) $(2,072)$ $(491)$ $(287)$ $($ 6,544)$
<u>US\$</u> Net Foreign Exchange Gains (losses) Invetment In Debt Instrument at FVTOCI Loss on Disposal of Equipment Others		$(\$ 122) \\ ( 69) \\ ( 16) \\ ( 10) \\ (\$ 217) \\ ( \$ 217) \\ ( 102) \\ $
c. Finance costs		
<u>NT\$</u> Interest on lease liabilities Interest on short-term loan	$     \begin{array}{r}       2019 \\       \$                             $	2018 \$ - <u>891</u> <u>\$ 891</u>
<u>US\$</u> Interest on lease liabilities Interest on short-term loan		$\frac{-30}{-30}$

I. Depreciation and Amortization		
i. Depreciation and Amortization	2019	2018
NT\$		
Property, Plants, and		
Equipment	\$ 452,247	\$ 647,421
Right-of-use Asset	37,532	-
Intangible Assets	438,969	138,616
	\$ 928,748	\$ 786,037
Depreciation Expenses by	<u> </u>	<u> </u>
Function		
Operating Costs	\$ 421,823	\$ 618,403
Operating Expenses	67,956	29,018
Operating Expenses		
Amortization Enganges has	<u>\$ 489,779</u>	<u>\$ 647,421</u>
Amortization Expenses by		
Function	¢ 427.000	Φ 1 <b>3</b> 0 100
Operating Costs	\$ 437,980	\$ 138,189
Operating Expenses	989	427
	<u>\$ 438,969</u>	<u>\$ 138,616</u>
<u>US\$</u>		
Property, Plants, and		
Equipment	\$ 14,630	\$ 21,474
Right-of-use Asset	1,214	-
Intangible Assets	14,201	4,598
intuilgible i isbets	\$ 30,045	\$ 26,072
Depreciation Expenses by	<u> </u>	$\phi$ 20,072
Function		
Operating Costs	\$ 13,646	\$ 20,512
1 0	2,198	962
Operating Expenses		
A manting time England and Inc	<u>\$ 15,844</u>	<u>\$ 21,474</u>
Amortization Expenses by		
Function	ф <b>111</b>	<b>•</b> • • • • •
Operating Costs	\$ 14,169	\$ 4,584
Operating Expenses	32	14
	<u>\$ 14,201</u>	<u>\$ 4,598</u>
Employee Benefits Expenses		
	2019	2018
<u>NT\$</u>		
Post-employment Benefit		
(Note 19)		
Defined Contribution		
Plans	\$ 41,887	\$ 42,170
Share-based Payments		,_, .
(Note 21)	52,884	47,675
Other Employee Benefits	711,575	600,664
other Employee Denemis		
	<u>\$ 806,346</u>	<u>\$ 690,509</u>

### -175-

	2019	2018
Employee Benefits Expenses by Funciton Operating Costs Operating Expenses	\$ 11,748 794,598 \$ 806,346	\$ 10,923 <u>679,586</u> <u>\$ 690,509</u>
US\$		
Post-employment Benefit		
(Note 19)		
Defined Contribution		
Plans	\$ 1,354	\$ 1,399
Share-based Payments (Note		
21)	1,711	1,581
Other Employee Benefits	23,019	19,923
	<u>\$ 26,084</u>	<u>\$ 22,903</u>
Employee Benefits Expenses by Funciton		
Operating Costs	\$ 379	\$ 361
Operating Expenses	25,705	22,542
	<u>\$ 26,084</u>	<u>\$ 22,903</u>

#### f. Employees' Compensation and Remuneration of Directors

According to the Articles of Incorporation, the Company accrued employees' compensation and remuneration of directors at the rates of no less than 1% and no higher than 2%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. The employees' compensation and remuneration of directors for 2019 and 2018 approved by the Company's Board of Directors were as follows:

		2019	
		Cash	Cash
	Accrual Rate	(US\$)	(NT\$)
Employees' Compensation	8%	\$ 1,510	\$ 46,692
Remuneration of Directors	2%	378	11,673
		<u>\$ 1,888</u>	<u>\$ 58,365</u>
		2018	
		Cash	Cash
	Accrual Rate	(US\$)	(NT\$)
Employees' Compensation	8%	\$ 986	\$ 29,739
Remuneration of Directors	2%	247	7,435
		<u>\$ 1,233</u>	<u>\$ 37,174</u>
Recognized in Financial			
Report		<u>\$ 1,233</u>	<u>\$ 37,174</u>

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

#### **25. INCOME TAX**

a. Income tax expenses recognized in profit or loss consisted of the following:

	2019				2018			
		US\$		NT\$		US\$	NT\$	
Current Income Tax								
Tax Expense								
Recognized in								
Current Period	\$	2,762	\$	85,372	\$	2,803	\$	84,495
Adjustments on								
Prior Years	(	130)	(	4,032)		27		828
		2,632		81,340		2,830		85,323
Deferred Income Tax								
Tax Expense								
Recognized in								
Current Period		337		10,431	(	164)	(	4,951)
Effect of Tax Rate								
Changes		-			(	<u> </u>	(	2,924)
		337		10,431	(	<u>261</u> )	(	<u>7,875</u> )
Income Tax Expense								
Recognized in								
Profit or Loss	\$	2,969	<u>\$</u>	91,771	\$	2,569	<u>\$</u>	77,448

A reconciliation of income before income tax and income tax expense recognized in profit or loss was as follows:

		20	19		2018				
		US\$	NT\$			US\$		NT\$	
Income Before Tax	\$	16,993	\$	525,283	\$	11,105	\$	334,805	
Income Tax Expense At the Statutory									
Rate		3,050		94,284		2,244		67,640	
Nondeductible Tax									
Expenses	(	117)	(	3,608)		26		796	
Unrecognized Tax									
Losses and									
Temporary									
Differences		166		5,127		369		11,108	
Tax Rate Change		-		-	(	97)	(	2,924)	
Adjustments on Prior									
Years	(	130)	(	4,032)		27		828	
Income Tax Expense									
Recognized in	¢	2.000	¢	01 771	¢	25(0	¢	77 440	
Profit or Loss	2	2,969	<u>\$</u>	91,771	$\overline{\mathcal{P}}$	2,569	<u> </u>	77,448	

The Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20% and effective from 2018. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings was reduced from 10% to 5%. Alchip Shanghai was approved for preferential tax treatment in November 2018, a treatment that allows Alchip Shanghai to be entitled to a preferential tax rate of 15% from 2019 to 2021. The applicable tax rate used by the Company's subsidiary located in Japan was approximately 37%.

b. Deferred Tax Assets

The movements of deferred tax assets were as follows:

#### Year Ended December 31, 2019 NT\$

Deferred Tax Assets	Balance, Beginning of Year	Recognized in Profit or Loss	Exchange Rate Changes	Balance, End of Year	
Temporary Differences					
Write-down of	ф 14 51 <b>0</b>	(	( ( ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	ф 11 1 4 <del>7</del>	
Inventory	\$ 14,512	(\$ 3,111)	(\$ 254)	\$ 11,147	
Unrealized Exchange	205	1 7 1 5		2 0 ( 0	
Gain or Loss	385	1,715	$(\underline{} \underline{62})$	2,068	
	14,897	(1,366)	( 316)	13,215	
Net Loss Carryforwards	<u>19,992</u>	$(\underline{6,527})$	( 280 )	13,185	
	<u>\$ 34,889</u>	( <u>\$ 7,893</u> )	( <u>\$ 596</u> )	<u>\$ 26,400</u>	
	D 1	D : 1	F 1		
Deferred Terr Liebilities	Balance,	Recognized in Profit or	Exchange	Delever End	
Deferred Tax Liabilities	Beginning of Year	In Profit or Loss	Rate	Balance, End of Year	
T	Ieal	LOSS	Changes	of real	
Temporary Differences	¢ 0.096	\$ 2.538	(\$ 315)	\$ 12.209	
Intangible Assets	<u>\$ 9,986</u>	<u>\$ 2,538</u>	$(\underline{\$ 315})$	<u>\$ 12,209</u>	
TICO					
<u>US\$</u>	D 1	D	Г. 1		
	Balance,	Recognized	Exchange		
Deferred Tax Assets	Beginning of	in Profit or	Rate	Balance, End	
	Year	Loss	Changes	of Year	
Temporary Differences					
Write-down of	ф <b>470</b>	(	¢	ф 2 <b>72</b>	
Inventory	\$ 472	(\$ 100)	\$ -	\$ 372	
Unrealized Exchange	10	EC		(0)	
Gain or Loss	13	$\frac{56}{44}$		<u> </u>	
	485	( 44)	-	441	
Net Loss Carryforwards	<u>651</u>	( 211 ) ( - 255 )	<u>–</u>	<u>440</u>	
	<u>\$ 1,136</u>	( <u>\$ 255</u> )	<u>\$</u>	<u>\$ 881</u>	

Deferred Tax Liabilities	Balance, Beginning of Year	Recognized in Profit or Loss	Exchange Rate Changes	Balance, End of Year
Temporary Differences Intangible Assets	<u>\$ 325</u>	<u>\$ 82</u>	<u>\$ -</u>	<u>\$ 407</u>

Year Ended December 31, 2018

Deferred Tax Assets	Balance, Beginning of Year	Recognized in Profit or Loss	Exchange Rate Changes	Balance, End of Year	
Temporary Differences					
Write-down of					
Inventory	\$ 9,366	\$ 4,755	\$ 391	\$ 14,512	
Unrealized Exchange					
Gain or Loss	1,082	( <u>718</u> )	21	385	
	10,448	4,037	412	14,897	
Net Loss Carryforwards	5,907	13,640	445	19,992	
ý	<u>\$ 16,355</u>	<u>\$ 17,677</u>	<u>\$ 857</u>	<u>\$ 34,889</u>	
	Balance,	Recognized	Exchange		
Deferred Tax Liabilities	Beginning of	in Profit or	Rate	Balance, End	
	Year	Loss	Changes	of Year	
Temporary Differences					
Intangible Assets	<u>\$                                    </u>	<u>\$ 9,802</u>	<u>\$ 184</u>	<u>\$ 9,986</u>	

022
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Deferred Tax Assets	Balance, Beginning of Year		Recognized in Profit or Loss		Exchange Rate Changes		Balance, End of Year	
Temporary Differences								
Write-down of								
Inventory	\$	316	\$	156	\$	-	\$	472
Unrealized Exchange								
Gain or Loss		36	(	23)		-		13
		352		133		-		485
Net Loss Carryforwards		198		453		_		651
·	<u>\$</u>	550	<u>\$</u>	586	<u>\$</u>		\$	1,136
	Ba	lance,	Reco	gnized	Exch	ange		
Deferred Tax Liabilities	Begin	nning of		ofit or	Ra	•	Balar	nce, End
	0	/ear	Loss		Chai	nges		Year
Temporary Differences								
Intangible Assets	\$	_	<u>\$</u>	325	\$	_	<u>\$</u>	325

#### c. Income Tax Assessments

Tax returns of Alchip Technologies Inc. and Alchip Taiwan Branch through 2018 have been assessed by the tax authorities No significant difference between the assessment results and the income tax returns filed.

#### 26. EARNINGS PER SHARE

			Unit: US\$/	NT\$ Per Share		
		19	2018			
	US\$	NT\$	US\$	NT\$		
Basic EPS	<u>\$ 0.23</u>	<u>\$ 7.20</u>	<u>\$ 0.14</u>	<u>\$ 4.22</u>		
Diluted EPS	<u>\$ 0.22</u>	<u>\$ 6.89</u>	<u>\$ 0.13</u>	<u>\$ 4.03</u>		
EPS is computed as follows:						
		19		18		
	US\$	NT\$	US\$	NT\$		
Net Income						
Net Income available to			•	*		
Common Shareholder	<u>\$ 14,024</u>	<u>\$433,512</u>	<u>\$ 8,536</u>	<u>\$257,357</u>		
Earnings Used in the						
Computation of Basic and	ф. 14.0 <b>2</b> 4	¢ 400 510	ф. 0 <b>.50</b> (	<b>A A C C C C C C C C C C</b>		
Diluted EPS	<u>\$ 14,024</u>	<u>\$433,512</u>	<u>\$ 8,536</u>	<u>\$257,357</u>		
				1.01		
			Unit: Th	ousand Shares		
		2019		2018		
Number of Shares						
Weighted Average Number of	f					
Ordinary Shares in						
Computation of Basic EPS		60,176		61,039		
Effect of potentially dilutive						
ordinary shares:						
Employee Share Option		2,477		2,365		
Employees' Compensati						
Bonus Issue to Emplo	oyees	267	_	482		
Weighted Average Number of	f					
Ordinary Shares in						
Computation of Diluted El	PS	62,920	=	63,886		

If the Company settles employees' compensation in cash or shares, the Company assums the entire amount of the compensation will 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, as the effect is dilutive. Such dilutive effect of the potential shares is included in the computation of diluted earnings per share until the number of shares to be distributed to employees is resolved in the following year.

#### 27. CAPITAL MANAGEMENT

The Company is a fabless application specific circuit provider and expects significant capital expenditure on the purchase of machinery equipment and SIP now and in the near future. Accordingly, the Company's objective is to maintain necessary operating capital, the availability of funds for research and development, the capacity to pay dividents, etc. Compliance with conservative policy, the Company prudently evaluates the policy of capital management on a continuous basis..

#### **28. FINANCIAL INSTRUMENTS**

a. Fair Value of Financial Instruments that are not Measured at Fair Value

The Company considers that the book value of financial assets and liabilities that are not measured at fair value are close to fair value. Accordingly, the Company takes the book value of those financial assets and liabilities on the consolidated balance sheet as the basis for evaluating the fair value.

- b. Fair Value of Financial Instruments that are Measured at Fair Value on a Recurring Basis
  - 1) Fair Value Hierarchy

The Company's financial instruments measured at fair value are financial assets at FVTOCI. Based on the extent that fair value can be observed, the fair value measurements are grouped in Level 2.

2) Valuation Techniques and Inputs Applied for the Purpose of Measuring Level 2 Fair Value

Financial Instruments	Valuation Techniques and Inputs
Foreign Bonds	Adjusted integration of quoted prices or settlement
Investment	prices from stock exchange market participants
	for each corporate bond.

There was no transfer of fair value measurements between Level 1 and Level 2 for the year ended December 31, 2019 and 2018.

c. Categories of Financial Instrument

	December 31, 2019	December 31, 2018
<u>NT\$</u>		
Financial Assets		
Financial Assets at Amortized		
Cost (Note 1)	\$ 3,310,165	\$ 2,436,860
Financial Assets at FVTOCI-		
Debt Instrument	457,580	339,698
Financial Liabilities		
Amortized Cost (Note 2)	703,891	227,860
<u>US\$</u>		
Financial Assets		
Financial Assets at Amortized		
Cost (Note 1)	110,413	79,336
Financial Assets at FVTOCI-		
Debt Instrument	15,263	11,060
Financial Liabilities		
Amortized Cost (Note 2)	23,478	7,419

- Note 1: The balances included financial assets measured at amortized cost, which comprise cash and cash equivalents, accounts receivable, and other receivables.
- Note 2: The balances included the carrying amount of short-term loans, and accounts payable and other payables.
- d. Financial Risk Management Objectives and Policies

The Compnay's financial instruments mainly includes debt instrument, accounts receivable, accounts payable, short-term loans and lease liabilities. The Compnay's financial department objective is to provide service for all business units, access and operate domestic and overseas financial market, monitor and manage financial risk associated with operating activities in accordance with relevant risk level and wide analysis. The financial risk includes market risk (including currency risk,interest rate risk and other risk), credit risk, and liquidity risk.

1) Market Risk

The Company's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (1) below) and interest rates (see (2) below).

a) Exchange Rate Risk

The Company uses USD and JPY as the functional currencies, and mainly possesses a small amount of other currency for the payment of employee salaries and operating expenses of each subsidiary (branch); therefore, there is no material exchange rate fluctuation risk. Since the Company is listed for trading on the Taiwan Stock Exchange, it can be expected that in the future, when dividends are issued to domestic investors in NTD or when funds are raised domestically in NTD such that the amount needs to be exchanged to USD for use, there is an exchange rate risk in the exchange of TWD to USD, and the possible responsive measures adopted by the financial department of the Company are as follows:

- i. Maintaining an adequate level of foreign currency reserve based on predicted exchange rate to provide for subsidiaries' operating activities and to lessen the impact on adverse exchange fluctuations to the net income;
- ii. Continuously monitoring exchange rate fluctuations and maintaining close relationships with principal correspondent banks to provide management with sufficient information as a basis for managing exchange rate fluctuations;
- iii.Reducing the impact of adverse exchange rate fluctuations on the Group's net income by using natural hedging (i.e. a majority of sales and

purchase transactions are denominated in USD) and by using foreign currency loans or forward exchange contracts when needed.

Refer to Note 30 for the carrying amounts of monetary assets and liabilities not denominated in functional currency at the end of the reporting period.

#### Sensitivity Analysis

The Company was mainly exposed to RMB, USD and NTD exchange rate fluctuation.

The following table describes the sensitivity analysis of the Company when USD and JPY (functional currencies) appreciate/depreciate 5% relative to the exchange rate of relevant foreign currencies. 5% refers to the sensitivity ratio used internally by the Company for reporting the exchange rate risk to the key management level, and it also refers to the assessment of the management level on the reasonable and possible fluctuation range of the currency exchange rate. The sensitivity analysis only includes the foreign currency monetary items circulating externally, and its translation at the end of year is adjusted based on the exchange rate change of 5%. The integers shown in the following table refer to the increased (decreased) amount of the net income before tax when USD and JPY (functional currencies) depreciates 5% relative to other relevant currencies. When USD and JPY appreciate 5% relative to relevant currencies, the impact on the net income before tax is the same amount but in a negative value.

	Uni	Unit: In Thousands of U.S. Dollars			
		Profit/Loss			
		2019		20	)18
RMB		\$	40	\$	37
USD			316		100
NTD	(		58)		6

b) Interest Rate Risk

The Company was exposed to interest rate risk because entities in the Company borrowed funds at floating rate. The carrying amounts of the Company's financial assets and liabilities with exposure to interest rates at the end of reporting period are as follows:

	December 31, 2019	December 31, 2018
NT\$		
Fair Value Interest Rate Risk	Ф <b>ЛЕП</b> ООБ	¢ 1.240.972
<ul> <li>— Financial Assets</li> <li>— Financial Liabilities</li> </ul>	\$ 457,885	\$ 1,340,862
Cash Flow Interest Rate Risk	111,381	-
— Financial Assets	2,365,883	716,405
— Financial Liabilities	15,496	-

<u>US\$</u>		
Fair Value Interest Rate Risk		
— Financial Assets	15,273	43,655
— Financial Liabilities	3,715	-
Cash Flow Interest Rate Risk		
— Financial Assets	78,915	23,324
— Financial Liabilities	517	-

The Company was also exposed to cash flow interest rate risk in relation to variable-rate financial institutions borrowings. The Company's cash flow interest rate risk was mainly concentrated in the fluctuation of the Open Fed Fund rate.

#### Sensitivity Analysis

The sensitivity analyses below were determined based on the Company's exposure to interest rates for non-derivative instruments at the end of the reporting period. For floating rate liabilities, the analysis was prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. A 25 basis point increase or decrease was used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 25 basis points higher/lower and all other variables were held constant, the Company's pre-tax profit for the years ended December 31, 2019and 2018 would increase/decrease by NT\$5,876 thousand (US\$196 thousand) and increase/decrease NT\$1,791 thousand (US\$58 thousand), respectively.

2) Credit Risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Company. 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 and financial guarantees provided by the Company could arise from the carrying amount of the respective recognized financial assets as stated in the balance sheets.

The Company adopted a policy of only dealing with credit worthy counterparties as a means of mitigating the risk of financial loss from defaults. Credit exposure is controlled by counterparty limits that are reviewed and approved by the finance department periodically. To minimize credit risk, the Company's management is responsible for the deformation of loan amount, loan approval, and other monitoring procedures in order to ensure that appropriate actions have been taken to recover the outstanding account receivables. In addition, at the end of the reporting period, the Company further performs a second review on the recoverable amount of the accounts receivable in order to ensure that the accounts receivable that cannot be recovered have been recognized as appropriate impairment loss. In view of the above, the management level of the Company believes that the credit risk of the Company is effectively reduced.

The credit risk on liquid funds was limited because the counterparties are banks with high credit ratings assigned by international credit-rating agencies.

The Company's concentration of credit risk of 26% and 37% in total accounts receivable as of December 31, 2019 and 2018, respectively, was related to the Company's largest customer.

3) Liquidity Risk

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

a) 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 were 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 interest recognition is not material.

December 21, 2010

				Decembe	r 31, 2019			
	-	NT\$				US	3\$	
	Less Than 1 Month	1 to 3 Months	3 Months to 1 Year	1-5 Years	Less Than 1 Month	1 to 3 Months	3 Months to 1 Year	1-5 Years
<u>Non-interest-b</u> <u>earing</u> <u>Liabilities</u> Accounts Payable Other Payables Variable Interest	\$ 270,842 264,733	\$ 144,193 8,627	\$ - -	\$ - -	\$ 9,034 8,830	\$ 4,810 287	\$ - -	\$ - -
Rate Assets	<u>\$ 535,575</u>	<u>\$ 152,820</u>	<u>    15,496</u> <u>\$    15,496</u>	<u>-</u>	<u>\$ 17,864</u>	<u>\$ 5,097</u>	<u>517</u> <u>\$517</u>	<u>-</u>
				Decembe	r 31, 2018			
		N	Γ\$		<i>,</i>	U	5\$	
Non-interest-b	Less Than 1 Month	1 to 3 Months	3 Months to 1 Year	1-5 Years	Less Than 1 Month	1 to 3 Months	3 Months to 1 Year	1-5 Years
caring Liabilities Accounts Payable Other Payables	\$ 57,793 60,915 <u>\$ 118,708</u>	\$ 77,941 30,904 <u>\$ 108,845</u>	\$ - <u>307</u> <u>\$ 307</u>	\$ - <u>-</u>	\$ 1,881 	\$ 2,538 1,006 <u>\$ 3,544</u>	\$ - <u>10</u> <u>\$ 10</u>	s - <u>-</u>

#### b) Financing Facilities

	December 31, 2019	December 31, 2018
<u>NT\$</u> Secured Bank Loan Facilities: — Amount Used — Amount Unused	\$ 15,496 <u>734,004</u> <u>\$749,500</u>	\$ - <u>767,875</u> <u>\$ 767,875</u>
<u>US\$</u> Secured Bank Loan Facilities: — Amount Used — Amount Unused	\$ 517 <u>24,483</u> <u>\$ 25,000</u>	\$ <u>-</u> <u>25,000</u> <u>\$ 30,000</u>

For the restriction conditions of the borrowings described above, refer to Note 17.

#### 29. 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.

The total amount of compensation of directors and key management personnel is as follows.

	2019	2018
<u>NT\$</u>		
Other Employee Benefits	\$122,853	\$ 68,665
Share-based Payments	16,247	16,751
Post-employment Benefits	822	985
	<u>\$139,922</u>	<u>\$ 86,401</u>
<u>US\$</u>		
Other Employee Benefits	\$ 3,973	\$ 2,277
Share-based Payments	526	556
Post-employment Benefits	27	33
	<u>\$ 4,526</u>	<u>\$ 2,866</u>

The remuneration of directors and key executives was determined by the remuneration committee with regard to the performance of individuals and market trends.

# **30. EXCHANGE RATE INFORMATION OF FINANCIAL ASSETS AND LIABILITIES DENOMINATED IN FOREGIN CURRENCIES**

The following information is a summary of the foreign currencies other than the functional currencies of each entity of the Company. The exchange rate disclosed refers to the exchange rate for exchanging such foreign currencies into the functional currencies. The significant financial assets and liabilities denominated in foreign currencies were as follows:

	oreign rrencies	Ex	change Rate	A (In 7	arrying mount Thousand US\$)
Financial Assets					
Currency					
RMB	\$ 23,975	0.143345	(RMB:USD)	\$	3,437
USD	8,346	108.624810	(USD: JPY)		8,346
NTD	13,977	0.033356	(NTD:USD)		466
				<u>\$</u>	12,249
Financial Liabilities					
Currency					
RMB	18,339	0.143345	(RMB:USD)	\$	2,629
USD	2,036	108.624810	(USD: JPY)		2,036
NTD	48,862	0.033356	(NTD:USD)		1,630
				<u>\$</u>	6,295

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#### Year Ended December 31, 2019

#### Year Ended December 31, 2018

	Foreign	Exchange Rate	A (In T	arrying mount Thousand US\$)
Financial Assets				
Currency				
RMB	\$ 17,311	0.145705 (RMB : USD)	\$	2,522
USD	5,343	110.411836 (USD: JPY)		5,343
NTD	7,204	0.032557 (NTD : USD)		235
			\$	8,100
Financial Liabilities				
Currency				
RMB	12,204	0.145705 (RMB : USD)	\$	1,778
USD	3,334	110.411836 (USD : JPY)		3,334
NTD	3,443	0.032557 (NTD : USD)		112
			<u>\$</u>	5,224

	2019			2018		
		Net F	oreign		Net F	Foreign
		Exchar	nge Gain		Exchar	nge Gain
Foreign		(Loss)	(US\$ in		(Loss)	(US\$ in
Currencies	Exchange Rate	Thou	sands)	Exchange Rate	Thou	isands)
RMB	0.1450(RMB: USD)	\$	92	0.1512(RMB: USD)	(\$	149)
USD	108.95620(USD: JPY)	(	47)	110.4362(USD: JPY)		45
NTD	0.03235(NTD: USD)		39	0.03317(NTD: USD)	(	<u> </u>
		\$	84		( <u>\$</u>	111)

The significant realized and unrealized foreign exchange gains (losses) were as follows: (In Thousands of U.S. Dollars)

#### 31. SEPARATELY DISCLOSED ITEMS

- a. Information About Significant Transactions and (II) Investees
  - 1) Financing provided to others: None
  - 2) Endorsements/guarantees provided: None
  - 3) Marketable securities held: (Table 1)
  - 4) Marketable securities acquired and disposed of at costs or prices of at least NT\$300 million or 20% of the paid-in capital: None
  - 5) Acquisitions of individual real estate at costs of at least NT\$300 million or 20% of the paid-in capital: None
  - 6) Disposals of individual real estate at prices of at least NT\$300 million or 20% of the paid-in capital: None
  - 7) Total purchases from or sales to related parties amounting to at least NT\$100 million or 20% of the paid-in capital: (Table 2)
  - 8) Receivables from related parties amounting to at least NT\$100 million or 20% of the paid-in capital: (Table 3)
  - 9) Trading in derivative instruments: None
  - 10) Intercompany relationships and significant intercompany transactions: (Tables 4)
  - 11) Information on investees: (Table 5)
- b. Information on Investments in Mainland China:
  - 1) Information on any investee company in mainland China, showing the name, principal business activities, paid-in capital, method of investment, inward and outward remittance of funds, ownership percentage, net income of investees, investment income or loss, carrying amount of the investment at the end of the period, repatriations of investment income, and limit on the amount of investment in the mainland China area: (Table 6)
  - 2) Any of the following significant transactions with investee companies in mainland China, either directly or indirectly through a third party, and their prices, payment terms, and unrealized gains or losses: Table 2

- a) The amount and percentage of purchases and the balance and percentage of the related payables at the end of the period.
- b) The amount and percentage of sales and the balance and percentage of the related receivables at the end of the period.
- c) The amount of property transactions and the amount of the resultant gains or losses.
- d) The balance of negotiable instrument endorsements or guarantees or pledges of collateral at the end of the period and the purposes.
- e) The highest balance, the end of period balance, the interest rate range, and total current period interest with respect to financing of funds.
- f) Other transactions that have a material effect on the profit or loss for the period or on the financial position, such as the rendering or receiving of services.

#### 32. SEGMENT INFORMAITON

a. Operating Segment

The Company is engaged in research and development, design, and manufacturing of ASIC and SOC and provides related services. These activities are deemed single industry; accordingly, management considers the Company as having only one reportable segment.

b. Geographical Information

The Company operates in three principal geographical areas - Japan, Taiwan, and China.

The Company's revenue from continuing operations from external customers by location of operations and information about its non-current assets (excluding deferred income tax assets) by location of assets are detailed below.

(In Thousands of NT\$)

			(	
	Revenue fro	om External		
	Custo	omers	Non-curr	ent Assets
	Decem	iber 31	Decem	nber 31
	2019	2018	2019	2018
China	\$ 2,611,565	\$ 1,577,129	\$ 182,801	\$ 91,076
Japan	758,097	1,320,636	12,830	7,750
United States	644,164	45,572	364	-
Taiwan	260,117	211,552	420,649	250,889
Europe	53,608	183,574	-	-
Others	4,405	112,215	473,775	449,015
	<u>\$ 4,331,956</u>	<u>\$ 3,450,678</u>	<u>\$ 1,090,419</u>	<u>\$ 798,730</u>

#### (In Thousands of US\$)

	Revenue fro Custo		Non-curre	ent Assets
	Decen	nber 31	Decem	iber 31
	2019	2018	2019	2018
China	\$ 84,484	\$ 52,311	\$ 6,097	\$ 2,965
Japan	24,524	43,804	428	252
United States	20,839	1,512	12	-
Taiwan	8,415	7,017	14,031	8,168
Europe	1,734	6,089	-	-
Others	142	3,721	15,803	14,620
	<u>\$ 140,138</u>	<u>\$ 114,454</u>	<u>\$ 36,371</u>	<u>\$ 26,005</u>

#### c. Major customers representing at least 10% of net revenue

		2019			2	2018		
Customer	US\$	NT\$	%	US\$		NT\$	%	
Customer A	\$ 39,091	\$1,208,388	28	\$ 15,272	\$	460,434	13	3
Customer B	26,443	817,391	19	10,979		331,015	10	)
Customer C	(Note)	(Note)	(Note)	16,553		499,045	14	1
Customer D	(Note)	(Note)	(Note)	15,385		463,834	13	3

Note: Revenue from the customer for the indicated period was less than 10% of the Company's revenue.

(In Thousands of New Taiwan Dollars)

ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES

MARKETABLE SECURITIES HELD

December 31, 2019

TABLE 1

#### Note Ι L I 30,213 30,038 29,994 7,435 5,528 31,603 32,346 33,020 62,530 30,620 31,953 30,590 13,91313,2869,372 Fair Value 32,951 13,124 19,064 Ś Percentage of Ownership % End of Period Carrying Amount 30,213 30,038 29,994 7,435 5,52833,020 62,530 30,590 13,913 31,603 32,346 30,620 31,953 13,286 9,372 13,124 19,064 32,951 Ś (In Thousand) 1,0001,000 1,000 1,000 800 1,000Shares Investments in Debt Instrument at Investments in Debt Instrument at Financial Statement Account FVTOCI - Non-current FVTOCI - Current ..... Relationship with the Holding Company L I 1 I I I L CHINA ENERGY RESERVE AND CHEMICALS GROUP INTERNATIONAL HOLDING LIMITED CHINA ENERGY RESERVE AND CHEMICALS **GROUP OVERSEAS CAPITAL COMPANY** Type and Name of Marketable Securities VIRGIN AUSTRALIA HOLDINGS LTD CHINA CINDA FINANCE 2015 I LTD NORDDEUTSCHE LANDESBANK HUARONG FINANCE II CO LTD STANDARD CHARTERED PLC VEDANTA RESOURCES PLC BANCO BTG PACTUAL SA CENTURYLINK INC BANCO DO BRASIL Corporate Bonds SPRINT CORP **ROYAL BANK KOREAN AIR** ROYAL BANK ICICI BANK LMITED **CNAC HK** BPCE SA Holding Company Name Alchip BVI

Note: For the information on investments in subsidiaries, see Table 5 and Table 6 for details.

ALCHIP TECHNOLOGIES, LIMITED AND SUBSIDIARIES TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2019

TABLE 2

(In Thousands of New Taiwan Dollars)

ceivable Note	to Total	30.34%) —		8.75%) —		100%		99.93% —	
Notes/Accounts Receivable (Payable)	Ending Balance % to Total	(\$ 292,478) (		( 84,394) (		292,478		84,394	
Abnormal Transaction	Payment Terms	11.40 Within 1 Year   The Same as   The Same as Regular   (\$ 292,478)   ( 30.34%)	Regular Terms Transaction Terms	Within 1 Year The Same as The Same as Regular	Regular Terms Transaction Terms	Within 1 Year The Same as The Same as Regular	Regular Terms Transaction Terms	(65.89) Within 1 Year The Same as The Same as Regular	Regular Terms Transaction Terms
Abnorma	Unit Price	The Same as	Regular Terms	The Same as	Regular Terms	The Same as	Regular Terms	The Same as	Regular Terms
	% to Total Payment Terms Unit Price	Within 1 Year		Within 1 Year				Within 1 Year	
Transaction Details	% to Total	11.40		3.95		( 100)		( 65.89)	
	Amount	\$ 340,539		117,929		340,539)		(117,929)	
	Purchase/Sale	Purchase		Purchase		Sale (		Sale (	
Relationship		Subsidiary		Subsidiary		Subsidiary		Subsidiary	
Related Party		Alchip Shanghai		Alchip Wuxi		The Company		The Company	
Buyer		The Company				Alchip Shanghai		Alchip Wuxi	

Alchip Technologies, Limited and Subsidiaries RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL December 31, 2019

TABLE 3

(In Thousands of New Taiwan Dollars)

				Turnover	Ove	verdue	Amounts Received	Allowing for
Company Name	Related Party	Relationship	Ending Balance	Rate	Amount	Actions Taken	in Subsequent Period	Impairment Loss
ne Company	Alchip KK	Subsidiary	\$ 127,944	0.36	- \$	—	- \$	-
dchip Shanghai	The Company	Subsidiary	292,478	1.15			I	
_								

TABLE 4

# NTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS FOR THE YEAR ENDED DECEMBER 31, 2019 Alchip Technologies, Limited and Subsidiaries

(In Thousands of New Taiwan Dollars)

					Transact	Transaction Details	
No							% to Total
Note 1)	Investee Company	Counterparty	Relationship y (Note 2)	Financial Statement	Amount	Payment Terms	Revenue or
、 、				Account	(Note 4)	2	Asset (Note 3)
. '	The Company	Alchip KK	1	Accounts Receivable	\$ 127,944	Based on Regular	2
		Alchip KK	1	Operating Revenue	43,936	ltems Based on Regular	1
		Alchip Hefei	1	Other Receivables	69,726	Items Based on Regular	1
7	Alchip Shanghai	The Company	7	Accounts Receivable	292,478	Items Based on Regular	9
		The Company	2	Operating Revenue	340,539	ltems Based on Regular	8
7	Alchip Wuxi	The Company	7	Accounts Receivable	84,394	ltems Based on Regular	2
		The Company	2	Operating Revenue	117,929	Items Based on Regular	Э
7	Alchip Hefei	The Company	2	Operating Revenue	90,665	Items Based on Regular	2
		The Company	2	Accounts Receivable	18,205	Based on Regular	
7	Alchip KK	The Company	2	Accounts Receivable	55,747	Based on Regular	1
		The Company	2	Operating Revenue	92,404	Items Based on Regular Items	2

Note 1:

(1) Fill in "0" for the parent company.

(2) Subsidiaries are listed in order.

Note 2: Relationship types are as follows:

Parent to subsidiary.
 Subsidiary to parent.

(3) Between subsidiaries.

Note 3: For calculation of transaction amount to total sales or assets, the numerator and denominator are determined by the characteristics of the transaction. If the feature of the transaction belongs to balance sheet items, take the ending balance of the year divided by total assets; if the feature of the transaction belongs to income and expense items, take the accumulated balance of the year divided by total sales. Note 4: All intra-group transactions, balances, income, and expenses are eliminated in full upon consolidation.

-194-

In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Alchip Technologies, Limited and Subsidiaries INFORMATION ON INVESTEES FOR THE YEAR ENDED DECEMBER 31, 2019

TABLE 5

	Note	I		1		1	1	
	Nc						1	
	Share of Profit (Loss)	\$101,346		( 1,258)	( 6,644)	( 18,098)	16,450	
	Net Income(Loss) of Investee	\$101,346		( 1,258)	( 6,644)	( 18,098)	16,450	
31,2019	Carrying Amount	\$588,851	(Note 2)	20,787	58,011	569,396	529,262	(Note 1)
As of December 31,2019	%	100		100	100	100	100	
As of I	Number of Shares (in thousands)	12,230,170		391,000	2	10	50	
nent Amount	December 31,2018	\$520,687	(Note 2)	114,922	62,587	100	473,317	(Note 1)
Original Investment Amount	December 31,2019	\$520,687	(Note 2)	114,922	62,587	100	473,317	(Note 1)
Location Main Businesses and Products		Hong Kong Investment		Sales of ASIC and SOC.	Sales of ASIC and SOC.	ASIC and SOC services.	Investment	с С
		Hong Kong		U.S.A.	Japan	Taiwan	Tortola	British Virgin Islands
	Investee Company	Alchip HK		Alchip USA	Alchip KK	Alchip TW	Alchip BVI	1
	Investor	The Company Alchip HK						

Note 1: The investment amount of NT\$ 471,735 thousand (US\$ 15,050 thousand) has been injected. However, the procedures of capital-increase have not been completed. Note 2: Among which, an amount of NT\$24,288 thousand (US\$820 thousand) has been injected. However, the procedures of capital-increase have not been completed.

-195-

TABLE 6

# FOR THE YEAR ENDED DECEMBER 31, 2019 Alchip Technologies, Limited and Subsidiaries Information on Investments in Mainland China

In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

				Accumulated		Remittance of Funds	Accumulated	ed				A commutated
				Outward			Outward		%			Acculination
Investee Company	Z	Doid in Conitel	Method of	Remittance for	S		Remittance for	for Net Income	Ownership		Investment Gain Carrying Amount	Repatriation of Investment
in China	and Products	ı alu-III Capital		Taiwan as of	Outward	Inward	Taiwan as of			(Note 2)	31,2019	Income as of December
				December 31,2018			December 31,2019	<u>.</u>	Investment			31,2019
Alchip Shanghai	Research and	\$ 383,744	Note 1 (2)	\$ 383,742	- -	۰ ج	\$ 383,744	744 \$ 1,045	100%	\$ 1,045	\$ 383,101	۰ ۲
	development,	(RMB 102,392)		(US 12,800)	- ((	I	(US 12,8	12,800)		(2)2.		
	design, and sales											
	related services.											
Alchip (Wuxi)	Research and	59,960	Note 1 (2)	59,960	· 	I	59,960	960 29,109	100%	29,109	117,406	I
	development and	(RMB 12,482)		(US 2,000)	- ()		(US 2,0	2,000)		(2)2.		
	design of ASIC											
	and SOC related											
	services.											
Alchip Heter	Research and		Note 1 (2)	4	-	•	4	990 46,019	100%	46,019	45,410	•
	development and	(RMB 3,469)		(US 500)	-	I	(US 5	500)		(2)2.		
	design of ASIC											
	and SOC related											
Alchin Jinan	services. Research and	23,504	Note 1 (2)	23.504		I	23.504	504 2.5.2.69	100%	25.269	39.336	1
	development and	(RMB 5,031)		(US 784)	- (1	I	( US			(2)2.		
	design of ASIC						,			~		
	and SOC related											
	services.											
								-				
Accumulated C	Accumulated Outward Remittance for			;								
Investment in	Investment in Mainland China as of		Investment Amounts Authorized by	uthorized by	Upper Limit or	Upper Limit on the Amount of Investment	estment					

Stipulated by Investment Commission,	- \$	
Investment Commission, MOEA	- 8	
December 31, 2019	- 8	

, MOEA

Note 1: The investment types are as follows:

(1) Direct investment in mainland China.

(2) Indirect investment in mainland China through a subsidiary in a third place. (Investor: Alchip H.K.)

(3) Others.

Note 2: In the column of investment gain or loss:

(1) It should be noted if the investment was still in preparation without investment gain or loss.

(2) The recognition basis of investment gain or loss should be noted as follows:
1. The financial statement is audited by an international accounting firm cooperating with accounting firms in Taiwan.
2. The financial statement is audited by a certified public accountant cooperating with the parent company in Taiwan.
3. Others

## Alchip Technologies, Limited

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