力成科技股份有限公司

PTI Powertech Technology Inc.

2018 ANNUAL REPORT

Powertech TECHNOLOGY

Printed Date：May 2, 2019

Information available on

http：//mops.twse.com.tw

http：//www.pti.com.tw

I. Company Spokesman and Deputy Spokesman

Spokesman

Name: Evan Tseng

Title: CFO & Senior Vice President

Tel: (886) 3 598-0300

E-mail: evant@pti.com.tw

Deputy Spokesman

Name: Yohan Lin

Title: Vice President of Legal & Human Resources

Tel: (886) 3 598-0300

E-mail: yohan@pti.com.tw

II. Telephone Numbers and Addresses of Headquarters, Subsidiary, and Factory

Address of Headquarters: No.10 Datong Road, Hsinchu Industrial Park, Hukou, Hsinchu 30352, Taiwan

Address of 1st Plant: No.879,Litoushan Sec., Wunshan Rd., Hsinpu, Hsinchu 30550, Taiwan

Address of 2nd Plant: No.7 Sanmin Rd., Hsinchu Industrial Park, Hukou, Hsinchu 30352, Taiwan

Address of 3rd Plant: No.10, 26 Datong Road, Hsinchu Industrial Park, Hukou, Hsinchu 30352, Taiwan

Address of 9th Plant: No.4, Wen Hua Road, Hsinchu Industrial Park, Hukou, Hsinchu 30352, Taiwan

Tel: (886) 3 598-0300

Address of Science Park Plant I:No.15 Lihsin 3rd Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan

Tel of Science Park Plant: (886) 3 577-9980

Address of Science Park Plant II:No.9 Lihsin 4th Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan

Tel of Science Park Plant: (886) 3 579-5111

III. Stock Transfer Agent

Name: Concord Securities Co, Ltd. Stock Affairs Department

Address: B1 No. 176 Sec. 1, Keelung Rd., Taipei City, Taiwan

Website: http://www.concords.com.tw

Tel: 886-2-8787-1888

IV. CPA for Annual Financial Statements

CPAs: Yu-Feng Huang, Su-Li Fang

Accounting Firm: Deloitte & Touche LLP

Address: 12F, No 156, Minsheng East Road, Sec 3, Taipei, Taiwan

Website: http://www.deloitte.com.tw

Tel: (886) 2 2545-9988

V. Name of Overseas Exchange: Bourse de Luxembourg

Website: http://www.bourse.lu

ISIN NO. US7393681082

VI. Company website: http://www.pti.com.tw

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I. Letter to Shareholders

Annual General Meeting of Shareholders 2019

Dear Shareholders, Ladies and Gentlemen,

2018 was a record breaking year of revenue and profits for Powertech Technology Inc. (PTI) with the highly committed customers and employees, despite the challenges of trade tension between US and China, electronic parts shortages, raw material price increased substantially, and saturated smartphone market.

2019 is going to be a challenge year for PTI with unfavorable macroeconomic and new generation application not ready yet. Macroeconomic may improve when trade tension ease. New applications for Internet of Things (IoT), 5G communication, advanced driver-assistance systems (ADAS), AI, and High Performance Computing (HPC) products will be ready after 2020.

I have set two key directions to build PTI to thrive at the ever changing business environment:

1. Legacy succession program.

   Proactively identify and develop talents within the organization. Identified management team will be further authorized and intensify responsibilities and duties to the new leadership for operations.

2. Winning Strategies for Sales and R&D:

   I. Technologies

   II. Quality

   III. Services

PTI has been growing with customers and shareholders for the past two decades. PTI has always been technology intensive and innovation driven. PTI seizes the opportunity to grow stronger when facing new challenges in technologies, operations, and market competition.

The investment of Hsin Chu Science Park Plant III demonstrated PTI's commitment to stay at technology leading position. The advanced packaging investment is one of the key drivers for future corporate developing and sustainability. Never stop innovation and perfection drive PTI to stay competitive among peers. We hope you, as our shareholders, continuing to support us. All members of PTI will continue collaborating our effort as we move forward to next triumph.

Thank you again for all your support. We wish you all the very best.

Sincerely,
D.K. Tsai

PTI Chairman

Powertech Technology Inc. 2018 Business Report

I. 2018 Business Operations Report

According to the World Economic Outlook published by the International Monetary Fund (IMF) in January 2019, global economic growth in 2018 was 3.7%, flat with 2016 growth. Major growth contributed by strong US economy and raw material price increases, especially during the first three quarters of 2018. Mixing economy performance among regions, US remained strong, European recovery slowdown, Japan decline caused by nature disaster and conservative consumer and corporate spending. China first three quarters growth descending by quarter and 2018 grew the least since 2008 financial crisis.

2018 global semiconductor revenue was US$476.7 billion which was 13.4% increased from 2017 base on the survey collected by Garthner. Memory products accounted for 34.8% of 2018 global semiconductor revenue which was 31.0% in 2017, and remained as the biggest segment among semiconductor products. 2019 memory segment expected to be very different from previous two years booming with decline of memory products demand in late 2018 and increasing uncertainty from US-China trade tension. According to data published by Industrial Economics and Knowledge (IEK) in Nov 2018, Taiwan IC industry revenue in 2018 was NT$2.63 trillion (US$86.7 billion), 7.0% growth from 2017. Revenue of IC packaging sector was NT$346.5 billion showing 4.1% growth from 2017 while revenue of IC testing sector was NT$147.5 billion showing 2.4% growth from 2017. Taiwan semiconductor market underperformed the global semiconductor industry in 2018.

PTI outperformed global and domestic IC packaging and testing industry in 2018 with increasing demands for high performance computing applications and high density memory storage for data centers. 2018 PTI revenue and profit margin improved significantly from 2017 and outperform its financial targets. In 2108, PTI will continue to invest in technology to provide excellent quality and services. PTI will also continue to improve its competitiveness by increasing operational efficiency, cost control, investment in new equipment, technology and product through integration of corporate resources while strengthening strategic partnership. PTI 2018 accomplishment contributed from its excellent quality and services, operations efficiency improvement, efficient cost control, new technologies and products development, equipment investment, and strategic alliance strengthening.

Details of 2018 revenue and profitability are reported as follow:

1.Operational Results of 2018

PTI Consolidated revenue of 2018 was NT$68.04 billion, showing 14.1% increase from 2017 consolidated revenue of NT$59.63 billion. 2018 net income belonged to parent company was NT$6.23 billion which was an increase of 6.6% from 2017 NT$5.85 billion.

2.Financial Status

2018 Consolidated Statement of Cash Flow	(in NT$1,000)
a. Net cash inflow from operating activities	20,207,098
b. Net cash outflow from investing activities (Changes mainly from acquisition of machinery and equipment)	16,191,623
c. Net cash outflow from financing activities (Mainly for repayment of bank loans and distribution of cash dividends)	3,383,088

3.Profitability Analysis

Analysis Items		2018	2017
Profitability	Operating Income / Capital Ratio	125.57%	116.46%
	Pre-tax Net Income / Capital Ratio	121.10%	114.06%
	Return on Assets	7.67%	8.34%
	Return on Equity	14.62%	15.51%
	Net Income (Loss) Ratio	9.16%	9.81%
	Net Income(Loss) Per Share	NT $8.02	NT $7.51

4.R&D Updates

PTI has been consistently in to technological innovations and development of new production technologies to meet industry standards and customer demands. In addition to DRAM and NAND Flash products, PTI also continue to develop Logic and advanced packaging and testing technologies, such as Lead-Free Bump, Cupper Pillar Bump, Flip Chip, low cost molded substrate FCCSP, WLCSP, and RDL providing PTI foundation for developing advanced Logic customers. 2018 R&D expenses were about NT$1.87 billion, equivalent to 2.7% of consolidated revenue. PTI will actively invest in the research and development of TMV PoP, CIS CSP (TSV), 3D IC (TSV), panel-level fan-out, as well as advanced packaging and testing technologies while striving to become a major service providers for Logic devices, System-in-Package (SiP), and Internet of Things (IOT) , High Performance Computing (HPC), networking, AI, AR/VR, and automotive products.

2019 Operations Plans

1. Plan Outlines:

(1)Promise, Technology and Integration are our core values.

(2)Focus on the assembly and final testing sectors in semiconductor industry in order to generate the profits together with our customers and vendors.

(3)Devoted to the research and development of advanced technologies and launch new products to enhance corporate growth momentum.

(4)Provide full services to customers with quality and exquisite technologies.

(5)Integrated corporate resources to enhance operation performances and ensure corporate profitability and sustainability.

(6)Provided employee trainings to talent, addressed employee benefits and interest of shareholders to create mutual benefits.

2. Sales Forecast volume:

Based on November 2018 estimation of WSTS (The World Semiconductor Trade Statistics), 2019 global semiconductor market value will be about US$ 490.1 billion at a growth rate of 2.6% from 2018. Taiwan IEK (Industrial Economics and Knowledge Center) estimated 2019 Taiwan semiconductor market will grow 5%, including 2.8% growth for OSAT. The Gartner expected the top three growth semiconductor applications are going to be industrial/medical electronics, storage, and automotive electronics. Optoelectronic and sensor will be the top two growth drivers in terms of component category.

WSTS estimated 2018 global semiconductor market value was $ 477.9 billion which was up 15.9% from 2017. 33% growth contributed by memory market US$ 169.4 billion. According to Gartner, estimated 2018 DRAM market value grew 47.9% contributed by increasing ASP(Average Selling Price) and extensive applications. 2018 NAND Flash market value grew 7.2% in addition. Communication (smartphones) and data related products (servers, PC, and tablets) remained as majority of applications for memory products. Global semiconductor market value excluded memory products only grew 6.1% in 2018.

Semiconductor demand stays conservative for 2019 caused by decelerating and diminish demand of smartphone and computer which were the major applications of semiconductor products. 2019 global smartphone shipment estimated to grow 5.3% and PC shipment estimated to grow 1.4%. 2019 estimated revenue for optoelectronic components, sensors, discrete components, analog ICs, logic ICs, and micro components products are expected to grow 6.8%, 5.1%, 3.9%, 3.8%, 3.8%, and 3.0% respectively. Memory product value will reduce 0.3% by weaker demand. The start of AI smart networking and IoT technology are leading the demand for data processing applications which will accelerate the development of industrial and automotive related semiconductor products. China has been the biggest semiconductor consumer market and it has been aggressively developing its local semiconductor manufacturing abilities. China local semiconductor output value will exceed RMB$ 200 billion before 2020. The trade tension between US and China will be the key factor for its further development. India and Association of Southeast Asian Nations are expected to be the next market driver, but the growth strength still far less than expectation due to poor infrastructure and low Gross National Income (GNI).

The Company expects revenue decline in DRAM, NAND Flash, Logic, and advanced packaging in 2019.

2019 Sale forecast volume:

Item	Sale Forecast Volume
Assembly	11.0 billion packages
Final Test	7.0 billion packages
Bumping	800 K wafers
CP	3.6 million wafers
SSD+SiP	80.0 million PCS

3. Production and Marketing Policies:

(1) Provide the turn-key and drop-shipment services to customers to reduce the cycle time and save on the transportation costs.

(2) Increase the revenue weight from commodity DRAM, Mobile DRAM, NAND Flash, UFS, and Logic products.

(3) Continue developing Logic business and enhancing technology development for Flip-Chip, Solid State Drive (SSD), Wafer Level Packaging (WLP), Chip Probing (CP), and Fan-Out Panel Level (FOPLO) to create business growth.

(4) Developing new customers, new markets, and new products at the same time enhancing the relationship with existing customers.

(5) Improve corporate competitive advantages by cost reduction and resources integration.

Chairman: D.K. Tsai President: J.Y. Hung Head of Accounting: Evan Tseng

II. Company Introduction

I. Date Established: May 15, 1997

II. Company History

1997 May -- Powertech Technology Inc. established, with paid-in Capital of NT$ 600 million.

Aug -- Received Powerchip's DRAM and Macronix's FLASH testing order and started memory IC testing services.

1998 Feb -- Received Securities and Futures Commission, Ministry of Finance approval for public offering.

-- Started construction for PTI's Hsinpu Plant.

March -- Cash Injection of NT$ 600 million, Paid-in Capital of NT$ 1.2 billion.

May -- Passed ISO 9002 Quality Management System Certification (Testing).

1999 Jan -- Mr. Duh Kung Tsai from the Kingston Group joined as Chairman.

May -- Cash injection of NT$ 800 million, Paid-in Capital of NT$ 2.0 billion.

June -- Stage One of PTI Hsinpu Plant completed, rented to Powerchip's Chubei Branch.

Aug -- Construction started on Stage two of PTI Hsinpu Plant.

-- Received testing order from Toshiba for DRAM and SST for Flash.

2000 April -- Report prepared for the Taiwan Stock Exchange and GreTai Securities Market, started to receive guidance for listing on TSE and OTC.

June -- PTI Hsinpu Plant completed and relocated to new plant.

Oct -- Purchase backend equipment from Powerchip's Chubei Branch and added packaging business. Then obtained Powerchip's DRAM packaging orders and started to provide customers turnkey packaging and testing services.

2001 Jan -- Become listed as bonded factory.

April -- Received quality certification from Mitsubishi.

May -- Received ISO 9002：1994 Quality Management System Certification (Packaging, Testing).

Aug -- Surplus and Capital Reserve Capital Increase of NT$ 218 million, Paid-in Capital of NT$ 2.218 billion.

2002 Jan -- Received quality certification from Hitachi.

March -- Received quality certification of testing and packaging from TOSHIBA.

-- Received TOSHIBA FLASH packaging and testing orders, provide turnkey services for TOSHIBA packaging and testing.

June -- Passed quality certification from Sun Microsystems.

Sept -- Cash Injection of NT$ 119 million, Surplus Capital Increase of NT$ 134.229 million, Paid-in Capital of NT$ 2.463129 billion.

-- Purchased Hukuo Plant's Land and Plant of FICTA.

Oct -- Company Shares listed for trading as Emerging Stock of Gretai Securities

			Market.
	Nov	--	Received quality certification from M-Systems and Sankyo.
2003	Jan	--	Received ISO 14001:1996 Environmental Management Systems Certification.
	March	--	Received quality certification from Sony.
	April	--	Company Shares listed for trading on Gretai Securities Market.
		--	Company headquarters moved to Hukuo Plant in Hsinchu Industrial Park .
		--	Received quality certification from ProMos.
	May	--	Received quality certification from IBM.
	July	--	Received quality certification from Hynix and received Hynix orders.
		--	Formally received ProMos orders.
	Aug	--	Received ISO 9002：2000 Quality Management System Certification
	Sept	--	Surplus Capital Increase of NT$ 149.371 million, Paid-in Capital of NT$ 2.6125 billion.
	Dec	--	Received quality certification from Xanavi.
2004	Jan	--	WBGA packaging formally into volume production.
	April	--	Received land from the Hukuo Industrial Park about 3000 pings, for expansion of future operations.
		--	Received quality certification from Renesas.
	July	--	DDR2 formally into volume production.
	Sept	--	Cash Injection of NT$ 300 million, Surplus Capital Increase of NT$ 467.5 million, Paid-in Capital of NT$ 3.38 billion.
		--	Received OHSAS 18001：1999 Occupational Health and Safety Management certification.
		--	Started construction on Plant 3.
	Oct	--	Received quality certification from Elpida.
	Nov	--	Company Shares listed for trading on the Taiwan Stock Exchange.
		--	Foundry grade testing formally into mass production.
2005	Feb	--	Implemented Green Product (GP) Management System.
	March	--	Received quality certification from IBM (uBGA).
		--	Received quality certification from Sharp.
	May	--	Received quality certification from Sony Green Partner.
	Sept	--	Surplus Capital Increase of NT$ 625 million, Paid-in Capital of NT$ 4.005 billion.
		--	Tera Probe, Inc., a joint venture formed in Japan with Elpida, Advantest and Kingston Technology Japan.
	Dec	--	Use the “Purchase Method” for simplified merger of 100% owned company, Lijia Investment Ltd.
		--	MCP packaging process into volume production.
		--	Started production of MicroSD Card.
		--	Received ISO 14001：2004 Environmental Management System Certification.

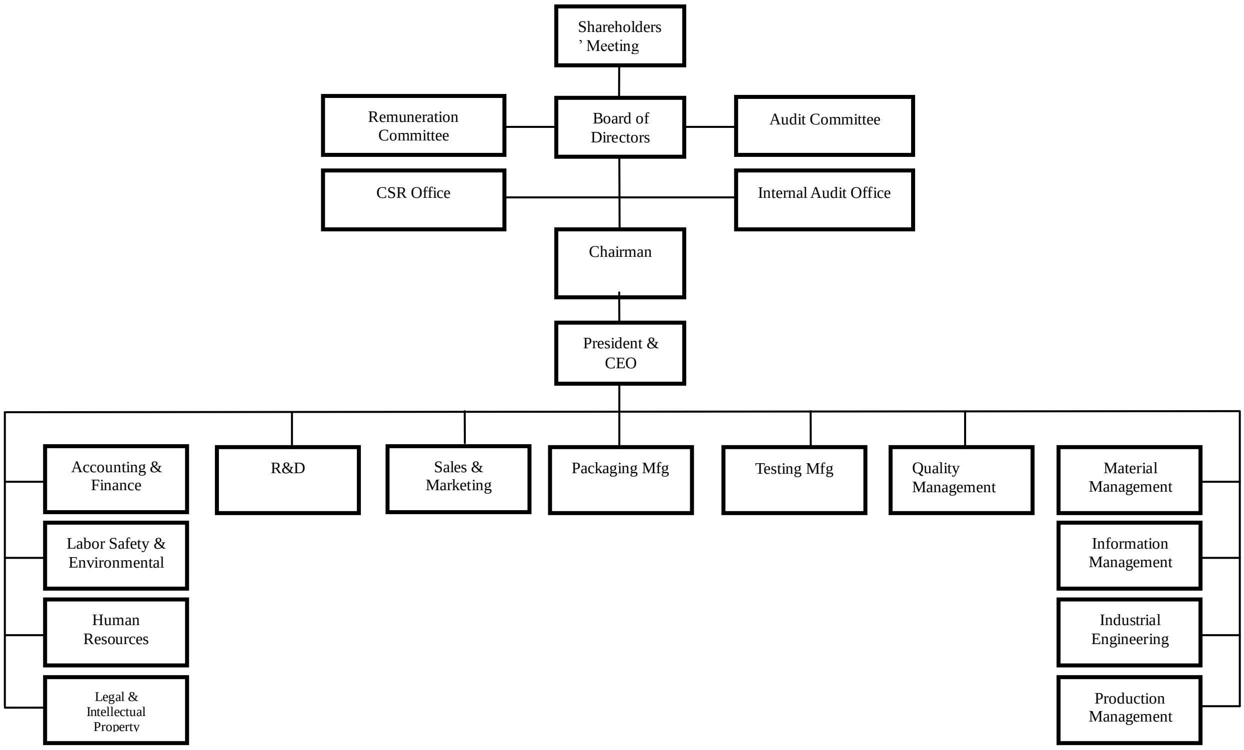
2006 Jan	--	R&D Technology Center Established.
	--	Headquarters (Plant 3) completed for use.
	--	First time issuance of Global Depository Receipts (old shares), listed for trading on the Bourse de Luxembourg.
Aug	--	Surplus Capital Increase of NT$ 750 million, Paid-in Capital of NT$ 4.711 billion.
	--	Received ISO/TS 16949：2002 Certification.
Nov	--	Received land from the Hukuo Industrial Park about 1089 pings, for expansion of future operations.
Dec	--	Received the “2006 Industrial Innovation Outcome Commendation” from the Ministry of Economic Affairs Department of Industrial Technology (MOEA DOIT).
2007 Feb	--	Started construction of Hukuo Plant 2B
March	--	Issued for the first time the private placement domestic unsecured convertible bonds, with amount issued of NT$ 3.412 billion.
July	--	Successful developed the wBGA DDP technology, providing the best DRAM stacking solution.
Aug	--	Surplus Capital Increase of NT$ 853 million, Paid-in Capital of NT$ 5.563 billion.
	--	Monthly Revenue exceed NT$ 2 billion formally, packaged volume exceeding 100 million chips.
	--	Received the “2006 Golden Commerce Award” from the MOEA Bureau of Foreign Trade (BFT) for Being Tenth in Actual Import/Export.
Nov	--	Received the “Eight Industrial Elite Award” from the MOEA BFT.
2008 Jan	--	Hukuo Plant 2B completed for operation.
March	--	Started to provide packaging services for Logic IC.
June	--	Received license from IBM for Metal Post Solder-Chip Connection (MPS-C2) technology. This is a key technology for fine-pitch Flip Chip packaging.
Aug	--	Surplus Capital Increase of NT$ 7.45 million, Paid-in Capital of NT$ 6.694 billion.
	--	Formed joint venture, TeraPower Technology Inc, with Japanese company Tera Probe, Inc, with paid-in capital of NT$ 750 million, and our company holding 49% of the JV.
Sept	--	Received the “2007 Golden Commerce Award” from the MOEA Bureau of Foreign Trade (BFT) for Being Ninth in Actual Import/Export.
Nov	--	Received land from the Hukuo Industrial Park about 5,953 pings, for expansion of future operations.
2009 July	--	Surplus Capital Increase of NT$ 386 million, Paid-in Capital of NT$ 6.694 billion.
Aug	--	Received the “2008 Golden Commerce Award” from the MOEA Bureau of Foreign Trade (BFT) for Being Fifth in Actual Import/Export.
	--	Formed overseas subsidiary Powertech Holding(B.V.I.) Inc.

	Sept	-- Acquired Spansion Holdings (Singapore) Pte. Ltd. (name changed to PTI Technology (Singapore) Pte. Ltd.) through Powertech Holding(B.V.I.) Inc., and indirectly obtaining Spansion's MCP packaging and testing plant in Suzhou, China. The China plant was renamed Powertech Technology (Suzhou) Ltd., and the Company formally entered China as a packaging and testing company.
2010	March	-- Formed subsidiary in the Hsinchu Science Park, Macrotech Technology Inc.
		-- Established US subsidiary Powertech Technology (USA), Inc through overseas subsidiary Powertech Holding (B.V.I.) Inc. to serve as overseas sales and service center.
	April	-- Paid-in capital increased to NT$ 7,042,366,680 after conversion into common shares by convertible bonds .
	Sept	-- Paid-in capital increased to NT$ 7,153,668,040 after conversion into common shares by convertible bonds .
		-- Received the "2009 Golden Commerce Award" from the MOEA Bureau of Foreign Trade (BFT) for Being Fifth in Actual Import/Export.
		-- Received the "Outstanding Innovation Company Award" portion of the 18th Industry Technology Development Award from the MOEA DOIT.
	Dec	-- Paid-in capital increased to NT$ 7,264,969,400 after conversion into common shares by convertible bonds.
2011	May	-- New Plant in Hukuo started construction.
	Aug	-- Surplus Capital Increase of NT$ 7,264,969,400. Paid-in Capital of NT$ 7,991,466,340.
		-- Received the "Creating Employment Contribution Award" from the Executive Yuan.
	Sept	-- Received the "2010 Golden Commerce Award" from the MOEA Bureau of Foreign Trade (BFT) for Being Sixth in Actual Import/Export.
	Dec	-- Established Remuneration Committee.
2012	Feb	-- Acquired 44% of Greatek Electronics through public tender offer.
	Apr	-- During re-election at the extraordinary shareholders' meeting, PTI formally become part of the Greatek Electronics' management.
		-- Institutional director Shiren Investment Company sold more than 50% of company shares owned when it was elected director, so naturally dismissed as company director.
	Aug	-- Purchased of company's treasury stocks for the first time, with a capital reduction of NT$ 200 million, Paid in Capital reduced to NT$ 7,791,466,340.
	Dec	-- For effective use of company resources and tax considerations, liquidated US subsidiary Powertech Technology USA Inc.
2013	Jul	-- Elpdia Memory Inc. acquired by Micron Technology Inc. and changed the trading entity to Micron Japan.

	Sep	-- Received 2012 Golden Trade Award for 10th place.
	Nov	-- Grand Opening for plant 3C, and relocated HQ to the new plant.
2014	Feb	-- Legal settlement reached with Tessera Inc. to early terminate product license agreement which help reducing future services costs.
	Jul	-- Acquired 100% shares of Nepes Pte. Ltd. Singapore and changed name to Powertech Technology (Singapore) Pte. Ltd.
	Dec	-- Signed investment agreements with Micron Inc. for providing package services in Xian, China.
		-- Merged Macrotech Technology Inc. and established Hsinchu Science Park branch on the site.
2015	Apr	-- Became a member of Electronic Industry Citizenship Coalition (EICC).
	May	-- Established Powertech Semiconductor (Xian) Co., Ltd.
	Oct	-- Signed strategic alliance agreement with Tsinghua Unigroup through private placement.
2016	Apr	-- Received 2015 Golden Trade Award for 4th place.
	Nov	-- Received 2016 Taiwan Top 50 Corporate Sustainability Report Golden Award in Electronic Information Category.
		-- Certified for ISO 27001 Data Security Management System.
	Dec	-- Certified for SA8000 Social Responsibility Management System.
2017	Jan	-- Established Powertech Technology Japan Ltd.
		-- Mutual agreement among Powertech Technology Inc. and Tsianghua Unigroup Co., Ltd., and Tibet TouZhanChaungXin Investment Co., Ltd. authorized to terminate share subscription agreement.
		-- Became a member of Taiwan Alliance for Sustainable Supply and participate in Taiwan packaging and testing industry eco-cloud development program.
	Apr	-- Contracted with Micron Inc to acquire its 39.6% holding of Tera Probe, Inc. shares by public tender offer and 100% Micron Akita Inc. operations.
	Jun	-- Tera Probe, Inc. became a PTI subsidiary after completed acquisition of Tera Probe, Inc. with 59.44% consolidated holding.
	Aug	-- Completed the acquisition of 100% Micron Akita Inc. and name changed to Powertech Technology Akita Inc.
	Nov	-- Received 2017 Taiwan Top 50 Corporate Sustainability Report Golden Award in Electronic Information Category.
2018	Jan	-- Named Top 100 Global Technology Leader by Thomson Reuters.
	Sep	-- Groundbreaking for Hsin Chu Science Park Plant III as the Fan-Out Panel-Level Packaging (FOPLP) facility.
	Nov	-- Board of Directors appointed Mr. DK Tsai as Chief Strategy Officer and Mr. JY Hung as Chief Executive Officer.
		--Received 11th Annual Taiwan Institute for Sustainable Energy Top 50 Corporate Sustainability Report Platinum and Top 50 Corporate Sustainability.

III. Corporate Governance

1. Company Organization



Responsibilities of Major Sections：

Major Section	Responsibilities
Chairman	Leading corporate strategies and objectives. Execute and monitor for continuing improvement.
President	Management of corporate strategies, objectives, execution of overall business and operations.
CSR Office	Responsible for corporate social responsibility regulation and execution. Risk management and emergency handling.
Internal Audit Office	Responsible for reviewing and assessing the effectiveness of the implementation of the Company's internal control system.
Accounting & Finance	Responsible for finance, accounting and shareholder services.
Labor Safety & Environmental Protection	Responsible for factory safety and labor's occupational health and hazard.
Human Resources	Responsible for Human Resources regulation creation and execution. Employee welfares and relationships.
Legal & Intellectual Property	Responsible for contract review, legal matters, and intellectual property management.
Research & Development	Responsible for development of new products.
Sales & Marketing	Responsible for market survey, development, and customer contact and coordination.
Packaging Manufacturing	Responsible for product packaging production and related process analysis, equipment maintenance.
Testing Manufacturing	Responsible for the production and related product testing process analysis, equipment maintenance.
Quality Management	Responsible for quality management policies, the design and implementation of quality indicators, customer complaints, reliability testing and equipment calibration.
Materials Management	Responsible for production scheduling, raw material procurement, warehousing and transportation management.
Information Management	Responsible for setting up and maintaining the information system.
Industrial Engineering	Responsible for facility layout planning and efficiency enhancement.
Production Management	Responsible for production capacity planning and scheduling.

2. Board of Directors, Independent Directors, CEO, Vice Presidents, Assistant Vice Presidents, Head of Each Department and Subsidiaries

(1) Information Regarding Board of Directors and Independent Directors

Information Regarding Directors and Independent Directors (I)

Apr 2, 2019

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Chairman	D.K. Tsai	Republic of China	5/26/2017	Male	3 years	6/23/1999	4,010,000	0.51%	4,010,000	0.51%	-	0.00%	-	0.00%	Industrial Engineering, Taipei Institute of Technology General Manager, Kingston Technology Far East Corp. Chairman, Kingston Technology Far East Corp.	CSO of Powertech Technology Inc. Chairman of Greatek Electronics Inc. Director of Powertech Holding (B.V.I.) Inc. Director of PTI Technology (Singapore) Pte. Ltd. Director of Powertech Technology (Singapore) Pte. Ltd. Legal Representative Director of Powertech Technology (Suzhou) Ltd. Executive Director of Powertech Technology Japan Ltd. Director of Tera Probe, Inc. Director of Powertech Technology Akita Inc. Independent Director of Compal Electronics, Inc. Independent Director of Chicony Power Technology Co., Ltd. Chairman of PTI Education Foundation	-	-	-

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Director	J.Y. Hung	Republic of China	5/26/2017	Male	3 years	5/26/2017	221,000	0.03 %	205,000	0.03 %	-	0.00%	-	0.00 %	Master, Industrial and Information Management, National Cheng Kung University, Sr. VP, Siliconware Precision Industries Co. Ltd., President, Powertech Technology Inc.	President & CEO of Powertech Technology Inc. Chairman of Tera Probe, Inc. Director of PTI Technology (Singapore) Pte. Ltd. Director of Powertech Technology (Singapore) Pte. Ltd. Legal Representative Director of Powertech Technology (Suzhou) Ltd. Legal Representative Director of Powertech Semiconductor (Xi'an) Co., Ltd. Director of PTI Education Foundation			
Director	Kingston Technology Corp. Investment Account Rep：Shigeo Koguchi	U.S.A.	5/26/2017	Male	3 years	5/26/2017	29,875,000 0	3.83 % 0.00 %	29,875,000 0	3.83 % 0.00 %	- 0	- 0.00%	- 0	- 0.00 %	Master, Engineering, University of Florida Master, Engineering, Hokkaido University, Japan Sr. Executive VP. Of Toshiba Corp. Director and Senior Advisor of Toshiba Corp.	None	-	-	-
Director	Kingston Technology Corp. Investment Account Rep：Daphne Wu	U.S.A	5/26/2017	Female	3 years	5/26/2017	29,875,000 0	3.83 % 0.00 %	29,875,000 0	3.83 % 0.00 %	- 0	- 0.00%	- 0	- 0.00 %	Bachelor, Accountancy, National Chengchi University Director of Asia Pac Finance of Kingston Technology Far East Corp.	Director of Asia Pac Finance of Kingston Technology Far East Corp. Supervisor of Kingston Solution Inc. Supervisor of Panram Co., Ltd. Supervisor of Orient Semiconductor Electronics Ltd.	-	-	-

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Director	Kingston Technology Corp. Investment Account Rep：J.S. Leu	Republic of China	5/26/2017	Male	3 years	5/26/2017	29,875,000 146,356	3.83% 0.02%	29,875,000 137,356	3.83% 0.02%	- 0	- 0.00%	- 0	- 0.00%	Bachelor, Mechanical Engineering, Feng Chia University Deputy Director, Packaging Manufacturing, Powerchip Technology Corp.	Chairman of Powertech Technology (Suzhou) Ltd. Chairman of Powertech Semiconductor (Xian) Co., Ltd Sr. VP of Powertech Technology Inc. Packaging Operations Legal Representative Director of Greatek Electronics Inc.	-	-	-
Director	Kingston Technology Corp Investment Account Rep：Evan Tseng	U.S.A	5/26/2017	Male	3 years	5/26/2017	29,875,000 12,000	3.83% 0.00%	29,875,000 12,000	3.83% 0.00%	- 0	- 0.00%	- 0	- 0.00%	Master, Accountancy, Soochow University Sr. AVP, Systex Corp.	Sr. VP & CFO of Powertech Technology Inc. Director of Powertech Technology (Singapore) Pte. Ltd. Legal Rep Supervisor of Powertech Technology (Suzhou) Pte. Ltd. Legal Rep Director of Powertech Semiconductor (Xi'an) Co., Ltd. Director of Tera Probe, Inc. Legal Rep Director of TeraPower Technology Inc. Director of Powertech Technology Akita Inc. Legal Rep Director of Greatek Electronic Inc. Director of Tsai Lin Pu Social Welfare Foundation	-	-	-

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Director	Toshiba Memory Semiconductor Taiwan Corp. Rep：Kenjiro Hara	Republic of China	5/26/2017	Male	3 years	6/14/2005	3,655,309 0	0.47% 0.00%	3,655,309 0	0.47% 0.00%	- 0	- 0.00%	- 0	- 0.00%	Master, Mechanical Engineering, Tokyo University of Science Director of Procurement, Toshiba Memory Corporation	Chairman of Toshiba Memory Semiconductor Taiwan Corp.			

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Independent Director	Jim W.L. Cheng	Republic of China	5/26/2017	Male	3 years	6/13/2008	331,614	0.04 %	331,614	0.04 %	0	0.00%	0	0.00 %	Bachelor, Business Administration, Fu-Jen Catholic University Vice President of Finance, Yungtay Engineering Co., Ltd. President, Taiwan Calsonic Co. Ltd.	Chairman of Taiwan Calsonic Co. Ltd. Chairman of Yong Lien Corp. Chairman of Glory Biotech Co. Ltd. Director of Browave Corp. Director of Center Laboratories Inc. Legal Representative Director of Lumosa Therapeutics Co. Ltd. Legal Representative Director of Yu-Cheng Consulting Co. Ltd. Legal Representative Director of Yu-Cheng Biotech Co. Ltd. Legal Representative Director of Uni-Calsonic Co., Ltd.. Institutional Director Rep. of Chuang-Yi Biotech Co., Ltd.. Legal Representative Director of Galc Biotech Co., Ltd.. Supervisor, Yungtay Engineering Co., Ltd. Director of Polstar Technologies Inc. Institutional Supervisor Rep. of TPG biologics Inc. Legal Representative Director of Yu Sheng Venture Capital Company Institutional Supervisor Rep. of Mycenax Biotech Inc.	-	-	-

Title	Name	Nationality	Date On-Board	Gender	Term	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Directors or Independent Directors Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
							Shareholding	%	Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Independent Director	Quincy Lin	Republic of China	5/26/2017	Male	3 years	6/20/2002	0	0.00 %	0	0.00 %	0	0.00%	0	0.00 %-	Ph.D., Business Administration, University of Kentucky MBA, National Chiao Tung University Sr. VP., Taiwan Semiconductor Manufacturing Company Chairman of Neo Solar Power Corp.	Chairman of General Energy Solutions Inc. Chairman of V5 Technologies Inc. Chairman of Rafael Micron Inc. Director of Neo Solar Power Corp. Independent Director of Chroma ATE Inc.	-	-	-
Independent Director	Philips Wei	Republic of China	5/26/2017	Male	3 years	5/26/2017	0	0.00 %	0	0.00 %	0	0.00%	0	0.00 %	Master, Finance, National Cheng Chi University Bachelor, Transportation Study, National Cheng Kung University Chairman, China Airline Inc.	Chairman of Fortune Information System Corp. Director of CyberSoft Digital Service Corp. Legal Representative Director of China Electronics Corp. Supervisor, Tai Hsin Insurance Agency Non-Profit Organization	-	-	-
Independent Director	Pei-Ing Lee	Republic of China	5/26/2017	Male	3 years	5/26/2017	0	0.00 %	0	0.00 %	0	0.00%	0	0.00 %	Ph. D, Syracuse University Chairman of Inotera Memories, Inc.	Director & President of Nanya Technology Corp.	-	-	-

For Directors or Committee Members that are representatives of Institutional Shareholders, the main shareholders of the Institutional Shareholders (the Top Ten Shareholders)

March 31, 2019

Name of Institutional Shareholder	Main Shareholders of the Institutional Shareholders
Kingston Technology Corporation Investment Account	John Tu (50%), David Sun (50%)
Toshiba Memory Semiconductor Taiwan Corp.	Toshiba Memory Corporation (100%)

The main shareholders of the Institutional Shareholders in Table above whose main shareholders are Institutional Shareholders:

March 31, 2019

Name of Institution	Main Shareholders of the Institution
Toshiba Memory Corporation	Toshiba Corporation (100%)

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Information Regarding Board of Directors (II)

Apr 30, 2019

Criteria / Name	Meet One of the Following Professional Qualification Requirements, together with at least five years of work experiences			Conform to Independent Status (Note 1)										Number of Other Taiwan Public Companies Concurrently Serving as an Independence Status
	An instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Dept related to the Business Needs of the Company in a public or private Junior College, College, or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialists Who has passed a National Examination and been Awarded a certificate in a Profession necessary for the Business of the Company	Have work Experience in the area of Commerce, Law, Finance, Accounting, or Otherwise necessary for the business of the Company	1	2	3	4	5	6	7	8	9	10	
D.K. Tsai			✓				✓	✓	✓	✓	✓	✓	✓	Independent Directors of Compal Electronics, Inc., and Chicony Electronics CO., Ltd
J.Y. Hung			✓			✓	✓	✓	✓	✓	✓	✓	✓	
Kingston Technology Corporation Rep.：Shigeo Koguchi			✓	✓			✓	✓	✓	✓	✓	✓	✓	
Kingston Technology Corporation Rep.:Daphne Wu			✓	✓			✓		✓	✓	✓	✓	✓	
Kingston Technology Corporation Rep.：J.S. Leu			✓				✓	✓	✓	✓	✓	✓	✓	
Kingston Technology Corporation Rep.: Evan Tseng			✓				✓	✓	✓	✓	✓	✓	✓	
Toshiba Semiconductors Taiwan Corp. Rep.: Kenjiro Hara			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Jim W.L. Cheng			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Quincy Lin			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Independent Director of Chroma ATE Inc.
Philip Wei			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Pei-Ing Le			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Note 1: Board of Directors and Independent Directors during the two years before being elected or during the term of office, meet any of the following

conditions, please tick the appropriate corresponding boxes:

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

(2) Not a director or independent director of the Company or any of its affiliates. The same does not apply, however, in cases where the person is an independent director of the Company, its parent company, or any subsidiary in which the Company holds, directly or indirectly, more than 50% of the voting shares.

(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 kinship, of any of the persons in the preceding three subparagraphs.

(5) Not a director, supervisor, or employee of a corporate/institutional 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.

(6) Not a director, supervisor, officer, or shareholder holding 5% or more of the shares of a specified company or institution that has a financial or business relationship with the Company.

(7) Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that provides commercial, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company, or a spouse thereof. However, this does not include member of the remuneration committee acting of behalf of Article 7 based on the shares being publicly listed and trading at a commercial brokerage.

(8) Not having a marital relationship, or a relative within the second degree of kinship of any other director of the Company.

(9) Not been a person of any conditions defined by Article 30 of the Company Law.

(10) Not a governmental, juridical person or its representative as defined in Article 27 of the Company Law.

(2) Information Regarding President, Vice Presidents, Assistant Vice Presidents, and Department Managers

Apr 2, 2019 / Unit: share

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Chairman	D.K. Tsai	Republic of China	Male	6/23/1999	4,010,000	0.515%	-	-	-	-	Industrial Engineering, Taipei Institute of Technology General Manager, Kingston Technology Far East Corp. Chairman, Kingston Technology Far East Corp.	Chairman of Powertech Technology Inc. Chairman of Greatek Electronics Inc. Director of Powertech Holding (B.V.I.) Inc. Director of PTI Technology (Singapore) Pte. Ltd. Director of Powertech Technology (Singapore) Pte. Ltd. Legal Representative Director of Powertech Technology (Suzhou) Ltd. Executive Director of Powertech Technology Japan Ltd. Board Director of Tera Probe, Inc. Board Director of Powertech Technology Akita Inc. Chairman of PTI Education Foundation Independent Director of Compal Electronics, Inc. Independent Director of Chicony Power Technology Co. Ltd.	-	-	-
President & CEO	J. Y. Hung	Republic of China	Male	11/8/2013	205,000	0.026%	-	-	-	-	Master, Industrial and Information Management, National Cheng Kung University, Sr. VP, Siliconware Precision Industries Co. Ltd., President, Powertech Technology Inc. Chairman & CEO of Simaike Co. Ltd.	Board Director of Powertech Technology Inc. Chairman of TeraPower Technology Inc. Legal Rep Director of Powertech Technology (Singapore) Pte. Ltd. Legal Rep Director of Powertech Technology (Suzhou) Ltd. Legal Rep Director of Powertech Semiconductor (Xian) Co., Ltd. Board Director of PTI Education Foundation	-	-	-

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Operations Sr. VP	J.S. Leu	Republic of China	Male	10/01/2000	137,356	0.018%	-	-	-	-	Bachelor, Mechanical Engineering, Feng Chia University Deputy Director, Packaging Manufacturing, Powerchip Technology Corp.	Legal Rep Director of Powertech Technology Inc. Chairman of Powertech Technology (Suzhou) Ltd Chairman of Powertech Semiconductor (Xian) Co., Ltd. Legal Rep Director of Greatek Electronics Inc.	-	-	-
Quality Assurance Sr VP.	John Wang	Republic of China	Male	12/12/2002	66,056	0.008%	-	-	-	-	MBA, National Chia Tung University Assistant VP, R&D, Kingpak Technology Inc.	Board Director of PTI Education Foundation	-	-	-
Testing Operations Sr. VP	K.J. Chan (Note1)	Republic of China	Male	08/01/2003	435	0.000%			-	-	Master, National Chiao Tung University VP., ChipMOS Technologies Ltd.	None	-	-	-
Sales of Strategic Account & Marketing Sr. VP	Steven Shen (Note 1)	Republic of China	Male	09/01/2014	20,000	0.005%					MBA, Tulane University Managing Director, AMKOR Taiwan VP., Powertech Technology Inc. President, Unictron Technologies Corp.	None	-	-	-

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relatio n
Information and Materials Management Sr. VP.	John Chang	Republic of China	Male	07/10/2012	21,000	0.003%					Master, Mechanical Engineering, University of Texas at Arlington Master, Management Sciences, National Chiao Tung University VP. of Purchasing, Chien Kuo Construction Corp. Deputy Director of Purchasing, ProMOS Technologies Ltd.	None			
Sales Sr. VP.	Peter Lai (Note 2)	Republic of China	Male	1/2/2013	35,000	0.004%			-	-	Industrial Engineering, National United College VP., Siliconware Precision Industries Co. Ltd.	None.	-	-	-
Singapore Operation Sr. VP	Tonwey Cheng	Republic of China	Male	8/82017	429	0.000%					Bachelor, Electronic Engineering, National Sun Yat-sen University VP of King Yuan Electronic Co., Ltd. VP of Powertech Technology Inc.	President of Powertech Technology (Singapore) Pte. Ltd. Sales VP of Greatek Electronic Inc.			

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Sales Strategy Sr.VP	Phu Le	U.S.A.	Male	4/1/2011	0	0.000%					Bachelor, Mechanical Engineering, Shibaura Institute of Technology, Tokyo, Japan Assembly Package Engineering Manager, Toshiba Microelectronics America Corp. Director of Assembly Package Operations, Payton Technology Corp. Sales Director, Kingston Technology Corp.	None			
Sr. VP & CFO	Evan Tseng	Republic of China	Male	5/1/2015	12,000	0.002%					Master, Accountancy, Soochow University Sr. AVP, Systex Corp.	Legal Rep Director of Powertech Technology Inc. Board Director of Powertech Technology (Singapore) Pte. Ltd. Legal Rep Supervisor of Powertech Technology (Suzhou) Ltd. Legal Rep Director of Powertech Semiconductor (Xian) Co., Ltd. Board Director of Tera Probe, Inc. Legal Rep Director of TeraPower Technology Inc. Board Director of Powertech Technology Akita Inc. Board Director of Tsai Lin Pu Social Welfare Foundation			
Packaging Mfg VP	Y. C. Chen	Republic of China	Male	3/9/2010	0	0.000%					Bachelor, Industrial Engineering, Chung Yuan Christian University Manger, PowerChip Technology Corp.	Board Director of PTI Education Foundation			

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Packaging Global Operations Planning VP	Paul Wu	Republic of China	Male	3/9/2010	0	0.000%					Bachelor, Machanical Engineering, Tamkang University Director, Amkor Taiwan	Board Director of PTI Education Foundation			
Testing Mfg VP	Wilber Wu	Republic of China	Male	3/9/2010	27,786	0.005%					Master, Industrial Engineering, Chung Yuan Christian University Manager, PowerChip Technology Corp.	Board Director of PTI Education Foundation			
Memory Testing Operations VP	Y.C. Chi	Republic of China	Male	5/10/2012	25,000	0.005%					EMBA, National Central University Manager, PowerChip Technology Corp.	None			
Memory Packaging R&D VP	David Fang	Republic of China	Male	5/1/2015	3,000	0.000%					Bachelor, Electronics Engineering, Chung Yuan Christian University Manager, Texas Instrument Inc. Deputy Manager, PowerChip Technology Corp.	None			
Plant Affairs VP	Perry Lin	Republic of China	Male	5/10/2012	166,715	0.021%					Associate, Mechanical Engineering, Minghsin Institute of Science & Technology Manager, Kingston Technology Far East Corp.	None			

Title	Name	Nationality	Gender	Date On-Board	Shareholding		Shareholding Under Spouse and Minor Children		Shareholding Under 3rd Party Name		Education & Selected Past Positions	Selected Current Positions at PTI & Other Companies	Managers Whose Spouses or within Second-degree Relative of Consanguinity to Each Other or other Managers		
					Shareholding	%	Shareholding	%	Shareholding	%			Title	Name	Relation
Human Resources & Legal Affairs VP.	Yohan Lin	Republic of China	Male	1/11/2019	180,000	0.023%					J.D, Law School, Golden Gate University Senior Manager, PricewaterhouseCoopers Legal Taiwan	Board Director of PTI Education Foundation			
Logic Testing AVP	Vic Chen	Republic of China	Male	5/10/2012	87,000	0.011%					Master, Electrical Engineering, National Taiwan Science & Technology University AVP, Verigy Ltd. AVP, Agilent Technology Taiwan Ltd.	None			
Packaging Mfg AVP	Gary Chang	Republic of China	Male	8/1/2014	0	0.000%					Bachelor, Industrial Engineering, Feng Chia University Deputy Manager, PowerChip Technology Corp.	None			
WLP AVP	Victor Tung	Republic of China	Male	3/1/2016	0	0.00%	3,000	0.00%			Master, Industrial Engineering, Yuan Ze University Sr. Director, Amkor Taiwan	None			

Note 1: K.J. Chan and Steven Shen both resigned on Feb 28 2019. The disclosure data were as of Jan 31 2019.

Note 2: Peter Lai resigned on Jan 11 2019. The disclosure data was as of Dec 31 2018.

(3) Remuneration Paid to Directors, CEO, and Vice Presidents

1. Remuneration Paid to Directors

Unit：NT$ Thousands

Title	Name (Note 1)	Director's Remuneration								Total Remuneration (A+B+C+D) as % of 2017Net Income (Note 10)		Compensation Earned by Director Who is also an Employee of PTI or PTI's Consolidated Entities								Total Compensation (A+B+C+D+E+F+G) as % of 2017 Net Income (Note 10)		Compensation Paid to Directors from Nonconsolidated Affiliates
		Base Compensation (A)(Note 2)		Severance Pay and Pensions (B)		Compensation to Directors (C) (Note 3)		Allowances (D) (Note 4)				Base Compensation, Bonuses, and Allowances (E) (Note 5)		Severance Pay and Pensions (F)		Employee Profit Sharing (G) (Note 6)						
		From PTI	From All Consolidated Entities	From PTI	From All Consolidated Entities	From PTI	From All Consolidated Entities	From PTI	From All Consolidated Entities	From PTI(%)	From All Consolidated Entities(%)	From PTI	From All Consolidated Entities	From PTI	From All Consolidated Entities	From PTI		From All Consolidated Entities		From PTI(%)	From All Consolidated Entities(%)	
																Cash	Stock (Fair Market Value)	Cash	Stock (Fair Market Value)			
Chairman	D.K. Tsai (Note 12)	7,200	7,200	0	0	84,163	94,476	1,320	1,590	1.49	1.69	42,357	42,357	0	0	16,580	0	16,580	0	2.43	2.63	None
Director	J.Y. Hung																					
Director	Kingston Technology Corporation Rep: Shigeo Koguchi																					
Director	Rep: Daphne Wu																					
Director	Rep: JS Leu																					
Director	Rep: Evan Tseng																					
Director	Toshiba Memory Semiconductors Taiwan Corp. Rep: Kenjiro Hara																					
Independent Director	Jim W.L Cheng																					
Independent Director	Quincy Lin																					
Independent Director	Philips Wei																					
Independent Director	Pei-Ing Lee																					

Remuneration Paid to Directors Grade Table

Grade Scale of Remuneration paid to each director of PTI	Name of Director			
	Total Remuneration (A+B+C+D)		Total Remuneration (A+B+C+D+E+F+G)	
	From PTI (Note 8)	From All Consolidated Entities (Note 9)	From PTI (Note 8)	From All Consolidated Entities (Note 9)
Under NT$ 2,000,000	Jim WL Cheng, Quincy Lin, Philips Wei, Pei-Ing Lee	Jim WL Cheng, Quincy Lin, Philips Wei, Pei-Ing Lee	Jim WL Cheng, Quincy Lin, Philips Wei, Pei-Ing Lee	Jim WL Cheng, Quincy Lin, Philips Wei, Pei-Ing Lee
NT$ 2,000,000 ～ NT$ 4,999,999	–	–	–	–
NT$ 5,000,000 ～ NT$ 9,999,999	–	–	–	–
NT$ 10,000,000 ～ NT$ 14,999,999	JY Hung Kingston Technology Corporation Investment Account (Rep: Shigeo Koguchi, Daphne Wu, JS Leu, Evan Tseng) Toshiba Memory Semiconductor Taiwan Corp.	JY Hung Kingston Technology Corporation Investment Account (Rep: Shigeo Koguchi, Daphne Wu, JS Leu, Evan Tseng) Toshiba Memory Semiconductor Taiwan Corp.	Kingston Technology Corporation Investment Account (Rep: Shigeo Koguchi, Daphne Wu) Toshiba Memory Semiconductor Taiwan Corp.	Kingston Technology Corporation Investment Account (Rep: Shigeo Koguchi, Daphne Wu) Toshiba Memory Semiconductor Taiwan Corp.
NT$ 15,000,000 ～ NT$ 29,999,999	D.K. Tsai		Kingston Technology Corporation Investment Account Rep: JS Leu and Evan Tseng	Kingston Technology Corporation Investment Account Rep: JS Leu and Evan Tseng
NT$ 30,000,000 ～ NT$ 49,999,999	–	D.K. Tsai	J.Y. Hung, D.K. Tsai	J.Y. Hung
NT$ 50,000,000 ～ NT$ 99,999,999	–	–	–	D.K. Tsai
Over NT$ 100,000,000	–	–	–	–
Total	11	11	11	11

Note 1: The names of all directors are listed individually (institutional shareholders by the name of institutional shareholders and its representatives). The remuneration is disclosed by summary for each item. Because two directors or representatives serve as CEO and president, they are excluded from this table and will be listed in Table 3 below.
Note 2: Remuneration paid for 2018. According to the latest Article of Incorporation, independent directors' compensation will be paid monthly and no longer in title to annual profits sharing plan.
Note 3: Remuneration paid for 2018 profit sharing plan before the amendment of Board remuneration plan.
Note 4: Compensation for traveling.
Note 5: Includes 2018 salaries, wages, allowances, pensions, severance pay, bonuses, incentives, traveling expenses, special expenses, allowances, dormitories, vehicles and other offers received as both employees and directors.
Note 6: The amount was employees served as Board members and received employee's profit sharing. The amount was estimated by ratio of year of 2017 actual amount multiple by year of 2018 distribution rate because the actual amount was pending for shareholders meeting approval.
Note 7: Discloses the total remuneration by item paid to company's directors from all consolidated entities (including PTI).
Note 8: The total remuneration paid to each director by item from PTI, including the grade and disclosure of director's name.
Note 9: The total remuneration paid to each director by item from all consolidated entities (including PTI), including the grade and disclosure of director's name.

Note 10: After-tax net income refers to the after-tax net income of the PTI financial statements for 2018.
Note 11: One dedicated fulltime employee served as Chairman driver who was eligible for wages, bonuses, and benefits.

2. Remuneration Paid to President and Vice President

Unit：NT$ Thousands

<table>
<tr><th rowspan="3">Title</th><th rowspan="3">Name
(Note1)</th><th colspan="2">Salary
(A)
(Note 2)</th><th colspan="2">Severance Pay and Pensions
(B)</th><th colspan="2">Bonuses and Allowances(C)
(Note 3)</th><th colspan="4">Employee Profit Sharing (D)
(Note 4)</th><th colspan="2">Total Remuneration (A+B+C+D) as % of 2017 Net Income
(％)</th><th rowspan="3">Compensation Received from Non-consolidated Affiliates</th></tr>
<tr><th rowspan="2">From PTI</th><th rowspan="2">From All Consolidated Entities</th><th rowspan="2">From PTI</th><th rowspan="2">From All Consolidated Entities</th><th rowspan="2">From PTI</th><th rowspan="2">From All Consolidated Entities</th><th colspan="2">From PTI</th><th colspan="2">From All Consolidated Entities</th><th rowspan="2">From PTI</th><th rowspan="2">From All Consolidated Entities</th></tr>
<tr><th>Cash</th><th>Stock (Fair Market Value)</th><th>Cash</th><th>Stock (Fair Market Value)</th></tr>
<tr><td>CSO</td><td>D.K. Tsai</td><td rowspan="16">48,314</td><td rowspan="16">55,240</td><td rowspan="16">0</td><td rowspan="16">0</td><td rowspan="16">57,137</td><td rowspan="16">59,621</td><td rowspan="16">28,039</td><td rowspan="16">0</td><td rowspan="16">28,039</td><td rowspan="16">0</td><td rowspan="16">2.14%</td><td rowspan="16">2.29%</td><td rowspan="16">None</td></tr>
<tr><td>President & CEO</td><td>J.Y. Hung</td></tr>
<tr><td>Operations Sr. VP.</td><td>J.S. Leu</td></tr>
<tr><td>Quality Assurance Sr. VP.</td><td>John Wang</td></tr>
<tr><td>Testing Operations Sr. VP.</td><td>K.J. Chan(Note)</td></tr>
<tr><td>Sales & Marketing Sr. VP.</td><td>Steven Shen(Note)</td></tr>
<tr><td>Information and Materials Management Sr. VP.</td><td>John Chang</td></tr>
<tr><td>Sales Sr. VP.</td><td>Peter Lai(Note)</td></tr>
<tr><td>Singapore Operation Sr. VP.</td><td>Tonwey Cheng</td></tr>
<tr><td>Sales Management Sr. VP.</td><td>Phu Le</td></tr>
<tr><td>Sr. VP. & CFO</td><td>Evan Tseng</td></tr>
<tr><td>Packaging Manufacturing VP.</td><td>Y.C. Chen</td></tr>
<tr><td>Packaging Manufacturing VP.</td><td>Paul Wu</td></tr>
<tr><td>Memory Testing Operations VP.</td><td>Wilber Wu</td></tr>
<tr><td>Memory Testing Operations VP.</td><td>Y.C. Chi</td></tr>
<tr><td>VP & CTO</td><td>David Fan</td></tr>
</table>

Remuneration Paid to President and Vice President Grade Table

Grade Scale of Remuneration paid to each of PTI's CEO, President, and Vice Presidents	Name	
	From PTI (Note 6)	From All Consolidated Entities (Note 7)
Under NT$ 2,000,000	–	–
NT$ 2,000,000 ～ NT$ 4,999,999	Tonwey Cheng, YC Chen	Tonwey Cheng
NT$ 5,000,000 ～ NT$ 9,999,999	,K.J. Chan, John Wang, Steven Shen, Peter Lai, John Chang, Wilber Wu, YC Chi, Phu Le, Paul Wu, Evan Tseng, David Fan	,K.J. Chan, John Wang, Steven Shen, Peter Lai, John Chang, YC Chen, Wilber Wu, YC Chi, Phu Le, Paul Wu, Evan Tseng, David Fan
NT$ 10,000,000 ～NT$ 14,999,999	J.S. Leu	J.S. Leu
NT$ 15,000,000 ～NT$ 29,999,999	D.K. Tsai, J.Y. Hung	D.K. Tsai, J.Y. Hung
NT$ 30,000,000 ～NT$ 49,999,999	–	–
NT$ 50,000,000 ～NT$ 99,999,999	–	–
Over NT$ 100,000,000	–	–
Total	16	16

Note: KJ Chan and Steven Shen were resigned on Feb 28 20119. Peter Lai resigned on Jan 11 2019.

Note 1: The names of CEO, President, and Vice Presidents are separately listed, and total remuneration disclosed for each item paid. Director serving as CEO and President are listed in this table and Table 1.

Note 2: Remuneration included President and Vice President Payrolls and incentives.

Note 3: Remuneration included President and Vice President Bonuses, transportation incentives, special allowances, and other incentives. .

Note 4: The amount was estimated using 2018 profit sharing ratio and approved by 2017 Board Meeting. Details listed in Table 3.

Note 5: The amount was the summary remuneration paid to company's CEO, President, and Vice Presidents from all consolidated entities.

Note 6: Each executive management compensation was disclosed in range.

Note 7: All compensation from consolidated statements was disclosed by range for each executive management.

Note 8: After tax net income refers to the after tax net income of the PTI financial statements for 2018.

3. Bonuses Paid to Management Date: Dec 31 2018

	Title	Name	Stock (Fair Market Value)	Cash(NTD K)	Total(NTD K)	Total as % of 2018 Net Income
Management	CSO	D.K. Tsai	0	31,826	31,826	0.51%
	President & CEO	J.Y. Hung				
	Operations Sr. VP.	J.S. Leu				
	Quality Assurance Sr. VP.	John Wang				
	Testing Operations Sr. VP.	K.J. Chan (Note)				
	Marketing & Sales Sr. VP.	Steven Shen (Note)				
	Information and Materials Management Sr. VP.	John Chang				
	Sales Sr. VP.	Peter Lai (Note)				
	Singapore Operations Sr. VP.	Tonwey Cheng				
	Packaging Global Operations Marketing Assistant Sr. VP.	Paul Wu				
	Finance & Investment Management Sr. VP. & CFO	Evan Tseng				
	Packaging Manufacturing VP.	Y.C. Chen				
	Sales Management VP.	Phu Le				
	Memory Testing Operations VP.	Wilber Wu				
	Memory Testing Operations VP.	Y.C. Chi				
	Memory Packaging R&D VP.	David Fang				
	Plant Affairs Engineering VP.	Perry Lin				
	Logic Testing Assistant VP.	Vic Chen				
	Packaging Manufacturing Assistant VP.	Gary Chang				
	Wafer Level Packaging Assistant VP.	Vic Dong				

Note: KJ Chan and Steven Shan were resigned on Fev 28 2019. Peter Lai was resigned on Jan 11 2019.

Note 1: The 2018 profit sharing amount was approved by Board of Directors but pending for Shareholders' Meeting approval. The estimation was base on 2017 actual amount multiple by proposed ratio for 2017. Net income after tax for 2018 was referred to 2018 PTI financial statement net income after tax.

Note 2: Applicable grades for management are based on ruling of FSC Letter No. 0920001301 MOF March 27, 2003. The grades are listed below:

1)President or equivalent grade
2)Vice Presidents or equivalent grade
3)Assistant Vice President or equivalent grades
4) Head of Finance Department
5) Head of Accounting Department
6) Other Corporate management affairs or have signing authority

Note 3: For Directors, President, and Vice President who received employee profit sharing, in addition to filling related tables, information is contained in this table.

4. The percentage of compensation to Board, Supervisor, President, Vice President:

Title	2018 Compensation Percentage of Net Income after Tax		2017 Compensation Percentage of Net Income after Tax	
	PTI Alone	Consolidated	PTI Alone	Consolidated
Board and Supervisor	2.43%	2.63%	2.40%	2.61%
President and Vice President	2.14%	2.29%	2.20%	2.32%

(1)Compensation for Board of Dirctors were based on the percentage defined in Article of

Incorporation. 2018 compensation was based on revised Article of Incorporation which was less than 1.5% of before tax income deducted annual board and employee compensation. Independent Directors were paid monthly and not entitled to board compensation.

(2) Compensation for President and vice President were based on corporate payroll policy and employee profit sharing policy considering individual seniority, experiences, performance, and contribution. Compensation proposal will be reviewed by Remunerations Committee and approved by Board.

(3)Weight of 2018 Board compensation over net income were similar with 2017 due to including salary compensation of one employee who served as additional Legal Representative Director. Weight of 2018 management compensation over net income were lower than 2017 due to 2018 employee headcount increased.

4. Corporate Governance Status

(I) Board of Directors Meeting Status:

Board of Directors Meeting Status

6 Board Meetings took place in 2018. The attendance status as follows:

Before Annual General Meeting on May 26, 2017

Title Name	Attendance	Attend In Person	Attend By Proxy	Attendance Rate	Note
Chairman	D.K. Tsai	5	1	83.3%	
Director	JY Hung	6	0	100%	
Director	Kingston Technology Corp. Rep: Shigeo Koguchi	5	1	83.3%	
Director	Kingston Technology Corp. Rep: Daphne Wu	4	2	66.7%	
Director	Kingston Technology Corp. Rep：JS Leu	6	0	100%	
Director	Kingston Technology Corp. Rep：Evan Tseng	6	0	100%	
Director	Toshiba Memory Semiconductors Taiwan Corp Rep：Kenjiro Hara	5	0	83.3%	
Independent Director	Jim W.L. Cheng	5	1	83.3%	
Independent Director	Quincy Lin	5	1	83.3%	
Independent Director	Philips Wei	6	0	100%	
Independent Director	Pei-Ing Lee	5	1	83.3%	
Accumulated Average Attendance		58	6	87.9%	

Other Remark:

1.Any of the following situation should be clearly stated board meeting date, term, proposal details, all opinions from independent directors, and responses from the Company reading Independent Director opinion:

(1) Items listed by Article 14-3 of Securities and Exchange Act :

Audit Committee has been set up complied with Article 14-3 of Securities and Exchange Act and approved by Board. Details operations of Audit Committee can be found in Audit Committee Meeting Status in next section.

(2) Other written opinion or objection from Independent Directors regarding Board approval items:

None.

2. Independent Directors should leave during discussion for matters with conflict of interest. Name of directors, proposal details, reason of conflicts and voting results:

(1) Board Meeting on Aug 3, 2018

Item 1: Independent Director Compensation Principal

Director DK Tsai, JY Hung, JS Leu, and Evan Tseng were excused from the meeting due to conflict of interests. All participated directors approved the proposal.

(2) Board Meeting on Nov 2, 2018

Item 2: Proposal for appointment of CSO and CEO

Director DK Tsai (appointed Director JY Hung) and JY Hung were excused from the meeting due to conflict of interests. All participated directors approved the proposal.

3. Current and recent years professional targets set for the Board (ex, set up of Audit Committee, improve corporation transparency) and keep track of progress:

Approved to appoint Mr. JY Hung as CEO and Mr. DK Tsai as CSO in order to strength succession plan and board structure on Nov 2 2018, 8^{th} annual 9^{th} board meeting.

In order to maintain and improve the transparency of the corporate governance, PTI will post summary conclusions from Board Meeting on MOPS at the same date of the meeting. If required by regulation, PTI will host press release to answer media and investors questions.

(II) Audit Committee Meeting Status:

4 meetings were hold during 2018 and the attendance status as follow:

4 meetings were hold for 2^{nd} Term Audit Committee in 2018:

Title Name	Attendance	In Person	By Proxy	Attendance Rate	Note
Independent Director	Jim W.L. Cheng	2	1	66.7%	
Independent Director	Quincy Lin	3	0	100%	
Independent Director	Philips Wei	3	0	100%	
Independent Director	Pei-Ing Lee	3	0	100%	

Other Remark:

1. Audit Committee annual key performance indicators:

Audit Committee composed of 4 independent directors who are authorized to supervise the flow and control quality and reliability of accounting, auditing, financial reporting. 2018 major review items including:

(1)Policy and Procedure of financial reporting and accounting policies.

(2)Execution efficiency on internal audit plans and internal control procedures.

(3)Domestic share trade

(4)Lending to subsidiaries and execution of guarantee endorsement for subsidiaries

(5)Earnings distribution proposal

(6)Financial derivatives execution

(7)Amendment of Code of Business Conduct and Ethics

(8)Subsidiaries operation improvement plans

(9)Legal verdict of violation of Code of Business Conduct

(10) Execution of risk management

(11) Evaluation of CAP independence and competence

(12) Insider trading

▲ Audit Financial Reports

Board proposed 2018 business operation plan, audited financial reports, and earnings distribution plan for review. 2018 audited financial reports were completed and issued unqualified opinion by Deloitte Taiwan. Audit Committee approved 2018 business operation plan, audited financial reports, and earnings distribution plan after evaluation.

▲ Evaluation of Internal Audit Efficiency

Audit Committed reviewed the regular reporting from audit department, certified public accountant, and management to understand the efficiency of internal control policy and procedures. Audit Committee believed internal audit and risk management were necessary and effective to prevent and correct legal misconduct.

▲ Evaluation of CAP independence and competence

Audit Committee was authorized to supervise the independency of audited CPA firm to ensure the fair representation of the financial reporting. Audit CPA firm can only provide tax related and approval-based services. Special approval service items need to be authorized by Audit Committee. Audit Committee will evaluate audit CPA for independence, specialty, and competence base on the Article 47 of The Norm of Professional Ethics for CPA of ROC. CPA Yu-Feng Huang and CPA Su-Li Fang both qualified and approved by Audit Committee and Board Directors on Mar 16 2018.

2. Any of the following situation should be clearly stated board meeting date, term, proposal details, all opinions from independent directors, and responses from the Company reading Independent Director opinion:

(1)Items Subject to Article 14-5:

Board Meeting	**Proposal Details & Follow Ups**	**Subject to Article 14-5**	**Proposal Approved by more than 2/3 of Board Members without Audit Committee Approval**
8th Term 5th Meeting (Mar 16, 2018)	1.Review 2016 Operations Report and Financial Reports.	√	
	2.Authorized 2017 Internal Audit Report Declaration.	√	
	3. In order to reduce currency exchange risks, proposed to extend trade long term forward exchange term with existing US$110 m credit limit.	√	
	4. Proposed to lend Powertech Technology (Suzhou) Ltd. no more than US$24 b and Powertech Technology (Singapore) Pte. Ltd. no more than US$30 b. Lending period less than one year and annual interest at 2.2%.	√	
	5. Proposed to endorse guarantee for Powertech Technology (Singapore) Pte. Ltd. for US$20 m at China Trust Bank. Powertech Technology (Singapore) Pte. Ltd. withdrawal US$1.8 m loan on Dec 28 2017 and accumulated endorse guarantee of US$14.8 b from China Trust Bank. Powertech Technology (Singapore) Pte. Ltd. withdrawal US$10 m loan and accumulated endorse guarantee of US$3.125 m from Mega Commercial Bank. Proposed to endorse guarantee for Powertech Technology (Suzhou) Ltd. for US$18 m at Mega Commercial Bank. Powertech Technology (Suzhou) Ltd. withdrawal US$281.2 k loan on Dec 18 2017 and accumulated endorse guarantee US$281.2 k from Mega Commercial Bank.	√	
	6.Participated TeraPower Technology Inc., a 49% holding subsidiary, private placement for new common shares of 7,946 k shares for NT$294,014 k.	√	
	7. Review the independence and competence of hired CPA firm.	√	
	All members of audit committee approved the proposals in the meeting on Mar 16, 2018.		
	All members of attended board members agreed with the conclusion reached by Audit Committee.		
8th Term 6h Meeting (May	1. Reviewed 1Q18 Financial Reports.	√	
	2. Review 2017 earnings distribution proposal.	√	

Board Meeting	Proposal Details & Follow Ups	Subject to Article 14-5	Proposal Approved by more than 2/3 of Board Members without Audit Committee Approval
4, 2018)	3. Proposed to endorse guarantee for Powertech Technology (Suzhou) Ltd. for US$18 m at Mega Commercial Bank Suzhou Branch. Powertech Technology (Suzhou) Ltd. withdrawal US$7 m loan on Apr 18 2018 and accumulated endorse guarantee of US$7281.2 k from Mega Commercial Bank Suzhou Branch.	√	
	All members of audit committee approved the proposals in the meeting on May 4, 2018.		
	All members of attended board members agreed with the conclusion reached by audit committee.		
8th Term 8th Meeting (Aug 3, 2018)	1. Reviewed 2Q18 Financial Reports.	√	
	2. In order to reduce currency exchange risks, proposed to renew trade long term forward exchange term with existing US$175 m credit limit.	√	
	3. Proposed to renew endorse guarantee for Powertech Technology (Singapore) Pte. Ltd. for US$20 m at China Trust Bank. Proposed to renew endorse guarantee for Powertech Technology (Suzhou) Ltd. US$15 m at Mega Commercial Bank Suzhou Branch. Powertech Technology (Suzhou) Ltd. withdraw US$4 b on Apr 18 2018.	√	
	All members of audit committee approved the proposals in the meeting on Aug 3, 2018.		
	All members of attended board members agreed with the conclusion reached by audit committee.		
8th Term 9th Meeting (Nov 2, 2018)	1. Reviewed 3Q18 Financial Reports.	√	
	2.Approved 2019 Internal Audit Plan.	√	
	3. In order to reduce currency exchange risks, proposed to renew trade long term forward exchange term with existing US$60 m credit limit.	√	
	All members of audit committee approved the proposals in the meeting on Nov 2, 2018.		
	All members of attended board members agreed with the conclusion reached by audit committee.		
	All members of audit committee approved the proposals in the meeting on Aug 8, 2017.		
	All members of attended board members agreed with the conclusion reached by audit committee.		

(2) Proposal Approved by more than 2/3 of Board Members without Audit Committee Approval:
None.

2. Independent Directors should leave during discussion for matters with conflict of interest. Name of directors, proposal details, reason of conflicts and voting results:

None

3. Communication between Independent Directors and CPA (ex. Issues regarding corporate financial, business operations, methods, results, and etc.):

(1)Internal audit department email audit reports to independent directors in a monthly basis. The head of internal audit should specified major findings during Audit Committee meetings.

(2)Summarized quarterly consolidated and stand alone financial statements information should be delivered and communicated with independent directors during Audit Committee meetings in order to comply with regulations defined in No 39 Statements of Auditing Standards and No.0930105373 of Securities and Futures Bureau.

(3)No less than 1 Audit Committee meeting per quarter. Summarized communication among independent directors, head of internal audit, and CPA:

Date	Meeting Summary	Conclusion
Mar 16, 2017	1. Presented the status of 4Q17 internal audit execution. 2. Authorized 2017 Internal Audit Report Declaration after reviewed the internal audit procedures and results of self-evaluation. 3. CPA presented 2017 financial reports. Communicated for major financial estimation, accounting and tax regulation updates. CAP also presented 2017 audit schedule and identified major risks items. No suggestion from independent directors.	No special commands other than items on the left. After Board approval 2017 consolidate and stand alone financial statements, information were filed and published to meet with regulations.
May 4, 2017	1. Presented the status of 1Q18 internal audit execution. 2. CPA presented 1Q18 financial reports. Communicated for major financial estimation, accounting and tax regulation updates. Other (1) Sr. Legal Director summarized the status of employee fraud Independent Director Pei-Ing Lee: Suggested to voluntary disclose the incident and state no impact on company finance to ease investors concerns. CFO: Will further evaluate the situation and actions. Independent Director Philip Wei: Any financial impact on PTI due to the employee fraud case? Sr. Legal Director: PTI could get cheaper probing equipment from China supplier without the fraud. CPA: There is no impact on financial statements because there is no actual money lost or asset damages due to the fraud. Internal Audit: Modification on procurement was taken, such as equipment buy directly from equipment maker, or public auction for major asset acquisition. Independent Director Jim W.L. Cheng: Is it necessary to modify the procurement procedure? Internal Audit: We are currently reviewing all the related procedures now. Revised procedures will be submitted for Board approval. No other suggestion from independent directors.	The Company voluntary disclose the board conclusion and amended related guidance on the same day of board meeting. After Board approval 1Q18 consolidated financial statements, information were filed and published to meet with regulations.
Aug 3, 2018	1. Presented the status of 2Q18 internal audit execution. 2. CPA presented 2Q18 financial reports. Communicated for major financial estimation, accounting and tax regulation updates.	After Board approval 2Q18 consolidated financial statements, information were filed and published to meet with regulations.
Nov 2, 2018	1. Presented the status of 3Q18 internal audit execution. 2. Presented 2019 Internal Audit Plan Proposal. 3. CPA presented 3Q18 financial reports. Communicated for major financial estimation, accounting and tax regulation updates. 4. Updated progress of unethical conduct law suit status. Independent Director Suggested to have Legal VP to update the progress and answer questions from independent directors and concerns.	After Board approval 3Q18 consolidated financial statements, information were filed and published to meet with regulations. 2019 Internal Audit Plan approved by board and published met with regulation requirements.

(III) Variances and Reasons between PTI Corporate Governance Practices and Corporate Governance Best Practice Principles for TWSE/GTSM Listed Companies:

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
1. Does Company follow "Taiwan Corporate Governance Implementation" to establish and disclose its corporate governance practices?	√		PTI Corporate Governance Best Practice Principles has followed "Corporate Governance Best Practice Principles for TWSE/GTSM Listed Companies" and approved by Board of Directors on Nov 5 2014 and amended on Feb 9, 2015 board meeting. The document was disclosed in PTI company website and MOPS.	Complied with Regulation.
2. Shareholding Structure & Shareholders' Rights				
(1)Does Company have Internal Operation Procedures for handling shareholders' suggestions, concerns, disputes and litigation matters? If yes, has these procedures been implemented accordingly?	√		1. PTI has dedicated spokesman and shareholders affairs department to handle inquiries for shareholders. Contact information is available on company website. Legal inquiries will be handling by legal department.	Complied with Regulation.
(2)Does Company possess a list of major shareholders and beneficial owners of these major shareholders?	√		2. Regular reports and shareholder lists will be provided by stock transfer agent. PTI has disclosed information required by authority and kept good communication with major shareholders.	
(3)Has the Company built and executed a risk management system and "firewall" between the Company and its affiliates?	√		3. Procedures for activities with related parties has been established and followed.	
(4)Has the Company established internal rules prohibiting insider trading on undisclosed information?	√		4."Prohibition against Insider Trading" policy has been established to educate and prevent insiders trading for who has access to significant internal information.	
3. Composition and Responsibilities of the Board of Directors:				Complied with Regulation.
(1)Has the Company established a diversification policy for the composition of its Board of Directors and has it been implemented accordingly?	√		1. Each director qualifies for requirements defined by Corporate Governance Best Practice Principles. 11 Board Directors met professional requirements, including no less than 4 and no less than 1/3 as independent directors. One of director is female.	
(2)Other than the Remuneration Committee and the Audit Committee which are required by law, does the Company plan to set up other Board committees?		√	2. The company has set up the Remuneration Committee and Audit Committee as directed by law. Other committees will be set up as needed.	
(3)Has the Company established methodology for evaluating the performance of its Board of Directors, on an annual		√	3 .Board of Directors have been performed at highest standards. There is no evaluation of performance in place now. Evaluation will be established as needed.	

<table>
<tr><th rowspan="2">Assessment Item</th><th colspan="3">Implementation Status</th><th rowspan="2">Non-implementation and Its Reason(s)</th></tr>
<tr><th>Yes</th><th>No</th><th>Explanation</th></tr>
<tr><td>basis?</td><td></td><td></td><td></td><td></td></tr>
<tr><td>(4)Does the Company regularly evaluate its external auditors' independence?</td><td>√</td><td></td><td>4. Starting from 2015, annual independence review of CAP will be performed and major items are:
a. Review CAP qualification and experiences.
b. Declaration of Independence from CPA including audit team members and their spouses and dependents don't have conflict of interests to influence their independency.
c. Search on internet for records of employed CPA breach of independence.
d. Evaluate employed CAP independency using check list defined by No. 10 Article 23 of Certified Public Accountant Act..
e. Reviewed on Feb 22, 2017 Audit Committee meeting.
f. Present the evaluation for Board of Directors on Feb 22, 2017.</td><td></td></tr>
<tr><td>4. Has the Company established dedicated person(s) or department to handle corporate governance issues (including but not limited to provide evaluation data for board of directors and supervisors hold board meeting and shareholder meeting, apply incorporation registration and modification, and record meeting minutes for board meetings and shareholder meetings)?</td><td></td><td></td><td>The Stock Affairs Department is in charge of corporate governance related issues and major tasks were:
Plan annual shareholder and board meetings agenda and schedule.
Planning for board meetings details and notify attendance directors board meeting agenda 7 days before the meeting. Remind conflict of interests attendance to leave when necessary.
Meeting minutes recording. Copy directors and file the meeting minute document within 20 days of meeting.
Register for annual shareholder meeting with authorization with completed meeting notice, meeting agenda, annual report and meeting minutes within required period. File for amendment within 15 days after annual shareholder meeting.
Public announcement of board and shareholder meeting conclusions comply with regulation and investor interests.
Assist Directors for continue education programs.</td><td></td></tr>
<tr><td>5. Has the Company established a means of communicating with its Stakeholders or created a Stakeholders Section on its Company website? Does the Company respond to stakeholders' questions on corporate responsibilities?</td><td>√</td><td></td><td>Stakeholders communication methods as below:
<table><tr><th>Related Party</th><th>Communication Method</th></tr><tr><td>Shareholders/Investors</td><td>Shareholders' Meeting
Financial Reports
Host Quarterly Institutional Investor Conference
Established spokesman and Investor Relations Department
Company Website</td></tr><tr><td>Employees</td><td>Employees Benefits Committee
Electronic Platform & Announcement
Procedures for Improvement Proposal Reviewing
Employee and Employer Meeting
Suggestion Box
Psychological Consultant and</td></tr></table></td><td>Complied with Regulation.</td></tr>
</table>

<table>
<tr><th rowspan="2">Assessment Item</th><th colspan="3">Implementation Status</th><th rowspan="2">Non-implementation and Its Reason(s)</th></tr>
<tr><th>Yes</th><th>No</th><th>Explanation</th></tr>
<tr><td></td><td></td><td></td><td><table>
<tr><th></th><th>Aids</th></tr>
<tr><td>Customers</td><td>Sales Department
Customer Satisfaction Survey
Customer Service</td></tr>
<tr><td>Suppliers</td><td>Electronic Procurement Platform
Procurement Contract Management
Supplier Management Meeting
Supplier Audit Procedure
Supplier Evaluation</td></tr>
<tr><td>Government</td><td>Emails and Official Notice in Mail
Seminars and Public Hearings Host by Officials
Supplement Documents from Officials</td></tr>
<tr><td>Community</td><td>Company Website
General Affairs Contact Window</td></tr>
<tr><td>Media</td><td>Press Release
Interview</td></tr>
<tr><td colspan="2">PTI has set up a section for stakeholders on the company website to disclose corporate social responsibilities, and CSR hotline and email account. Dedicated staff will take care of reported problems.</td></tr>
</table></td><td></td></tr>
<tr><td>Has the Company outsource professional stock affair organization for assistance?</td><td>√</td><td></td><td>Concord Securities Co. Ltd assisted PTI for shareholder affairs.</td><td>Complied with Regulation.</td></tr>
<tr><td>7. Information Disclosure</td><td></td><td></td><td></td><td rowspan="3">Complied with Regulation.</td></tr>
<tr><td>(1)Has the Company established a corporate website to disclose information regarding its financial and corporate governance status?</td><td>√</td><td></td><td>Company website has been set up and well maintained. Financial and Corporate Governance information will be disclose on the website upon occurrence.</td></tr>
<tr><td>(2)Does the Company use other information disclosure channels (e.g. maintaining an English-language website, designating staff to handle information collection and disclosure, appointing spokespersons, webcasting investors' conference etc.)?</td><td>√</td><td></td><td>The Company has dedicated personnel in charge of disclosure on MOPS following authority regulations. Investor Relations section under company website discloses information in both Chinese and English. Spokesman and deputy spokesman are in place. The Company has been hosting physical quarterly Institutional Investor Conference. Live webcasting and replay of conference available on company website for investors.</td></tr>
<tr><td>8. Has the Company disclosed other information to facilitate a better understanding of its corporate governance practices (e.g. including but not limited to employee rights,</td><td>√</td><td></td><td>1. The Company has set up Corporate Social Responsibility Practice Guidelines and Corporate Social Responsibility Office to review and monitor CSR progress every 6 months.
2. Employees Rights and Employees Care: Please refer to CSR Status Item 3 A-E on Page 3.
3.The Company has set up multiples communication channels with investors or shareholders, such as</td><td>Complied with Regulation.</td></tr>
</table>

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
employee wellness, investor relations, supplier relations, rights of stakeholders, directors' training records, the implementation of risk management policies and risk evaluation measures, the implementation of customer relations policies, and purchasing insurance for directors)?			spokesman, Investor Relations Department, quarterly institutional investor conference, investor seminars upon request by security firms. 4. The Company has established "Operations Sustainability Policy" and "Promotion Committee". Annual Risk Assessment Meeting will evaluate and manage the impacts from emergency events. 5. Supplier Management: Please refer to CSR Status Item 3 H-I on page 3. 6. Schedule Board of Directors and managements attending training sections. Please refer to table below for training details. 7. The Company has enrolled Board of Directors (including independent directors) and management for liability insurance. The previous coverage expired on Aug 26, 2018 and policy was renewed with Chubb Insurance Taiwan Ltd. with US$30 m premium at annual costs of US$40,000. Period from Aug 26, 2018 to Aug 26, 2019. Insurance coverage and details was reviewed on Nov 2, 2018 board meeting.	
9. Corporate Governance evaluation improve items and progress:				

Item	Detail	Progress	Explanation
Enhance Board Structure and Efficiency	3.4 Same person or spouses for Chairman and CEO	Improved	
	3.14 Completed Director of Board or Supervisor Continue Learning Programs required by Public Company Director and Supervisor Continue Learning Guidance	In Progress	Directors who missed the requirement had been reminded the importance to complete the continue training program.
	3.23 Independent Directors complete the Continue Learning Programs required by Public Company Director and Supervisor Continue Learning Guidance	In Progress	One of the independent directors could not complete the requirement due to conflicts in schedule.
	3.31 Has the company evaluate(no less than once a year) the performance of directors of board and published the results of evaluation on company website or annual report?	In Progress	Currently no evaluation guidance available.
Information Transparency	4.14 Has the annual report disclose each director and supervisor compensation?	In Progress	No disclosure until reach each directors' consent.
CSR in practice	5.7 Has the company set up guidance for carbon reduction, reduce water usage or other waste material control policy?	Improved	

1. Policy to encourage board of directors to enroll in well-rounded programs:
Article of Incorporation 20-3 stated: board members should not be discriminated against gender; all members should be capable in knowledge, skills, and mind set. All board of directors should be capable in:
1.Operational judgments;
2.Financial analysis;
3.Management skills;
4.Crisis management;
5.Industry knowledge;
6.International perspectives;
7.Leadership skills;

8.Decision Making.

Execution Status:

Name	Nationality	Gender	Employee of PTI	Age Range 51-60	Age Range 61-70	Age Range 71-80	Independence Director Seniority (Years) < 3	Independence Director Seniority (Years) 3 – 9	Independence Director Seniority (Years) > 9	Operational Judgment	Financial Analysis	Management Skills	Crisis Management	Industry Knowledge	International Perspectives	Decision Making
DK Tsai	ROC	Male	√		√					√		√	√	√	√	√
J.Y. Hung	ROC	Male	√		√					√		√	√	√	√	√
Shigeo Koguchi	Japan	Male				√				√		√	√	√	√	√
Daphne Wu	ROC	Female		√						√	√	√	√			
J. S. Leu	ROC	Male	√		√					√		√	√	√	√	√
Evan Tseng	ROC	Male	√	√						√	√	√	√	√		
Kenjiro Hara	Japan	Male		√						√		√	√	√	√	√
Jim W.L. Cheng	ROC	Male			√				√	√	√	√	√			√
Quincy Lin	ROC	Male			√				√	√		√	√			√
Philips Wei	ROC	Male				√		√		√	√	√	√			√
Pei-Ing Lee	ROC	Male			√		√			√		√	√	√	√	√

2. Evaluation of independency of CPA Yu-Feng Huang and Su-Li Fang:

Events Influence on CPA Independency	Yes	No
1. Do the CPAs have direct and major financial relationship with the Company?		√
2. Do the Company or any board member lend or endorsement guarantee to CPAs?		√
Do the CPAs lend or endorsement guarantee to the Company?		√
4. Do the CPAs have frequent business relationship with the Company?		√
Do the CPAs have frequent business relationship with any board or management members?		√
6. Do the CPAs employee by the Company as board of director, management, or any position could significantly impact on audit now or last 2 years?		√
7. Are the CPAs going to be employed by the Company as board of director, management, or any position could significantly impact on audit in the future?		√
8. Do the CPAs as family members of board of director, management, or any position could significantly impact on audit?		√
9. Do the CPAs receive any significant valuables or gifts from board of director or management?		√
9. Do the CPAs employed by the Company for consecutive 7 years?		√

3. Status of 2018 Continue Education for Board of Directors and Management:

Title	Name	Date	Host By	Course	Duration (Hours)
Chairman	DK Tsai	2018/10/30	Taiwan Corporate Governance Association	US Taxation: How Taiwan Business Manage US-China Trade War?	6
Independent Director	Jim W.L. Cheng	2018/5/30	Taiwan Corporate Governance Association	Guidance and case studying for corporate mergers and acquisitions from legal point of views.	3
				Must know for startup investors	3
Independent Director	Philips Wei	2018/5/9	Securities & Futures Institute	Corporate Governance and Independent Director in practice.	3
		2018/9/13		The impacts on corporate governance, internal control, and directors responsibility after the amendment of corporate law	3
Independent Director	Pei-Ing Lee	2018/10/15	Securities & Futures Institute	12th Annual Corporate Governance Forum in Taipei	6
CFO & Sr. VP	Evan Tseng	2018/9/13 2018/9/14	Accounting Research and Development Foundation	Continue Education for Head of Finance for Public Listed Companies.	12
Internal Audit	Teressa Tseng	2018/8/28	Accounting Research and Development Foundation	Case Study for Information Security and Individual Privacy Protection.	6
		2018/9/30		IFRS16 Leasing Accounting Practice impacts on Internal Audit.	6

(III) Remuneration Committee Members and Attendance

1. Information Regarding Remuneration Committee Members

Criteria / Name		Meet One of the Following Professional Qualification Requirements, together with at least five years of work experiences			Conform to Independent Status (Note 1)								Number of Other Taiwan Public Companies Concurrently Serving as an Independence Status
		An instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Dept related to the Business Needs of the Company in a public or private Junior College, College, or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialists Who has passed a National Examination and been Awarded a certificate in a Profession necessary for the Business of the Company	Have work Experience in the area of Commerce, Law, Finance, Accounting, or Otherwise necessary for the business of the Company	1	2	3	4	5	6	7	8	
Independent Director	Quincy Lin			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Independent Director	Jim W.L. Cheng			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Independent Director	PhilipS Wei			✓	✓	✓	✓	✓	✓	✓	✓	✓	

Note 1: Remuneration Committee members during the two years before being elected or during the term of office. Meet any of the following conditions; please mark the appropriate corresponding boxes:

(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. The same does not apply, however, in cases where the person is an independent director of the Company, its parent company, or any subsidiary in which the Company holds, directly or indirectly, more than 50% of the voting shares.

(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 kinship, of any of the persons in the preceding three subparagraphs.

(5) Not a director, supervisor, or employee of a corporate/institutional 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.

(6) Not a director, supervisor, officer, or shareholder holding 5% or more of the shares of a specified company or institution that has a financial or business relationship with the Company.

(7) Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that provides commercial, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company, or a spouse thereof. However, this does not include member of the remuneration committee acting on behalf of Article 7 based on the shares being publicly listed and trading at a commercial brokerage.

(8) Not been a person of any conditions defined by Article 30 of the Company Law.

2. Operations of Remuneration Committee

(1) Total 3 members of Remuneration Committee.

(2) Service Term: Jun 8, 2017 to May 25, 2018.

2 meetings took place during 2018, and attendance status as below:

Title Name	Attendance	In Person	By Proxy	Attendance Rate	Note
Chair	Jim W.L. Cheng	1	1	50%	
Member	Quincy Lin	1	1	50%	
Member	Philip Wei	2	0	100%	

Annotations:

I. The meeting minutes should clearly indicated Board meeting date, proposal details, decision, and opinions from Remuneration Committee when Board Meeting rejected or amended proposals from Remuneration Committee: No such incident.

II. The meeting minutes should clearly indicated Remuneration Committee decision, date of the meeting, proposal details, and all members' opinions when any of the members rejected or disagree with the decision: No such incident.

Date of Meeting	Meeting Summary	Conclusion	Follow Up Action
Mar 16 2018	1. Review 2017 Director of Board Compensation and employee compensation. 2. Review 2018 management payroll adjustment. 3. Propose to set up Employee Stock Ownership Trust.	Approved by all attendance committee members.	Propose in Board meeting seeking for all Board members approval.
Aug 3 2018	1. Review 2017 management compensation plan. 2.Amended parts of Article of Employee Stock Ownership Trust and procedure.	Approved by all attendance committee members.	Propose in Board meeting seeking for all Board members approval.

V. CSR Status

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
1. Implementation of Corporate Governance				Complied with Regulation
(1)Does the Company have a corporate social responsibility policy and evaluate its implementation?	V		The Company has established "Corporate Social Responsibility Practice Guideline" and approved by board on Nov 8 2013 and amended on Nov 4 2016.	
(2)Does the Company hold regular CSR training?	V		Please refer to Note1 in below.	
(3)Does the Company have a dedicated (or ad-hoc) CSR organization with Board of Directors authorization for senior management, which reports to the Board of Directors?	V		The Company has established CSR office on Aug 1, 2014 as dedicated department to promote and handle CSR related issues and approved by board on Feb 9, 2015. CSR office reports to board on a regular basis.	
(4)Does the Company set a reasonable compensation policy, integrate employee appraisal with CSR policy, and set clear and effective incentive and disciplinary policies?	V		The Company will factor in employee performance, market average wages, and price index during annual wages review. Employees also subject to quarterly bonuses which was defined by Article of Incorporation. 5% - 7.5% of annual income before tax will be reserved as employee bonuses to share operation profits with employees to meet company CSR policy. 2018 Compensation Details as below: (1)One month salary award on Jun and Dec. (2)Quarter award when company reached target profitability. (3)Employee compensation NT$394.8 m which was 5.39% of annual income before tax met with Article of Incorporation. (4)Reward twice incentive awards base on individual performance. (5) Annual raise between 3% -5%. Additional awards were granted from direct supervisors for special recognization.	
2. Environmentally Sustainable Development				
(1)Is the Company committed to improving resource efficiency and to the use of renewable materials with low environmental impact?	V		Please refer to Note 2 in below.	Complied with Regulation
(2)Has the Company set an Environmental management system designed to industry characteristics?	V		The Company has been certified with ISO14001 Environmental Management System in 2003, OHSAS18001 Occupational Health and Safety Management Systems in 2004, and IECQ QC080000 Hazardous Substance Process Management System in 2008.	
(3)Does the Company track the impact of climate change on operations, carry out greenhouse gas inventories, and set energy conservation and greenhouse gas reduction strategy	V		Please refer to Note 3 in below.	

3. Promotion of Social Welfare				
(1)Does the Company set policies and procedures in compliance with regulations and internationally recognized human rights principles?	V		PTI is a member of Responsible Business Alliance (RBA) since Apr. 20 2015 and the company has comply with RBA Code of Conduct started 2009. Certified SA8000 in 2016.	
(2)Has the Company established appropriately managed employee appeal procedures?	V		Please refer to Note 4 in below.	Complied with Regulation
(3)Does the Company provide employees with a safe and healthy working environment, with regular safety and health training?	V		Please refer to Note 5 in below.	Complied with Regulation
(4)Has the Company established a mechanism for regular communication with employees and use reasonable measures to notify employees of operational changes which may cause significant impact to employees?	V		Employees can addressed their major concerns through Employee-Employer meeting and Employee welfare representatives. Meeting minutes were available on internal posting, website, and internal magazines.	Complied with Regulation
(5)Has the Company established effective career development training plans?	V		The Company has set up standardized on-job training programs for all levels of position to provide necessary knowledge and skills to improve work quality and personal growth for better position.	
(6)Has the Company set polices and consumer appeal procedures in its R&D, purchasing, production, operations, and service processes?	V		The Company has established "Code of Business Conduct and Ethics" to guide R&D, procumbent, manufacturing, operation, and support departments about related party conflict of interests, data security, copyright violation, unfair competition. Reporting illegal conduct channel has been set up and available on company website.	
(7)Does the Company follow regulations and international standards in the marketing and labeling of its products and services?	V		Not applicable to the Company since PTI was not assembly final end products.	Complied with Regulation
(8)Does the company evaluate environmental and social track records before engaging with potential suppliers?	V		Annual review suppliers' quality, delivery schedule, cost, and skills. Review items included: 1.Quality Management System 2. Green product management system to eliminate environmental hazard raw materials. 3. Human rights of employees defined by EICC. 4. Occupational health and safety management systems.	Complied with Regulation
(9)Does the Company's contract with major suppliers include termination clauses if they violate CSR policy and cause significant environmental and social impact?	V		CSR policies were included in supplier contracts. If there is any significant violation of CSR of suppliers, the Company can terminate the service contracts.	
4. Enhanced Information Disclosure	V		In additional to meet the regulation to post on MOPS, the Company has started to published CSR Report since 2013. CSR	

Does the Company disclose relevant and reliable CSR information on its website and the Taiwan Stock Exchange website?			Report is available through the company website: (http://www.pti.com.tw/ptiweb/index.aspx)	
5. If the company has established its corporate social responsibility code of practice according to “Listed Companies Corporate Social Responsibility Code of Practice,” please describe the operational status and differences. The Company has established “Corporate Social Responsibility Practice Guideline” and approved by board on Nov 8 2013 and amended on Nov 4 2016.				
6.Other important information to facilitate better understanding of the company’s implementation of corporate social responsibility: Please refer to Note 6 in below.				
7.Other information regarding “Corporate Responsibility Report” which is verified by certifying bodies: 2018 CSR Report was guided by Sustainability Reporting Guide version 4 published by Global Reporting Initiatives (GRI). 2018 CSR Report was certified by BSI, an independent agency, at the AA1000 AS Type II review standards. 2018 CSR Report was also certified by PWC at limited assurance guided by ISAE3000 standard.				

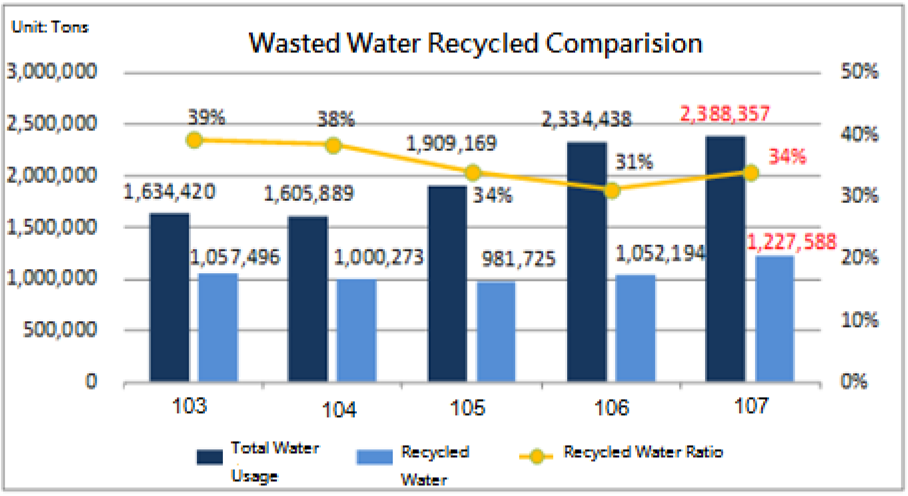
Note 1:2018 continue education details as below:

Category	Course	Number of Trainee
Legal Matters for Corporate Operations	Individual Identity Security.	3,656
	Regulation of Trade Secret.	3,656
	Corporate Ethics Conduct.	3,656
	Training for new hire employees.	1,240
Human Rights	Introduction of RBA Regulation	606
	Introduction of SA8000	122
	Introduction of Human Resources Management Regulation	1,123
	Training for new hire employees. (including EICC behavior conduct, employee ethic conduct, SA8000)	1,240

2. Last 3 years energy usage details as below:

Item	2016	2017	2018
Waste Recycle (Tone)	708.6	612.1	749.79
Electronic Saving (kWh)	5,837,329	4,802,805	10,015,926
Waste Water Recycle(Tone)	981,725	1,052,194	1,227,588

2018 recycled 34% waste water during assembly process and 3% improvement than 2017.



To fulfill PTI's corporate social responsibility, through internal management systems and multiple pollution prevention facilities, the company promotes energy saving, greenhouse gas reduction, reduce water usage and implement waste disposal management in accordance with the preservation of the sustainable environment.

Detailed illustrations are as below:

1. Environmental Protection Department

The company has Occupational Safety and Environmental Protection Section, specific in the management and promotion of occupational Safety and environmental protection, also, supervise pollution prevention facilities are function normally. Furthermore, The occupational safety and environmental protection committee consists of high ranking supervisors and selected departmental representative, which, in charge of drafting, responding to, and executing topics related to sustainable environment.

3. To fulfill PTI's corporate social responsibility, through internal management systems and multiple pollution prevention facilities, the company promotes energy saving, greenhouse gas reduction, reduce water usage and implement waste disposal management in accordance with the preservation of the sustainable environment.

Detailed illustrations are as below:

Environmental Protection Department

1. The company has Occupational Safety and Environmental Protection Section, specific in the management and promotion of occupational Safety and environmental protection, also, supervise pollution prevention facilities are function normally. Furthermore, The occupational safety and environmental protection committee consists of high ranking supervisors and selected departmental representative, which, in charge of drafting, responding to, and executing topics related to sustainable environment.

2. Environmental Safety and Health Policy

To implement environmental safety and health protection values into business operations and every employee, the company has established “Environmental, Health and Safety Policy” and put actions on our employees, customers and other interest groups. Detailed illustrations are as follow:

1. Convey our environmental, health and safety policy to our employee, customers and other interest groups.
2. Comply with policies which demand for environmental protection, health and safety and the demand of the customers.
3. Participation of damage, disease and accident prevention and damage control from all employees.
4. Compliance with international environmental protection tendency, promote energy saving and reduce waste.
5. Continue to review and improve, increase performance in health, safety and environmental management.

3. Promote energy saving, greenhouse gas reduction, water usage reduction, waste management and other measures in responds to climate change, PTI has annual goals and manage the results of our environmental protection outcome via data management. This includes:

(1) Annual Goals

- General Waste Recycling Amount >= 50 ton/month
- Dicing & Grinding Wastewater Recovery Rate >87%
- Reduce CO2e Emission from 2015 in 2030 target for 15%

(2) Environmental Management Plan

To fulfill company’s corporate social responsibility and through the correct use of pollution monitor system, PTI has a long-term plans and measures for environmental management:

A. Air Emission: PTI Taiwan installed air pollution prevention equipment especially designed for reducing Volatile Organic Compound (VOCs) emissions. They are tested regularly to comply with the treatment efficiency tests.

B. Wastewater Recycle: Recycle and reuse the wastewater from the dicing and grinding process in order to reduce the use and protection of water resource.

C. Waste Removal: PTI complies with the law in regard to the treatment of generated waste. We implement a proper recycling program at the source of the waste to improve the recycling efficiency. By collecting, classifying, reducing, and recycling, our major strategy focuses on "recycling" instead of "dumping." Transforming waste to resources will not only reduce impact on environment, but also increase the value generated by recycling.

D. Audition and Coaching the Contractor: PTI audit our supplier and outsourcer with environmental pollution risks regularly. We also coach our contractor to carry out environmental protection duties; altogether we fulfill our responsibility of environmental protection as enterprise, and the goal of sustainable supply chain.

E. Energy Saving and Carbon Reduction: An energy-saving cross-department task force to monitor energy saving project and the reduction of energy and greenhouse gas emission. PTI voluntarily provide carbon emission information in order to correspond with global trend.

F. Autonomous Environmental Monitoring: Consist of wastewater properties, noise, air quality and waste monitoring in order to control the effective and impact of enterprise activities.

G. Alternation of Environmental Permit: Update our environment permits to corporate with our enterprise activities and allow our activities and emissions in accordance to the law

(3) Greenhouse Gas Inspection and Reduction

Since 2007, PTI has spontaneous inspection on greenhouse gases annually. The results are thus transformed into actions in reduce potential emission sources. In 2018, PTI has been awarded by Carbon Disclosure Project (CDP) as B. This is the highest ranking in all domestic manufacture; Emissions of greenhouse gases by PTI in the last three years are as follow:

Greenhouse Gas Emission (Unit: ton CO2e/ year)			
Item	2016	2017	2018
Category 1	34,466.84	31,794.57	33,502.80
Category 2	275,043.83	322,940.02	388,396.85
Total Emission	309,510.67	354,734.59	421,899.65

In 2018, PTI’s greenhouse gas emission consists of two categories. First, direct greenhouse gas emission (category 1) constitute approximately 7.94% of total emission. Indirect greenhouse gas emission (category 2) is primarily electric consumption, has about 92.06% of total emission. Therefore, our core strategies for reducing greenhouse gas emission are power management and decreasing power consumption.

To actively fulfill a sustainable development environment, PTI has “CSR Practice Guidelines” to manage the impact on economic, environment and society. Also, the acquisition of carbon right is also included in our carbon reduction strategy to minimize company activities’ impact to the environment.

(4) 2018 Results

With active plans to combat global climate change, PTI has notable results in 2018 as follow:

- “Water Footprint Verification” issued by Industrial Development Bureau, MOEA(IDB)

  The PTI (Taiwan) plants have obtained management system from SGS Taiwan Ltd. Including Hukou Plant, Datong Plant and Headquarter have been certified with ISO 14046 and Water Footprint verification from the Industrial Development Bureau in Taiwan.

- Climate Change Program rated B

  PTI has rated B in the Climate Change Program launched by Carbon Disclosure Project (CDP) and has an index of management.

- Rated B in the CDP Water Disclosure Program

  PTI has participated in the CDP Water Disclosure for the first time and has a band of B-, rating of Management.

4. We have established comprehensive channels for diverse, two-way, and open communication. By helping employees communicate their opinions to the management, their concerns can be effectively taken care of. Our fair, confidential, and efficient handling procedure resolves employees' concerns while maintaining good labor management relationship. Anonymous or otherwise, we always exercise confidentiality and fairness in handling such information. All forms of retribution are protected against, so that employees can express their concerns without fear.

5. Given the consideration of the working environment and the importance of personal protective equipment, PTI is to provide a safe and healthy working environment. The protection of employee’s safety measures are as follow:

   1. Implementation of "Environmental Safety and Health Policy"

      To prevent occupational injuries and accidents and ensure the safety and health of our workplace, we implemented our “Environmental Safety and Health Policy.”

      (1) Notify employees, customers and related parties with environmental, safety and health policy.

(2) Comply with the legislation of environmental protection, safety, health and customer requests.

(3) Participate in prevention of injury, illness, accident and lost control by the entire employees.

(4) Accommodate international environmental trend to drive energy-saving and waste-minimizing activities actively.

(5) Review and constantly improve the environment and OH&S management system to promote the whole performance.

2. Follows the Health and Safety Management System

Based on ISO 14001 and OHSAS 18001 systems to manage

3. Measurement of Operating Environments

PTI conducts measurements of operating environments every six month to understand the hazard exposure in workplace environments. If the measurements return abnormal readings, we perform monitoring and improvement on the affected areas.

4. Personal Protective Equipments

To ensure the safety and health of employees and minimize exposure to harmful factors, PTI has implemented its personal protective equipment management regulations and required that employees wear appropriate personal protective equipment when handling hazardous operations.

5. Health Care

We provide comprehensive employee care and health care system to ensure every employee's mental and physical health. Including comprehensive channels for open communication, psychological counseling system, manage and follow up on health conditions with regular and special health examinations and medical counseling service. We value the health of working mothers and manage the prevention of disease triggered by abnormal workload toward employees, thus, creating an excellent work environment and a healthy corporate culture.

6. Training & Development

To raise the awareness of environmental safety and health, beside from training for new employees, PTI organize various training courses annually. Such as, waste management, greenhouse gas inspection, hazardousness identify, risk and environmental assessment, personal protective equipment management, automatic check, emergency response and health seminars.

6. Status and Results of the Practice of CSR

Social Aspects:

1. Talent Recruitment

PTI continues to provide job opportunities by employing over 1,801 employees in 2018. At the same time, we hire from the minority groups which helps resolve their economic pressure. In 2018, we have 42 employees from minority group.

2. Employment for Disabled People

To attend the needs of disable people and improve our work environment, we welcome physically or mentally disadvantaged persons to work at PTI. PTI continues to hire disabled people in accordance to the law, as of Dec. 2018, we have 109 employees from disadvantaged group and we have hired 35 person in 2018.

3. Establishment of "PTI Education Foundation"

- PTI establishes the "PTI Educational Foundation" in 2017, to promote technology education, culture, education, and talent training, as well as to be responsible corporate citizens.
- PTI Educational Foundation has granted scholarship to 215 students in 2018, along with fundraising for Chuhsin House, Green Seed Counseling, and St. Francis Xavier Home for Children and Juvenile, Zhudong Township Zhongshan Elementary School, Jianshi Township Jinping Elementary School and benefits over 300 children.

4. Volunteers Activity

We founded the volunteering club and with the resource from PTI Education Foundation. We were able to actively promote community service and care, also, be responsible corporate citizens. The company events invite charity groups to setup stalls to increase fundraising for the minority children, elderly living alone, and charity groups. PTI's volunteering club also has adopt several children's home including Green Seed Counseling, The Unique Atayal College, Hsinchu Taiwan Fund for Children and Families, White Children's Home, Chuhsin Family, Yu An Children's Home, etc.

5. Industrial-Academy Collaboration

PTI has dedicated to the cultivation of students, enthusiastically working with nearby schools to create more job opportunities. We promote industry-academy collaboration to ensure talents are properly developed and willing to stay with us, thereby creating a win-win situation for schools and our company.

Employee Aspects:

1. Policy for Positions Retained without Pay

Following government regulations, PTI (Taiwan) allows applications for positions retained without pay from any gender to encourage childbirth. As for 2018, there are a total of 367 childbirths under this policy.

- Positions Retained without Pay: In 2018, 107 employees applied for maternity/ paternity leave without pay, and over 22% were male employees. Among those who applied for position retained without pay for maternity or paternity, 75% of employee returned to their positions. After returning to their positions for one year, retention rates were 96%.
- Breastfeeding Room: We encourage postnatal employees to feed and collect breast milk. All plants are equipped with breastfeeding rooms with refrigerators installed for breastfeeding mothers to use.
- Reserved Parking Spots for Pregnant Women: To allow pregnant women and postnatal mothers to have more convenient workplace, we have reserved parking spots for pregnant women for their priority parking.

2. Child-Care Service

PTI cares about the employees and their interaction with their families. We bring energy and happiness to their lives in addition to job opportunities in many regions. By having the employee welfare committee signing designated kindergartens and child-care facilities in the areas where employees reside, we offer options of pre-school care for the children of our employees so that the employees can excel in both their work and their family life without any worries.

VI. Status of Business Conduct and Ethics

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
1. Establishment of Corporate Conduct and Ethics Policy and Implementation Measures				Comply with regulations.
(1)Does the company have bylaws and publicly available documents addressing its corporate conduct and ethics policy and measures, and the commitment regarding implementation of such policy from the Board of Directors and the management team?	√		The Company's Board of Director has approved "Corporate Conduct and Ethics Policy" base on the guidance of "Public Company Conduct and Ethics Practice Principles" on April 30 2013, and approved the 1st amendment on Feb 9 2015. 2nd amendment approved on Nov 2 2018.	
(2)Does the company establish relevant policies which are duly enforced to prevent unethical conduct and provide	√		The Company has established the following guidance: Prohibition against Providing or Accepting Improper Benefits Prohibition against and Handling Procedure for Facilitating Payments	

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
implementation procedures, guidelines, consequence of violation and complaint procedures in such policies?			Avoidance of Conflict of Interest Procedures for Making Political Contributions, Charitable Donations or Sponsorships Procedures for Developing & Establishing Business Relationship Disclosure of Ethical Management Policy to the Public Prohibition against Insider Trading Prohibition against Disclosure of Confidential Information Prohibition against Infringement of Intellectual Property Rights Prohibition against Acts of Unfair Competition Preventing Products or Services from Damaging the Stakeholders	
(3)Does the company establish appropriate compliance measures for the business activities prescribed in paragraph 2, article 7 of the Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies and any other such activities associated with high risk of unethical conduct?	√		Please refer to Note 1.	
2. Ethic Management Practice				Comply with regulations.
(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?	√		Please refer to Note 2.	
(2)Does the company set up a unit which is dedicated to or tasked with promoting the company's ethical standards and reports directly to the Board of Directors with periodical updates on relevant matters?	√		The Company has set up a CSR Office on Aug 1, 2014 and dedicated to promote and enforce ethical practices and reported directly to the Board of Directors. Board has reviewed its 2018 operations on Jul 13 2018.	Comply with regulations.
(3)Does the company establish policies to prevent conflict of interests provide appropriate communication and complaint channels and implement such policies properly?	√		Employment contract stated all employees should avoid conflict of interests. Every employee every year signs "Agreement of Avoidance of Conflicts of Interest." starting from 2015. 2016 implement online training course for Code of Ethic and weighted in training scores with annual evaluation.	
(4)To implement relevant policies on ethical	√		The Company has established comprehensive accounting and internal control procedures and reporting system.	

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
conducts, does the company establish effective accounting and internal control systems that are audited by internal auditor s or CPA periodically?				
(5)Does the company provide internal and external ethical conduct training programs on a regular basis?	√		Please refer to Note 3.	
3. Implementation of Complaint Procedures				Comply with regulations.
(1)Does the company establish specific complaint and reward procedures, setup conveniently accessible complaint channels, and designate responsible individuals to handle the complaint received?	√		The Company has established communication channels and complaint reporting system. Dedicated personnel handle complaints and make sure whistleblower identity will remain anonymous.	
2)Does the company establish standard operation procedures for investigating the complaints received and ensuring such complaints are handled in a confidential manner?	√		Please refer to Note 4.	
(3)Does the company adopt proper measures to prevent a complainant from retaliation for his/her filing a complaint?	√		The Company has established proper procedure to keep whistleblower identity anonymous and away from wrongful conducts.	
4. Information Disclosure Does the company disclose its guidelines on business ethics as well as information about implementation of such guidelines on its website and Market Observation Post System ("MOPS")?	√		The information and results of Code of Business Conducts and Ethics were available on MOPS and company website. http://www.pti.com.tw/ptiweb/policy/Code of Business Conducts and Ethics.pdf http://www.pti.com.tw/ptiweb/G0053.aspx?p=G&c=G5	Comply with regulations.
5. If the company has established corporate governance policies based on TSE Corporate Conduct and Ethics Best Practice Principles, please describe any discrepancy between the policies and their implementation. PTI has established the Code to require that all employees, officers and board members comply with the Code and the other policies and procedures. There is no discrepancy between the Code, including its affiliate policies and procedures, and its implementation. For more details, please refer to "Code of Business Conduct and Ethics" from the company website.				
6. Other important information to facilitate better understanding of the company's corporate conduct and ethics compliance practices (e.g., review the company's corporate conduct and ethics policy). (1)Board has approved the 2nd amendment on Nov 2, 2018 for Code of Business Conduct and Ethics. (2)2 employees were reported for ethic misconduct during 2016 to 2017. After legal department confirmed the misconduct behaviors, 2 employees were terminated and filed legal complains with Taiwan HsinChu District Court. Verdict was reached on Apr 2018 to trial with criminal charges for violation of Criminal Code Article 342 and Security and Exchange Act Article 171. Trial is an ongoing case and has been reported the progress with Board on Nov 1 2017, May 4 2018, and Nov 2 2018.				

Note:

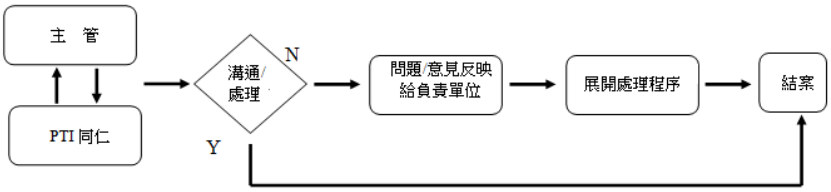
1. The Company has placed the flowing procedures in place for business activities with higher risk of ethical conducts defined by Article 7 Item 2 of Ethical Corporate Management Best Practice Principles for TWSE/GTSM-Listed Companies:
   a. Standard procedures and guidance for behaviors to avoid violate code of ethics.
   b. Set up internal balancing structure to eliminate risk of unethics conducts.
   c. Promote the code of ethics and aware the consequences of violation.
   d. Standard procedures for whistle blowing and investigation.
   e. Evaluation of procedures and results.
   f. Quantified management results and makes data available on company website, annual report, and MOPS.
2. Evaluation for risk of ethic conducts before engaged with suppliers. Evaluation items included:
   a. Operation locations, organization structure, operation policy, and payment location.
   b. Ethical conduct status and practice.
   c. Located in high risk of countries.
   d. Industry belongs to high risk category.
   e. Long term profitability and reputation.
   f. History of bribery or misconduct.

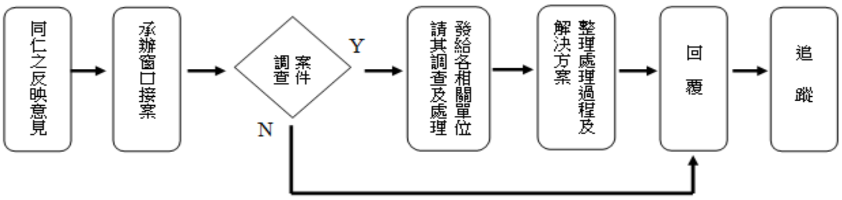
3.2018 Code of Business Conduct and Ethics Training Details:

Type of Employee	Course	Number of Employees
New Hired	Training for new hire employees.(Including data security, and code of ethics)	1,240
Existing	Individual identity Security.	3,656
	Law of Trade Secret.	3,656
	Corporate Ethics Conduct.	3,656

4.

處理程序：





VII. Posting of Code of Business Conduct and Ethics:

Information for Code of Business Conduct and Ethics can be found on:

MOPS website: http://mops.twse.com.tw

Company website: http://www.pti.com.tw

VIII. Other Significant Information Regarding Code of Business Conduct and Ethics:

None.

(IV) Internal Control System Execution Status

1. Statement of Internal Control System

Powertech Technology Inc.

Statement of Internal Control System

Mar 14, 2019

Based on the findings of a self-assessment, Powertech Technology Inc. (PTI) states the following with regard to its internal control system during the year 2018:

1. PTI's Board of Directors and Management are responsible for establishing, implementing, and maintaining an adequate internal control system. Our internal control is a process designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance, and safeguarding of assets), reliability of our financial reporting, and compliance with applicable laws and regulations.
2. An internal control system has inherent limitations. No matter how perfectly designed, an effective internal control system can provide only reasonable assurance of accomplishing its stated objectives. Moreover, the effectiveness of an internal control system may be subject to changes due to extenuating circumstances beyond our control. Nevertheless, our internal control system contains self-monitoring mechanisms, and PTI takes immediate remedial actions in response to any identified deficiencies.
3. PTI evaluates the design and operating effectiveness of its internal control system based on the criteria provided in the Regulations Governing the Establishment of Internal Control Systems by Public Companies (herein below, the "Regulations"). The criteria adopted by the Regulations identify five key components of managerial internal control: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring.
4. PTI has evaluated the design and operating effectiveness of its internal control system according to the aforesaid regulations.
5. Based on the findings of such evaluation, PTI believes that, on December 31, 2018, we have maintained, in all material respects, an effective internal control system (that includes the supervision and management of our subsidiaries), to provide reasonable assurance over our operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations.
6. This Statement will be an integral part of PTI's Annual Report for the year 2017 and Prospectus, and will be made public. Any falsehood, concealment, or other illegality in the content made public will entail legal liability under Articles 20, 32, 171, and 174 of the Securities and Exchange Law.
7. This Statement has been passed by the Board of Directors in their meeting held on Mar 14, 2019, with none of the ten attending directors expressing dissenting opinions, and the remainder all affirming the content of this Statement.

Powertech Technology Inc.

Chairman: D.K. Tsai

President: J. Y. Hung

2. For entrusted to CPA for auditing and reviewing international control, should disclose the CPA's audited report: None.

(X) In the most recent year and as of publication date of this annual report, incident of company or staff being penalized, staff violating internal audit system and being penalized, major defects and status for improvements: None.

(XI) Major conclusions of board and shareholders meeting:

1. Shareholder Meeting Major Conclusion and Execution

Date	Type of Meeting	Major Conclusion
Jun 8, 2018	Annual Shareholder Meeting	1. Reviewed 2017 Business Report and Financial Reports. 2. Approved and distributed 2017 profit sharing distribution. NT$4.50 cash distribution on Sep 5, 2018 for shareholders holding position on Aug 6, 2018.

2. Board Meeting Major Conclusion and Execution

Date	Type of Meeting	Major Conclusion
Jan 30, 2018	Board Meeting (8th Term 4th meeting)	1.Approved 2018 Business operation proposal. 2.Approved amendment of Board Meeting Guidance and Audit Committee Guidance 3.Approved amendment of Remuneration Committee Guidance.
Mar 16, 2018	Board Meeting (8th Term 5th meeting)	1.Approved 2017 business operation report and financial reports. 2.Approved 2017 dividends proposal. 3.Approved 2017 Board of Director and employees annual compensation. 4.Approved assistance to set up Employee Stock Ownership Trust. 5.Approved management compensation proposal. 6.Approved 2017 Internal Control Declaration and reviewed the results of 2017 Internal Control execution. 7. Approved credit application with financial institutions. 8. Approved credit limit for foreign currency trades. 9.Approved financial endorsement for subsidiary loan application. 10. Approved endorsement and guarantee for subsidiary. 11. Authorized endorsement letter for subsidiaries lending from banks. 12. Approved increase domestic shares issue. 13. Reviewed independence of CPA. 14.Approved 2018 shareholder meeting proposal.
May 4, 2018	Board Meeting (8th Term 6th meeting)	1. Presented 1Q18 financial reports. 2.Approved financial endorsement for subsidiary loan application.
Jul 13, 2018	Board Meeting (8th Term 7th meeting)	1. Approved 2017 profit distribution date proposal.
Aug 4, 2018	Board Meeting (8th Term 8th meeting)	1. Approved 2017 management compensation proposal. 2. Approved amended Article of Employee Stock Ownership Trust and procedures. 3. Approved increase credit limit with banks. 4. Approved credit limit of foreign currency trade proposal. 5. Authorized endorsement letter for subsidiaries lending from banks. 6. Authorized endorsement letter for subsidiaries lending from banks.

Date	Type of Meeting	Major Conclusion
Nov 2, 2018	Board Meeting (8th Term 9th meeting)	1.Approved 2019 Internal audit plan proposal. 2.Approved assignment of Chief Strategy Officer and Chief Executive Officer. 3.Approved amended Code of Ethic Conduct. 4. Approved credit application with financial institutions. 5. Approved credit limit for foreign currency trades.
Jan 11, 2019	Board Meeting (8th Term 10th meeting)	1. Approved 2019 Business Operation Report. 2. Removed Board of Director non-compete clause. 3. Approved management compensation raise proposal.
Mar 14, 2019	Board Meeting (8th Term 11th meeting)	1. Approved 2018 Business Operation Report and Financial Reprots. 2.Approved 2018 Profit Sharing Proposal. 3. Approved 2018 compensation plan for Board and employees. 4. Approved management compensation raise proposal 5. Approved 2018 Statement of Internal Control Declaration. 6. Approved amendment of Internal Control Procedures and Internal Audit Procedures. 7. Approved amended Procedure of Assets Acquisition and Disposal. 8. Approved amended Procedure of Trading Financial Derivatives. 9. Approved increase credit limit with banks. 10. Approved credit limit of foreign currency trade proposal. 11. Authorized endorsement letter for subsidiaries lending from banks. 12. Removed Board of Director non-compete clause. 13. Removed management non-compete clause. 14. Approved termination of management. 15. Approved capital raise proposal by private placement, issue GDR, CDB, or new shares. 16. Reviewed independence and competence of CPA. 17. Approved 2018 shareholder meeting proposal.

(XII) Different opinions from board or supervisor regarding major decision of board: None.

(XIII) Termination of chairman, president, head of accounting, head of finance, head of internal control, or head of R&D as the date of report printing: None.

V. Professional Audit Services Information

CPA Firm	Name of CPA		Audit Period	Note
Deloitte & Touche LLP	Yu Feng Huang	Su-Li Fang	Jan 1, 2018 ~ Dec 31, 2018	

Unit: NT$

Range amount \ Items		Audit Fees	Non-Audit Fees	Total
1	Less than $2,000,000			
2	$2,000,000 to $3,999,999		V	
3	$4,000,000 to $5,999,999			
4	$6,000,000 to $7,999,999			
5	$8,000,000 to $9,999,999	V		
6	$10,000,000 or above			V

(1) The amount paid to CPA accountant, accounting firm, and related industries for non-audited fees over 25%, should disclose the audited and non-audited amount and the content of non-audited service items.

Unit: NT$ Thousands

CPA Firm	Name of CPA	Audit Fee	Non-Audit Fee					Audit Period	Note
			System Design	Company Registration	Human Resource	Others	Subtotal		
Deloitte & Touche LLP	Su-Li Fang Yu-Feng Huang	9,040	0	0	0	2,364	2,364	Jan 1 - Dec 31, 2018	Other non-audit fees including: 1.Japan subsidary audit and IFRS conslidation NT$1,080K 2. Balancing Taxation and operation tax preparation and filing NT$175 K 3.Transfer pricing report fees NT$350K 4. Disbursements of accountants photocopying charges and audit personnel fares NT$350K. 5.Customs and other fees NT$409K.

(2) If change CPA firm and the amount paid for audited fee currently is less than previous year's audited fees, should disclose the amount of audited fee reduction, proportion, and reason: None.

(3) If the audited fee is reduced by over 15% of previous year, should disclose the amount of audited fee reduction, the proportion, and reason: None.

6. **Change of Accountant**

(1) Former CPAs

<table>
<tr><td>Date of Change</td><td colspan="4">Mar 14 2019</td></tr>
<tr><td>Reason and Explanation for Change</td><td colspan="4">In compliance with regulatory requirements on rotation.</td></tr>
<tr><td rowspan="3">State whether the Appointment is Terminated or Rejected by the Consignor or CPAs</td><td colspan="2">Status/Client</td><td>CPA</td><td>Consignor</td></tr>
<tr><td colspan="2">Terminate Assignment Voluntary</td><td></td><td></td></tr>
<tr><td colspan="2">Assignment Rejected (Continue)</td><td></td><td></td></tr>
<tr><td>The Opinions other than Unmodified Opinion Issued in the Last Two Years and the Reasons for the Said Opinion</td><td colspan="4">None</td></tr>
<tr><td rowspan="6">Is there any disagreement in opinion with the issuer</td><td rowspan="4">Yes</td><td></td><td colspan="2">Accounting principle or practice</td></tr>
<tr><td></td><td colspan="2">Disclosure of financial statements</td></tr>
<tr><td></td><td colspan="2">Auditing scope or procedures</td></tr>
<tr><td></td><td colspan="2">Others</td></tr>
<tr><td>No</td><td colspan="3">√</td></tr>
<tr><td>Note</td><td colspan="3"></td></tr>
<tr><td>Supplementary Disclosure (Disclosures Specified in Article 10.6.1.4~7 of the Standards)</td><td colspan="4">None</td></tr>
</table>

(2) Successor CPAs

Accounting Firm	Delotitte & Touche
Name of CPA	Yu-Feng Huang, Jheng-Jhih Lin
Engagement Date	Mar 14 2019
Prior to the Formal Engagement, Any Inquiry or Consultation on the Accounting Treatment or Accounting Principles for Specific Transactions, and the Type of Audit Opinion that Might be Rendered on the Financial Report	None
Written Opinions from the Successor CPAs that are Different from the Former CPAs Opinions	None

(3) **Reply by predecessor CPA regarding Article 10, Subparagraph 10, Item 1 and Item 2-3 of this guideline:** None.

7. **Chairman, CEO, Head of Financial or Accounting Dept – Information Relating to Serving at Accounting Firm of CPAs or related companies:** None.

8.Changes in Shareholding and Changes in Pledge of Shares by Board of Directors, Independent Directors, Managers, and Shareholders owning more than 10% of company shares in most recent year and as of publication date of annual report

(1) Changes in Shareholding and Changes in Pledge by Board of Directors, Independent Directors, Managers holding more than 10% of company shares

Unit: Shares

Title	Name	2018		As of Mar 31, 2019	
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Chairman	D.K. Tsai	0	–	0	–
Director	Kingston Technology Corp. Investment Account Rep: Shigeo Koguchim, Daphne Wu, JS Leu, Evan Tseng	0	–	0	–
Director	Toshiba Semiconductors Taiwan Corp. Rep: Kenjiro Kara	0	–	0	–
Independent Director	Quincy Lin	0	–	0	–
Independent Director	Jim W.L. Cheng	0	–	0	–
Independent Director	Philips Wei	0	–	0	–
Independent Director	Pei-Ing Lee	0	–	0	–
Director & President	J.Y. Hung	0	–	0	–
Manager	J.S. Leu	0	–	0	–
Manager	John Wang	0	–	0	–
Manager	K.J. Chan (Note)	(5,000)	–	0	–
Manager	Steven Shen (Note)	(5,000)	–	0	–
Manager	John Chang	14,000	–	0	–
Manager	Peter Lai (Note 1)	(2,000)	–	–	–
Manager	Tonwey Cheng	0	–	0	–
Manager	Y.C. Chen	0	–	0	–
Manager	Wilber Wu	(15,000)	–	0	–
Manager	Phu Le	0	–	0	–
Manager	Y.C. Chi	0	–	(15,000)	–
Manager	Paul Wu	0	–	0	–
Manager	David Fang	(43,000)	–	0	–
Manager	Perry Lin	0	–	0	–
Manager	Yohan Lin (Note 2)	–	–	0	
Manager	Vic Chen	0	–	0	–
Manager	Gary Chang	10,000	–	0	–
Manager	Victor Tung	3,000	–	0	–
Finance & Accounting Manager	Evan Tseng	0	–	0	–

Note :KJ Chan and Steven Shen resigned on Feb 28 2019. Disclose data were as of Jan 31 2019.

Note1: Peter Lai resigned on Jan 11 2019. Disclose data was as of Dec 31 2018.

Note 2: Yohan Lin was appointed on Jan 11 2019. Disclose data was as of Mar 31 2019.

(2) Stock Trade or Stock Pledge with Related Party: None.

9. Information on Top 10 Shareholders of company shares who are spouses or within Second-degree Relative of Consanguinity to Each Other:

Apr 2, 2019

Name	Shareholding		Spouse & Minor Children		PTI Shareholding by Nominee Arrangement		Name and Relationship Between PTI's Top 10 Shareholders as Defined in the Statement of Financial Accounting Standards No. 6		Note
	Shareholding	%	Shareholding	%	Shareholding	%	Title (or Name)	Relationship	
Investment Account of Kingston Technology Corporation	29,875,000	3.83%	–	–	–	–	KTC-TU Corp. and KTC-SUN Corp.	The reps. of the two companies and the CEO and VP. of the shareholder are the same person	
Hermes Investment Funds Public Limited Company	27,312,990	3.51%	–	–	–	–	None	–	–
KTC-TU Corp. Rep: John Tu	19,977,554 0	2.56% 0.00%	–	–	–	–	Investment Account of Kingston Technology Company	The CEO of that company and the rep. of that shareholder is the same person	–
Cathay Life Insurance Co. Ltd. Rep: Tiao-Kuei Huang	16,364,000 0	2.10% 0	–	–	–	–	None	–	–
KTC-SUN Corp. Rep: David Sun	15,665,362 0	2.01% 0.00%	–	–	–	–	Investment Account of Kingston Technology Company	The CEO of that company and the rep. of that shareholder is the same person	–
Fubon Life Insurance Co. Ltd. Rep: Richard M. Tsai	15,000,000 0	1.93% 0.00%	–	–	–	–	None	–	–
China Life Insurance Co. Ltd. Rep: Alan Wang	14,627,000 0	1.88% 0.00%	–	–	–	–	None	–	–
New Labor Pension Fund	13,923,700	1.79%	–	–	–	–	None	–	–
Government of Singapore--GOS-EFM	13,331,000	1.71%	–	–	–	–	None	–	–
Taiwan Life Insurance Co. Ltd. Rep: Shi Guo Huang	13,250,000 0	1.70% 0.00%	–	–	–	–	None	–	–

10. Shareholding Information Regarding the Same Invested Company of Company, Company's Board of Directors, Committee Members, Managers, and Businesses That Are Directly or Indirectly Controlled By Company

Units: Shares; %

Invested Company (note)	Investment by Powertech Technology Inc.		Investments directly or indirectly controlled by Directors, Committee members, managers, and company		Combined Investments	
	Shareholding	%	Shareholding	%	Shareholding	%
TeraPower Technology Inc.	73,385,830	49.00%	73,831,170	51%	149,767,000	100.00%
Powertech Holding (BVI) Inc.	50,000	100.00%	0	0%	50,000	100.00%
Greatek Electronics Inc.	244,064,379	42.91%	0	0%	244,064,379	42.91%
Powertech Technology (Singapore) Pte. Ltd.	85,000,000	100.00%	0	0%	85,000,000	100.00%
Powertech Technology Japan Ltd.	0	100.00%	0	0%	0	100.00%

Note: Investment using Equity Method Evaluation.

IV. Capital and Shares

1. Capital and Shares

(1) Sources of Capital

1. Capitalization

Month / Year	Issue Price Per Share (NT$)	Authorized Share Capital		Capital Stock		Remark		
		Shares (thousand shares)	Amount (NT$ thousands)	Shares (thousand shares)	Amount (NT$ thousands)	Sources of Capital	Capital Increase by Assets Other than Cash	Others
5/1997	10	200,000	2,000,000	60,000.0	600,000	Company established, with paid-in Capital of NT$ 600 million	None	None
4/1998	12	200,000	2,000,000	120,000.0	1,200,000	Cash Injection of NT$ 600 million	None	Note1
5/1999	11	200,000	2,000,000	200,000.0	2,000,000	Cash Injection of NT$ 800 million	None	Note2
8/2001	10	280,000	2,800,000	221,800.0	2,218,000	Surplus and Capital Reserve Capital Increase of NT$ 218 million	None	Note3
9/2002	10	280,000	2,800,000	235,222.9	2,352,229	Capitalization of retained earnings of NT$ 134.229 million	None	Note4
9/2002	11.5	280,000	2,800,000	246,312.9	2,463,129	Cash Injection of NT$ 110.9 million	None	Note5
9/2003	10	280,000	2,800,000	261,250.0	2,612,500	Capitalization of retained earnings of NT$ 149.371 million	None	Note6
9/2004	10	440,000	4,400,000	308,000.0	3,080,000	Capitalization of retained earnings of NT$ 467.5 million	None	Note7
9/2004	43	440,000	4,400,000	338,000.0	3,380,000	Cash Injection of NT$ 300 million,	None	Note8
6/2005	10	580,000	5,800,000	400,500.0	4,005,000	Capitalization of retained earnings of NT$ 625 million	None	Note9
6/2006	10	580,000	5,800,000	471,000.0	4,710,000	Capitalization of retained earnings of NT$ 705 million	None	Note10
6/2007	10	580,000	5,800,000	556,300.0	5,563,000	Capitalization of retained earnings of NT$ 853 million	None	Note11
6/2008	10	750,000	7,500,000	630,800.0	6,308,000	Capitalization of retained earnings of NT$ 745 million	None	Note12
7/2009	10	750,000	7,500,000	669,385.2	6,693,852	Capitalization of retained earnings of NT$ 385.852 million	None	Note13
5/2010	60.6	750,000	7,500,000	704,236.7	7,042,367	Conversion into common shares by convertible bonds of NT$ 348.515 million	None	Note14
9/2010	58.4	750,000	7,500,000	715,366.8	7,153,668	Conversion into common shares by convertible bonds of NT$ 111.301 million	None	Note15
12/2010	58.4	750,000	7,500,000	726,496.9	7,264,969	Conversion into common shares by convertible bonds of NT$ 111.301 million	None	Note16
8/2011	10	1,000,000	10,000,000	799,146.6	7,991,466	Capitalization of retained earnings of NT$ 726.497 million	None	Note17
8/2012	10	1,000,000	10,000,000	779,146.6	7,791,466	Note Purchased of company’s treasury stocks, with a capital reduction of NT$ 200 million	None	Note18

Note1：2/17/1998 MOF (1) No. 18910
Note2：3/2/1999 MOF (1) No. 22357
Note3：6/21/2001 MOF (1) No.139798
Note4：7/10/2002 MOF (1) No.0910137911
Note5：7/10/2002 MOF (1) No.0910137913
Note6：7/8/2003 MOF (1) No.0920130303
Note7：6/25/2004 MOF (1) No.0930128233
Note8：7/6/2004 SEC (1) No. 0930128234
Note9：6/24/2005 FSC (1) No. 0940125391
Note10：6/27/2006 FSC (1) No.0950126720
Note11：6/28/2007 FSC (1) No.0960032903
Note12：6/25/2008 FSC (1) No.0970031487
Note13：7/2/2009 FSC (1) No.0980032960
Note14：5/5/2010 YST No.09901091340
Note15：9/21/2010 YST No.09901214270
Note16：12/31/2010 YST No.09901291530
Note17：8/31/2011 YST No.10001183300
Note18：8/27/2012 YST No.10101177670

2. Capital and Shares

Unit: Shares

Type of Stock	Authorized Share Capital			Note
	Shares Outstanding	Unissued Shares	Total	
Common Stock	779,146,634	220,853,366	1,000,000,000	TSE Listed

3. Total reporting and filing related information: Not applicable

(2) Composition of Shareholders

Apr 2, 2019

Shareholder Composition / Amount	Government Agencies	Financial Institution Investor	Other Institutional Investor	Domestic Individual Investor	Foreign Institution & Individual Investor	Total
Number of Shareholders	5	26	3362	38,113	684	39,164
Shareholding	34,756,000	90,914,000	49,277,459	130,042,047	474,157,128	779,146,634
Holding (%)	4.46%	11.67%	6.33%	16.69%	60.85%	100.00%

(3) Distribution Profile of Share Ownership

Apr 2, 2019; Unit: Shares

Shareholder Ownership (Unit: Share)	Number of Shareholders	Shares Owned	Ownership (%)
1 ～ 999	17,725	1,269,662	0.16%
1,000 ～ 5,000	16,236	33,211,745	4.26%
5,001 ～ 10,000	2,419	18,860,597	2.42%
10,001 ～ 15,000	764	9,722,328	1.25%
15,001 ～ 20,000	442	8,113,719	1.04%
20,001 ～ 30,000	413	10,521,793	1.35%
30,001 ～ 40,000	223	7,936,570	1.02%
40,001 ～ 50,000	134	6,141,406	0.79%
50,001 ～ 100,000	294	21,398,208	2.75%
100,001 ～ 200,000	192	27,209,894	3.49%
200,001 ～ 400,000	101	28,451,242	3.65%
400,001 ～ 600,000	50	24,614,741	3.16%
600,001 ～ 800,000	28	19,637,111	2.52%
800,001 ～ 1,000,000	18	16,206,168	2.08%
1,000,001 or more	125	545,851,450	70.06%
Total	39,164	779,146,634	100%

(4) **Major Shareholders**

Apr 10, 2018

Shareholding / Name of Major Shareholders	Total Shares Owned	Ownership (%)
Investment Account of Kingston Technology Corporation	29,875,000	3.83%
Hermes Investment Funds Public Limited Company	27,312,990	3.51%
KTC-TU Corp.	19,977,554	2.56%
Cathay Life Insurance Co. Ltd.	16,634,000	2.10%
KTC-SUN Corp.	15,665,362	2.01%
Fubon Life Insurance Co. Ltd.	15,000,000	1.93%
China Life Insurance Co. Ltd.	14,627,000	1.88%
New Labor Pension Fund	13,923,700	1.79%
Government of Singapore--GOS-EFM	13,331,000	1.71%
Taiwan Life Insurance Co. Ltd.	13,250,000	1.70%

(5) Net Worth, Earnings, Dividends, Market Price per Common Share, and Related Information Over the Last Two Years:

Unit: Thousand Shares/NT$

Year / Item			2017	2018	As Of Mar 31, 2019 (Note 8)
Market Price Per Share	Highest Market Price		105.50	97.30	73.50
	Lowest Market Price		82.90	63.80	64.00
	Average Market Price		91.31	84.15	70.08
Net Worth Per Share (Note2)	Before Distribution		48.85	52.63	-
	After Distribution		44.35	-	-
Earnings Per Share	Weighted Average Shares		779,147	779,147	-
	Earnings Per Share (Note3)		7.51	8.02	-
Dividends Per Share	Cash Dividends		4.5	4.8 (Note1)	-
	Stock grants	-	-	-	-
		-	-	-	-
	Accumulated Undistributed Dividend (Note4)		-	-	-
Return on Investment	Price/Earnings Ratio (Note5)		12.16	10.49	-
	Price/Dividend Ratio (Note6)		20.29	17.53 (Note1)	-
	Cash Dividend Yield (Note7)		4.93%	5.70% (Note1)	-

Note 1: Pending on shareholders' approval.

Note 2: Based on shares issued at yearend and completed after resolution by shareholders' meeting the following year.

Note 3: If there are stock grants that must be adjusted retroactively, should list the EPS before and after adjustment.

Note 4: if the terms of issuance of securities have accumulated dividends that are not paid until there are earnings, must disclose separately the accumulated dividends that are unpaid for current year.

Note 5: Price/Earnings Ratio = Average Market Price/ Earnings per Share

Note 6: Price/Dividend Ratio = Average Market Price/Cash Dividends per Share

Note 7: Cash Dividend Yield = Cash Dividends per Share/Average Market Price

Note 8: The net worth per share and earnings per share should be provided based on the last quarter audited by CPA as of printing of annual report; information for other items should be provided based on information from current year up till the printing of annual report.

(6) Company's Dividend Policy and Implementation Status

1. Stock Dividend Policy:

Powertech Technology Inc. belongs to a capital intense industry. Thus, the stock dividend payout policy must consider the factors such as company's current and future investment environment, capital needs, market competition, and capital expenditures, etc. Under the consideration of balancing shareholders' & committee members' benefits, dividends paid, and the long term financial planning of the company, the payment of dividends will be in the form of cash and/or stock with cash dividends greater than 20% of total amount of dividends being distributed.

2. The dividend distribution status:

(1) The payout ratios were about 50% (about 80% in cash and 20% in stocks) during year of 2003 to 2010.

(2) The payout ratios were increased to about 66% after year 2011 and going forward. In year 2013, NT$2 cash dividends were paid from capital reserved with net loss from legislative settlements.

(3) Powertech Technology Inc. proposed to pay $4.80 cash in per share which was about 60.0% of 2018 profit earning.

3. 2018 dividend distribution status:

PTI proposed to pay NT$3,739,903,843 (NT$4.80 per share) in cash from 2018 earnings

Actual distribution subject to shareholders' approval.

(7) The impact of the proposed stock grants at this shareholders' meeting on the Company's operating performance and earnings per share:
There is no stock grant proposals for the earnings distribution for 2018.

(8) Employee Profit Sharing and Directors' & committee members' compensation

1. The Company's Article of Incorporation states information regarding the amount and scope of employee profit sharing and Directors' & committee members' compensation.

The principal of distribution from the Company's annual net income are:

(1) Make up for losses from previous years at top of priority.

(2) 5%-7.5% employee compensation and less than 1.5% for Board compensation should be reserved from operating income before tax.

(3) Employee compensation could be in cash or stock and employees included all subsidiaries defined by Board. Board compensation can only be in cash. Independent directors were paid monthly and were excluded from the annual board compensation plan.

2. This period's basis of estimating the employee profit sharing and Directors' & committee members' compensation distribution of stock grants' share calculation basis and the accounting handling of the actual distributed amount being different from estimated amount.

The basis for estimating the employee profit sharing and Directors' & committee members' compensation is based on the annual net income. If the actual resolution for distribution by the shareholders' meeting is different from the estimated amount, then it will be viewed as changes in estimation and accounted into annual profit or losses of the distribution year.

3. The board meeting on Mar 14, 2019 approved the 2018 distribution of employee profit sharing and directors' compensation proposal and details in below:

(1)5.37% of operating income before tax for employees profit sharing (NT$420,813,659) and 1.07% of operating income before tax for directors' compensation

(NT$84,162,732) distributed in cash and no discrepancy with estimation made in 2018.

(2)The ratio of employees profit sharing distributed in stock: Not Applicable.

(4)Actual distribution of previous year employees profit sharing and directors compensation:

	Amount (NT$)
Employee profit sharing－ in cash	394,825,197
Directors' compensation － in cash	78,965,039
Total	$ 473,790,236

No discrepancy with board approval.

(9) Buyback of Common Stock: None.

2. Issuance of Corporate Bonds: None.

3. Issuance of Preferred Shares: None.

4. Issuance of Global Depositary Receipts

Mar 31, 2019

Date Issued / Item	Jan 23, 2006	Feb 10, 2006
Issuance & Listing	Bourse de Luxembourg	
Total Amount (US$)	103,650,000	12,092,500
Offering Price Per DR (US$)	6.91	
Units Issued	15,000,000 at first issuance	1,750,000 units at follow-up issuance
Underlying Securities	No more than 33,500,000 PTI common shares held by selling shareholders to serve as underlying securities of the overseas depository receipts.	
Common Shares Represented	30,000,000 shares	3,500,000 shares
Rights & Obligations of DR Holders	The rights and obligations of the overseas depository receipt holders, such as voting rights, dividends, shares preferential subscription rights and other rights and interests, are based on the applicable laws of the Republic of China and the relevant provisions of the Depositary Agreement.	
Trustee	None	
Depositary Bank	JP Morgan Chase Bank	
Custodian Bank	JP Morgan Chase Bank, Taipei Branch	
DR Outstanding	83,562 DR units	
Apportionment of Expenses for Issuance & Maintenance	Issuance: including but not limited to, underwriting fees, legal fees, listing fees, accountant fees, financial advisory fees and any other related costs. Unless otherwise specified by law, and other regulations by the issuer, the underwriter, the selling shareholder and the depository institution, the obligation to include the annual listing fees, information disclosure and other expenses rests with the selling shareholder(s). Maintenance: Unless otherwise specified by law, and other regulations by the issuer, the underwriter, the selling shareholder and the depository institution, the obligation to include the annual listing fees, information disclosure and other expenses rests with the Company.	
Terms and Conditions in the Deposit Agreement & Custody Agreement	Depositary Agreement: 1. Sale / delivery 2. Information available 3. Depository Receipts original issue, redeem and re-issue 4. Dividends, other distributions and stock options 5. Registration reference date 6. Voting rights 7. Transfer 8. Original changes securities 9 Taxes 10. Amendments and Termination Custodian Agreement: 1. Deliver securities to the original issuance of DR 2. Notify depository institution issuing depository receipts 3. DR against the securities back to the time of the original delivery 4. Monthly billing to confirm the number of shares 5. the Number of shares registered confirmed on base date.	
Market Price 2018 Highest Market Price	US $ 6.926	
Market Price 2018 Lowest Market Price	US $ 5.250	

Date Issued / Item			Jan 23, 2006	Feb 10, 2006
Per Share		Average Market Price	US $ 6.018	
	As Of Mar 31,2019	Highest Market Price	US $ 6.650	
		Lowest Market Price	US $ 5.750	
		Average Market Price	US $ 6.236	

5. Status of Employee Stock Option Plans and Employee Restricted Stocks: None.

6. Status of New Share Issuance in Connection with Merger and Acquisitions: None.

7. Financing Plans and Implementation

As of Mar 31, 2019, there are no situation of incomplete previous issuances and private placement of securities or complete plans whose benefits are not realized.

V. Operational Highlights

1. Business Activities

1. Business Scope

1. Main Business Scope:

(1) CC01080 Electronic Parts and Components Manufacturing

(2) CC01101 Electronic Parts and Components Manufacturing

(3) CC01110 Computers and Computing Peripheral Equipments Manufacturing

(4) CC01120 Data Storage Media Manufacturing and Duplicating

(5) CC01990 Electrical Machinery, Supplies Manufacturing

(6) F119010 Wholesale of Electronic Materials

(7) F219010 Retail Sale of Electronic Materials

(8) H201010 Investment

(9) I301010 Software Design Services

(10) I501010 Product Designing

(11) JE01010 Rental and Leasing Business

2. Revenue Proportion：

Established in May 1997, the Company’s primarily provides Integrated Circuit (IC) packaging and testing services. Revenue proportion as of 2018 is as followed：

Unit：NT 1,000s

Items	Net Revenue 2018	Revenue Proportion
Packaging Service	41,798,047	61.43%
Testing Service	15,994,776	23.51%
Wafer Level Packaging	3,723,157	5.47%
Wafer Level Testing	6,096,499	8.96%
Others	426,900	0.63%
Total	68,039,379	100.00%

3.Current Product/Services：

(1)High Pin-count Thin Small Outline Package (TSOP) packaging and testing services

(2)Quad Flat No-leads (QFN) Packaging Services

(3)Multi-Chip Packaging (MCP, S-MCP) Packaging and Testing Services

(4)Ball Grid Array (wBGA, FBGA) IC packaging and testing services

(5)Secured Digital Memory Card (SD, microSD)，USB packaging and testing services

(6)Solid State Drive(SSD)、Embedded Memory (eMMC, eMCP, UFS) packaging and testing services

(7)DRAM Chip-Stacking packaging and testing services

(8) Mobile memory packaging and testing services
(9) Wafer testing services
(10) Wafer bumping packaging services
(11) Copper Piller Bump (CPB) Wafer testing services
(12) System-in-Packag (SiP) packaging services
(13) Redistribution Layer (RDL) services
(14) Wafer Level Chip Scale Package (WLCSP) packaging services
(15) Package on Package / Package in Package(PoP, PiP) packaging and testing services
(16) Micro-electro-mechanical systems (MEMS) packaging services
(17) CMOS Image Sensor (CIS)packaging and testing services
(18) Flip-Chip Chip Scale Package (FC CSP) Packaging Services
(19) Packaging service with laminate substrate
(20) Through-Mold-Via (TMV) Technology development for chip-stacking requirement in packaging services
(21) Copper Pillar Bump Flip Chip (Cu Pillar Bump Flip Chip) packaging services
(22) CMOS Image Sensor (CIS) packaging services
(23) Electro Magnetic Interference (EMI) shield package packaging services
(24) Fan-Out Wafer Level (FOWLP) packaging and testing services
(25) Fan-Out Panel Level (FOPLP) packaging and testing services
(26) LPDDR3 KGD testing services

4. Product/Service in Development：

(1) 3D/2.5D IC advanced packaging for high performance computing devices on IoT or AI related.
(2) Fan-Out System in Package (FOSiP) for heterogeneous integration in post Moore era.
(3) Redistribution Layer (RDL) using fine line and space (2/2 um) for high performance, high I/O, and high bandwidth heterogeneous integration packaging.
(4) Fan-out CIS (CMOS Image Sensor) on bio chips packaging.
(5) Partial mold and compartmental EMI shielding packaging for 5G Antenna related packages.
(6) Fine pitch (100 um) tin bumping technology
(7) Wafer grinding (<30um) and die stacking for high performance memory products
(8) Ultra thin wire bound and flip-chip packaging
(9) UFS3.0 System Level testing technology and hardware development
(10) PCIe Gen4 System Level testing technology and hardware development

(11) Oven wide low temperature testing services
(12) ONFI 4.1 Higher Speed NAND testing services and hardware development
(13) 5G products testing services and hardware development
(14) Thin package testing services and hardware development
(15) Fine pitch COK development

2. Industry Summary

1. Current Industry Status & Outlook

According to World Economic Outlook Report published by the International Monetary Foundation (IMF) in January 2019, Global GDP in 2018 grew 3.7%. The IMF also revised down World Economic Growth Rate in 2019 and 2020 at 3.5% and 3.6% while acknowledging risks from factors such as trade tension between US and China, impacts from UK Brexit, and slower than expected China economy growth . Three month later, IMF further revised down its 2019 World Economic Growth Rate to 3.3%, including US economic revised from 2.5% to 2.3%, Eurozone revised from 1.6% to 1.3%, Japanese revised from 1.1% to 1.0%. In the meantime Chinese economic revised upwards from 6.2% to 6.3%.

As global macroeconomic going through down cycle, international market research organization Gartner revised its 2018 global semiconductor market down from 21.6% in early 2019 to 13.4%. Global semiconductor market scaled reached US$477.0 billion in 2018. Gartner forecasted 2.6% growth in global semiconductor market in 2019. Growth is forecasted to slow down over the next 3 years with forecasted growth rate at 8.1% in 2020, -1.8% in 2021 and 3.8% in 2022. By 2020, global semiconductor market scale is estimated to be over US$ 500.0 billion.

Taiwanese semiconductor industrial structure has gradually developed into vertical chain of supply starting at foundry level. Supply chain includes IC Design, IC manufacturing, IC packaging and IC testing. Due to vertical chain of supply and industrial clustering effect Taiwanese IC industry consist primarily of IC manufacturing sector, mainly Wafer foundries and DRAM manufacturing. This also gives Taiwanese IC industry competitive advantage with flexibility and speed and cost.

According to the Industrial Economics & Knowledge (IEK) published by Industrial Technology Research Institute, overall output value of Taiwanese IC industry (including IC design, IC manufacturing, IC packaging, IC testing) reached NT$687.0 billion (US$22.7 billion) in 4Q18 which decline 0.7% from previous quarter (3Q18) and 1.7% from same period last year (4Q17). Output Value of IC Design sector was NT$164.3 billion (US$ 5.4billion), showing 7.5% decline from previous quarter (3Q18) and 2.2% growth from same period last year (4Q17). Output value of IC manufacturing sector was NT$ 393.7 billion (US$13.0 billion), growing 3.2% from previous quarter (3Q18) and 1.2% from same period last year (4Q17). Output value of Wafer foundries were NT$349.7 billion (US$11.6 billion), growing 7.2% from previous quarter (3Q18) and 2.0% from same period last year (4Q17). Output value of memory and other manufacturing was NT$44.0 billion (US$1.5billion), decline 20.4% from previous quarter (3Q18) and decline 4.3% from same period last year (4Q17). Output value of IC packaging sector was NT$89.0billion (US$2.9billion) decline 4.3% from previous quarter (3Q18) and grow 2.3% from the same period last year (4Q17). Output value of IC testing sector was NT$40.0billion (US$1.3billion), growing 1.8% from previous quarter (3Q18) and 3.4% from the same period last year (4Q17). (Figures calculated based exchange rate of 1 USD= 30.2 NTD).

Unit：NT $billions

	1Q18	Quarterly Growth	YoY Growth	2Q18	Quarterly Growth	YoY Growth	3Q18	Quarterly Growth	YoY Growth	4Q18	Quarterly Growth	YoY Growth	2018	Annual Growth
Overall Output Value	6,032	-10.7%	5.6%	6,382	5.8%	11.5%	6,915	8.4%	7.6%	6,870	-0.7%	1.7%	26,199	6.4%
IC Design	1,372	-14.7%	-1.9%	1,622	18.2%	7.7%	1,776	9.5%	7.1%	1,643	-7.5%	2.2%	6,413	3.9%
IC Manufacturing	3,573	-8.1%	11.4%	3,530	-1.2%	15.4%	3,816	8.1%	8.3%	3,937	3.2%	1.2%	14,856	8.6%
Wafer Foundries	3,104	-9.5%	9.0%	2,987	-3.8%	11.5%	3,263	9.2%	5.1%	3,497	7.2%	2.0%	12,851	6.6%
Memory & Other	469	2.0%	30.6%	543	15.8%	42.1%	553	1.8%	31.7%	440	-20.4%	-4.3%	2,005	23.7%
IC Packaging	755	-13.2%	-1.9%	870	15.2%	5.5%	930	6.9%	7.5%	890	-4.3%	2.3%	3,445	3.5%
IC Testing	332	-14.2%	-1.8%	360	8.4%	7.5%	393	9.2%	3.4%	400	1.8%	3.4%	1,485	3.1%
IC Product Output	1,841	-11.0%	4.8%	2,165	17.6%	14.7%	2,329	7.6%	12.0%	2,083	-10.6%	0.7%	8,418	8.0%
Overall Global Semiconductor Growth	-	-	-	-	-	-	-	-	-	-	-	-	4,688	13.7%

Source：TSIA；Industrial Technology Research Institute (2019/02)

According to the Industrial Economics & Knowledge (IEK) published by Industrial Technology Research Institute, overall output value of Taiwanese IC industry in 2018 reached NT$2,619.9 billion (US$86.8 billion), growing 6.4% from 2017. Output value of IC design sector was NT$641.3 billion, (US$21.2billion), growing 3.9% from 2017. Output value of IC manufacturing sector was NT$1,485.6 billion, (US$49.2 billion), growing 8.6% from 2017. Output value of wafer foundries was NT$1,285.1 billion, (US$42.6billion), growing 6.6% from 2017. Output value of memory and other manufacturers was NT $200.5 billion, (US$6.6billion), growing 23.7% from 2017. Output value of IC packaging sector was NT$344.5 billion, (US$11.4 billion), growing 3.5% from 2017. Output value of IC testing sector was NT $148.5 billion, (US$4.9 billion), growing 3.1% from 2017. (Figures calculated based exchange rate of 1 USD= 30.2 NTD).

Output Value of Taiwan IC Industry 2015~2019

Unit：NT $billion

	2015	Annual Growth	2016	Annual Growth	2017	Annual Growth	2018	Annual Growth	2019(E)	Annual Growth (E)
IC industry	22,640	2.8%	24,493	8.2%	24,623	0.5%	26,199	6.4%	26,445	0.9%
IC Design	5,927	2.8%	6,531	10.2%	6,171	-5.5%	6,413	3.9%	6,675	4.1%
IC Manufacturing	12,300	4.9%	13,324	8.3%	13,682	2.7%	14,856	8.6%	14,820	-0.2%
Wafer Foundries	10,093	20.4%	11,487	13.8%	12,061	5.0%	12,851	6.6%	12,943	0.7%
Memory & Other	2,207	-14.8%	1,837	-16.8%	1,621	-11.8%	2,005	23.7%	1,877	-6.4%
IC Packaging	3,099	-1.9%	3,238	4.5%	3,330	2.8%	3,445	3.5%	3,460	0.4%
IC Testing	1,314	-4.7%	1,400	6.5%	1,440	2.9%	1,485	3.1%	1,490	0.3%
IC Product Output	8,134	-2.6%	8,368	2.9%	7,792	-6.9%	8,418	8.0%	8,552	1.6%
Global Semiconductor Growth	3,352	-0.2%	3,389	1.1%	4,122	21.6%	4,688	13.7%	4,545	-3.0%

Source：TSIA；Industrial Technology Research Institute IEK(2019/02). Note: (E) represent estimated value.

2. Industry Supply Chain

Sectors in IC industry can be categorized according to position in production process, including IC Design at the upstream, IC Manufacturing & Foundries at the mid-stream and IC Assembly & Testing sector at the downstream.

(1) Upstream：

IC Design Sector includes companies designing IC products. The sector is knowledge-intensive with high entrance barrier and return on investment. Its main business scope includes designing and sales of own products or customized design for customers.

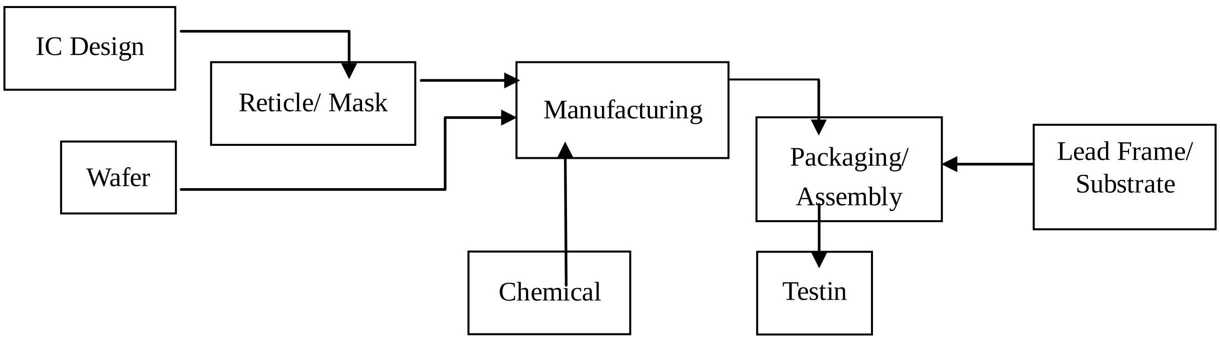
(2) Mid-stream：

Include IC manufacturing sector and related chemical suppliers. Its main business scope involves manufacturing wafer with precision tools according to in IC circuits designed in house or specified by customers. This sector is capital and technology intensive with high entrance barrier

(3) Downstream：

Outsource Assembly and Testing (OSAT) sector provides cutting, packaging, assembly and testing service to manufactured IC wafer for final product application.

IC Industry Supply Chain as illustrated below



In recent years scope of IC manufacturing as well as assembly and testing continues overlap due to increasing market demand for larger quantity and higher quality IC. In addition to higher performance and smaller profile, IC is also required to satisfy demands for integrated functions. As a result some wafer foundries begin to develop products and services that extends into scope of IC packaging and assembly. Majority of wafer foundries choose to work closely with cooperating assembly and testing service providers. Integrated Design and Manufacturers (IDM) also collaborate with OSAT service providers in designing and developing product solutions.

3. Trend of Product Development and Competition

(1) Trend of Product Development

IC Assembly and Testing refers to back end of line production process of IC production, including packaging and assembly, as well as testing. Its purpose is to provide protection, thermal management and connectivity to IC chips. Packaging and Assembly technology can be divided broadly into two main stages, including lead frame packaging and leadless packaging on substrate. The initial stage of development is lead frame packaging, which connects IC chips to external connection pins around the IC chips through means of wire bonding. Subsequently lead frames are replaced by substrate where external connection is replaced by led balls under IC chips. The latest development no longer uses lead frames or led balls. The latest Flip-chip packaging technology places the IC chip directly on motherboard where IC chips are connected directly to substrate through metal bumps

There are two main areas of technological development in Assembly and packaging technology. One is System on Chip (SoC) where the entire system circuit, including Central Processing Unit (CPU), Memory (Flash memory/ SRAM), Digital Signal Processor (DSP), Input/Output Interface (I/O interface)… are incorporated onto one single IC chip. The other is System in Package (SiP) where IC chips with different digital or analog functions are connected to Integrated Substrate or Functional Substrate with embedded passive components or electric circuits through bumping or wire bonding. SiP packaging technologies also differs according to application requirements, such as surface Multi-chip Module (MCM) packaging or 3D Chip-Stacking packaging which reduces surface area.

While System on Chip (SoC) and System in Package (SiP) are currently the two major direction of development in Semiconductor Assembly and Packaging technologies, System in Chip (SoC) technology has reached a stage of bottleneck. As SoC faces difficulties such as high defect rate, extensive development time and high cost, SiP multi chip module package with advantages such as small profile, high speed and frequency, lower lost and shorter production lead time becomes highly valued solution. As semiconductor micro-manufacturing technologies and IC production cost reaches bottleneck, relevance of Moore’s Law is gradually reaching its limit of applicability. In addition, end-product for Internet of Things also emphasizes heterogeneous integration of different components such as Sensor, Logic/Dram, GPU and other IoT Product applications. Consequently utilizing SiP technology to achieve heterogeneous integration through assembly, particularly integration of sensor units that SoC struggles to achieve, becomes popular areas of research and development. Based on its production process of Wafer-level SiP Assembly and Packaging (e.g. CoWos, InFO package) wafer foundry TSMC is currently leading the movement towards Fan-Out packaging utilized in smart phone application. More than 20% thinner than traditional Flip Chip assembly, fan out packaging matches the trend of increasingly slim profile of smart phones. In addition, Fan-Out packaging also offers advantages in higher performance, low power consumption and better thermal management than Flip Chip packaging. Furthermore, its lower cost also fulfils consumer demands for lower price in electronic devices. The above factors indicate that Fan-Out packaging technologies will become the mainstream for smart phone applications. With exception of TSMC, most wafer foundries choose to collaborate with closely cooperating OSAT service providers in product development. IDM manufacturers also collaborate with OSAT service providers in product design and development. This creates increasingly close integration of assembly and OSAT service providers, wafer foundries, and IDM manufacturers.

In response to trend of technological development of the industry, as well as increasing demand from upstream customer for capacity in memory, logic, as well as advance assembly, packaging and testing, our company continues to invest in new equipment and capacity to satisfy customer demand. In the meantime, our company continues to develop assembly and packaging technologies providing high performance at low cost. As assembly and packaging industry evolves with an increasing diversity and technology-intensiveness, companies with capability of independent technological development as well as maintaining stable customer base will benefit the most. PTI held a groundbreaking event in Sep 2018 for a Fan-Out Panel-Level Packing (FOPLP) facility, which is the first one in the world FOPLP dedicated facility. PTI believes the FOPLP will be essential for future applications on 5G, AI, bio tech, Advanced Driver- Assistance System (ADAS), smart city, and IoT related products. Ability to develop advanced packing and testing services and secure customer relations will play major factors for corporate sustainability.

(3) State of Competition：

2018 Global semiconductor industry value grew 10% from 2017 reached a record high of

US$460 billion driven by memory pricing base on Digitimes research. 2019 is going to be a challenge year for semiconductor revenue growth due to weak demand and pricing of memory IC and uncertainty from trade tension between US and China. 2018 IC packaging industry grew 3.8% from 2017 reached US$55.3 billion, including OSAT packaging grew 7.5% and reached US$31.1 billion. OSAT packaging weight increased from 54.4% in 2017 to 56.3% in 2018. Advanced packaging is going to have a booming growth rate in 2018 with expectations of heterogeneous integration applications for Big Data, AI, 5G, High Performance Computing (HPC), IoT, smart car, and etc., despite it only represented a small portion of overall packaging.

2018 packaging revenue among top 10 OSAT grew 5.5% which was lower than industry 7.5% growth. 2018 OSAT revenue accounted for 75.9% of the industry which were 1.2% less from 77.1% in 2017. ASE Technology Holding Co. Ltd. and Amkor Technology, Inc.(Amkor), top 2 OSAT players, 2018 revenues grew less than 3% due to weak smartpone demand. King Yuan Electronics Co. Ltd. and ChioMOS Technologies Inc also faced similar market challenges as top OSAT players. United Test and Assembly Center Ltd. (UTAC) closed its Shanghai operations and its 2018 revenue drop 10% at US$7.87 billion. China top 3 OSAT players, Jiangsu Changjiang Electronics Technology Co. Ltd.(JCET), Tianshui Huatian Technology Co. Ltd.(TSHT), and Nantong Fujitsu Microelectronics Co. Ltd., accounted for a record high 26.2% of 2018 top 10 OSAT revenue which grew 1.5% from 24.7% in 217. 3 Chinese OSAT players 2018 revenue grew 7-14%. Powertech Technology Inc.(PTI) and Chipbond Technology Corp. revenue growth were higher than China OSAT players. PTI 2018 major revenue growth drivers were from acquisition of Tera Probe, Inc. and Micron Akita operations. 2018 Chipbond revenue growth driven by smartphone OLED panel driver IC package converted to Chip on Film (COF) packages. Increasing penetration of Touch and Display Driver Integration (TDDI) has provided the biggest revenue growth momentum for Chipbond among global OSAT players in 2018.

3 major China OSAT players have elevated their rankings to top 10 by mergers and acquisitions since 2015. Amkor strategic acquired NANIUM S.A.to strength its Wafer-Level Packaging (WLP) capability in Feb 2017. PTI acquired 100% Akita operations and 39.6% of Tera Probe, Inc. from Micron Technology, Inc. in 2017 to expand its operations in Japan. Sigurd Microelectronics Corporation acquired Bloomeria Limited and became major shareholder of Winstek Semiconductor Technology Co. Ltd. which expended its services from testing only to turn-key solutions including WLP and chip probing. Ardentec Corporation expanded into radio frequency testing services for automobile devices through the acquisition of Giga Solution Tech Co. Ltd. in Aug 2017. TSHT acquired Unisem (M) Berhad in Sep 2018 to expend western customer base and reduce the impact of US-China

trade war.

Annual growth of Taiwanese IC OSAT companies can be categorized according to principle revenue product including logic, memory, driver IC, Analog IC, Sensors and testing.

Taiwan IC packaging and testing industry remained positive annual growth for 2017 and second half of 2018 growth slowdown from weak macroeconomic and uncertainty of US-China trade tension. Logic IC demand picked up in 2Q18 and 3Q18 for SiP and WLP, but slowdown in 4Q18. PTI's memory IC demand had been strong since 1Q16 and improved quarter after quarter. PTI 3Q17 stronger than industry growth contributed from acquisition of Tera Probe, Inc. and Micron Akita operations.

PTI has been devoted on product mix diversification especially after the weaken PC demand, saturated smartphone market, highly consolidated upstream customers. The acquisition of Greatek Electronic Inc. in 2012 enhanced PTI exposure to Logic IC products packaging and testing services. In addition to the acquisition of Greatek and Tera Probe, Inc., PTI organic growth came from the growing demand of mobile DRAM, server DRAM, Graphic RAM, NAND Flash, Solid State Drive (SSD), MCP/MMC, and market share gain of commodity DRAM in Xian. PTI consolidated revenue grew 6.2% for 2015, 13.7% for 2016, and 23.4% for 2017.

Annual Growth 2013-2018 of Taiwan OSAT Companies Ranking Among Global Top 10

Unit：NT million

Year	2018	18/17	2017	17/16	2016	16/15	2015	15/14	2014	14/13	2013
Company	Revenue	Annual Growth	Revenue	Annual Growth	Revenue	Annual Growth	Revenue	Annual Growth	Revenue	Annual Growth	Revenue
ASE	397,261	6.0%	290,441	5.7%	274,884	-3.0%	283,302	10.0%	256,591	16.7%	219,862
PTI	**68,039**	**14.1%**	**59,632**	**23.4%**	**48,344**	**13.7%**	**42,524**	**6.2%**	**40,039**	**6.5%**	**37,605**
KYEC	20,816	5.7%	19,686	-2.0%	20,081	17.2%	17,129	5.2%	16,278	10.7%	14,694
Chipbond	18,725	16.4%	18,428	6.8%	17,256	2.3%	16,863	-4.6%	17.683	11.8%	15.811
ChipMOS	18,480	3.0%	17,941	-7.5%	19,392	-2.4%	19,869	-9.7%	22,005	13.7%	19,362

Source：Market Observation Post System/ Relevant Financial Statements Organized by PTI

For Semiconductor backend companies, collaboration with strategic partners possessing leading advantage in technology and production cost enables long term supply chain partnership while securing stable business and profit in the oligopolistic DRAM and Flash market. PTI strives to establish and maintain solid strategic relations with customer while focusing on market segmentation. Currently our primary customers consist of best-known international semiconductor companies in memory manufacturing. Considering risks of price fluctuation due to excess capacity caused by over investment in memory market, PTI also expanded its business scope in 2008 into integrated advanced assembly and packaging services (SiP, MCP, 3D IC, Bumping, Flip Chip MEMS, Fan out, TSV CMOS…). Based on its fundamental advantage in memory assembly and testing, PTI aim to integrate multiple functions such as logic, wireless, wired and micro-processing unit within a single package to provide high performance and small profile solutions. PTI also continues to emphasize UPH, increasing production efficiency while lowering production cost.

(3) Summary of Technological Research & Development

1.R&D Cost

Latest Annual R&D expenditure as followed

Unit：NT thousands

Item \ Year	2018
R&D Expenditure	1,864,218

2. Successfully developed technology or product：

I. Packaging Solution Achievements:

A. Achievements in diversify Fan-Out Panel Level packaging products：

(1) CHIEFS® packaging solution with chip first technologies, ideal forAPU, BB, ASIC, PMIC, Memory, and etc. packages

(2) CLIP® packaging solution with chip last technologies to enhance reliability, ideal for CPU, GPU, FPGA, and etc. packages

(3) PiFO® packaging solution with chip middle technologies to connect RDL routes on the sides of Cu pillar, ideal for RF module, Sensor, APU, die stacking, packaging stacking, or Fan-out SiP packages

(4) BF2O® packaging solution with bump free fan out and multiple layer redistribution technologies, ideal for PMIC, audio, PA, and etc. packages

B. Developing Antenna in Package (AiP) products using laminated substrate and Fan-Out Panel Level Package (FOPLP) technology with Low Dk & Low Df materials as 5G product solutions

C. Developing Fan-out on substrate solutions to replace 2.5D Si interposer

D. 8 die stacking on High Bandwidth Memory (HBM) products using Through Silicon Via (TSV) technologies

E. Non Conductive Film (NCF) used on HBM product packages

F. Developing combination of wires and Flip Chip packaging technologies for stacking of high density products

G. Developing ultra fine ball pitch 0.23mm BGA packaging solutions for high ball counts packages

H. Developing 16 die stacking Mobile DRAM packages to meet space constrain requirements

II. Testing Solution Achievements:

A. B6700D burn-in oven BI testing services with software and hardware development

B. UFS2.1 system level testing services with software and hardware development

C. Automotive IC testing services

D. T5503HS 4.5Gbps testing with software and hardware development

E. T5383 chip probing services

F. Testing socket mold-type development

(4) Long-term and Short-term Business Strategy

Our Short-term and Long-term strategic business planning in management, production, sales &

marketing and research & Development are outlined below

1. Short-term business planning

(1) Actively expand product capacity while developing new technologies and production process

In response to persistent growth in semiconductor market and customer demand, we will continue to actively expand our capacity. We will also increase our competitive advantage by emphasizing on developing new technology and production process such as WLP, FC, SiP/Modules, 2.5D/3D IC, Fan-Out and other advance packaging technologies in accordance with product development trend.

(1) Continue to reduce production lead time in order to provide speedy service for customers.

Out main advantage lies in flexible production process offering high level of mobility. We will continue to reduce production lead time in order to provide speedy service for our customers.

(2) Continue to provide integrated Turn-Key services

Due to consideration in cost, up-stream wafer foundries continues to outsource IC assembly, packaging and testing to specialized assembly and testing facilities (OSAT). We are among the few companies capable of providing complete assembly, packaging and testing services in the country. In order to increase our competitive advantage in providing customer with more options and better service, we will continue to offer integrated Turn-Key services.

(3) Explore foreign and domestic market and increase market share

In addition to maintaining strong relationship with existing foreign and domestic customers, we will use our competitive advantage in flexible production process, high level of mobility and capability in proving Turn-Key services to develop new customer worldwide.

2. Long-Term Business Planning

(1) Emphasize long-term partnership with customer and supplier

Through emphasizing long-term collaboration with up-stream and down-stream partners, we aim to become the trusted OSAT service provider providing our customer reliable quality and service. We will also develop strong collaborative partnership with our suppliers

(2) Increase investment in automated equipment, accelerate automated production, improve production yield, increase production efficiency and reduce manpower dependence.

(3) Continue to develop new assembly, packaging and testing technology and new customer

As semiconductor moves beyond micrometer and enters the era of nanometer, demand for advance technology in IC assembly, packaging and testing continues to grow rapidly due to increase in function diversity and decrease in size profile. PTI established out research and development facility dedicated to advance assembly and packaging technology in order to satisfy demand from existing and new customers and continues to strengthen our competitive advantage.

(4) Increase revenue contribution from Logic, Module(SSD) and Micro-electro-mechanical Systems(MEMS)

Through increasing customer and revenue in areas of Logic, Module (SSD) and (MEMS) we continue to diversify product risk and increase company scale.

2. Market and Product Sales Outlook

(1) Market Analysis

1. Primary area of product/service sales/provision

Our primary business scope includes providing IC outsourced assembly and testing (OSAT) services in overseas as well as domestic market. As of 2018 revenue from domestic sales account for 20.21% of overall revenue while that of overseas markets account for 79.79%. Our principle markets are Japan, Singapore, and North America.

Unit：NT Thousands

Year / Market	2017	%	2018	%
Domestic	12,170,505	20.41	13,752,607	20.21
Export	47,461,578	79.59	54,286,772	79.79
Japan	20,422,543		22,270,182	
Singapore	12,857,749		14,947,281	
North America	10,618,829		13,167,078	
Europe	1,842,106		2,052,881	
China and Hong Kong	1,404,213		1,381,878	
Others	316,138		467,472	
Total	59,632,083	100	68,039,379	100

2. Market Share：

According to data provided by Gartner, PTI is the 4h largest OSAT service provider worldwide in 2018. It is also ranked 2nd in revenue among OSAT service providers in Taiwan. Currently there are over 30 domestic OSAT service providers respectively, of which 20 provides both assembly and testing services. According to 2018 operation results of Taiwanese IC industry published by Taiwan Semiconductor Industry Association (TSIA) in February 2019, overall output value of IC Assembly sector amounts to approximately NT$344.5 billion while that of testing sector amounts to approximately NT$148.5 billion. In 2018, our assembly revenue amounts to approximately NT$ 45.6 billion, contributing 13.2% of overall industry output while testing revenue amounts to approximately NT $22.5 billion, contributing 15.5% to overall industry output. In particular PTI also holds leadership position in assembly, packaging and testing of memory IC products. Powertech Semiconductor (Xian) Co. Ltd., a subsidiary established through investment contract with Micron Technology Inc. on semiconductor assembly, began production in 2016, increasing PTI's market share in memory OSAT sector. In 2017, PTI also reached agreement with Micron Technology Inc. to acquire its Akita facility in Japan as well as 39.6% share of Tera Probe, Inc. from Micron, consolidating PTI's position in Japan. Future applications of 5G, AI, bio tech, ADAS, smart city and IoT related products are going to create massive demand for FOPLP packages which drive PTI to invest heavily in Fan-Out Panel-Level Packaging (FOPLP).

3. Market Supply and Demand Outlook and Growth Potential

According to forecast by Garner in Jan 2019, overall sales value of global semiconductor market will grow by 2.6% annually in 2019. Garner also forecasted annual growth of 8.1% in 2020, decline 1.8% in 2021 and 3.8% annual growth in 2022 at US$539 billion.

Global Semiconductor Market Forecast

Unit: US $billions

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Global Semiconductor Market	3,154	3,424	3,349	3,459	4,204	4,770	4,890	5,280	5,190	5,390
Annual Growth Rate	5.2%	8.6%	-2.2%	3.3%	21.6%	13.4%	2.6%	8.1%	-1.8%	3.8%
Source： Gartner；Industrial Technology Research Institute (2019/01)										

Our primary source of revenue consists of assembly and testing of Memory IC products. We will continue to increase revenue from assembly and testing of Logic IC, sensor components and other products. The two mainstream product categories of memory markets consist of DRAM and Flash memory products. Semiconductor product categories include Application Specific Integrated Circuit (ASIC), Application Specific Standard Product (ASSP) Analog, Discrete Devices, GP logic, Memory, Micro-component, Sensor (NOS) and Optoelectronic components (Opto). In 2018, Memory (34.3%), ASSP (22.4%) and Micro-component (15.8%) were the largest product categories. Those three products will remain as the top 3 product categories and estimated to weight in as 27.7% for Memory, 25.1% for ASSP, and 16.0% for Micro-components. Highest growth devices among all semiconductor products are going to be optoelectronic components (Opto), sensor (NOS), and discrete devices with 9.4%, 7.4%, and 6.5% respectively CAGR for 2017-2020.

2017~2021 Sales Growth Forecast of Semiconductor Product Categories

Unit: US$billions

	2017			2018			2021		
	Volume	Proportion	Growth	Volume	Proportion	Growth	Volume	Proportion	2017~2022 CAGR
ASIC	25.6	6.1%	10.3%	27.8	5.9%	6.1%	33.4	6.2%	4.6%
ASSP	101.6	24.2%	11.0%	106.3	22.4%	5.1%	135.0	25.1%	6.0%
Analog	23.1	5.5%	11.9%	24.4	5.1%	7.5%	29.0	5.4%	5.2%
Discrete	20.1	4.8%	9.7%	22.7	4.8%	11.2%	27.4	5.1%	6.5%
GP Logic	12.2	2.9%	4.5%	13.5	2.8%	4.7%	16.1	3.0%	5.9%
Memory	131.8	31.4%	64.3%	162.8	34.3%	24.9%	149.0	27.7%	2.7%
Micro	66.3	15.8%	6.2%	74.8	15.8%	10.3%	86.4	16.0%	5.0%
NOS	10.5	2.5%	9.9%	10.5	2.2%	1.2%	15.0	2.8%	7.4%
Opto	29.0	6.9%	10.3%	31.9	6.7%	6.7%	47.2	8.8%	9.4%
Total	419.7	100.0%	22.2%	477.0	100.0%	13.4%	538.6	100.0%	6.3%

Source: Gartner；Organized by PTI

WSTS estimated 2019 global semiconductor value is going to decline 30% at US$454.5 billion, including 20% decline for memory products. Intel Corp. maybe able to claim the top one ranking among semiconductor players followed by Samsung Electronics Co. Ltd. and Taiwan Semiconductor Manufacturing Company Limited. US companies maintained as the leader of semiconductor industry from value added and technology leading position in 2019. US companies accounted for 40% of semiconductor market share and followed by Taiwan companies 20%. Korean companies fall in 3rd place affected by weak memory prices. Taiwan foundry accounted for 70% of global market and ranked Number 1 in the world. Taiwan IC packaging and testing accounted for 50% of global market and ranked Number 1 in the world.

According to IEK Consulting report, Taiwan semiconductor market value grew 6.4% at US$87 billion (NT$2,620 billion) in 2018 and increase 0.9% at US$88 billion (NT$2,640 billion) in 2019, better than global average. Future growth moment will focus on AI, IoT, 5G communication, Industrialization 4.0, smart machinery, smart car, VR/AR, HPC, software, networking services, and etc..

Taiwan IC packaging and testing industry will only grow 0.4% at US$16.5 million (NT$495 billion) due to weak macroeconomic, uncertainty from US-China trade tension, and soft Purchasing Managers Index (PMI).

4. Competitive Advantages

PTI have grown to become one of the major OSAT service providers, delivering high quality, dedicated service and advanced technology for our customers. We continue to collaborate closely and maintain solid relations with our customers. Our competitive advantages are as followed.

(1) Solid Strategic Allies and Globalization

The IC OSAT sector is characterized by high level of collaboration with upstream wafer foundries. Consequently profitability of assembly, packaging and testing service providers relies on solid relationship with customers. In the meantime, IC manufactures also chose long-term partnership with assembly, packaging and testing service providers due to confidentiality in product technology, product quality and production process. Such strategic alliance with concrete relationship of collaboration is beneficial for long-term development of the company.

(2) Turn-key Service

In response to rapid decline in IC sales prices, we offer Turn-key Service to our customers, including both assembly and packaging, as well as testing in order to reducing cost and risk in shipping process.

(3) Outstanding capability in development and production

PTI have been committed in developing new technologies while investing heavily in technological research and production process improvement. We have been proudly awarded many domestic and international patents, as well as technology license from multiple major international manufacturers, establishing our solid competitive edge within the industry.

(4) Investment in high precision automated equipment

In response to development of IC product towards increasingly higher performance, pin-count and density we continue to invest in high precision automated equipment from well-known Japanese and US vendors in order to satisfy customer needs and continuously improve our quality of service.

(5) Online automated customer service system

Our online automated customer service systems enables customer to track closely product status, production progress, and any potential problems. This facilitates swift problem resolution and product improvement while increasing added value for customer.

5. Supporting and Hindering Factors and Responding Strategy

(1)Supporting Factors：

【Industry Background】

① Competitive Advantage of Taiwanese Semiconductor Industry

Taiwan semiconductor industry encompasses a complete semiconductor industry structure from upstream IC Design and wafer foundries to downstream OSAT service providers. This vertically integrated chain of supply, consistent with industry development, contributes to establish the strong competitive position of Taiwanese semiconductor sector in the global market. Booming IC industry facilitated by rapid global development in electronics, information technology, communication technology, consumer electronics, optoelectronic industry, Artificial Intelligence (AI) and Internet of

Things (IoT) will continue to support stable growth in OSAT sector.

②OSAT Sector Benefitting from Major Integrated Device Manufacturer (IDM) Outsourcing Trend.

Due to high capital investment of advanced production process, global IDM manufacturers continue to increase its outsourcing of wafer manufacturing, assembly, packaging and testing to Asia region with lower production cost. Taiwan, with its complete industry structure and dynamic vertical supply chain, is the most preferential outsourcing choice for international IDM manufacturers and IC Design Companies. Taiwanese OSAT sector also benefits from OEM orders.

【Competitive Niche】

① Strong Managing Team and Solid Strategic Alliance

Our major share-holders include well-known companies such as Kingston Group and Taiwan Toshiba Semiconductor, facilitating solid reputation and stable customer base. As our revenue continues to grow, support from our shareholders also ensures sufficient capital supply for our future operation and development. Furthermore, our management team is equipped with comprehensive working experience within the semiconductor sector and capability of making appropriate decisions according to market trend.

②Continued Development and Innovation

In response to rapid changes in semiconductor market, PTI is dedicated to technological development. In addition to developing new products, we continue to introduce new technologies through collaboration with our strategic partners. Our research and development team is equipped with capability in independent designing and developing testing software and hardware programs. In addition to continually developing testing program and improving testing equipment in areas of IC testing, we also continue to develop cutting edge technologies and services in respond to future mainstream IC market demand. Our business scope has extended into logic market from assembly, packaging and testing of memory products. Building on our leading advantage in assembly, packaging and testing for both memory and logic IC, PTI continues to expand its scope into 3D IC. In assembly and Packaging we have completed development in IC Chip-Stacking technology, Field Programmable Gate Array (FPGA) and Fan-Out Packaging technology, and have been rewarded many patents. We will also continue our effort in refining in material and production process.

③Turn-key Service and Flexible Capacity

We able to provide our customer integrated turn-key service of IC assembly, packaging, testing and packing service in a single order, effectively reducing shipping time and cost. In addition, we are able to respond quickly to market and customer demand and swiftly expand and adjust our capacity accordingly through timely investment in advance equipment, providing our customer with most competitive solutions.

(5) Hindering Factor and Responding strategy

① Fluctuation in IC Industry in Connection With Economic Climate

Strategic Response：

A. Product Diversification

In addition to continually strengthening our memory assembly, packaging and testing quality and technology, acquisition of Greatek Electronic Inc. also contributed immensely to expansion into Logic market. Furthermore, our new production technologies such as copper pillar bump, Re-distribution Layer (RDL), Wafer Level CSP, MEMS and SSD continues to achieve customer qualification. Through product diversification we are able to mitigate risk of economic cycle as well as provide our customer greater range of assembly, packaging and testing services

B. Strengthening Collaboration with Customers

Establish long-term partnership with existing customers, establishing Powertech Semiconductor (Xian) Co. Ltd. and actively developing new customers to achieve stable and sufficient level of capacity utilization.

C. Increase Market Scope

With Akita facility as production basis in Japan, supported by Tera Probe, Inc., PTI will establish comprehensive chain of supply in Japan.

② Erosion of Gross Profit by Increasing Material Cost

Strategic Response：

A. Lowering Production Cost

Mitigating the effect of increasing material cost by varying product structure, improving yield, developing alternative material solution and continue to improve production process.

B. Emphasizing Added value

Continue to support our customer with high quality product with short lead time and swift responding service. Enabling our customers to produce time-effective and competitive product through our dedication in developing new technologies.

③Manpower shortage

Strategic Response：

A. Increase staff welfare and bonus incentives to attract talent and encourage cohesion among staff members. We also design staff training program according to long-term development strategy to support progress for both company and staff member.

B. We will continue to improve productivity and dependence on manpower through actively introducing advanced automated equipment in conjunction with upcoming Industrialization 4.0.

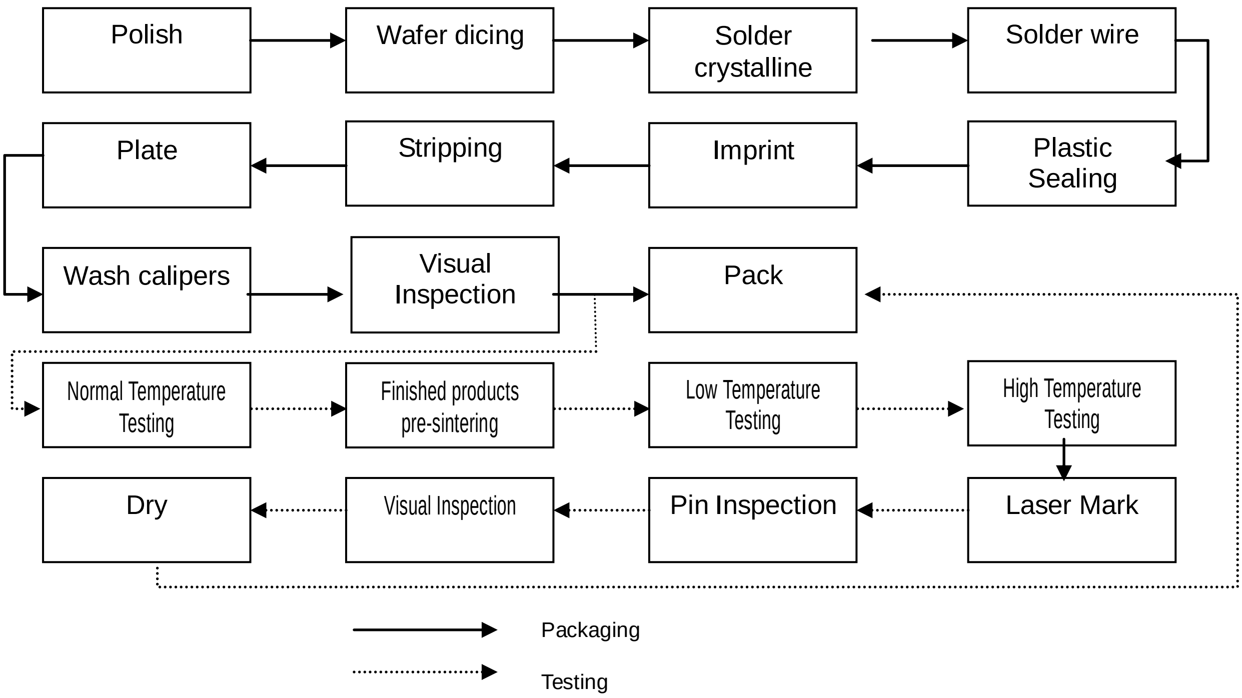
C. Alleviating the effect of manpower shortage by employing foreign workforce with permission from Ministry of Labor.

(2) Important Applications and Production Process of Main Products

1. Product Applications

Main Products or Services	Important Applications or Functions
IC Assembly	To turn Wafer into complete single product through sawing, mounting, wire bonding, molding, trimming/forming, and other processes of the Integrated Circuit (IC).
Final Test	Placing the IC into different environment such as normal, high, or low temperature to test and classify according to test conditions specified by customers. These steps ensure the product conforms to the quality and stability demanded by customers.
Burn-In	Using Burn-In process forced the IC operate in extreme environments to accelerate aging of the products and screen out the unqualified, to ensure reliability of products.
Laser Mark	Printing the name of company and product details on the IC.

2. Production Process



(3) Suppliers of Major Raw Materials

Our company mainly provides IC processing for our customers. The suppliers of the key raw materials used in packaging operations are listed below:

Main Raw Materials	Main Suppliers
Lead-Frame	Shinko Electric, Nichiden Seimitu Kogyo Co., Ltd., Samsung.
Substrate	Unimicron, Nanya, Simmtech, Eastern Company Limited, Japan Circuit Industrial, Shinko,Kinsus, and Daisho.
Die Attach Film (DAF)	Hitachi Chemical Co.(HK) Ltd, Nitto Denko Taiwan, Lintec, Henkel
Gold Wire	Chroma New Material, Tanaka
Compound	Hitachi Chemical Co.(HK) LTD., Hitachi Chemical Taiwan, and Kyocera.

(4) Information of suppliers' who commanding 10% and plus of annual purchasing volume in any year over the last 2 years.

1. There was no supplier accounted for over 10% of total purchase over the last 2 years.
2. List of Major Customers:

Major Customers Information for the Last Two Calendar Years

Unit: NT$ Thousands

	2017				2018				As of 2019 Q1			
Item	Name	Amount	Percent of total amount sold (%)	Relation with Issuer	Name	Amount	Percent of total amount sold (%)	Relation with Issuer	Name	Amount	Percent of total amount sold (%)	Relation with Issuer
1	A	17,981,516	30.15	None	A	18,482,277	27.16	None	A	3,377,806	23.40	None
2	B	12,226,172	20.50	Related Party	B	14,923,812	21.93	Related Party	B	3,299,620	22.86	Related Party
3	C	6,647,619	11.15	None	C	8,673,567	12.75	None	C	2,269,567	15.73	None
	Others	22,776,776	38.20		Others	25,959,723	38.16		Others	5,485,166	38.01	
	Net Amount Sold	59,632,083	100		Net Amount Sold	68,039,379	100		Net Amount Sold	14,432,159	100	

Reason for changes: PTI revenue increase contributed by capacity expansion, and customer demand increase.

(5) Production Quantity & Value Table 2017-2018

Quantity Unit: 1,000 wafers Amount Unit: NT$ Thousands

Year / Production Units	2017			2018		
	Capacity	Quantity	Amount	Capacity	Quantity	Amount
IC Packaging	11,424,846	10,445,569	28,323,774	11,424,846	10,445,569	28,323,774
IC Testing	8,204,195	6,701,693	8,913,694	8,204,195	6,701,693	8,913,694
Wafer Level Packaging	1,021	776	2,853,803	1,021	776	2,853,803
Wafer Level Testing	2,642	2,384	3,561,420	2,642	2,384	3,561,420
Total	19,632,704	17,150,421	43,652,691	19,632,704	17,150,421	43,652,691

(6) Sales Quantity & Value Table 2017-2018

Quantity Unit: 1,000 wafers Amount Unit: NT$ Thousands

Year / Sales Quantity & Value	2017				2018			
	Domestic Sales		Exports		Domestic Sales		Exports	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
IC Packaging	5,542,656	8,133,596	4,800,362	30,614,731	10,442,736	8,390,151	7,443,332	33,407,896
IC Testing	3,892,549	1,756,951	2,764,875	10,652,233	6,110,104	2,357,230	4,132,649	13,637,546
Wafer Level Packaging	135	847,725	646	3,131,447	186	915,240	634	2,807,917
Wafer Level Testing	910	1,395,396	1,489	2,815,774	1,407	2,072,481	2,360	4,024,018
Others	—	36,837	—	247,393	—	17,505	—	409,395
Total	9,436,250	12,170,505	7,567,372	47,461,578	16,554,433	13,752,607	11,578,975	54,286,772

3. Employee Status

Table for Employees Number, Average Age, Average Years of Service, and Distribution of Education for Last Two Years

Year		2017	2018	As of Mar 31, 2019
Employees number	Administration and Management Staff	1,251	1,369	1,369
	R&D Engineering Staff	2,318	2,381	2,365
	Operators	6,733	7,005	6,759
	Total	10,302	10,755	10,493
Average Age		32.8	33.7	34.12
Average Years of Service		4.04	4.66	5.14
Education Distribution in %	Doctorates	0.14	0.11	0.10
	Masters	7.28	7.74	7.83
	College and Universities	72.09	72.15	72.19
	High School	19.95	19.49	19.36
	Below High School	0.54	0.51	0.52

4. Environmental Protection Expenditures

The total amount of losses (including reparations) and penalties due to environmental pollution caused in most recent year and as of the publication date of this annual report, and an explanation of future responses (including improvement measures) and possible expenditures.

(1) The total amount of losses (including reparations) and penalties due to environmental pollution caused as of most recent year and publication of annual report.

	2018	As of Mar 31, 2019
Pollution Status	Waste Dispose Control Act	None
Disciplinary Unit	Environmental Protection Bureau	None
Disciplinary Actions	NT$66,000	None
Other losses	None	None

(2) Response Strategies

1. Improvement Measures

(1) The finding was a violation of Waste Disposal Act Article 31-1-1. Disposed wasted D-1703 exceed the max proposal allowances in Sep 2016 and Jan 2017.

(2) Extended maximum waste disposal allowance and establish internal control system.

2. Maintenance Measures

(1) Management Program:

The Company conducts the following programs to implement its responsibilities on environmental protection:

A. Air Pollution Control: Set up air pollution control equipment VOCs. Regularly exam the air quality to meet Environmental Protection Bureau standards. Hsin Chu Science Park Plant I and II both adopted Best

Available Control Technology (BACT) to eliminate the impact on the environment.

B. Recycle Waste Water: Utilize waste water recycle system to reduce waste on resources and re-use the recycle water to save and protect the water resources.

C. Water Pollution Control: all facilities waste water must be treated and meet official standard before release back to the water system. Internal monitoring system and regular measure & calibration were in place.

D. Waste Disposal: The entire disposal must meet environmental protection regulations. Enhance the recycle and re-use rate by well-classify materials.

E. Work with suppliers: Regular inspects suppliers to meet environmental protection regulations.

F. Climate Change and Energy Control: the company has established Greenhouse Gas Control Procedures followed the guidance of ISO14064-1 and Task Force on Climate-related Financial Disclosures (TCFD) to reduce impacts and financial risks of extreme weather.

G. Voluntary Environmental Monitor Program: Program including waste water, noise, air quality, waste material impact on environment to effectively control the company operations impact on the environment.

H. Allowance Permit: Consistently monitor the company operations meet the latest environmental standards.

(2) Expected Environmental Protection Capital Expenditures for Next Three Years

Intended purchase of pollution prevention equipment or capital expenditure is listed below:

Unit：NT$ Thousands

Item	2019	2020	2021
New and Upgrade Pollution Control Equipment	42,000	47,000	52,000
Equipment Operations Fee	42,000	47,000	52,000
Waste Dispose Fee	72,000	75,200	77,500
Monitor Control Fee	950	1,000	1,000
Other Environmental Fee (Pollution control fee, Consultant Fee, Certification expenses)	33,500	36,500	39,000
Total Expenses	88,511	88,511	139,770

5. Labor Relations

(1) The Implementation Status for Employee Welfare Policy, Training and Continue Education

PTI values the salary and benefits for its employees and offers lawful benefits. According to the bonus payment specifications, annual earnings minus taxes, surplus and dividends are then appropriate for employee bonuses. Employees can also enjoy benefits provided by the Employee Welfare Committee. With PTI family day, movie screenings and year end banquets to relieve stress from work and bond with coworkers.

1. Insurance: All PTI employees are insured with free general group insurance (including life, accident, medical, cancer, and other insurances). In the spirit of caring for employees as well as their families, the spouse and children of employees also include in the free group insurance.
2. Health and Safety:
   (1)Through professional medical staff and health management, PTI conducts health promotion and health management for employees. All plants are staffed with professional medical personnel to monitor the health of employees. We collaborate with professional medical organizations to conduct health examinations for employees.
   (2)We conduct risk management and assessment for resumption of work for individuals with high health risks. We also offer health information and courses.
   (3)PTI prevent the disease triggered by abnormal workload by self-reporting the workload, work in day/ night shift, prolonged abnormal workload, irregular schedule, frequent business trips, or tense working conditions. These employees undergo health risk evaluation, overwork risk evaluation, and Framingham risk evaluation. On-site doctors evaluate the results, talk with the employees, and if necessary, change job positions, decrease working hours, or take other administrative management to maintain employee health.
   (4)In 2004, PTI obtained the OHSAS 18001 occupational health and safety management certificate. To prevent occupational injuries and accidents and ensure the safety and health of our workplace, we also devised our "Environmental Safety and Health Policy".

3. PTI uses the "Psychological Counseling System" to let employees unload burdens and listened to themselves in this ever changing world of responsibilities. Care-free conversations during the Psychological Counseling System to heal inner wounds, rejuvenate, see a different world, and create a healthy work environment.
4. Company Trips: Employee Welfare Committee has unscheduled company trips to for coworkers to bond with each other. In 2017, we offered vouchers of a value of NTD$1,500 to each employee. PTI Taiwan also signed contract with renowned travel agencies to offer package tour or coupon to employees, allowing them to achieve the balance between commitments to work and relaxing lifestyles.
5. Family Day/ Large-scale events: Employee Welfare Committee has irregularly scheduled family day and other large-scale events. The event is held to bond us together. Also, family members of our employees can get to know each other. This company is driven by the support of our colleagues and families. Family Day makes us happy and maintains our physical and mental health. 2017 was the 20th anniversary for PTI, we held special events to thank all the collaboration from our partners. Movie ticket issuing is part of our benefits. Through regular free ticket issuing, employees can enjoy movies together and reach the effort of bonding people. In 2017, we organized entertainment park day trip. Each employee was given two tickets.
6. Employee Club Activities: We value the balanced development of work and life of our employees. PTI's Employee Welfare Committee plans a variety of events throughout the year and encourages employee participation to relieve stress from work, bond with coworkers, develop physical and mental health, cultivate cultural knowledge, promote social welfare, and thus become an employee in the technology industry with LOHAS. We have 9 employee clubs with 822 members.
7. Ask for Leave: In accordance with Labor Standard Act, PTI offers holiday and annual leave

to employee. Regular reports are provided to supervisors to assist employee has a balanced work and life.

8. Birthday/ Funeral and Other Benefits:

(1)Birthday star is given a coupon equivalent of NTD$500 to celebrate his/her birthday. Employees with matters of material contingencies are offered a grant from NTD$1,000 to NTD$10,000.

(2)PTI offers NTD$1,000 value of cash or equivalent coupon, gift on annual Labor’s Day.

(3)PTI offers coupon/ gift equivalent of NTD$1,000 during Dragon Boat Festival, Mid-autumn Festival etc.

(4)Gifts are offered to employees with 3, 5, 10, 20 years of seniority.

9. Maternity Subsidies and Other Services: A NTD$2,000 of subsidies per child birth are provided to employee or its spouse. Also, PTI provides related application services for labor insurance. PTI cares about the employees and their interaction with their families. By having the employee welfare committee signing designated kindergartens and child-care facilities in the areas where employees reside, we offer options of pre-school care for the children of our employees, so that the employees can excel in both their work and their family life without any worries.

10. Food and Housing: PTI has its own cafeteria offering meals with subsidies. Employee only has to pay a small amount to enjoy lavish meals.

11. On-Job-Training: To ensure a diverse talent, we "listen to needs" to consider internal and external issues. We are committed to meet the demand of employee learning, organizational development, and company policies, which has led us to PTI's unique "need and resolution oriented" operational model and training system, where we enhance the managerial abilities of executives, improve employee competence, and ensure the sustainable growth of the company.

(2) The Implementation Status for employee retirement and pension system

PTI Taiwan follows the Labor Standards Law and the Labor Pension Act in implementing employee retirement regulations and established a labor pension supervision committee to appropriate the full amount of pension contribution for employee to apply for pension after retirement. The insurer of Annuity Insurance is an insurance company approved by the central competent authority and the insured of the Annuity Insurance contract is the employer who will insure from the same insurer. The workers are the insured persons and beneficiaries. The Annuity Insurance premium to be paid by the employer each month may not be less than 6% of the monthly wages of the worker. In 2017, the listed total amount contributed to pension was NT$290,347,000.

(3) Negotiation between Management and Labor and the Implementation of Employee Rights

1. Employee Care:

   PTI values the opinion of its employees. We offer various channels to encourage communication between employees and the management, so that we thoroughly understand employees' satisfaction with management and welfare systems and maintain good labor-management relationship. Since our foundation, PTI has enjoyed harmonious labor-management relationship. There has been no occurrence of labor-management disputes that resulted in losses. The possibility of future labor management disputes leading to losses is extremely low. In addition, with quarterly labor management meetings and welfare committee meetings, employees can voice their opinions on specific issues and reach agreement with the company through discussions in the meetings, thus perpetuating effective communication channels. PTI also respect and protect employees' rights of freedom of speech and freedom of assembly and association. The quarterly labor management meetings are negotiated by labor representation voted by employees.

2. Comprehensive Communication Channels

   We have established comprehensive channels for diverse, two-way, and open communication. By helping employees communicate their opinions to the management, their concerns can be effectively taken care of. Our fair, confidential, and efficient handling procedure resolves employees' concerns while maintaining good labor management relationship. We have also established sexual-harassment prevention measures, employee psychological counseling services, and rewards and discipline regulations. We are always listening to employees' opinions. Anonymous or otherwise, we always exercise confidentiality and fairness in handling such information. All forms of retribution are protected against, so that employees can express their concerns without fear.

6. Major Contracts

Contract Classification	Contract Company	Contract Duration	Main Contents	Limitations of Terms
Construction Contract	Jian Ming Contractor Co. Ltd.	Oct 2018 – Apr 2020	Building Construction Contract	None
Bank Loan	CTBC Bank	Nov 2018 - Nov 2022	Medium-term credit loan	Commitment to maintain a certain ratio between the assets & liabilities and net worth
	Mega International Commercial Bank, Hsin-An Branch	Apr 2016 - Apr 2021	Machinery & Equipment Loan	None
		Dec 2016 - Dec 2021	Machinery & Equipment Loan	
		Apr 2018 - Apr 2023	Machinery & Equipment Loan	
		Aug 2018 - Aug 2022	Machinery & Equipment Loan	
	Yuanta Commercial Bank	Jan 2016 – Jan 2020	Medium-term credit loan	Commitment to maintain a certain ratio between the assets & liabilities and net worth
	KGI Bank	Dec 2018 - Dec 2022	Medium-term credit loan	Commitment to maintain a certain ratio between the assets & liabilities and net worth
	E.Sun Bank	Sep 2017 - Sep 2032	Building Construction	None
		Sep 2017 - Sep 2024	Building Construction	
		May 2017 - May 2020	Medium-term credit loan	
	Hua Nan Bank	Mar 2017- Mar 2020	Medium-term credit loan	None
		Jun 2017 - Jun 2020		
		Jul 2018 – Jul 2021		
		Sep 2018 – Sep 2021		
	First Bank	Sep 2018 - Sep 2023	Medium-term credit loan	None
	Bank of Taiwan	Nov 2012 – Nov 2027	Building Construction Loan	None
		Nov 2016 – Nov 2021	Machinery & Equipment Loan	
		Sep 2017 – Sep 2022		
	Taiwan Cooperative Bank	Sep 2017 - Sep 2022	Machinery & Equipment Loan	None

Contract Classification	Contract Company	Contract Duration	Main Contents	Limitations of Terms
		Apr 2017 - Apr 2032	Building Construction Loan	
		Apr 2017 – Apr 2024	Medium-term credit loan	
	Shin Kong Bank	Nov 2018- Nov 2022	Medium-term credit loan	None
	Chang Hwa Bank	Jan 2017 – Jan 2020	Medium-term credit loan	None
		Mar 2017 - Mar 2023	Machinery & Equipment Loan	
		Jun 2017 – Jun 2023	Machinery & Equipment Loan	
	Taishin Bank	Feb 2017- Feb 2020	Medium-term credit loan	Commitment to maintain a certain ratio between the assets & liabilities and net worth
	O Bank	Nov 2017 - Nov 2020	Medium-term credit loan	Commitment to maintain a certain ratio between the assets & liabilities and net worth
Bank Loan	Land Bank of Taiwan	Dec 2017 – Dec 2020	Medium-term credit loan	None
	HSBC	Sep 2018 – Sep 2021	Medium-term credit loan	None
	Cathay United Bank	Sep 2018 – Sep 2021	Medium-term credit loan	None

VI. Financial Highlights

1. Summarized Balance Sheets, Income Statements, CPA and Audit Opinions for Last 5 years

(1) Summarized Balance Sheets

1. PTI Consolidated Balance Sheets – IFRS

Unit: NT$ Thousands

Item \ Year		2014	2015	2016	2017	2018	3/31/2019
Current Assets		$28,592,427	$32,538,444	$31,686,234	$37,077,396	$37,889,542	Note 3
Property, Plant and Equipment		37,660,879	35,168,436	44,173,985	58,663,021	61,980,853	
Intangible Assets		1,330,726	1,225,706	1,125,149	1,249,649	1,162,204	
Other Assets		1,869,117	2,770,106	3,111,178	2,668,362	2,562,902	
Total Assets		69,453,149	71,702,692	80,207,546	99,658,428	103,595,501	
Current Liabilities	Before Distribution	10,632,016	11,291,105	16,735,143	21,788,688	18,580,671	
	After Distribution	12,950,412	14,018,118	19,851,730	25,294,848	Note 2	
Non-Current Liabilities		19,279,167	18,455,533	19,151,983	28,186,311	31,937,463	
Total Liabilities	Before Distribution	29,911,183	29,746,638	35,887,126	49,974,999	50,518,134	
	After Distribution	32,229,579	32,473,651	39,003,713	53,481,159	Note 2	
Equity Belong to Parent Company		31,517,902	33,830,784	35,814,959	38,060,810	41,003,226	
Capital Stock		7,791,466	7,791,466	7,791,466	7,791,466	7,791,466	
Capital Surplus		1,423,925	1,457,194	678,047	119,593	127,734	
Retained Earnings	Before Distribution	22,768,770	24,419,993	27,291,846	30,555,478	33,361,411	
	After Distribution	20,450,374	22,472,127	27,736,245	27,049,318	Note 2	
Other Equity		76,662	162,131	53,600	(337,628)	(195,070)	
Treasury Stock		(542,921)	0	0	(68,099)	(82,315)	
Non-Controlling Interests		8,024,064	8,125,270	8,505,461	11,622,519	12,074,141	
Total Equity	Before Distribution	39,541,966	41,956,054	44,320,420	49,683,429	53,077,367	
	After Distribution	37,223,570	39,229,041	41,203,733	46,177,269	Note 2	

Note 1: The listed numbers were certified by CPA.
Note 2: The earnings distribution for 2018 subject to shareholders' approval.
Note3: No CPA certified data for 1Q19 as of the date of printing.

3. PTI Summarized Balance Sheets – IFRS

Item / Year		Financial Information for Last Five Years					Mar 31 2019
		2014	2015	2016	2017	2018	
Current Assets		$20,199,784	$22,583,480	$23,773,297	$19,289,640	$22,634,087	Note3
Property, Plant, and Equipment		27,902,222	25,282,123	31,339,124	36,344,220	36,364,180	
Intangible Assets		28,471	19,793	11,831	4,359	0	
Other Assets		9,666,197	12,261,080	11,920,199	16,532,424	17,175,479	
Total Assets		57,796,674	60,146,476	67,044,451	72,170,643	76,173,746	
Current Liabilities	**Before Distribution**	7,129,326	8,215,112	12,407,510	10,800,669	9,924,490	
	After Distribution	9,447,222	10,942,125	15,524,097	14,306,829	Note 2	
Non-Current Liabilities		19,149,446	18,100,580	18,821,982	23,309,164	25,246,030	
Total Liabilities	**Before Distribution**	26,278,772	26,315,692	31,229,492	34,109,833	35,170,520	
	After Distribution	28,597,168	29,042,705	34,346,079	37,615,993	Note 2	
Capital Stocks		7,791,466	7,791,466	7,791,466	7,791,466	7,791,466	
Capital Surplus		1,423,925	1,457,194	678,047	119,593	127,734	
Retained Earnings	**Before Distribution**	22,768,770	24,419,993	27,291,846	30,555,478	33,361,411	
	After Distribution	20,450,374	22,472,127	24,736,245	27,049,318	Note 2	
Other Equity		76,662	162,131	53,600	(337,628)	(195,070)	
Treasury Stocks		(542,921)	0	0	(68,099)	(82,315)	
Total Equity	**Before Distribution**	31,517,902	33,830,784	35,814,959	38,060,810	41,003,226	
	After Distribution	29,199,506	31,103,771	32,698,372	34,554,650	Note 2	

Note 1: The listed numbers were certified by CPA.

Note 2: The earnings distribution for 2018 subject to shareholders' approval

Note 3: No CPA certified data available for 1Q19 as the day of printing.

(2) Summarized Income Statements

1. PTI Consolidated Income Statements – IFRS

Item \ Year	Financial Information for Last Five Years					Mar 31 2019
	2014	2015	2016	2017	2018	
Net Sales	$40,039,445	$42,523,512	$48,343,542	$59,632,083	$68,039,379	Note 1
Gross Profit	6,658,164	8,219,542	10,462,026	12,698,512	13,830,042	
Operating Income	4,232,071	5,643,828	7,632,373	9,074,024	9,983,654	
Non-Operating Income	523,747	163,770	(369,297)	(186,746)	(348,317)	
Income Before Income Tax	4,755,818	5,807,598	7,263,076	8,887,278	9,435,337	
Income from Continuing Operations after Income Taxes	4,426,684	5,040,004	6,008,868	7,291,275	7,512,562	
Income from Discontinued Operations	–	–	–	–	–	
Net Income (Losses)	4,426,684	5,040,004	6,008,868	7,291,275	7,512,562	
Other Consolidated Income (after-tax)	45,588	25,678	(138,013)	(497,749)	186,891	
Consolidated Net Income	4,472,272	5,065,682	5,870,855	6,793,526	7,699,453	
Net Income Attributable to Shareholders of the Parent Company	3,239,521	4,015,813	4,834,605	5,849,262	6,234,276	
Net Income Attributable to Non-Controlling Interests	1,187,163	1,024,191	1,174,263	1,442,013	1,278,286	
Consolidated Net Income Attributable to Shareholders of the Parent Company	3,288,469	4,055,088	4,711,188	5,428,005	6,369,021	
Consolidated Net Income Attributable to Non-Controlling Interests	1,183,803	1,010,594	1,159,667	1,365,521	1,330,432	
Earnings Per Share (NT$)	4.24	5.20	6.20	7.51	8.02	

Note: The listed numbers were certified by CPA.

Note 2: No CPA certified data available for 1Q19 as of the date of printing.

4. PTI Income Statements – IFRS

Item \ Year	Financial Information for Last Five Years					Mar 31 2019
	2014	2015	2016	2017	2018	
Net Sales	$24,953,654	$32,568,461	$35,348,214	$37,771,046	$42,000,490	Note 1
Gross Profit	3,798,605	6,116,415	7,609,120	8,008,406	8,655,182	
Operating Income	2,356,631	4,340,438	5,515,633	5,509,933	6,027,213	
Non-Operating Income	898,096	170,482	270,378	1,341,740	1,298,840	
Income Before Income Tax	3,254,727	4,510,920	5,786,011	6,851,673	7,326,053	
Income from Continuing Operations after Income Taxes	3,239,521	4,015,813	4,834,605	5,849,262	6,234,276	
Income from Discontinued Operations	–	–	–	–	–	
Net Income (Losses)	3,239,521	4,015,813	4,834,605	5,849,262	6,234,276	
Other Consolidated Income (after-tax)	48,948	39,275	(123,417)	(421,257)	134,745	
Consolidated Net Income	3,288,469	4,055,088	4,711,188	5,428,005	6,369,021	
Earnings Per Share (NT$)	4.24	5.20	6.20	7.51	8.02	

Note : The listed numbers were certified by CPA.

Note 1: No CPA certified data available for 1Q19 as of the date of printing.

3. CPA Opinions for the Last 5 Years

Year	Name of CPA		Opinion
2014	Hung-Peng Lin	Su-Li Fang	Unqualified Modified Audit Report
2015	Hung-Peng Lin	Su-Li Fang	Unqualified Audit Report
2016	Yu-Feng Huang	Su-Li Fang	Unqualified Audit Report
2017	Yu-Feng Huang	Su-Li Fang	Unqualified Audit Report
2018	Yu-Feng Huang	Su-Li Fang	Unqualified Audit Report

2. Financial Analysis for Last 5 years

1. Consolidated Analysis – IFRS

Item	Year	Financial Information for Last Five Years (Note)					Mar 31 2019
		2014	2015	2015	2017	2018	
Capital Structure Analysis (%)	Debt Ratio	43.07	41.49	44.74	50.15	48.76	Note 1
	Long-term Fund to Fixed Asset Ratio	156.19	171.78	143.69	132.74	137.16	
Liquidity Analysis %	Current Ratio	268.93	288.18	189.34	170.17	203.92	
	Quick Ratio	243.67	262.76	168.37	150.26	181.93	
	Times Interest Earned (Times)	25.68	30.13	54.66	38.62	27.92	
Operating Performance Analysis	Average Collection Turnover (Times)	5.23	5.05	4.72	5.04	5.61	
	Average Collection Days	69.78	72.26	77.33	72.42	65.06	
	Average Inventory Turnover (Times)	13.25	12.90	12.42	12.61	13.72	
	Average Payment Turnover (Times)	10.76	10.93	9.92	10.09	10.88	
	Days Sales Outstanding	27.54	28.29	29.39	28.94	26.60	
	Fixed Assets Turnover (Times)	1.06	1.21	1.09	1.02	1.10	
	Total Assets Turnover (Times)	0.58	0.59	0.60	0.60	0.66	
Profitability Analysis	Return on Total Assets (%)	6.49	7.38	8.06	8.34	7.68	
	Return on Equity (%)	11.56	12.37	13.93	15.51	14.62	
	Ratio of Pre-Tax Income over Capital stock (%)	61.04	74.54	93.22	114.06	121.10	
	Net Margin(%)	8.09	9.44	10.00	9.81	9.16	
	Earning per Share(NT)	4.24	5.20	6.20	7.51	8.02	
Cash Flow	Cash Flow Ratio (%)	93.98	112.83	77.23	81.13	108.75	
	Cash Flow Adequacy Ratio (%)	104.87	113.72	110.78	86.70	85.05	
	Cash Flow Reinvestment Ratio (%)	8.39	9.66	9.02	10.08	10.65	
Leverage	Operating Leverage	4.96	4.01	3.43	3.74	4.13	
	Financial Leverage	1.05	1.04	1.02	1.03	1.04	

Reasons for changes in financial ratios (changes under 20% are exempt from analysis)
1. Increase of Quick Ratio due to decrease of short term liability.
2. Decrease of Times Interests Earned due to increase of interest expenses.
3. Increased of cash flow ratio due to decrease of short term liability.

Note: The listed numbers were certified by CPA.

Note 1: No CPA certified data available for 1Q19 as of the date of printing.

2. PTI Stand Alone Analysis – IFRS

Item	Year	Financial Information for Last Five Years					Mar 31 2019
		2014	2015	2015	2017	2018	
Capital Structure Analysis (%)	Debt Ratio	45.47	43.75	46.58	47.26	46.17	註二
	Long-term Fund to Fixed Asset Ratio	181.59	205.41	174.34	168.86	182.18	
Liquidity Analysis %	Current Ratio	283.33	274.90	191.60	178.60	228.06	
	Quick Ratio	258.11	250.99	173.97	155.26	199.80	
	Times Interest Earned (Times)	25.86	26.67	47.90	42.55	37.54	
Operating Performance Analysis	Average Collection Turnover (Times)	5.04	5.42	4.96	5.33	6.79	
	Average Collection Days	72.40	67.31	73.59	68.43	53.74	
	Average Inventory Turnover (Times)	13.99	14.29	13.53	12.79	12.69	
	Average Payment Turnover (Times)	9.64	10.78	9.70	9.25	9.84	
	Days Sales Outstanding	26.09	25.55	26.98	28.54	28.77	
	Fixed Assets Turnover (Times)	0.89	1.29	1.13	1.12	1.16	
	Total Assets Turnover (Times)	0.43	0.54	0.53	0.54	0.57	
Profitability Analysis	Return on Total Assets (%)	5.86	7.06	7.76	8.60	8.63	
	Return on Equity (%)	10.61	12.29	13.88	15.84	15.77	
	Ratio of Pre-Tax Income over Capital stock (%)	41.77	57.90	74.26	87.94	94.03	
	Net Margin(%)	12.98	12.33	13.68	15.49	14.84	
	Earning per Share(NT)	4.24	5.20	6.20	7.51	8.02	
Cash Flow	Cash Flow Ratio (%)	73.34	113.70	57.65	118.57	117.95	
	Cash Flow Adequacy Ratio (%)	107.80	108.67	101.10	80.92	77.61	
	Cash Flow Reinvestment Ratio (%)	4.57	8.20	4.95	9.86	7.91	
Leverage	Operating Leverage	5.37	3.78	3.28	3.28	3.83	
	Financial Leverage	1.06	1.04	1.02	1.02	1.03	

Reasons for changes in financial ratios (changes under 20% are exempt from analysis)
1. Increased of current ratio due to increase of current assets.
2. Increased of quick ratio due to increase of current assets
3. Increased of average collection turnover ratio due to increase of revenue.
4. Increase of average collection days due to increase of revenue.

Note: The listed numbers were certified by CPA

Note 1: No quarterly data available after IFRS adoption.

1. Capital Structure Analysis
   (1) Debt Ratio = Total Liabilities / Total Assets
   (2) Long-term Fund to Fixed Asset Ratio = (Shareholders' Equity + Long-term Liabilities) / Net Fixed Assets
2. Liquidity Analysis
   (1) Current Ratio = Current Assets / Current Liabilities
   (2) Quick Ratio = (Current Assets - Inventories - Prepaid Expenses) / Current Liabilities
   (3) Times Interest Earned = Earnings before Interest Expense and Net Income / Interest Expense.
3. Operating Performance Analysis
   (1) Average Collection Turnover = Net Sales / Average Receivables (including Accounts Receivable arising from Operation Notes Receivables)
   (2) Average Collection Days = 365 / Receivables Turnover
   (3) Average Inventory Turnover = Cost of Goods Sold / Average Inventory
   (4) Average Payment Turnover = Cost of Goods Sold / Average Payables (including Accounts Payable arising from Operation Notes Payables)
   (5) Days Sales Outstanding = 365 /Inventory Turnover
   (6) Fixed Assets Turnover = Net Sales / Average Net Fixed Assets
   (7) Total Assets Turnover = Net sales / Average Total Assets
4. Profitability Analysis
   (1) Return on Total Assets = [Net Income + Interest Expense × (1 - Tax Rate)] / Average Total Assets
   (2) Return on Equity = Net Income / Average Total Shareholders' Equity
   (3) Net Margin = Net Income / Net Sales
   (4) Earnings Per Share = (Net Income - Preferred Stock Dividends) / Weighted Average Number of Shares Outstanding
5. Cash Flow
   (1) Cash Flow Ratio = Net Cash Flow from Operating Activities / Current Liabilities.
   (2) Cash Flow Adequacy Ratio = Five-year Net Cash Flow from Operating Activities / Most Recent Five Years (Capital Expenditure + Inventory + Cash Dividend).
   (3) Cash Reinvestment Ratio = (Net Cash Flow from Operating Activities - Cash Dividend) / (Gross Fixed Assets + Investments + Other Assets + Working Capital)
6. Leverage
   (1) Operating leverage = (Net Sales - Variable Operating Costs and Expenses) / Income
   (2) Financial leverage = Operating income / (Operating Income - Interest Expense)

3. Audit Committee’s Audit Report on Financial Reports

Audit Committee’s Audit Report

May 3, 2019

Audit Committee had performed an audit for PTI’s 2018 financial statements (including parent company and consolidated financial statements) and profit sharing plans. The Audit Committee had concluded the reports conformed to regulations of the Company Act. Our report was presented to conform to Article 14-4 of Security Exchange Act and Article 219 of the Company Act.

Best Regards

Powertech Technology Inc. Shareholders’ Meeting of May 31, 2019.

Powertech Technology Inc. Audit Committee
Chair：Jim W.L. Cheng

4. **Financial Statements**

Powertech Technology Inc. and Subsidiaries

Consolidated Financial Statements for the Years Ended December 31, 2018 and 2017 and Independent Auditors' Report

DECLARATION OF CONSOLIDATION OF FINANCIAL STATEMENTS OF AFFILIATES

The companies required to be included in the consolidated financial statements of affiliates in accordance with the "Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises" for the year ended December 31, 2018 are all the same as the companies required to be included in the consolidated financial statements of parent and subsidiary companies under International Financial Reporting Standard 10 "Consolidated Financial Statements." Relevant information that should be disclosed in the consolidated financial statements of affiliates has all been disclosed in the consolidated financial statements of parent and subsidiary companies. Hence, we have not prepared a separate set of consolidated financial statements of affiliates.

Very truly yours,

POWERTECH TECHNOLOGY INC.

By:

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TSAI DUH-KUNG
Chairman

March 14, 2019

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
Powertech Technology Inc.

Opinion

We have audited the accompanying consolidated financial statements of Powertech Technology Inc. and its subsidiaries (the Group), which comprise the consolidated balance sheets as of December 31, 2018 and 2017, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 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 audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The key audit matters of the consolidated financial statements of the Group for the year ended December 31, 2018, are described as follows:

<u>Contract assets and revenue recognition</u>

1. The sales revenue of the Group is material to the Group. Refer to Note 27 to the accompanying consolidated financial statements for details of sales revenue. The major type of revenue is subcontracting revenue. The types of subcontracting transactions are as follows:

    1) Wafer level testing;

2) Wafer level packaging;

3) IC packaging; and

4) IC testing.

2. Packaging services: Since the customers have ownership of the assets, assume significant risks and rewards of ownership of the assets, have the right to determine the disposal of the assets and can prevent the Group from obtaining the benefits of the assets, revenue should be recognized over time in accordance with the requirements of paragraph 35(b) of International Financial Reporting Standards No. 15.

3. Testing services: In accordance with the requirements of paragraph 35(a) of International Financial Reporting Standards No. 15., as the Group conducts testing services, the customers obtain and consume the benefits provided by the Group's testing services at the same time. Therefore, revenue should also be recognized over time.

4. The Group recognizes the contract assets and revenue of packaging and testing services at the end of each month based on the completion schedule. Since the above-mentioned process includes estimates and manual controls, there is a risk that contract assets and revenue may not be recognized correctly as a result of human error.

5. We reviewed the Group's revenue recognition policy, assessed the reasonableness of its contract assets and revenue recognition, and confirmed against relevant supporting documents and accounts records to verify the accuracy of the monetary amounts of contract assets and revenue recognition.

Capitalization of property, plant and equipment

1. The capital expenditure of the Group relating to property, plant and equipment is significant to its consolidated financial statements. Refer to Note 18 of the accompanying consolidated financial statements for details on property, plant and equipment.

2. To ensure the accuracy of the cost amounts, the requisition, purchasing, verification and record-keeping of the Group's property, plant and equipment are all subject to appropriate sign-off procedures. According to the list of newly acquired, un-capitalized items and unit acceptance forms, the Group's accounting department will record the items that should be capitalized into the computer system of fixed assets every month. The Group will regularly examine items that were not capitalized for more than three months after their purchase date and request the department utilizing the items to provide an explanation as to why the items which should already have been capitalized have not yet been capitalized.

3. Because of the significance of such capital expenditure amounts, delays in capitalization or errors in cost amounts thereof may lead to misstatement of the consolidated financial statements

4. We reviewed the Group's property, plant and equipment capital expenditure policy, assessed the reasonableness of the timing of capitalization, and conducted the following procedures:

   1) We selected samples of newly acquired items from the record of property, plant and equipment to verify whether the costs are recognized in the appropriate period.

   2) We selected samples from the list of advance payments and construction in progress at the end of the year and performed an on-site inventory count to observe whether such items were not yet ready for their intended use.

   3) We selected samples of items that were not capitalized for more than three months after their purchase date from the list of advance payments and construction in progress to examine whether the reasons of such items remaining un-capitalized had been explained by applicants or users and were approved by supervisors.

Other Matter

We have also audited the parent company only financial statements of Powertech Technology Inc. as of and for the years ended December 31, 2018 and 2017 on which we have issued an unmodified opinion.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and 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, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

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

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

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

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

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

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

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

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

inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

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

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

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

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

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2018 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

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

Deloitte & Touche
Taipei, Taiwan
Republic of China

March 14, 2019

Notice to Readers

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

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

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars)

	2018		2017	
ASSETS	**Amount**	**%**	**Amount**	**%**
CURRENT ASSETS				
Cash and cash equivalents (Notes 4 and 6)	$ 18,544,142	18	$ 17,716,582	18
Financial assets at fair value through profit or loss - current (Notes 4 and 7)	56,217	-	58,961	-
Held-to-maturity financial assets - current (Notes 4 and 11)	-	-	200,102	-
Financial assets at amortized cost - current (Notes 4, 5, 9 and 35)	548,917	-	-	-
Contract assets - current (Notes 26 and 34)	1,671,214	2	-	-
Notes and accounts receivable (Notes 4, 5 and 13)	8,966,825	9	8,382,978	9
Receivables from related parties (Notes 4, 5, 13 and 34)	2,879,308	3	4,029,506	4
Other receivables (Note 4)	309,115	-	247,935	-
Other receivables from related parties (Notes 4 and 34)	16,081	-	9,186	-
Inventories (Notes 4, 5 and 14)	3,822,960	4	4,078,030	4
Prepaid expenses	261,915	-	260,191	-
Non-current assets held for sale (Notes 4 and 15)	-	-	1,056,479	1
Other current assets (Notes 4, 20 and 35)	812,848	1	1,037,446	1
Total current assets	37,889,542	37	37,077,396	37
NON-CURRENT ASSETS				
Financial assets at fair value through other comprehensive income - non-current (Notes 4 and 8)	26,803	-	-	-
Available-for-sale financial assets - non-current (Notes 4 and 10)	-	-	32,670	-
Held-to-maturity financial assets - non-current (Notes 4 and 11)	-	-	953,203	1
Financial assets at amortized cost - non-current (Notes 4, 5, 9 and 35)	2,041,110	2	-	-
Debt investments with no active market - non-current (Notes 4, 12 and 35)	-	-	1,314,913	2
Property, plant and equipment (Notes 4, 5, 18, 34 and 35)	61,980,853	60	58,663,021	59
Intangible assets (Notes 4, 5 and 19)	1,162,204	1	1,249,649	1
Deferred income tax assets (Notes 4 and 28)	357,829	-	172,963	-
Other non-current assets (Note 4, 5, 20 and 24)	137,160	-	194,613	-
Total non-current assets	65,705,959	63	62,581,032	63
TOTAL	$ 103,595,501	100	$ 99,658,428	100

	2018		2017	
LIABILITIES AND EQUITY	**Amount**	**%**	**Amount**	**%**
CURRENT LIABILITIES				
Short-term bank loans (Notes 21 and 35)	$ 843,953	1	$ 3,842,349	4
Financial liabilities at fair value through profit or loss - current (Notes 4 and 7)	2,223	-	5,887	-
Contract liabilities - current (Note 26)	39,323	-	-	-
Notes and accounts payable	4,969,810	5	4,995,647	5
Accrued employees' compensation and remuneration of directors and supervisors (Note 27)	959,978	1	968,624	1
Payables to equipment suppliers	2,443,343	2	3,183,304	3
Other payables to related parties (Note 34)	569	-	-	-
Current income tax liabilities (Notes 4 and 28)	1,603,899	2	1,000,059	1
Accrued expenses and other current liabilities (Notes 4, 23 and 34)	7,224,942	7	7,525,184	8
Current portion of long-term debts (Notes 21 and 35)	361,637	-	134,793	-
Finance lease payables - current (Notes 4 and 22)	130,994	-	132,841	-
Total current liabilities	18,580,671	18	21,788,688	22
NON-CURRENT LIABILITIES				
Long-term debts (Notes 21 and 35)	30,872,339	30	27,017,588	27
Deferred income tax liabilities (Notes 4 and 28)	115,906	-	203,163	-
Finance lease payables - non-current (Notes 4 and 22)	163,439	-	173,398	-
Net defined benefit liabilities - non-current (Notes 4, 5 and 24)	404,530	1	396,495	1
Other non-current liabilities (Note 23)	381,249	-	395,667	-
Total non-current liabilities	31,937,463	31	28,186,311	28
Total liabilities	50,518,134	49	49,974,999	50
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE CORPORATION (Notes 4 and 25)				
Capital share				
Common share	7,791,466	7	7,791,466	8
Capital surplus	127,734	-	119,593	-
Retained earnings				
Legal reserve	6,422,456	6	5,837,530	6
Special reserve	337,628	-	-	-
Unappropriated earnings	26,601,327	26	24,717,948	24
Total retained earnings	33,361,411	32	30,555,478	30
Other equity	(195,070)	-	(337,628)	-
Treasury share	(82,315)	-	(68,099)	-
Total equity attributable to shareholders of the Corporation	41,003,226	39	38,060,810	38
NON-CONTROLLING INTERESTS (Notes 16 and 25)	12,074,141	12	11,622,619	12
Total equity	53,077,367	51	49,683,429	50
TOTAL	$ 103,595,501	100	$ 99,658,428	100

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

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2018		2017	
	Amount	**%**	**Amount**	**%**
NET SALES (Notes 4, 26 and 34)	$ 68,039,379	100	$ 59,632,083	100
OPERATING COSTS (Notes 4, 14, 27 and 34)	54,209,337	80	46,933,571	79
GROSS PROFIT	13,830,042	20	12,698,512	21
OPERATING EXPENSES (Notes 27 and 34)				
Marketing	380,531	-	330,218	-
General and administrative	1,801,639	3	1,571,055	3
Research and development	1,864,218	3	1,723,215	3
Total operating expenses	4,046,388	6	3,624,488	6
OPERATING INCOME	9,783,654	14	9,074,024	15
NONOPERATING INCOME AND EXPENSES				
Other gains and losses (Notes 4, 27 and 34)	(417,992)	-	174,187	-
Share of profit of associates (Notes 4 and 17)	-	-	108,792	-
Other income (Notes 4, 27 and 34)	204,861	-	223,676	1
Finance costs (Notes 4 and 27)	(350,525)	-	(236,260)	-
Foreign exchange gain (loss), net (Notes 4 and 27)	215,339	-	(457,141)	(1)
Total nonoperating income and expenses	(348,317)	-	(186,746)	-
INCOME BEFORE INCOME TAX	9,435,337	14	8,887,278	15
INCOME TAX EXPENSE (Notes 4 and 28)	1,922,775	3	1,596,003	3
NET INCOME	7,512,562	11	7,291,275	12
OTHER COMPREHENSIVE INCOME (LOSS) (Notes 4 and 25)				
Items not reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans (Note 24)	(20,445)	-	(40,336)	-
Unrealized loss on investments in equity instruments at fair value through other comprehensive income	(32,193)	-	-	-
Items reclassified subsequently to profit or loss:				
Exchange differences on translating foreign operations	239,529	-	(394,715)	(1)
Unrealized loss on available-for-sale financial assets	-	-	(62,698)	-
Total other comprehensive income (loss)	186,891	-	(497,749)	(1)
TOTAL COMPREHENSIVE INCOME	$ 7,699,453	11	$ 6,793,526	11

(Continued)

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2018		2017	
	Amount	**%**	**Amount**	**%**
NET INCOME ATTRIBUTABLE TO				
Shareholders of the Corporation	$ 6,234,276	9	$ 5,849,262	10
Non-controlling interests	1,278,286	2	1,442,013	2
	$ 7,512,562	11	$ 7,291,275	12
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO				
Shareholders of the Corporation	$ 6,369,021	9	$ 5,428,005	9
Non-controlling interests	1,330,432	2	1,365,521	2
	$ 7,699,453	11	$ 6,793,526	11
EARNINGS PER SHARE (Note 29)				
Basic	$ 8.02		$ 7.51	
Diluted	$ 7.95		$ 7.46	

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

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars)

	Equity Attributable to Shareholder of the Corporation												
	Capital Share Issued and Outstanding			Retained Earnings			Other Equity						
	Share (In Thousands)	Amount	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Exchange Differences on Translating Foreign Operations	Unrealized Gain (Loss) on Investments in Equity Instruments Designated as at Fair Value Through Other Comprehensive Income	Unrealized (Loss) Gain on Available-for-sale Financial Assets	Treasury Share	Total	Noncontrolling Interests	Total Equity
BALANCE, JANUARY 1, 2017	779,147	$ 7,791,466	$ 678,047	$ 5,354,070	$ -	$ 21,937,776	$ 9,562	$ -	$ 44,038	$ -	$ 35,814,959	$ 8,505,461	$ 44,320,420
Appropriation of 2016 earnings													
Legal reserve	-	-	-	483,460	-	(483,460)	-	-	-	-	-	-	-
Cash dividends distributed by the Corporation	-	-	-	-	-	(2,555,601)	-	-	-	-	(2,555,601)	-	(2,555,601)
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	-	(893,149)	(893,149)
Donations from shareholders	-	-	52	-	-	-	-	-	-	-	52	70	122
Distribution of cash dividends from capital surplus	-	-	(560,986)	-	-	-	-	-	-	-	(560,986)	-	(560,986)
Net income for the year ended December 31, 2017	-	-	-	-	-	5,849,262	-	-	-	-	5,849,262	1,442,013	7,291,275
Other comprehensive loss for the year ended December 31, 2017	-	-	-	-	-	(30,029)	(328,712)	-	(62,516)	-	(421,257)	(76,492)	(497,749)
Total comprehensive income (loss) for the year ended December 31, 2017	-	-	-	-	-	5,819,233	(328,712)	-	(62,516)	-	5,428,005	1,365,521	6,793,526
The Corporation's share held by its subsidiary treated as treasury share	-	-	-	-	-	-	-	-	-	(68,099)	(68,099)	(90,621)	(158,720)
Adjustment of capital surplus due to dividends distributed to subsidiaries	-	-	2,480	-	-	-	-	-	-	-	2,480	-	2,480
Increase in non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	2,735,337	2,735,337
BALANCE, DECEMBER 31, 2017	779,147	7,791,466	119,593	5,837,530	-	24,717,948	(319,150)	-	(18,478)	(68,099)	38,060,810	11,622,619	49,683,429
Effect of retrospective application and retrospective restatement	-	-	-	-	-	85,630	-	(18,478)	18,478	-	85,630	53,713	139,343
BALANCE, JANUARY 1, 2018 AS RESTATED	779,147	7,791,466	119,593	5,837,530	-	24,803,578	(319,150)	(18,478)	-	(68,099)	38,146,440	11,676,332	49,822,772
Appropriation of 2017 earnings													
Legal reserve	-	-	-	584,926	-	(584,926)	-	-	-	-	-	-	-
Special reserve	-	-	-	-	337,628	(337,628)	-	-	-	-	-	-	-
Cash dividends distributed by the Corporation	-	-	-	-	-	(3,506,160)	-	-	-	-	(3,506,160)	-	(3,506,160)
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	-	(1,037,884)	(1,037,884)
Donations from shareholders	-	-	41	-	-	-	-	-	-	-	41	55	96
Distribution of cash dividends from capital surplus	-	-	-	-	-	-	-	-	-	-	-	-	-
Net income for the year ended December 31, 2018	-	-	-	-	-	6,234,276	-	-	-	-	6,234,276	1,278,286	7,512,562
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	-	(7,813)	148,425	(5,867)	-	-	134,745	52,146	186,891
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	-	6,226,463	148,425	(5,867)	-	-	6,369,021	1,330,432	7,699,453
The Corporation's share held by its subsidiary treated as treasury share	-	-	-	-	-	-	-	-	-	(14,216)	(14,216)	(18,915)	(33,131)
Adjustment of capital surplus due to dividends distributed to subsidiaries	-	-	8,100	-	-	-	-	-	-	-	8,100	-	8,100
Increase in non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	124,121	124,121
BALANCE, DECEMBER 31, 2018	779,147	$ 7,791,466	$ 127,734	$ 6,422,456	$ 337,628	$ 26,601,327	$ (170,725)	$ (24,345)	$ -	$ (82,315)	$ 41,003,226	$ 12,074,141	$ 53,077,367

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

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars)

	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	$ 9,435,337	$ 8,887,278
Adjustments for:		
Depreciation	12,512,745	10,493,833
Amortization	144,040	98,252
Impairment loss recognized on trade receivables	-	18,155
Net loss (gain) on fair value change of financial assets designated as at fair value through profit or loss	2,744	(5,295)
Finance costs	350,525	236,260
Premium amortization of held-to-maturity financial assets	-	2,267
Premium amortization of financial assets at amortized cost	1,770	-
Interest revenue	(84,749)	(62,491)
Dividend income	-	(263)
Share of profit of associates	-	(108,792)
Net loss on disposal of property, plant and equipment	719,969	244,155
Property, plant and equipment transfer to expenses	1,202	-
Net loss on disposal of intangible assets	20,024	-
Gain on disposal of available-for-sale financial assets	-	(144,590)
Impairment loss on non-financial assets	437,609	145,938
(Gain) loss on foreign currency exchange, net	(196,902)	306,874
Gain from bargain purchase	-	(140,000)
Changes in operating assets and liabilities:		
Decrease in financial assets held for trading	-	9,043
Decrease in contract assets	11,857	-
(Increase) decrease in notes and accounts receivable	(596,797)	568,027
Decrease (increase) in accounts receivable from related parties	1,144,186	(446,228)
(Increase) decrease in other receivables	(56,493)	180,489
Decrease in other receivables from related parties	11,258	85,323
Increase in inventories	(1,253,822)	(563,595)
Increase in prepayments	(1,724)	(73,500)
Increase in other current assets	(91,469)	(324,136)
Decrease in financial liabilities held for trading	(3,664)	(65,682)
Decrease in contract liabilities	(4,419)	-
(Decrease) increase in accounts payable	(19,760)	478,242
Increase in accounts payable to related parties	2,617	-
(Decrease) increase in accrued employees' compensation and remuneration of directors and supervisors	(8,646)	214,355
Increase (decrease) in other payables to related parties	569	(4,437)
Increase in accrued expenses and other current liabilities	377,577	108,472
Increase (decrease) in net defined benefit liabilities	222	(8,484)
Decrease in other payables	(652,299)	(441,193)
Cash generated from operations	22,203,507	19,688,277
Interest received	79,177	62,395
Interest paid	(449,692)	(314,140)
Income tax paid	(1,625,894)	(1,759,092)
Net cash generated from operating activities	20,207,098	17,677,440

(Continued)

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars)

	2018	2017
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of financial assets at amortized cost	$ (395,971)	$ -
Proceeds from sale of financial assets at amortized cost	644,627	-
Purchase of debt investments with no active market	-	(768,061)
Proceeds from sale of debt investments with no active market	-	31,670
Purchase of held-to-maturity financial assets	-	(500,003)
Proceeds from sale of held-to-maturity financial assets	-	250,000
Net cash inflow on acquisition of subsidiaries (Note 30)	-	1,174,598
Proceeds from disposal of non-current assets held for sale	1,024,362	-
Acquisition of property, plant and equipment	(17,689,500)	(19,634,721)
Disposal of property, plant and equipment	202,000	288,392
Increase in refundable deposits	-	(4,219)
Decrease in refundable deposits	18,025	-
Increase in intangible assets	(33,090)	(46,676)
Decrease in prepayments for equipment	35,311	278,185
Decrease in other prepayments	2,613	7,827
Dividend received from associates	-	82,354
Other dividends received	-	263
Net cash used in investing activities	(16,191,623)	(18,840,391)
CASH FLOWS FROM FINANCING ACTIVITIES		
(Decrease) increase in short-term bank loans	(2,998,396)	2,258,794
Proceeds from long-term debts	25,832,486	27,697,455
Repayments of long-term debts	(21,764,125)	(22,206,011)
Increase in guarantee deposits	3,611	-
Decrease in guarantee deposits	-	(26,134)
Decrease in finance lease payables	(11,806)	(109,541)
Dividends paid to shareholders of the Corporation	(3,498,060)	(3,114,107)
Payments for buy-back of treasury share	(33,131)	(158,720)
Dividends paid to non-controlling interests	(1,037,884)	(893,149)
Donations from shareholders	96	122
Increase in non-controlling interests	124,121	-
Net cash (used in) generated from financing activities	(3,383,088)	3,448,709
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH HELD IN FOREIGN CURRENCIES	195,173	(404,397)
NET INCREASE IN CASH AND CASH EQUIVALENTS	827,560	1,881,361
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	$ 17,716,582	$ 15,835,221
CASH AND CASH EQUIVALENTS, END OF THE YEAR	$ 18,544,142	$ 17,716,582

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

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

1. GENERAL INFORMATION

Powertech Technology Corporation (the "Corporation") was incorporated in the Republic of China ("ROC") on May 15, 1997 and commenced business on September 3, 1997. The Corporation is mainly engaged in the manufacturing, packaging, testing, researching and developing, designing, assembling and sale of various integrated circuit products. The Corporation also provides semiconductor testing and assembly services on a turnkey basis, in which the Corporation buys fabricated wafers and sells tested and assembled semiconductors. The Corporation's registered office and principal place of business is in Hsin-chu Industrial Park, Hukou, Hsin-chu.

The Corporation's share was initially listed and started trading on the Taipei Exchange ("TPEx") since April 3, 2003, after which the Corporation's share was transferred for listing and started trading on the Taiwan Stock Exchange ("TWSE") since November 8, 2004. The Corporation also issued Global Depositary Shares ("GDS"), which are listed on the Luxembourg Stock Exchange and trading on the Euro MTF Market. The GDS was accepted for quotation on the International Order Book of the London Stock Exchange.

The consolidated financial statements are presented in the Corporation's functional currency, the New Taiwan dollar. For greater comparability and consistency of financial reporting, the consolidated financial statements are presented in New Taiwan dollars since the Corporation's share is listed on the Taiwan Share Exchange.

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the board of directors and issued on March 14, 2019.

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

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

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

   1) IFRS 9 "Financial Instruments" and related amendments

      IFRS 9 supersedes IAS 39 "Financial Instruments: Recognition and Measurement", with consequential amendments to IFRS 7 “Financial Instruments: Disclosures” and other standards. IFRS 9 sets out the requirements for classification, measurement and impairment of financial assets and hedge accounting. Refer to Note 4 for information relating to the relevant accounting policies.

Classification, measurement and impairment of financial assets

On the basis of the facts and circumstances that existed as at January 1, 2018, the Group has performed an assessment of the classification of recognized financial assets and has elected not to restate prior reporting periods.

The following table shows the original measurement categories and carrying amounts under IAS 39 and the new measurement categories and carrying amounts under IFRS 9 for each class of the Group’s financial assets and financial liabilities as at January 1, 2018.

	Measurement Category		Carrying Amount	
Financial Assets	**IAS 39**	**IFRS 9**	**IAS 39**	**IFRS 9**
Cash and cash equivalents	Loans and receivables	Amortized cost	$ 17,716,582	$ 17,716,582
Derivatives	Held-for-trading	Mandatorily at fair value through profit or loss (i.e. FVTPL)	8,799	8,799
Mutual funds	Held-for-trading	Mandatorily at FVTPL	50,162	50,162
Equity securities	Available-for-sale	Fair value through other comprehensive income (i.e. FVTOCI) - equity instruments	32,670	32,670
Debt securities	Held to maturity	Amortized cost	1,153,305	1,153,305
Time deposits with original maturities of more than 3 months	Loans and receivables	Amortized cost	768,210	768,210
Notes receivable, accounts receivable and other receivables	Loans and receivables	Amortized cost	12,669,605	12,669,605
Pledged time deposits	Loans and receivables	Amortized cost	546,703	546,703
Refundable deposits	Loans and receivables	Amortized cost	63,660	63,660

Financial Assets	IAS 39 Carrying Amount as of January 1, 2018	Reclassificat-ions	Remeasure-ments	IFRS 9 Carrying Amount as of January 1, 2018	Remark
FVTOCI					
Equity instruments	$ -	$ -	$ -		
Add: From available for sale (IAS 39)	-	32,670	-		a)
	-	32,670	-	$ 32,670	
Amortized cost					
Add: From held to maturity (IAS 39)	-	1,153,305	-		b)
Add: From loans and receivables (IAS 39)	-	1,314,913	-		b)
	-	2,468,218	-	2,468,218	
	$ -	$ 2,500,888	$ -	$ 2,500,888	

a) The Group elected to designate all its investments in equity securities previously classified as available-for-sale under IAS 39 as at FVTOCI under IFRS 9, because these investments are not held for trading. As a result, the related other equity - unrealized loss on available-for-sale financial assets of $(18,478) thousand was reclassified to other equity - unrealized loss on financial assets at FVTOCI.

b) Debt investments previously classified as held-to-maturity financial assets and debt investments with no active market, measured at amortized cost under IAS 39, were classified as measured at amortized cost with an assessment of expected credit losses under IFRS 9, because on January 1, 2018, the contractual cash flows were solely payments of principal and interest on the principal outstanding and these investments were held within a business model whose objective is to collect contractual cash flows.

2) IFRS 15 "Revenue from Contracts with Customers" and related amendments

IFRS 15 establishes principles for recognizing revenue that apply to all contracts with customers, and supersedes IAS 18 "Revenue", IAS 11 "Construction Contracts" and a number of revenue-related interpretations. Refer to Note 4 for the related accounting policies.

In identifying performance obligations, IFRS 15 and the related amendments require that a good or service is distinct if it is capable of being distinct (for example, the Group regularly sells it separately) and the promise to transfer it is distinct within the context of the contract (i.e. the nature of the promise in the contract is to transfer each good or service individually rather than to transfer a combined output).

For the manufacturing of customer-specific goods, if the customer simultaneously receives and consumes the benefits provided by the Group's performance or the customer controls the goods when they are created or enhanced, revenue is recognized over time under IFRS 15. Prior to the application of IFRS 15, the Group recognized revenue when the goods were delivered.

Under IFRS 15, the net effect of revenue recognized and consideration received and receivable is recognized as a contract asset or a contract liability. Prior to the application of IFRS 15, a receivable was recognized or deferred revenue was reduced when revenue was recognized for the contract under IAS 18.

The Group elects only to retrospectively apply IFRS 15 to contracts that are not complete on January 1, 2018 and recognize the cumulative effect of the change in retained earnings on January 1, 2018.

<u>The impact on assets, liabilities and equity as of January 1, 2018 from the initial application of IFRS 15 is set out below:</u>

	As Originally Stated	Adjustments Arising from Initial Application	Restated
Inventories	$ 4,078,030	$ (1,508,892)	$ 2,569,138
Contract assets - current	-	1,683,071	1,683,071
Total effect on assets	$ 4,078,030	$ 174,179	$ 4,252,209
Advance payment received	$ 43,742	$ (43,742)	$ -
Contract liabilities - current	-	43,742	43,742
Current income tax liabilities	1,000,059	34,836	1,034,895
Total effect on liabilities	$ 1,043,801	$ 34,836	$ 1,078,637
Retained earnings	$ 30,555,478	$ 85,630	$ 30,641,108
Non-controlling interests	11,622,619	53,713	11,676,332
Total effect on equity	$ 42,178,097	$ 139,343	$ 42,317,440

Had the Group applied IAS 18 in the current year, the following adjustments should have been made to reflect the line items and balances under IFRS 15.

Impact on assets, liabilities and equity for the current year

	December 31, 2018
Decrease in inventories	$(1,443,230)
Increase in contract assets - current	1,671,214
Increase in assets	$ 227,984
Increase in contract liabilities - current	$ 39,323
Increase in current income tax liabilities	10,761
Decrease in advance payment received	(39,323)
Increase in liabilities	$ 10,761
Increase in retained earnings	$ 44,854
Decrease in non-controlling interests	(1,810)
Increase in equity	$ 43,044

Impact on total comprehensive income for the current year

	For the Year Ended December 31, 2018
Decrease in net sales	$(11,857)
Decrease in operating costs	65,662
Increase in income tax expense	(10,761)
Increase in net income for the year	43,044
Increase in total comprehensive income for the year	$ 43,044
Increase (decrease) in net income attributable to:	
Shareholders of the Corporation	$ 44,854
Non-controlling interests	(1,810)
	$ 43,044
Increase (decrease) in total comprehensive income attributable to:	
Shareholders of the Corporation	$ 44,854
Non-controlling interests	(1,810)
	$ 43,044
Impact on earnings per share:	
Increase in basic earnings per share	$ 0.06
Increase in diluted earnings per share	$ 0.06

3) Amendments to IAS 12 “Recognition of Deferred Tax Assets for Unrealized Losses”

The amendments clarify that the difference between the carrying amount of the debt instrument measured at fair value and its tax base gives rise to a temporary difference, even though there are unrealized losses on that asset, irrespective of whether the Group expects to recover the carrying amount of the debt instrument by sale or by holding it and collecting contractual cash flows.

In addition, in determining whether to recognize a deferred tax asset, the Group should assess a deductible temporary difference in combination with all of its other deductible temporary differences, unless the tax law restricts the utilization of losses as deduction against income of a specific type, in which case, a deductible temporary difference is assessed in combination only with other deductible temporary differences of the appropriate type. The amendments also stipulate that, when determining whether to recognize a deferred tax asset, the estimate of probable future taxable profit may include some of the Group’s assets for more than their carrying amount if there is sufficient evidence that it is probable that the Group will achieve the higher amount and that the estimate for future taxable profit should exclude tax deductions resulting from the reversal of deductible temporary differences.

Prior to the amendment, in assessing a deferred tax asset, the Group assumed that it will recover the asset at its carrying amount when estimating probable future taxable profit. The Group applied the above amendments retrospectively in 2018.

4) IFRIC 22 “Foreign Currency Transactions and Advance Consideration”

IAS 21 stipulated that a foreign currency transaction shall be recorded on initial recognition in the functional currency by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction. IFRIC 22 further explains that the date of the transaction is the date on which an entity recognizes a non-monetary asset or non-monetary liability from payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the entity shall determine the date of the transaction for each payment or receipt of advance consideration.

The Group applied IFRIC 22 prospectively to all assets, expenses and income recognized on or after January 1, 2018 within the scope of the interpretation.

b. Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed by the FSC for application starting from 2019

New, Amended or Revised Standards and Interpretations (the “New IFRSs”)	Effective Date Announced by International Accounting Standards Board (IASB) (Note 1)
Annual Improvements to IFRSs 2015-2017 Cycle	January 1, 2019
Amendments to IFRS 9 “Prepayment Features with Negative Compensation”	January 1, 2019 (Note 2)
IFRS 16 “Leases”	January 1, 2019
Amendments to IAS 19 “Plan Amendment, Curtailment or	January 1, 2019 (Note 3)

Settlement”	
Amendments to IAS 28 “Long-term Interests in Associates and Joint Ventures”	January 1, 2019
IFRIC 23 “Uncertainty over Income Tax Treatments”	January 1, 2019

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

Note 2: The FSC permits the election for early adoption of the amendments starting from 2018.

Note 3: The Group shall apply these amendments to plan amendments, curtailments or settlements occurring on or after January 1, 2019.

1) IFRS 16 “Leases”

IFRS 16 sets out the accounting standards for leases that will supersede IAS 17 and a number of related interpretations.

Definition of a lease

Upon initial application of IFRS 16, the Group will elect 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 will not be reassessed and will be accounted for in accordance with the transitional provisions under IFRS 16.

The Group as lessee

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

The Group anticipates applying IFRS 16 retrospectively with the cumulative effect of the initial application of this standard recognized on January 1, 2019. Comparative information will not be restated.

Lease liabilities will be recognized on January 1, 2019 for leases currently classified as operating leases with the application of IAS 17. Lease liabilities will be 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 will be measured at an amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments. Except for the following practical expedients which are to be applied, the Group will apply IAS 36 to all right-of-use assets.

The Group expects to apply the following practical expedients:

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

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

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

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

For leases currently classified as finance leases under IAS 17, the carrying amount of right-of-use assets and lease liabilities on January 1, 2019 will be determined as the carrying amount of the respective leased assets and finance lease payables as of December 31, 2018.

The Group as lessor

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

Anticipated impact on assets, liabilities and equity

	Carrying Amount as of December 31, 2018	**Adjustments Arising from Initial Application**	**Adjusted Carrying Amount as of January 1, 2019**
Property, plant and equipment	$ 61,980,853	$ (75,336)	$ 61,905,517
Right-of-use assets	-	1,738,975	1,738,975
Total effect on assets	$ 61,980,853	$ 1,663,639	$ 63,644,492
Lease liabilities - current	$ -	$ 131,900	$ 131,900
Finance lease payables - current	130,994	(130,994)	-
Lease liabilities - non-current	-	1,537,506	1,537,506
Finance lease payables - non-current	163,439	(163,439)	-
Total effect on liabilities	$ 294,433	$ 1,374,973	$ 1,669,406
Retained earnings	$ 26,601,327	$ -	$ 26,601,327

2) IFRIC 23 "Uncertainty over Income Tax Treatments"

IFRIC 23 clarifies that when there is uncertainty over income tax treatments, the Group should assume that the taxation authority will have full knowledge of all related information when making related examinations. If the Group concludes that it is probable that the taxation authority will accept an uncertain tax treatment, the Group should determine the taxable profit, tax bases, unused tax losses, unused tax credits or tax rates consistently with the tax treatments used or planned to be used in its income tax filings. If it is not probable that the taxation authority will accept an uncertain tax treatment, the Group should make estimates using either the most likely amount or the expected value of the tax treatment, depending on which method the Group expects to better predict the resolution of the uncertainty. The Group has to reassess its judgments and estimates if facts and circumstances change.

Upon initial application of IFRIC 23, the Group will recognize the cumulative effect of retrospective application on retained earnings on January 1, 2019.

3) Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”

The amendments stipulate that, if a plan amendment, curtailment or settlement occurs, the current service cost and the net interest for the remainder of the annual reporting period are determined using the actuarial assumptions used for the remeasurement of the net defined benefit liabilities (assets). In addition, the amendments clarify the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling. The Group will apply the above amendments prospectively.

Except for the above impacts, as of the date the consolidated financial statements were authorized for issue, the Group continues assessing other possible impacts that application of the aforementioned amendments and the related amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers will have on the Group’s financial position and financial performance and will disclose these other impacts when the assessment is completed.

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

New IFRSs	Effective Date Announced by IASB (Note 1)
Amendments to IFRS 3 “Definition of a Business”	January 1, 2020 (Note 2)
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”	To be determined by IASB
IFRS 17 “Insurance Contracts”	January 1, 2021
Amendments to IAS 1 and IAS 8 “Definition of Material”	January 1, 2020 (Note 3)

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

Note 2: The Group shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

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

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

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of compliance

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

b. Basis of preparation

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

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

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

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

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

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

Current assets include:

1) Assets held primarily for the purpose of trading;

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

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

Current liabilities include:

1) Liabilities held primarily for the purpose of trading;

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

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

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

d. Basis of consolidation

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

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

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

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

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

See Notes 16 and 38k for the detailed information of subsidiaries (including the percentage of ownership and main business).

e. Business combinations

Acquisitions of businesses are accounted for using the acquisition method. Acquisition-related costs are generally recognized in profit or loss as incurred.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interests in the acquiree over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after re-assessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held interests in the acquiree, the excess is recognized immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured at the non-controlling interests' proportionate share of the recognized amounts of the acquiree's identifiable net assets.

f. Foreign currencies

In preparing the financial statements of each individual group 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 translation are recognized in profit or loss in the period.

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

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations (including the subsidiaries and associates in other countries or subsidiaries that use currencies different from the Corporation) are translated into New Taiwan dollars 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 (attributed to the owners of the Corporation and non-controlling interests as appropriate).

g. Inventories

Inventories consist of raw materials, supplies, finished goods and work in progress and are stated at the lower of cost or net realizable value. Inventory write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. Inventories are recorded at standard cost and adjusted to approximate the weighted-average cost on the balance sheet date.

h. Investments in associates

An associate is an entity over which the Group has significant influence and that is not a subsidiary.

The Group uses the equity method to account for its investments in associates.

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

The entire carrying amount of the investment is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date on which its investment ceases to be an associate. Any retained investment is measured at fair value at that date, and the fair value is regarded as the investment's fair value on initial recognition as a financial asset. The difference between the previous carrying amount of the associate attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate. The Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate on the same basis as would be required had that associate directly disposed of the related assets or liabilities.

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

i. Property, plant, and equipment

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

Property, plant and equipment in the course of construction (including bearer plants before they are placed in the location and condition necessary to be capable of operating in the manner intended by management) are carried at cost, less any recognized impairment loss. Cost includes professional fees and borrowing costs eligible for capitalization. Such assets are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for their intended use.

Depreciation of property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation 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 item of property, plant and equipment, the difference between the sales proceeds and the carrying amount of the asset is recognized in profit or loss.

j. Goodwill

Goodwill arising from the acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment loss.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units (referred to as cash-generating units) that are expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired, by comparing its carrying amount, including the attributable goodwill, with its recoverable amount. However, if the goodwill allocated to a cash-generating unit was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

If goodwill has been allocated to a cash-generating unit and the entity disposes of an operation within that unit, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal, and is measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained.

k. Intangible assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful life, residual value, 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. Intangible assets with indefinite useful lives that are acquired separately are measured at cost less accumulated impairment loss.

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

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

3) Intangible assets acquired in a business combination

Intangible assets acquired in a business combination and recognized separately from goodwill are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, they are measured on the same basis as intangible assets that are acquired separately.

4) Derecognition of intangible assets

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

l. Impairment of tangible and intangible assets other than goodwill and assets related to contract costs

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets, excluding goodwill, to determine whether there is any indication that those assets have suffered any 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 Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Corporate assets are allocated to the individual cash-generating units on a reasonable and consistent basis of allocation if corporate assets could be allocated to the individual cash-generating units, otherwise, corporate assets are allocated to the smallest group of cash-generating units on a reasonable and consistent basis of allocation.

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

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

Before the Group recognizes an impairment loss from assets related to contract costs, any impairment loss on inventories related to the contract applicable under IFRS 15 shall be recognized in accordance with applicable standards. Then, impairment loss from the assets related to the contract costs is recognized to the extent that the carrying amount of the assets exceeds the remaining amount of consideration that the Group expects to receive in exchange for related goods or services less the costs which relate directly to providing those goods or services and which have not been recognized as expenses. The assets related to the contract costs are then included in the carrying amount of the cash-generating unit to which they belong for the purpose of evaluating impairment of that cash-generating unit.

When an impairment loss is subsequently reversed, the carrying amount of the corresponding asset, cash-generating unit or assets related to contract costs 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, cash-generating unit or assets related to contract costs in prior years. A reversal of an impairment loss is recognized in profit or loss.

m. Non-current assets held for sale

Non-current assets are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the non-current asset is available for immediate sale in its present condition. To meet the criteria for the sale being highly probable, the appropriate level of management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within 1 year from the date of classification.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell. Recognition of depreciation of those assets would cease.

n. Financial instruments

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

1) Financial assets

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

a) Measurement category

2018

Financial assets are classified into the following categories: Financial assets at FVTPL, financial assets at amortized cost and equity instruments at FVTOCI.

i. Financial assets at FVTPL

A financial asset is classified as at FVTPL when the financial asset is mandatorily classified as at FVTPL.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 34.

ii. Financial assets at amortized cost

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

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

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

Subsequent to initial recognition, financial assets at amortized cost, including cash and cash equivalents, debt investments, time deposits with original maturities of more than 3 months, notes and accounts receivable (included related parties), other receivables (included related parties), pledged time deposits and refundable deposits, are measured at amortized cost, which equals the gross carrying amount determined using the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

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

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

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

Cash equivalents include time deposits with original maturities within 3 months from the date of acquisition, which are highly liquid, 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.

iii. Investments in equity instruments at FVTOCI

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

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

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

2017

Financial assets are classified into the following categories: Financial assets at FVTPL, held-to-maturity investments, available-for-sale financial assets, and loans and receivables.

i. Financial assets at FVTPL

Financial assets are classified as at FVTPL when such financial assets are held for trading.

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on such a financial asset. Fair value is determined in the manner described in Note 34.

ii. Held-to-maturity financial assets

Corporate bonds, which the Group invests in and has positive intent and ability to hold to maturity, are classified as held-to-maturity financial assets.

Subsequent to initial recognition, held-to-maturity financial assets are measured at amortized cost using the effective interest method less any impairment.

iii. Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated as available-for-sale or are not classified as loans and receivables, held-to-maturity financial assets or financial assets at FVTPL.

Available-for-sale financial assets are measured at fair value. Changes in the carrying amounts of available-for-sale monetary financial assets (relating to changes in foreign currency exchange rates, interest income calculated using the effective interest method and dividends on available-for-sale equity investments) are recognized in profit or loss. Other changes in the carrying amount of available-for-sale financial assets are recognized in other comprehensive income and will be reclassified to profit or loss when the investments are disposed of or are determined to be impaired.

Dividends on available-for-sale equity instruments are recognized in profit or loss when the Group’s right to receive the dividends is established.

Available-for-sale equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity investments are measured at cost less any identified impairment loss at the end of each reporting period and are presented as a separate line item as financial assets carried at cost. If, in a subsequent period, the fair value of the financial assets can be reliably measured, the financial assets are remeasured at fair value. The difference between the carrying amount and the fair value of such financial assets is recognized in other comprehensive income on financial assets. Any impairment losses are recognized in profit and loss.

iv. Loans and receivables

Loans and receivables (including cash and cash equivalents, debt investments with no active market, accounts receivable, other receivables, and other financial assets) are measured using the effective interest method at amortized cost less any impairment, except for short-term receivables when the effect of discounting is immaterial.

Cash equivalents includes time deposits with original maturities within 3 months from the date of acquisition, which are highly liquid, readily convertible to a known amount of cash and subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

b) Impairment of financial assets and contract assets

<u>2018</u>

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

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

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

The Group recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

<u>2017</u>

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, that the estimated future cash flows of the investment have been affected.

Financial assets at amortized cost, such as accounts receivables, are assessed for impairment on a collective basis even if they were assessed not to be impaired individually. Objective evidence of impairment for a portfolio of receivables could include the Group’s past experience with collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period, as well as observable changes in national or local economic conditions that correlate with defaults on receivables, and other situations.

For a financial asset at amortized cost, the amount of the impairment loss recognized is the difference between such an asset’s carrying amount and the present value of its estimated future cash flows, discounted at the financial asset’s original effective interest rate.

For a financial asset at amortized cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment (at the date on which the impairment is reversed) does not exceed what the amortized cost would have been had the impairment not been recognized.

For available-for-sale equity investments, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment.

For all other financial assets, objective evidence of impairment could include significant financial difficulty of the issuer or counterparty, breach of contract such as a default or delinquency in interest or principal payments, it becoming probable that the borrower will enter bankruptcy or financial re-organization, or the disappearance of an active market for those financial assets because of financial difficulties.

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the period.

In respect of available-for-sale equity securities, impairment loss previously recognized in profit or loss is not reversed through profit or loss. Any increase in fair value subsequent impairment is recognized in other comprehensive income.

The carrying amount of a financial asset is reduced by the impairment loss directly for all financial assets with the exception of accounts receivable where the carrying amount is reduced through the use of an allowance account. When accounts receivable are considered uncollectible, they are written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognized in profit or loss except for uncollectible accounts receivable that are written off against the allowance account.

c) Derecognition of financial assets

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

Before 2018, on derecognition of a financial asset in its entirety, the difference between the asset’s carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income is recognized in profit or loss. From 2018, on derecognition of a financial asset at amortized cost in its entirety, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in profit or loss, and the cumulative gain or loss that had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

2) Equity instruments

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

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

Repurchase of the Corporation’s own equity instruments is recognized in and deducted directly from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Corporation’s own equity instruments.

3) Financial liabilities

a) Subsequent measurement

Except for the following situation, all financial liabilities are measured at amortized cost using the effective interest method.

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liabilities are held for trading.

Financial liabilities held for trading are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any interest or dividends paid on the financial liability. Fair value is determined in the manner described in Note 34.

b) Derecognition of financial liabilities

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

4) Derivative financial instruments

The Group enters into foreign exchange forward contracts to manage its exposure to foreign exchange rate risks.

Derivatives are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship. When the fair value of a derivative financial instrument is positive, the derivative is recognized as a financial asset; when the fair value of a derivative financial instrument is negative, the derivative is recognized as a financial liability.

o. Provisions

Provisions, including indemnification payables, are measured at the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

p. Revenue recognition

2018

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

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

Revenue from the rendering of services

As the Group fulfills the obligations in the contract for testing services, the customer simultaneously receives and consumes the benefits provided by the Group. The Group has the right to revenue collection for the portion of testing services that have been fulfilled, and the revenue from testing services is recognized over time. The Group fulfills the obligations in the contract for packaging services when the customer creates or enhances the goods they have control of. The Group has the right to revenue collection for the portion of packaging services that have been fulfilled, and the revenue from packaging services is recognized over time. Contract assets are recognized during the process of semiconductor assembling and testing, and are reclassified to accounts receivable at the point the bills were issued. If the payment exceeds the revenue recognized to date, the Group recognizes the difference as a contract liability. It is recognized as contract asset before the Group satisfies its performance obligations.

The Group does not recognize revenue on materials delivered to subcontractors because this delivery does not involve a transfer of control.

2017

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances. Allowances for sales returns and liabilities for returns are recognized at the time of sale based on the seller’s reliable estimate of future returns and past experience and other relevant factors.

1) Revenue from the sale of goods

   Revenue from the sale of goods is recognized when all the following conditions are satisfied:

   a) The Group has transferred to the buyer the significant risks and rewards of ownership of the goods;

   b) The Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;

   c) The amount of revenue can be measured reliably;

   d) It is probable that the economic benefits associated with the transaction will flow to the Group; and

e) The costs incurred or to be incurred in respect of the transaction can be measured reliably.

The Group does not recognize sales revenue on materials delivered to subcontractors because this delivery does not involve a transfer of risks and rewards of materials' ownership.

2) Revenue from the rendering of services

Revenue from a contract to provide services is recognized by reference to the stage of completion of the contract.

3) Dividend and interest income

Dividend income from investments is recognized when a shareholder's right to receive payment has been established and provided that it is probable that the economic benefits will flow to the Group and that the amount of income can be measured reliably.

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis by reference to the principal outstanding and at the applicable effective interest rate.

q. Leasing

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

1) The Group as lessor

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

2) The Group as lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated balance sheets as a finance lease obligation.

Finance expenses implicit in lease payments for each period are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized.

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

r. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Other than that stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

s. Employee benefits

1) Short-term employee benefits

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

2) Retirement benefits

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

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

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

t. Taxation

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

1) Current tax

According to the Income Tax Law, an additional tax 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.

2) Deferred tax

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

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

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

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the 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 liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3) Current and deferred 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. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group’s accounting policies, management is required to make judgments, estimations 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 are revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

a. Business model assessment for financial assets - 2018

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

b. Held-to-maturity financial assets - 2017

Management has reviewed the Group’s held-to-maturity financial assets in light of its capital maintenance and liquidity requirements and has confirmed the Group’s positive intention and ability to hold those assets to maturity.

c. Estimated impairment of financial assets - 2018

The provision for impairment of accounts receivable and investments in debt instruments is based on assumptions about risk of default and expected loss rates. The Group uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Group's historical experience, existing market conditions as well as forward looking estimates as of the end of each reporting period. Where the actual future cash inflows are less than expected, a material impairment loss may arise.

d. Estimated impairment of accounts receivables - 2017

When there is objective evidence of impairment loss of receivables, the Group takes into consideration the estimation of the future cash flows of such assets. The amount of impairment loss is measured as the difference between such an asset's carrying amount and the present value of its estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. Where the actual future cash flows are less than expected, a material impairment loss may arise.

e. Write-down of inventory

The net realizable value of inventories is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. The estimation of net realizable value is based on current market conditions and the historical experience of selling products of a similar nature. Changes in market conditions may have a material impact on the estimation of net realizable value.

f. Control over subsidiaries

It is described in Note 16 that Greatek Electronics Inc. is a subsidiary of the Group although the Group only owns less than 50% ownership interest in Greatek Electronics Inc. After considering the Group's absolute size of holdings in Greatek Electronics Inc. and the relative size of and dispersion of the shareholdings owned by the other shareholders, as well as the contractual arrangements between the Group and other investors, potential voting interests and other reasons, the management concluded that the Group has a sufficiently dominant voting interest to direct the relevant activities of Greatek Electronics Inc., and therefore the Group has control over Greatek Electronics Inc.

g. Useful lives of property, plant and equipment

As described in Note 4 (i), the Corporation reviews the estimated useful lives of property, plant and equipment at each balance sheet date. According to evaluation report by China Property Appraising Co., Ltd., through process of industry meta-analysis, functional analysis and economic analysis, the actual useful lives of the Corporation's equipment was found to have exceeded the original useful lives. The Corporation determined that the useful lives of certain items of machinery and equipment should be extended from 4 or 6 years to 8 years from January 1, 2014.

The financial effect of this reassessment, assuming the assets are held until the end of their estimated useful lives, is to decrease the consolidated depreciation expense for 2014 and for the future years, by the following amounts:

	Amount
2014	$(560,670)
2015	(295,092)
2016	16,683
2017	157,429
2018	309,629
2019 and beyond	372,021

h. Impairment of property, plant and equipment

The impairment of equipment was based on the recoverable amounts of those assets, which are the higher of their fair value less costs of disposal and their value in use. Any changes in the market prices or future cash flows will affect the recoverable amounts of those assets and may lead to the recognition of additional impairment losses or reversal of impairment losses.

i. Impairment of goodwill

Determining whether goodwill is impaired requires an estimation of the value in use of the cash-generating units to which goodwill has been allocated. The calculation of the value in use requires management to estimate the future cash flows expected to arise from the cash-generating units and a suitable discount rate in order to calculate the present value. Where the actual future cash flows are less than expected, a material impairment loss may arise.

j. Recognition and measurement of defined benefit plans

The net defined benefit liabilities (assets) and the resulting defined benefit costs under the defined benefit pension plans are calculated using the projected unit credit method. Actuarial assumptions comprise the discount rates, rates of employee turnover, future salary increases, etc. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of related expenses and liabilities.

k. Revenue recognition - 2018

Note 4 (p) describes that the Group identifies the contract with the customers, allocates the transaction price to the performance obligations, and recognizes revenue when performance obligations are satisfied.

l. Fair value measurements and valuation processes

For the Group’s assets and liabilities measured at fair value that have no quoted prices in an active market, the Group should determine whether to engage third party qualified valuers and to determine the appropriate valuation techniques for fair value measurement.

Information about the valuation techniques and inputs used in determining the fair values of various assets and liabilities is disclosed in Note 33.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2018	**2017**
Checking accounts and demand deposits	$ 18,543,547	$ 16,967,863
Cash on hand	595	719
Cash equivalents		
Repurchase agreements collateralized by bonds	-	748,000
	$ 18,544,142	$ 17,716,582

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

	December 31	
	2018	**2017**
Bank deposits	0%-3.10%	0%-1.75%
Repurchase agreements collateralized by bonds	-	0.36%

7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2018	**2017**
Financial assets at FVTPL - current		
Financial assets held for trading		
Derivative financial assets (not under hedge accounting)		
Foreign exchange forward contracts	$ -	$ 8,799
Non-derivative financial assets		
Mutual funds	-	50,162
	-	58,961
Financial assets mandatorily classified as at FVTPL		
Derivative financial assets (not under hedge accounting)		
Foreign exchange forward contracts	5,841	-
Non-derivative financial assets		
Mutual funds	50,376	-
	56,217	-
	$ 56,217	$ 58,961
Financial liabilities at FVTPL - current		
Financial liabilities held for trading		
Derivative financial liabilities (not under hedge accounting)		
Foreign exchange forward contracts	$ 2,223	$ 5,887

At the end of the reporting period, outstanding foreign exchange forward contracts not under hedge accounting were as follows:

	Currency	Maturity Date	Contract Amount (In Thousands)
December 31, 2018			
Sell foreign exchange forward contracts	USD to NTD	2019.01.03-2019.03.13	USD 58,190
	USD to JPY	2019.01.02-2019.05.10	USD 10,618
	USD to CNY	2019.01.04-2019.01.08	USD 1,168
December 31, 2017			
Sell foreign exchange forward contracts	USD to NTD	2018.01.03-2018.03.08	USD 40,928
	USD to JPY	2018.01.05-2018.06.08	USD 32,006

The Group entered into foreign exchange forward contracts during 2018 and 2017 to manage exposures due to exchange rate fluctuations of foreign currency denominated assets and liabilities. However, those contracts did not meet the criteria of hedge effectiveness and therefore were not accounted for using hedge accounting.

8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME - 2018

Investments in equity instruments at FVTOCI

	December 31, 2018
Non-current	
Domestic investments	
Listed shares	
Ordinary shares - Solid State System Co., Ltd.	$ 26,803

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes. These investments in equity instruments were classified as available-for-sale under IAS 39. Refer to Notes 3 and 10 for information relating to their reclassification and comparative information for 2017.

9. FINANCIAL ASSETS AT AMORTIZED COST - 2018

	December 31, 2018
Current	
Domestic investments	
Corporate bonds - 01 TSMC 1B Bond	$ 100,015
Corporate bonds - P04 Hon Hai 4C Bond	100,000
Time deposits with original maturities of more than 3 months	8,605
Pledged time deposits	21,763
Restricted deposits	318,534
	$ 548,917
Non-current	
Domestic investments	
Corporate bonds - P06 Taiwan Power Company 1A Bond	$ 300,001
Corporate bonds - P07 Taiwan Power Company 1A Bond	200,001
Corporate bonds - 02 Taiwan Power Company 1B Bond	151,518
Corporate bonds - P06 Taiwan Power Company 3A Bond	100,001
Corporate bonds - P04 FENC 4 Bond	100,000
Corporate bonds - P06 FPC 1A Bond	100,000
Time deposits with original maturities of more than 3 months	992,774
Pledged time deposits	96,815
	$ 2,041,110

On October 20, 2015, the Group bought corporate bonds issued by TSMC, which have an effective interest rate of 0.91%; a premium value of $101,740 thousand (par value $100,000 thousand); and maturity on January 11, 2019.

On October 23, 2015, the Group bought corporate bonds issued by HON HAI PRECISION IND. CO., LTD., which have an effective interest rate of 1.15%; a premium value of $100,001 thousand (par value $100,000 thousand); and maturity on September 29, 2019.

On November 16, 2015, the Group bought corporate bonds issued by Far Eastern New Century Corporation, which have an effective interest rate of 1.25%; a premium value of $100,001 thousand (par value $100,000 thousand); and maturity date of November 16, 2020.

On September 26, 2016, the Group bought corporate bonds issued by Taiwan Power Company with an effective interest rate of 0.63%, a premium value of $154,054 thousand (par value $150,000 thousand) and a maturity date of May 6, 2020.

On April 21, 2017, the Group bought corporate bonds issued by Taiwan Power Company with an effective interest rate of 1.13%, a premium value of $300,002 thousand (par value $300,000 thousand) and a maturity date of April 21, 2022.

On May 19, 2017, the Group bought corporate bonds issued by Formosa Plastics Corporation with an effective interest rate of 1.09%, a premium value of $100,001 thousand (par value $100,000 thousand) and maturity dates of May 19, 2021 and May 19, 2022 with par value $50,000 thousand due on both dates.

On December 15, 2017, the Group bought corporate bonds issued by Taiwan Power Company with an effective interest rate of 0.88%, a premium value of $100,001 thousand (par value $100,000 thousand) and maturity dates of December 15, 2021 and December 15, 2022 with par value $50,000 thousand due on both dates.

On May 14, 2018, the Group bought corporate bonds issued by Taiwan Power Company with an effective interest rate of 0.70% at premium value $200,001 thousand (par value $200,000 thousand) and a maturity date of May 14, 2021.

The Group bought corporate bonds that were classified as held-to-maturity financial assets under IAS 39. Refer to Notes 3 and 11 for information relating to their reclassification and comparative information for 2017.

The interest rate interval of time deposits with original maturities of more than 3 months was 0.001%-1.92% as at the end of the reporting period. The time deposits were classified as debt investments with no active market under IAS 39. Refer to Notes 3 and 12 for information relating to their reclassification and comparative information for 2017.

Refer to Note 33 for information relating to their credit risk management and impairment.

Refer to Note 35 for information relating to investments in financial assets at amortized cost pledged as security.

10. AVAILABLE-FOR-SALE FINANCIAL ASSETS - 2017

	December 31, 2017
Non-current	
Domestic investments	
Listed shares	$ 32,670

11. HELD-TO-MATURITY FINANCIAL ASSETS - 2017

	December 31, 2017
Current	
Domestic investments	
Corporate bonds - 02 Taiwan Power Company 1A Bond	$ 200,102
Non-current	
Domestic investments	
Corporate bonds - P06 Taiwan Power Company 1A Bond	$ 300,001
Corporate bonds - 02 Taiwan Power Company 1B Bond	152,641
Corporate bonds - 01 TSMC 1B Bond	100,560
Corporate bonds - P06 Taiwan Power Company 3A Bond	100,001
Corporate bonds - P04 Hon Hai 4C Bond	100,000
Corporate bonds - P04 FENC 4 Bond	100,000
Corporate bonds - P06 FPC 1A Bond	100,000
	$ 953,203

On March 19, 2015, the Group bought corporate bonds issued by Taiwan Power Company with an effective interest rate of 1.13%, at a premium value of $200,918 thousand (par value $200,000 thousand) and a maturity date of May 6, 2018.

For information on the remaining debt securities refer to Note 9.

12. DEBT INVESTMENTS WITH NO ACTIVE MARKET - 2017

	December 31, 2017
Non-current	
Time deposits with original maturities of more than 3 months	$ 768,210
Pledged time deposits	546,703
	$ 1,314,913

a. As of December 31, 2017, the market interest rates of the pledged time deposits were 0.60%-1.10% per annum.

b. Refer to Note 35 for information relating to debt investments with no active market pledged as security.

13. NOTES AND ACCOUNTS RECEIVABLE, NET

	December 31	
	2018	2017
Notes receivable		
Notes receivable - operating	$ 78,037	$ 76,020
Accounts receivable		
At amortized cost		
Gross carrying amount	8,926,869	8,346,431
Less: Allowance for impairment loss	(38,081)	(39,473)
	8,888,788	8,306,958
	$ 8,966,825	$ 8,382,978

In 2018

The average credit period of sales of goods was 7 days to 210 days starting from the first day of the month following the invoice date. No interest was charged on accounts receivable. In order to minimize credit risk, the management of the group has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowance is made for possible irrecoverable amounts. In this regard, the management believes the Group's credit risk was significantly reduced.

The Group applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all accounts receivable. The expected credit losses on accounts receivable are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecasted direction of economic conditions at the reporting date. As the Group's historical credit loss experience does not show significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is not further distinguished according to the Group's different customer base.

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

The following table details the loss allowance of accounts receivable based on the Group's provision matrix.

December 31, 2018

	Not Past Due	Less than 60 Days	61 to 90 Days	91 to 120 Days	Over 120 Days	Total
Gross carrying amount	$ 8,668,966	$ 184,436	$ 57,213	$ 10,235	$ 6,019	$ 8,926,869
Loss allowance (Lifetime ECLs)	(6,133)	(15,943)	(4,093)	(8,029)	(3,883)	(38,081)
Amortized cost	$ 8,662,833	$ 168,493	$ 53,120	$ 2,206	$ 2,136	$ 8,888,788

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

	2018
Balance at January 1, 2018 per IAS 39	$ 39,473
Adjustment on initial application of IFRS 9	-
Balance at January 1, 2018 per IFRS 9	39,473
Less: Amounts written off	(1,392)
Balance at December 31, 2018	$ 38,081

In 2017

The credit policy of the Group in 2017 is the same as the above-mentioned credit policy in 2018. In determining the recoverability of an accounts receivable, the Group considered any change in the credit quality of the accounts receivable since the date credit was initially granted to the end of the reporting period. Allowance for impairment loss was recognized with reference to past default experience of the counterparties and an analysis of their current financial positions.

For the accounts receivable balances that were past due at the end of the reporting period, the Group did not recognize an allowance for impairment loss. There was no significant change in credit quality and the amounts were still considered recoverable. The Group did not hold any collateral or other credit enhancements for these balances.

Aging of receivables was as follows:

	December 31, 2017
Up to 60 days	$ 6,993,097
61-90 days	833,361
91-120 days	490,696
More than 120 days	29,277
	$ 8,346,431

The above aging schedule was based on the invoice date.

Aging of receivables that are past due but not impaired was as follows:

	December 31, 2017
Up to 60 days	$ 28,566
61-90 days	2,931
91-120 days	55
More than 120 days	66
	$ 31,618

The above aging schedule was based on the number of past due days.

Movements in the allowance for impairment loss recognized on accounts receivable were as follows:

	Individually Assessed for Impairment	Collectively Assessed for Impairment	Total
Balance at January 1, 2017	$ 7,949	$ 15,868	$ 23,817
Add: Impairment losses recognized on receivables	35	18,120	18,155
Less: Amounts written off during the year as uncollectible	(1,876)	(508)	(2,384)
Foreign exchange translation losses	(115)	-	(115)
Balance at December 31, 2017	$ 5,993	$ 33,480	$ 39,473

As of December 31, 2017, the amount of individually impaired accounts receivable was $5,993 thousand. These amounts relate to customers that had been in significant financial difficulty. The Group did not hold any collateral over these balances.

14. INVENTORIES

	December 31	
	2018	2017
Finished goods	$ -	$ 376,645
Work in progress	-	1,132,247
Raw materials	3,402,888	2,179,766
Supplies	420,072	389,372
	$ 3,822,960	$ 4,078,030

The nature of the cost of goods sold were as follows:

	For the Year Ended December 31	
	2018	2017
Operating costs	$ 54,209,337	$ 46,933,571
Write-down of inventories	$ 103,083	$ 52,869
Unallocated overhead	$ 3,327,060	$ 3,344,401
Sales of scrap	$ 146,515	$ 113,912

15. NON-CURRENT ASSETS HELD FOR SALE

	For the Year Ended December 31	
	2018	2017
Equipment held for sale	$ -	$ 1,056,479

Tera Probe, Inc., a subsidiary of the Group, entered into a sales contract in April 2017 for the sale of some of its machinery and equipment. Since the transaction occurred before the Group obtained control of Tera Probe, Inc., the selling price was included in the acquisition price on the acquisition date, refer to Note 31 for the details. The aforementioned disposal plan was completed in May 2018.

16. SUBSIDIARIES

a. Subsidiaries included in the consolidated financial statements

Investor	Investee	Nature of Activities	Proportion of Ownership (%) December 31 2018	Proportion of Ownership (%) December 31 2017	Remark
Powertech Technology Inc.	Powertech Holding (BVI) Inc.	Investment business	100	100	-
	Greatek Electronics Inc. ("GEI")	Semiconductor assembly and testing services	43	43	Notes 1 and 2
	Powertech Technology (Singapore) Pte. Ltd.	Integrated circuit testing and assembly services	100	100	-
	Powertech Technology (Xian) Ltd.	Semiconductor testing design, manufacturing, sales business and assembly services	36	36	Note 3
	Powertech Technology Japan Ltd.	Investment business	100	100	Note 4
	Tera Probe, Inc.	Wafer probing test services	12	12	Notes 2 and 5
	TeraPower Technology Inc.	Wafer probing test services	49	49	Note 6
Powertech Holding (BVI) Inc.	PTI Technology (Singapore) Pte. Ltd.	Investment business	100	100	-
PTI Technology (Singapore) Pte. Ltd.	Powertech Technology (Suzhou) Ltd.	Semiconductor testing design, manufacturing, sales business and assembly services	100	100	-
Powertech Technology (Singapore) Pte. Ltd.	Powertech Technology (Xian) Ltd.	Semiconductor testing design, manufacturing, sales business and assembly services	64	64	Note 3
Powertech Technology Japan Ltd.	Tera Probe, Inc.	Wafer probing test services	47	47	Notes 2 and 5
	Powertech Technology Akita Inc.	Semiconductor assembly and testing service	100	100	Note 8
Tera Probe, Inc.	TeraPower Technology Inc.	Wafer probing test services	51	51	Note 6
	Tera Probe Aizu, Inc.	Wafer probing test services	100	100	Note 7

Note 1: On the reelection of the directors and supervisors of Greatek Electronics Inc., the Corporation obtained the majority of the board seats and Greatek Electronics Inc., became a subsidiary of the Corporation even though the Corporation has only 43% ownership of Greatek Electronics Inc.

Note 2: Subsidiaries that have material non-controlling interests.

Note 3: The Corporation invested directly in Powertech Technology (Xi'an) Ltd. in January 2017, and obtained 36% ownership of the latter. As a result, Powertech Technology (Singapore) Pte. Ltd. obtained 64% ownership of Powertech Technology (Xi'an) Ltd.

Note 4: The subsidiary was established in January 2017.

Note 5: Powertech Technology Japan Ltd. intended to acquire the shares of Tera Probe, Inc. by means of tender offer in April 2017 and finished the acquisition in May 2017. 47% ownership of Tera Probe, Inc. was acquired by tender offer. Together with the Corporation's original 12% ownership, the total ownership was 59%, and therefore the Group obtained control over Tera Probe, Inc. Refer to Note 30 for the details.

Note 6: The Corporation has 49% ownership of TeraPower Technology Inc. and Tera Probe, Inc. has 51% ownership of TeraPower Technology Inc. Since the Corporation already obtained control over Tera Probe, Inc. in May 2017, it also obtained control over TeraPower Technology Inc. Refer to Note 30 for the details.

Note 7: Tera Probe Aizu, Inc. is a 100%-owned subsidiary of Tera Probe, Inc.

Note 8: Powertech Technology Japan Ltd. completed the acquisition of Powertech Technology Akita Inc. in August 2017, and the total ownership after the acquisition was 100%. Therefore the Group obtained control over Powertech Technology Akita Inc. Refer to Note 30 for the details. Besides, Powertech Technology Japan Ltd. participated in the issuance of common share of Powertech Technology Akita Inc. on October 25, 2017, and the investment amount was 980,000 thousand yen.

b. Details of subsidiaries that have material non-controlling interests

		Proportion of Ownership and Voting Rights Held by Non-controlling Interests	
		December 31	
Name of Subsidiary	**Principal Place of Business**	**2018**	**2017**
Greatek Electronics Inc.	Zhunan Township, Miaoli County	57%	57%
Tera Probe, Inc.	Japan	41%	41%

	Profit Allocated to Non-controlling Interests		Accumulated Non-controlling Interests	
	For the Year Ended December 31		December 31	
Name of Subsidiary	**2018**	**2017**	**2018**	**2017**
Greatek Electronics Inc.	$1,334,852	$1,433,849	$9,326,563	$8,943,679
Tera Probe, Inc.	$ (56,566)	$ 8,164	$2,747,578	$2,678,940

Summarized financial information in respect of each of the Group's subsidiaries that has material non-controlling interests is set out below. The summarized financial information below represents amounts before intragroup eliminations.

Greatek Electronics Inc.

	December 31	
	2018	2017
Current assets	$ 7,351,080	$ 7,476,651
Non-current assets	11,473,480	10,663,235
Current liabilities	(2,369,720)	(2,396,897)
Non-current liabilities	(235,776)	(219,050)
Equity	$ 16,219,064	$ 15,523,939
Equity attributable to:		
Owners of the Corporation	$ 6,958,819	$ 6,660,574
Non-controlling interests	9,260,245	8,863,365
	$ 16,219,064	$ 15,523,939

	For the Year Ended December 31	
	2018	2017
Operating revenue	$ 12,356,434	$ 11,951,769
Net income for the year	$ 2,375,453	$ 2,508,628
Other comprehensive income for the year	(67,552)	(21,217)
Total comprehensive income for the year	$ 2,307,901	$ 2,487,411
Net income attributable to:		
Owners of the Corporation	$ 1,019,192	$ 1,076,331
Non-controlling interests	1,356,261	1,432,297
	$ 2,375,453	$ 2,508,628
Total comprehensive income attributable to:		
Owners of the Corporation	$ 990,208	$ 1,067,228
Non-controlling interests	1,317,693	1,420,183
	$ 2,307,901	$ 2,487,411
Net cash inflow (outflow) from :		
Operating activities	$ 4,504,087	$ 4,422,779
Investing activities	(3,103,917)	(3,662,141)
Financing activities	(1,706,442)	(1,566,204)
Net cash outflow	$ (306,272)	$ (805,566)
Dividends paid to non-controlling interests		
Greatek Electronics Inc.	$ 974,345	$ 893,149

Tera Probe, Inc.

	December 31	
	2018	**2017**
Current assets	$ 3,111,580	$ 3,019,962
Non-current assets	5,566,923	5,008,209
Current liabilities	(1,844,532)	(1,352,203)
Non-current liabilities	(845,862)	(594,760)
Equity	$ 5,988,109	$ 6,081,208
Equity attributable to:		
Owners of the Corporation	$ 3,559,332	$ 3,614,670
Non-controlling interests	2,428,777	2,466,538
	$ 5,988,109	$ 6,081,208

	For the Year Ended December 31, 2018	For the Period from May 29, 2017 (the Acquisition Date) to December 31, 2017
Operating revenue	$ 2,474,427	$ 3,760,828
Net (loss) income	$ (214,235)	$ 37,644
Other comprehensive (loss) income	(148,799)	88,502
Total comprehensive (loss) income	$ (363,034)	$ 126,146
Net (loss) income attributable to:		
Owners of the Corporation	$ (127,341)	$ 22,344
Non-controlling interests	(86,894)	15,300
	$ (214,235)	$ 37,644
Total comprehensive (loss) income attributable to:		
Owners of the Corporation	$ (215,787)	$ 74,981
Non-controlling interests	(147,247)	51,165
	$ (363,034)	$ 126,146
Cash flow inflow (outflow) from:		
Operating activities	$ 1,189,726	$ 841,640
Investing activities	(2,429,457)	(2,947,345)
Financing activities	1,860,481	1,254,480
Net cash inflow (outflow)	$ 620,750	$ (851,225)

The share of profit or loss and other comprehensive income of those subsidiaries for the years ended December 31, 2018 and 2017 was based on the subsidiaries' financial statements audited by the auditors for the same years.

17. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Investments in associates

In August 2008, the Corporation signed an agreement with Tera Probe Inc. to jointly establish TeraPower Technology Inc. ("TeraPower"), and the related investment was accounted for using the equity method. TeraPower mainly renders wafer probing test services to semiconductor companies.

Since the Corporation already obtained control over Tera Probe, Inc. in May 2017, it also obtained control over TeraPower Technology Inc. Refer to Note 16 for the details.
Aggregate information on the associates is as follows:

	For the Year Ended December 31, 2017
The Group's share of:	
Net income	$ 108,792
Other comprehensive income	-
Total comprehensive income	$ 108,792

The share of profit or loss and other comprehensive income of investments in associates accounted for using the equity method for the year ended December 31, 2017 was based on the associates' audited financial statements for the same years as those of the Corporation.

18. PROPERTY, PLANT AND EQUIPMENT

	December 31	
	2018	2017
Carrying amounts from each category		
Land	$ 3,320,488	$ 3,317,858
Buildings	16,986,287	14,329,813
Machinery and equipment	33,476,984	30,355,038
Office equipment	572,572	620,938
Leasehold improvements	53,243	64,384
Other equipment	559,351	734,657
Construction in progress	861,381	872,522
Advance payments	6,016,130	8,257,379
Spare parts	134,417	110,432
	$ 61,980,853	$ 58,663,021

	For the Year Ended December 31, 2017									
	Land	Buildings	Machinery and Equipment	Office Equipment	Leasehold Improvements	Other Equipment	Construction in Progress	Advance Payments	Spare Parts	Total
Cost										
Balance, beginning of year	$ 2,480,125	$17,131,584	$60,797,008	$ 1,446,040	$ 335,730	$ 3,268,388	$ 2,082,012	$ 7,196,731	$ 106,788	$94,844,406
Acquisitions through business combinations	673,213	1,713,889	13,826,672	1,140,716	162,563	140,795	10,797	1,635,816	-	19,304,461
Additions	30,682	404,510	3,068,939	60,639	691	99,901	1,685,941	12,903,749	334,318	18,589,370
Disposals	-	(311,496)	(4,418,107)	(133,832)	(11,531)	(170,519)	-	(16,787)	(318,341)	(5,380,613)
Reclassifications	134,386	4,347,545	11,282,092	263,410	(52,433)	329,153	(2,901,493)	(13,424,935)	-	(22,275)
Effects of foreign currency exchange differences	(548)	(39,703)	(629,540)	(47,349)	(27,026)	(20,328)	(4,735)	(37,195)	(1,184)	(807,608)
Balance, end of year	3,317,858	23,246,329	83,927,064	2,729,624	407,994	3,647,390	872,522	8,257,379	121,581	126,527,741
Accumulated depreciation										
Balance, beginning of year	-	7,075,731	39,197,724	1,116,971	205,271	2,742,405	-	-	6,803	50,344,905
Acquisitions through business combinations	-	609,858	10,342,126	873,307	53,868	19,722	-	-	-	11,898,881
Depreciation expense	-	1,313,548	8,359,757	192,809	32,000	272,427	-	-	323,292	10,493,833
Disposals	-	(272,730)	(4,009,828)	(127,586)	(6,576)	(118,027)	-	-	(318,341)	(4,853,088)
Reclassifications	-	-	12,640	930	(2,260)	-	-	-	-	11,310
Effects of foreign currency exchange differences	-	(17,613)	(387,090)	(33,313)	(16,504)	(3,794)	-	-	(605)	(458,919)
Balance, end of year	-	8,708,794	53,515,329	2,023,118	265,799	2,912,733	-	-	11,149	67,436,922
Accumulated impairment										
Balance, beginning of year	-	211,433	31,061	83,022	-	-	-	-	-	325,516
Acquisitions through business combinations	-	-	(520)	-	-	-	-	-	-	(520)
Impairment loss	-	-	26,565	9,723	77,811	-	-	-	-	114,099
Disposals	-	(908)	-	(5,976)	-	-	-	-	-	(6,884)
Effects of foreign currency exchange differences	-	(2,803)	(409)	(1,201)	-	-	-	-	-	(4,413)
Balance, end of year	-	207,722	56,697	85,568	77,811	-	-	-	-	427,798
Net book value, end of year	$ 3,317,858	$14,329,813	$30,355,038	$ 620,938	$ 64,384	$ 734,657	$ 872,522	$ 8,257,379	$ 110,432	$58,663,021

	For the Year Ended December 31, 2018									
	Land	Buildings	Machinery and Equipment	Office Equipment	Leasehold Improvements	Other Equipment	Construction in Progress	Advance Payments	Spare Parts	Total
Cost										
Balance, beginning of year	$ 3,317,858	$23,246,329	$83,927,064	$ 2,729,624	$ 407,994	$ 3,647,390	$ 872,522	$ 8,257,379	$ 121,581	$126,527,741
Additions	3,203	223,013	2,231,604	12,332	18,044	64,574	2,560,902	11,585,158	351,928	17,050,758
Disposals	-	(545,656)	(7,352,301)	(696,224)	(95,175)	(159,598)	(185,285)	(7,500)	(326,281)	(9,368,020)
Reclassifications	-	4,020,150	11,739,880	259,481	18,073	88,110	(2,354,305)	(13,828,008)	-	(56,619)
Effects of foreign currency exchange differences	1,189	974	687,819	38,601	13,278	10,299	13,185	9,101	466	774,912
Balance, end of year	3,322,250	26,944,810	91,234,066	2,343,814	362,214	3,650,775	907,019	6,016,130	147,694	134,928,772
Accumulated depreciation										
Balance, beginning of year	-	8,708,794	53,515,329	2,023,118	265,799	2,912,733	-	-	11,149	67,436,922
Depreciation expense	-	1,473,068	10,066,565	277,308	55,488	312,270	-	-	328,046	12,512,745
Disposals	-	(483,870)	(6,730,724)	(668,062)	(94,025)	(137,910)	-	-	(326,281)	(8,440,872)
Reclassifications	-	6,832	9,244	41	(6,873)	(19)	-	-	-	9,225
Effects of foreign currency exchange differences	-	(6,391)	543,203	26,018	8,284	4,350	-	-	363	575,827
Balance, end of year	-	9,698,433	57,403,617	1,658,423	228,673	3,091,424	-	-	13,277	72,093,847
Accumulated impairment										
Balance, beginning of year	-	207,722	56,697	85,568	77,811	-	-	-	-	427,798
Impairment loss	1,733	56,259	289,034	41,271	176	-	44,851	-	-	433,324
Disposals	-	(122)	-	(13,735)	-	-	-	-	-	(13,857)
Effects of foreign currency exchange differences	29	(3,769)	7,734	(285)	2,311	-	787	-	-	6,807
Balance, end of year	1,762	260,090	353,465	112,819	80,298	-	45,638	-	-	854,072
Net book value, end of year	$ 3,320,488	$16,986,287	$33,476,984	$ 572,572	$ 53,243	$ 559,351	$ 861,381	$ 6,016,130	$ 134,417	$61,980,853

Tera Probe, Inc. and Powertech Technology Akita Inc. expect a decrease in the future cash flows of land, buildings, machinery and equipment, office equipment, leasehold improvements and construction in progress. Therefore, impairment losses of $433,324 thousand were recognized in other gains and losses for the year ended December 31, 2018. Tera Probe, Inc. determined the recoverable amount of the relevant assets on the basis of their value in use, and the discount rate used in measuring value in use was 3.30% per annum; Powertech Technology Akita Inc. evaluated that the carrying amount of some machinery and equipment cannot be recovered.

Powertech Technology (Singapore) Pte. Ltd. expect a decrease in the future cash flows of machinery and equipment, office equipment and leasehold improvements. Therefore, impairment losses of $114,099 thousand were recognized for the year ended December 31, 2017. The Group determined the recoverable amount of the relevant assets on the basis of their fair value less costs of disposal. The fair value of the recoverable amount was categorized as a Level 2 measurement.

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

Buildings	
Main plants	3-51 years
Mechanical and electrical power equipment	1-26 years
Wafer Fab	6-16 years
Fire control equipment	2-26 years
Others	1-56 years
Machinery and equipment	1-20 years
Office equipment	1-25 years
Leasehold improvements	4-8 years
Other equipment	1-16 years
Spare parts	0.5-2 years

Property, plant and equipment pledged as collateral for bank borrowings is set out in Note 36.

19. INTANGIBLE ASSETS

	December 31 2018	December 31 2017
Carrying amounts from each category		
Computer software	$ 133,364	$ 191,126
Goodwill	979,819	979,819
Client relationships	48,610	73,842
Royalty	411	505
Technical services	-	4,357
	$ 1,162,204	$ 1,249,649

For the Year Ended December 31, 2017

	Computer Software	Goodwill	Core Technologies	Client Relationships	Royalty	Technical Services	Total
Cost							
Balance, beginning of year	$ 143,936	$ 979,819	$ 323,782	$ 220,775	$ -	$ 88,894	$ 1,757,206
Acquisitions through business combinations	412,771	-	-	-	1,720	-	414,491
Additions	46,676	-	-	-	-	-	46,676
Reclassifications	20,530	-	-	-	-	-	20,530
Effects of foreign currency exchange differences	(8,030)	-	(38,281)	-	(41)	-	(46,352)
Balance, end of year	615,883	979,819	285,501	220,775	1,679	88,894	2,192,551
Accumulated amortization							
Balance, beginning of year	122,325	-	310,966	121,702	-	77,064	632,057
Acquisitions through business combinations	256,271	-	-	-	1,135	-	257,406
Amortization expense	52,665	-	12,815	25,231	68	7,473	98,252
Effects of foreign currency exchange differences	(6,504)	-	(38,280)	-	(29)	-	(44,813)
Balance, end of year	424,757	-	285,501	146,933	1,174	84,537	942,902
Net book value, end of year	$ 191,126	$ 979,819	$ -	$ 73,842	$ 505	$ 4,357	$ 1,249,649

For the Year Ended December 31, 2018

	Computer Software	Goodwill	Core Technologies	Client Relationships	Royalty	Technical Services	Total
Cost							
Balance, beginning of year	$ 615,883	$ 979,819	$ 285,501	$ 220,775	$ 1,679	$ 88,894	$ 2,192,551
Additions	33,090	-	-	-	-	-	33,090
Disposals	(50,667)	-	-	-	-	-	(50,667)
Reclassifications	47,976	-	-	-	-	-	47,976
Effects of foreign currency exchange differences	15,252	-	(35,398)	-	86	-	(20,060)
Balance, end of year	661,534	979,819	250,103	220,775	1,765	88,894	2,202,890
Accumulated amortization							
Balance, beginning of year	424,757	-	285,501	146,933	1,174	84,537	942,902
Amortization expense	114,333	-	-	25,232	118	4,357	144,040
Disposals	(30,643)	-	-	-	-	-	(30,643)
Reclassifications	3,195	-	-	-	-	-	3,195
Effects of foreign currency exchange differences	12,168	-	(35,398)	-	62		(23,168)
Balance, end of year	523,810	-	250,103	172,165	1,354	88,894	1,036,326
Accumulated impairment							
Balance, beginning of year	-	-	-	-	-	-	-
Impairment loss	4,285	-	-	-	-	-	4,285
Disposals	-	-	-	-	-	-	-
Effects of foreign currency exchange differences	75	-	-	-	-	-	75
Balance, end of year	4,360	-	-	-	-	-	4,360
Net book value, end of year	$ 133,364	$ 979,819	$ -	$ 48,610	$ 411	$ -	$ 1,162,204

Tera Probe, Inc. expects that the estimated future cash flows of computer software will decrease. Therefore, an impairment loss of $4,285 thousand was recognized for the year ended December 31, 2018. Tera Probe, Inc. determined the recoverable amount of the relevant assets on the basis of their value in use, and the discount rate used in measuring value in use was 3.30% per annum

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

Computer software	1-10 years
Core technologies	5 years
Client relationships	9 years
Royalty	1-10 years
Technical services	2-4 years

20. OTHER ASSETS

	December 31	
	2018	**2017**
Current		
Tax refund receivables	$ 467,876	$ 378,556
Payment on behalf of others	284,195	146,439
Lease prepayments	2,566	2,628
Restricted assets	-	319,755
Others	58,211	190,068
	$ 812,848	$ 1,037,446
Non-current		
Lease prepayments	$ 63,520	$ 67,671
Refundable deposits	45,635	63,660
Prepayments for equipment	4,060	8,957
Other	23,945	54,325
	$ 137,160	$ 194,613

Lease prepayments include land use rights for land in mainland China.

Restricted assets refer to fixed deposits. (See Note 36 for the details)

21. BORROWINGS

a. Short-term bank loans

	December 31	
	2018	**2017**
Unsecured borrowings		
Working capital loan	$ 843,953	$ 3,842,349

The effective interest rate ranges on the working capital loan was 0.68%-4.40% and 0.68%-4.79% as of December 31, 2018 and 2017, respectively.

b. Long-term debt

The long-term debt of the Group are all floating rate debt, which include:

	December 31	
	2018	2017
1) Secured borrowings (Note 36)	$ 13,534,928	$ 11,396,343
2) Unsecured borrowings	17,699,048	15,756,038
	31,233,976	27,152,381
Less: Current portions	(361,637)	(134,793)
	$ 30,872,339	$ 27,017,588

1) Repayable continually from April 2021 to December 2038; interest rate range was 1.14%-1.25% on December 31, 2018 and 1.11%-1.30% on December 31, 2017.

2) Repayable continually from November 2019 to November 2023; interest rate range was 0.69%-3.77% on December 31, 2018 and 0.69%-2.67% on December 31, 2017.

For PTI's long-term debt, the financing banks required PTI to show compliance with requirements to maintain the current ratio, fixed ratio, liability ratio, financial liability ratio, equity ratio, interest coverage ratio, tangible assets and net asset value as well as the ability to repay the current portion of long-term liabilities in its annual and semiannual consolidated financial statements. As of December 31, 2018, PTI was in compliance with these ratio requirements.

22. FINANCE LEASE PAYABLES

	December 31	
	2018	2017
Minimum lease payments		
Up to one year	$ 133,422	$ 135,197
Over one year and up to five years	166,085	174,975
	299,507	310,172
Less: Future finance charges	(5,074)	(3,933)
Present value of minimum lease payments	$ 294,433	$ 306,239
Present value of minimum lease payments		
Up to one year	$ 130,994	$ 132,841
Over one year and up to five years	163,439	173,398
	$ 294,433	$ 306,239

Powertech Technology (Singapore) Pte. Ltd., Tera Probe, Inc. and TeraPower Technology Inc. leased some of its manufacturing equipment under finance leases. The average lease terms were between three and five years.

Interest rates for all obligations under finance leases were fixed at their respective contract dates ranging from 0.40% to 5.19% per annum.

23. OTHER LIABILITIES

	December 31	
	2018	2017
Current		
Accrued expenses and other current liabilities		
Salaries and bonuses	$ 2,001,199	$ 2,028,267
Payables for insurance	201,643	196,093
Payables for utilities	185,893	159,395
Agency receipts	133,357	101,477
Indemnification payable (a)	99,321	74,554
Payables for annual leave	24,621	40,873
Payables for settlement (b)	-	634,270
Others	4,578,908	4,290,255
	$ 7,224,942	$ 7,525,184
Non-current		
Other liabilities		
Guarantee deposits	$ 4,260	$ 648
Others	376,989	395,019
	$ 381,249	$ 395,667

a. Indemnification payable are measured at the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation.

b. The Group entered into a litigation settlement agreement with Tessera Inc., refer to Note 36 for the details.

24. RETIREMENT BENEFIT PLANS

a. Defined contribution plan

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

b. Defined benefit plan

The defined benefit plan adopted by the Group's subsidiaries PTI, GEI and TeraPower Technology Inc. in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the six months before retirement. PTI, GEI and TeraPower Technology Inc. contribute amounts equal to 2% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Group assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the following year, the Group is required to fund the difference in one appropriation that should be made before the end of March of the following year. The pension fund is managed by the Bureau of

Labor Funds, Ministry of Labor ("the Bureau"); the Group has no right to influence the investment policy and strategy.

The amounts included in the consolidated balance sheets in respect of the Group's defined benefit plans were as follows:

	December 31	
	2018	2017
Present value of funded defined benefit obligation	$ 1,119,258	$ 1,052,260
Fair value of plan assets	(716,466)	(656,262)
Net defined benefit liabilities	$ 402,792	$ 395,998
Net defined benefit assets	$ (1,738)	$ (497)
Net defined benefit liabilities	404,530	396,495
	$ 402,792	$ 395,998

Movements in net defined benefit liabilities were as follows:

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liabilities
Balance at January 1, 2017	$ 633,851	$ (390,186)	$ 243,665
Service cost			
Current service cost	23,546	-	23,546
Net interest expense (income)	11,738	(7,598)	4,140
Recognized in profit or loss	35,284	(7,598)	27,686
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(9,448)	(9,448)
Actuarial loss - changes in demographics assumptions	28	-	28
Actuarial loss - changes in financial assumptions	25,989	-	25,989
Actuarial loss - experience adjustments	22,563	1,056	23,619
Others	50	-	50
Recognized in other comprehensive income	48,630	(8,392)	40,238
Contributions from the employer	-	(42,575)	(42,575)
Benefits paid	(20,294)	19,432	(862)
Acquisitions through business combinations	365,618	(234,332)	131,286
Effects of foreign currency exchange differences	(10,829)	7,389	(3,440)
Balance at December 31, 2017	1,052,260	(656,262)	395,998
Service cost			
Current service cost	46,199	-	46,199
Net interest expense (income)	11,186	(7,058)	4,128
Recognized in profit or loss	57,385	(7,058)	50,327

(Continued)

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liabilities
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	$ -	$ (23,281)	$ (23,281)
Actuarial loss - changes in demographics assumptions	4,959	-	4,959
Actuarial loss - changes in financial assumptions	25,592	-	25,592
Actuarial loss - experience adjustments	21,244	(5,234)	16,010
Others	(2,834)	-	(2,834)
Recognized in other comprehensive income	48,961	(28,515)	20,446
Contributions from the employer	-	(54,918)	(54,918)
Benefits paid	(57,337)	42,721	(14,616)
Effects of foreign currency exchange differences	17,989	(12,434)	5,555
Balance at December 31, 2018	$ 1,119,258	$ (716,466)	$ 402,792

(Concluded)

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

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

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

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

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

	December 31	
	2018	2017
Discount rates	0.43%-1.38%	0.50%-1.50%
Expected rates of salary increase	2.25%-5.00%	2.25%-5.00%
Return on plan assets	1.00%-1.10%	1.20%-1.35%

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

	December 31	
	2018	**2017**
Discount rate		
0.50% increase	$(56,964)	$(54,545)
0.50% decrease	$ 60,394	$ 58,277
Expected rate of salary increase		
0.50% increase	$ 48,166	$ 47,431
0.50% decrease	$(45,518)	$(44,785)

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

	December 31	
	2018	**2017**
Expected contributions to the plan for the following year	$ 48,643	$ 62,436
Average duration of the defined benefit obligation	8-18 years	9-17 years

25. EQUITY

a. Capital share

1) Common share

	December 31	
	2018	**2017**
Share authorized (in thousands of shares)	1,500,000	1,500,000
Share authorized (in thousands of dollars)	$ 15,000,000	$ 15,000,000
Share issued and fully paid (in thousands of shares)	779,147	779,147
Share issued (in thousands of dollars)	$ 7,791,466	$ 7,791,466

Fully paid common share, which have a par value of $10, carry 1 vote per share and carry a right to dividends.

15,000 thousand shares of the capital share was reserved for the issuance of employee share options.

As of December 31, 2018, 89 thousand units of GDSs of the Corporation were traded on the Luxembourg Share Exchange. The number of common shares represented by the GDSs was 178 thousand shares (one GDS represents 2 common shares).

b. Capital surplus

	December 31	
	2018	2017
May be used to offset a deficit, distributed as cash dividends, or transferred to capital share (1)		
Share premium	$ 1,929	$ 1,929
May be used to offset a deficit only		
Arising from treasury share transactions	125,712	117,612
Share of changes in capital surplus of subsidiaries and associates	93	52
	$ 127,734	$ 119,593

1) The premium from shares issued in excess of par may be used to offset a deficit; in addition, when the Corporation has no deficit, such capital surplus may be distributed as cash dividends or transferred to capital (limited to a certain percentage of the Corporation's capital surplus and once a year).

c. Retained earnings and dividend policy

Under the Corporation's Articles of Incorporation, the Corporation should make appropriations from its net income in the following order:

1) Offset deficits.

2) Set aside as legal reserve 10% of the remaining profit.

3) Appropriate as special reserve.

4) After the above-mentioned amounts have been deducted, any remaining profit from the previous years and the current year's undistributed retained earnings shall be used by the Corporation's board of directors as the basis for proposing a distribution plan, which should be resolved by the shareholders as to whether the amount should be distributed as dividends or retained within the Corporation.

Dividends are distributed in the form of cash, common share or a combination of cash and common share. In consideration of the Corporation being in a capital-intensive industry as well as the present and future investment environment, capital demand, market competition, capital budget, shareholders' interests, balanced dividend considerations and long-term financial plans, the Corporation's Articles of Incorporation provide that the total cash dividends paid in any given year should be at least 20% of total dividends distributed.

For the policies on the distribution of employees' compensation and remuneration of directors after the amendment, refer to employees' compensation and remuneration of directors in Note 27(e).

Items referred to under Rule No. 1010012865 and Rule No. 1010047490 issued by the FSC and in the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Corporation. Distributions can be made out of any subsequent reversal of the debit to other equity items.

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

The appropriations of earnings for 2017 and 2016 were approved in the shareholders' meetings on June 8, 2018 and May 26, 2017, respectively , were as follows:

	Appropriation of Earnings		**Dividends Per Share ($)**	
	For the Year Ended December 31		**For the Year Ended December 31**	
	2017	**2016**	**2017**	**2016**
Legal reserve appropriated	$ 584,926	$ 483,460	$ -	$ -
Special reserve appropriated	337,628	-	-	-
Cash dividends	3,506,160	2,555,601	4.5	3.28

The Corporation's shareholders also resolved to issue cash dividends from the capital surplus of $560,986 thousand in the shareholders' meeting on May 26, 2017. (About $0.72 per share.)

The appropriation of earnings for 2018 had been proposed by the Corporation's board of directors on March 14, 2019. The appropriations and dividends per share were as follows:

	Appropriation of Earnings	**Dividends Per Share**
Legal reserve appropriated	$ 623,428	$ -
Special reserve reversed	(142,558)	-
Cash dividends	3,739,904	4.8

The appropriations of earnings for 2018 are subject to the resolution of the shareholders in the shareholders' meeting to be held on May 31, 2019.

d. Other equity items

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

	For the Year Ended December 31	
	2018	**2017**
Balance at January 1	$(319,150)	$ 9,562
Recognized for the year		
Exchange differences on translating the financial statements of foreign operations	148,425	(328,712)
Other comprehensive income recognized for the year	148,425	(328,712)
Balance at December 31	$(170,725)	$(319,150)

2) Unrealized gain (loss) from available-for-sale financial assets

Balance at January 1, 2017	$ 44,038
Recognized for the year	
Unrealized gain on revaluation of available-for-sale financial assets	82,074
Disposal of available-for-sale financial assets transferred to profit or loss	(144,590)
Other comprehensive income recognized during the year	(62,516)
Balance at December 31, 2017	(18,478)
Adjustment on initial application of IFRS 9	18,478
Balance at January 1, 2018 per IFRS 9	$ -

3) Unrealized gain (loss) on financial assets at FVTOCI

	For the Year Ended December 31, 2018
Balance at January 1 per IAS 39	$ -
Adjustment on initial application of IFRS 9	(18,478)
Balance at January 1 per IFRS 9	(18,478)
Recognized for the year	
Unrealized gain - equity instruments	(5,867)
Other comprehensive income recognized during the year	(5,867)
Balance at December 31	$(24,345)

e. Non-controlling interests

	For the Year Ended December 31	
	2018	2017
Balance at January 1	$ 11,622,619	$ 8,505,461
Adjustment on initial application of IFRS 15	53,713	-
Share in profit for the year	1,278,286	1,442,013
Other comprehensive income (loss) for the year		
Exchange differences on translating the financial statements of foreign entities	91,104	(66,003)
Unrealized loss on available-for-sale financial assets	-	(182)
Unrealized loss on financial assets at FVTOCI	(26,326)	-
Remeasurement on defined benefit plans	(12,632)	(10,307)
Donations from shareholders	55	70
Cash dividends to shareholders from subsidiaries	(1,037,884)	(893,149)
The Corporation’s shares held by its subsidiaries treated as treasury share	(18,915)	(90,621)
Increase in non-controlling interests	124,121	2,735,337
Balance at December 31	$ 12,074,141	$ 11,622,619

f. Treasury share

Purpose of Buy-Back	Share Held by Subsidiary (In Thousands of Shares)
Number of shares at January 1, 2017	-
Increase during the year	1,800
Number of shares at December 31, 2017	1,800
Increase during the year	400
Number of shares at December 31, 2018	2,200

The Corporation's shares held by its subsidiaries at the end of the reporting period was as follows:

Name of Subsidiary	Number of Shares Held (In Thousands of Shares)	Carrying Amount	Market Price
December 31, 2018			
Greatek Electronics Inc.	2,200	$ 145,420	$ 145,420
December 31, 2017			
Greatek Electronics Inc.	1,800	$ 158,400	$ 158,400

The Corporation's share held by its subsidiary are treated as treasury share.

26. REVENUE

The Group's revenue for the years ended December 31, 2018 and 2017 were as follows:

	For the Year Ended December 31	
	2018	2017
Revenue from contracts with customers		
Revenue from packaging services	$ 45,521,205	$ 42,727,499
Revenue from testing services	22,091,275	16,620,354
Others	426,899	284,230
	$ 68,039,379	$ 59,632,083

a. Contract information

As the Group fulfills the obligations in the contract for testing services, the customer simultaneously receives and consumes the benefits provided by the Group. The Group has the right to revenue collection for the portion of testing services that have been fulfilled, and the revenue from testing services is recognized over time. The Group fulfills the obligations in the contract for packaging services when the customer creates or enhances the goods they have control of. The Group has the right to revenue collection for the portion of packaging services that have been fulfilled, and the revenue from packaging services is recognized over time.

b. Contract balances

	December 31, 2018
Notes and accounts receivable (including related parties) (Note 13)	$ 11,846,133
Contract assets - current	
Revenue from services	$ 1,671,214
Less: Allowance for impairment loss	-
Contract assets - current	$ 1,671,214
Contract liabilities - current	
Revenue from services	$ 39,323

The changes in the contract asset and the contract liability balances primarily result from the timing difference between the Group's performance and the customer's payment.

Revenue of the reporting period recognized from the beginning contract liabilities and from the performance obligations which were satisfied in the previous periods is as follows:

	For the Year Ended December 31, 2018
From the beginning contract liabilities	
Revenue from services	$ 28,183

c. Disaggregation of revenue

	For the Year Ended December 31, 2018
Type of goods or services	
Revenue from packaging services	$ 45,521,205
Revenue from testing services	22,091,275
Others	426,899
	$ 68,039,379
Primary geographical markets	
Japan	$ 22,270,182
Singapore	14,947,281
Taiwan (The principal place of business of the Group)	13,752,607
America	13,167,078
Europe	2,052,881
China and Hong Kong	1,381,878
Others	467,472
	$ 68,039,379

27. NET PROFIT

a. Other gains and losses

	For the Year Ended December 31	
	2018	2017
Fair value changes of financial assets and financial liabilities		
Financial assets classified as held for trading	$ -	$ 94,344
Financial assets mandatorily classified as at FVTPL	20,933	-
Financial liabilities classified as held for trading	(98,205)	(10,468)
Net gain on disposal of financial assets		
Available-for-sale financial assets	-	144,590
Impairment loss of non-financial assets	(437,609)	(145,938)
Others	96,889	91,659
	$(417,992)	$ 174,187

b. Other income

	For the Year Ended December 31	
	2018	**2017**
Rental income		
Operating lease rental income	$ 120,112	$ 20,922
Interest income		
Bank deposits	72,226	43,739
Financial assets measured at amortized cost	11,298	-
Held-to-maturity financial assets	-	10,832
Repurchase agreements collateralized by bonds	879	2,269
Others	346	5,651
Dividend income	-	263
Gain from bargain purchase	-	140,000
	$ 204,861	$ 223,676

c. Finance costs

	For the Year Ended December 31	
	2018	**2017**
Interest on bank loans	$ 448,034	$ 351,632
Capitalized interest	(97,509)	(115,470)
Others	-	98
	$ 350,525	$ 236,260

Information about capitalized interest was as follows:

	For the Year Ended December 31	
	2018	**2017**
Capitalized interest	$ 97,509	$ 115,470
Capitalization rate	1.19%-2.66%	1.12%-4.79%

d. Depreciation and amortization

	For the Year Ended December 31	
	2018	2017
Property, plant and equipment	$ 12,510,177	$ 10,493,833
Intangible assets	144,040	98,252
Total	$ 12,654,217	$ 10,592,085
An analysis of depreciation by function		
Operating costs	$ 11,967,746	$ 9,961,322
Operating expenses	542,431	532,511
	$ 12,510,177	$ 10,493,833
An analysis of amortization by function		
Operating costs	$ 132,955	$ 17,143
Marketing	137	66,750
General and administrative	7,979	12,500
Research and development	2,969	1,859
	$ 144,040	$ 98,252

e. Employee benefit expense

	For the Year Ended December 31	
	2018	2017
Post-employment benefits (Note 24)		
Defined contribution plans	$ 529,814	$ 430,282
Defined benefit plans	50,327	27,686
	580,141	457,968
Other employee benefits	15,358,217	13,633,130
Total employee benefit expense	$ 15,938,358	$ 14,091,098
An analysis of employee benefit expense by function		
Operating costs	$ 13,379,685	$ 12,080,060
Operating expenses	2,558,673	2,011,038
	$ 15,938,358	$ 14,091,098

f. Employees' compensation and remuneration of directors

According to the Articles of Incorporation of the Corporation, the Corporation accrued employees' compensation and remuneration of directors at rates between 5% and 7.5% and no higher than 1.5%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. However, if the Corporation has accumulated deficits (including adjustment of unappropriated earnings), the Corporation should retain the net profit in advance for deducting accumulated deficits.

The employees’ compensation and remuneration of directors for the years ended December 31, 2018 and 2017 which were approved by the Corporation’s board of directors on March 14, 2019 and March 16, 2018, respectively, are as follows:

Accrual rate

	For the Year Ended December 31	
	2018	2017
Employees’ compensation	5.37%	5.39%
Remuneration of directors	1.07%	1.08%

Amount

	For the Year Ended December 31	
	2018	2017
	Cash	Cash
Employees’ compensation	$ 420,813	$ 394,825
Remuneration of directors	84,163	78,965

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

There is no difference between the actual amounts of employees’ compensation and remuneration of directors paid and the amounts recognized in the consolidated financial statements for the years ended December 31, 2017 and 2016.

Information on the employees’ compensation and remuneration of directors resolved by the Corporation’s board of directors in 2019 and 2018 is available at the Market Observation Post System website of the Taiwan Share Exchange.

g. Gains or losses on foreign currency exchange

	For the Year Ended December 31	
	2018	2017
Foreign exchange gains	$ 991,709	$ 474,358
Foreign exchange losses	(776,370)	(931,499)
	$ 215,339	$ 457,141

28. INCOME TAXES

a. Major components of tax expense recognized in profit or loss

	For the Year Ended December 31	
	2018	2017
Current tax		
In respect of the current year	$ 1,937,697	$ 1,254,218
Income tax on unappropriated earnings	227,862	238,828
Adjustments for prior years	(44,052)	24,973
	2,121,507	1,518,019
Deferred tax		
In respect of the current year	(207,356)	77,984
Adjustments to deferred tax attributable to changes in tax rates and laws	8,624	-
	(198,732)	77,984
Income tax expenses recognized in profit or loss	$ 1,922,775	$ 1,596,003

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

	For the Year Ended December 31	
	2018	2017
Profit before income tax	$ 9,435,337	$ 8,887,278
Income tax expense calculated at the statutory rate	$ 2,410,983	$ 1,815,405
Nondeductible expenses in determining taxable income	(303,934)	(280,818)
Tax-exempt income	(90,421)	(143,751)
Income tax on unappropriated earnings	227,862	238,828
Generation of temporary differences	(194,367)	(58,634)
Unrecognized loss carryforwards	(112,952)	-
Adjustments to deferred tax attributable to changes in tax rates and laws	8,624	-
Adjustments for prior years' tax	(44,052)	24,973
Others	21,032	-
Income tax expense recognized in profit or loss	$ 1,922,775	$ 1,596,003

In 2017, the applicable corporate income tax rate used by the group entities in the ROC is 17%. However, the Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%, effective in 2018. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings will be reduced from 10% to 5%. The applicable tax rate used by subsidiaries in China is 25%. Tax rates used by other group entities operating in other jurisdictions are based on the tax laws in those jurisdictions.

As the status of 2019 appropriation of earnings is uncertain, the potential income tax consequences of the 2018 unappropriated earnings are not reliably determinable.

b. Current tax assets and liabilities

	December 31	
	2018	2017
Current tax liabilities		
Tax payable	$ 1,603,899	$ 1,000,059

c. Deferred tax assets and liabilities

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

For the year ended December 31, 2018

	Balance, Beginning of Year	Movements in the Year	Balance, End of Year
Deferred tax assets			
Temporary differences	$ 172,963	$ 184,866	$ 357,829
Deferred tax liabilities			
Temporary differences	$ 203,163	$ (87,257)	$ 115,906

For the year ended December 31, 2017

	Balance, Beginning of Year	Movements in the Year	Balance, End of Year
Deferred tax assets			
Temporary differences	$ 45,817	$ 127,146	$ 172,963
Loss carryforwards	4,918	(4,918)	-
	$ 50,735	$ 122,228	$ 172,963
Deferred tax liabilities			
Temporary differences	$ 2,951	$ 200,212	$ 203,163

d. Items for which no deferred tax assets have been recognized in the consolidated balance sheets

	December 31	
	2018	**2017**
Loss carryforwards		
Expiry in 2019	$ 24,764	$ 25,357
Expiry in 2010	26,057	26,682
Expiry in 2011	30,799	31,537
	$ 81,620	$ 83,576
Deductible temporary differences	$ 26,504	$ 167,903

e. Income tax assessments

Income tax returns through 2015 have been assessed by the tax authorities.

29. EARNINGS PER SHARE

Unit: NT$ Per Share

	For the Year Ended December 31	
	2018	**2017**
Basic earnings per share	$ 8.02	$ 7.51
Diluted earnings per share	$ 7.95	$ 7.46

The earnings and weighted average number of common shares outstanding used in the computation of earnings per share from continuing operations were as follows:

Net Profit for the Year

	For the Year Ended December 31	
	2018	**2017**
Net profit attributable to the owner of the Corporation	$ 6,234,276	$ 5,849,262
Effect of potentially dilutive common share:		
Employees' compensation	-	-
Earnings used in the computation of diluted earnings per share	$ 6,234,276	$ 5,849,262

Weighted average number of common shares outstanding (in thousands of shares):

	For the Year Ended December 31	
	2018	**2017**
Weighted average number of common shares used in the computation of basic earnings per share	776,846	778,394
Effect of potentially dilutive common share:		
Employees' compensation	7,222	5,011
Weighted average number of common shares used in the computation of dilutive earnings per share	784,068	783,405

If the Corporation offered to settle compensation paid to employees in cash or shares, the Corporation assumed the entire amount of the compensation will be settled in shares, and the resulting potential shares were 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.

30. BUSINESS COMBINATIONS

In order to develop business in Japan, the subsidiary of Powertech Technology Inc. (Powertech Technology Japan Ltd.) signed the Share Purchase Agreement and related contracts with Micron Technology Inc. and Micron Memory Japan Inc. The main content of the agreement was as follows:

The acquisition of the shares of Tera Probe, Inc. by means of tender offer

Powertech Technology Japan Ltd. intends to acquire 39.6% of the shares of Tera Probe, Inc. owned by Micron Memory Japan Inc. and any shares to be tendered from other shareholders by public tender offer from April 17, 2017 to May 29, 2017. The tender offer price is JPY 1,100 per share.

If the shares to be tendered do not reach the minimum number of shares acquired (3,680 thousand shares), Powertech Technology Japan Ltd. will not acquire any shares of Tera Probe, Inc.

Purchase 100% of the shares of Micron Akita, Inc.

Powertech Technology Japan Ltd. intends to purchase all of the total outstanding shares of Micron Akita, Inc. at closing date from Micron Memory Japan Inc. in the total consideration no more than US$50 million and will sign the related assembly and test services agreement.

If the shares of Tera Probe, Inc. to be tendered do not reach the minimum number of shares acquired (3,680 thousand shares), Powertech Technology Japan Ltd. will not purchase any shares of Micron Akita, Inc.

a. Subsidiaries acquired

	Principal Activity	**Date of Acquisition**	**Proportion of Voting Equity Interests Acquired (%)**
Tera Probe, Inc. and subsidiaries	Wafer probing test services	May 29, 2017	59
Powertech Technology Akita Inc.	Semiconductor assembly and testing service	August 4, 2017	100

In order to develop business in Japan, Powertech Technology Japan Ltd. acquired the shares of Tera Probe, Inc. by means of tender offer in May 2017. Refer to Note 14 for the details.

b. Considerations transferred

	Tera Probe, Inc. and Subsidiaries and Powertech Technology Akita Inc.
Cash	$ 2,550,142
Shares	1,757,018
	$ 4,307,160

c. Assets acquired and liabilities assumed at the date of acquisition

	Tera Probe, Inc. and Subsidiaries and Powertech Technology Akita Inc.
Current assets	
Cash and cash equivalents	$ 3,724,740
Financial assets at fair value through profit or loss - current	3,048
Notes and accounts receivable	1,646,844
Other receivables	257,796
Inventories	151,542
Prepaid expenses	40,393
Non-current assets held for sale	1,056,479
Other current assets	202,180
Non-current assets	
Held-to-maturity financial assets - non-current	10,943
Investments accounted for using the equity method	60,125
Property, plant and equipment	7,406,100

(Continued)

	Tera Probe, Inc. and Subsidiaries and Powertech Technology Akita Inc.
Intangible assets	$ 157,085
Deferred income tax assets	38,221
Other non-current assets	204,309
Current liabilities	
Notes and accounts payable	(307,643)
Payables to equipment suppliers	(804,559)
Current income tax liabilities	(144,912)
Accrued expenses and other current liabilities	(2,587,130)
Current portion of long-term debt	(105,264)
Finance lease payables - current	(160,803)
Non-current liabilities	
Long-term debts	(3,322,670)
Deferred tax liabilities	(72,667)
Finance lease payables - non-current	(249,919)
Net defined benefit liabilities - non-current	(131,285)
Other non-current liabilities	(80,149)
	$ 6,992,804

(Concluded)

d. Net cash inflow on acquisition of subsidiaries

	Powertech Technology Akita Inc.	Tera Probe, Inc. and subsidiaries
Consideration paid in cash	$(1,216,720)	$(1,333,422)
Less: Cash and cash equivalent balances acquired	513,754	3,210,986
	$ (702,966)	$ 1,877,564

e. Impact of acquisitions on the results of the Group

Had these business combinations been in effect at the beginning of the annual reporting period, the Group’s revenue from continuing operations would have been $63,711,459 thousand, and the profit from continuing operations would have been $7,250,330 thousand for the year ended December 31, 2017. This pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that actually would have been achieved had the acquisition been completed on January 1, 2017, nor is it intended to be a projection of future results.

31. OPERATING LEASE ARRANGEMENTS

a. The Group as lessee

The Corporation leases a plant and land from TeraPower Technology Inc. and Tang Eng Iron Works Co., Ltd. under a renewable agreement that expires before December 2023.

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

	December 31	
	2018	2017
Not later than 1 year	$ 16,697	$ 16,697
Over 1 year and up to 5 years	66,788	66,788
Later than 5 years	-	16,697
	$ 83,485	$ 100,182

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

	For the Year Ended December 31	
	2018	2017
Minimum lease payments	$ 16,697	$ 21,697

Powertech Technology (Singapore) Pte. Ltd. leased equipment and office space from IBM and CAMBRIDGE INDUSTRIAL TRUST under a renewable agreement which expires in May 2021.

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

	December 31	
	2018	2017
Not later than 1 year	$ 45,155	$ 43,644
Over 1 year and up to 5 years	63,544	107,815
	$ 108,699	$ 151,459

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

	For the Year Ended December 31	
	2018	2017
Minimum lease payments	$ 43,921	$ 42,820

Tera Probe, Inc. leased equipment and office space from Micron Memory Japan, Inc. , Advantest Finance Inc. , Aizu Fujitsu Semiconductor Limited and Hitachi Capital Corporation, etc. under renewable agreements which expires before May 2019.

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

	December 31	
	2018	**2017**
Not later than 1 year	$ 201,448	$ 80,126
Over 1 year up to 5 years	-	1,695
	$ 201,448	$ 81,821

The lease payments recognized as expenses were as follows:

	For the Year Ended December 31	
	2018	**2017**
Minimum lease payments	$190,075	$ 69,324

32. CAPITAL MANAGEMENT

The Group manages its capital to ensure its ability to continue as a going concern while maximizing the return to stakeholders. The Group’s overall strategy remains unchanged from the previous year.

The capital structure of the Group consists of net debt (borrowings offset by cash and cash equivalents) and equity of the Group (comprising issued capital, reserves, retained earnings, other equity and non-controlling interests).

33. FINANCIAL INSTRUMENTS

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

December 31, 2018

	Carrying Amount	Fair Value Level 1	Fair Value Level 2	Fair Value Level 3	Fair Value Total
Financial assets					
Financial assets at amortized cost					
Domestic corporate bonds	$ 1,151,536	$ -	$ 1,156,991	$ -	$ 1,156,991

December 31, 2017

	Carrying Amount	Fair Value Level 1	Fair Value Level 2	Fair Value Level 3	Fair Value Total
Financial assets					
Held-to-maturity investments	$ 1,153,305	$ -	$ 1,158,787	$ -	$ 1,158,787

The above-mentioned level 2 fair value measurement was based on the quoted price from the Taipei Exchange.

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

1) Fair value hierarchy

December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Mutual funds	$ 50,376	$ -	$ -	$ 50,376
Derivative instruments	-	5,841	-	5,841
	$ 50,376	$ 5,841	$ -	$ 56,217
Financial assets at FVTOCI				
Investments in equity instruments				
Domestic listed shares and emerging market shares	$ 2,303	$ 24,500	$ -	$ 26,803
Financial liabilities at FVTPL				
Derivative instruments	$ -	$ 2,223	$ -	$ 2,223

December 31, 2017

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Non-derivative financial assets held for trading	$ 50,162	$ -	$ -	$ 50,162
Derivative instruments	-	8,799	-	8,799
	$ 50,162	$ 8,799	$ -	$ 58,961
Available-for-sale financial assets				
Domestic listed shares and emerging market shares	$ 2,670	$ 30,000	$ -	$ 32,670
Financial liabilities at FVTPL				
Derivative instruments	$ -	$ 5,887	$ -	$ 5,887

There were no transfers between Level 1 and 2 in the current and prior year.

2) Valuation techniques and inputs applied for the purpose of Level 2 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Derivatives - foreign currency forward contracts	Discounted cash flow. Future cash flows are estimated based on observable forward exchange rates at the end of the reporting period and contract forward rates, discounted at a rate that reflects the credit risk of various counterparties.
Unlisted securities	Using the market approach and the binomial option pricing model to calculate the fair value.

c. Categories of financial instruments

	December 31	
	2018	**2017**
Financial assets		
Financial assets at fair value through profit or loss (FVTPL)		
Held for trading	$ -	$ 58,961
Mandatorily classified as at FVTPL	56,217	-
Held-to-maturity investments	-	1,153,305
Loans and receivables (Note 1)	-	32,086,787
Available-for-sale financial assets	-	32,670
Financial assets at amortized cost (Note 2)	33,352,629	-
Financial assets at FVTOCI		
Equity instruments	26,803	-
Financial liabilities		
Financial liabilities at fair value through profit or loss (FVTPL)		
Held for trading	2,223	5,887
Financial liabilities at amortized cost (Note 3)	40,652,073	37,470,207

Note 1: The balances include loans and receivables measured at amortized cost, which comprise cash and cash equivalents, notes and accounts receivable (including related parties), other receivables (including related parties), debt investments with no active market, and other assets.

Note 2: The balances include financial assets measured at amortized cost, which comprise cash and cash equivalents, debt investments, time deposits with original maturities of more than 3 months, notes and accounts receivable (including related parties), other receivables (including related parties), pledged time deposits and refundable deposits.

Note 3: The balances include financial liabilities measured at amortized cost, which comprise short-term loans, notes and accounts payable (including related parties), other payables (including related parties), accrued expenses and other current liabilities and long-term debt.

d. Financial risk management objectives and policies

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

The Group sought to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives was governed by the Group's policies approved by the board of directors, which provided written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits was reviewed by the internal auditors on a continuous basis. The Group did not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The corporate treasury function reports quarterly to the Group's board of directors, an independent body that monitors risks and policies implemented to mitigate risk exposures.

1) Market risk

   The Group's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (a) below) and interest rates (see (b) below). The Group entered into a variety of derivative financial instruments (included forward exchange contracts) to manage its exposure to foreign currency risk.

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

   a) Foreign currency risk

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

      The strategy of foreign currency risk management is to review the net position exposed to foreign currency risk and manage the risk of the net position. The Group selects the instruments to hedge against currency exposure taking into consideration the hedging cost and period. The Group currently utilizes derivative financial instruments, including buy/sell foreign exchange forward contracts, to hedge against foreign currency exchange risk.

      For the carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period, refer to Note 38.

      The Group uses forward exchange contracts to reduce foreign currency risk exposure. It is the Group's policy to negotiate the terms of the hedge derivatives to match the terms of the hedged item to maximize hedge effectiveness.

      As net investments in foreign operations are for strategic purposes, they are not hedged by the Group.

      <u>Sensitivity analysis</u>

      The Group was mainly exposed to the USD and JPY.

      The following table details the Group's sensitivity to a 5% increase and decrease in the functional currency against the relevant foreign currencies. The sensitivity analysis included outstanding foreign currency denominated monetary items and foreign currency forward contracts designated as cash flow hedges, and adjusted their translation at the end of the reporting period for a 5% change in foreign currency rates. The sensitivity analysis included cash and cash equivalents, accounts receivable, other receivables, accounts payable, other payables, short-term bank loans and long-term debt. The number below indicates the decrease/increase in pre-tax profit when the functional currency strengthens 5% against the relevant currency.

	USD Impact		JPY Impact	
	For the Year Ended December 31		For the Year Ended December 31	
	2018	2017	2018	2017
Profit or loss	$(408,898)	$(393,682)	$ 18,485	$ 47,957

b) Interest rate risk

As the Group owns assets at both fixed and floating interest rates, the Group is exposed to interest rate risk. The Group’s interest rate risk also comes from borrowings at floating interest rates. Since the Group’s bank borrowings are at floating interest rates, fluctuations in interest rates will affect cash flow in the future but will not affect the fair value.

The carrying amounts of the Group's financial assets and financial liabilities with exposure to interest rate risk at the end of the reporting period were as follows.

	December 31	
	2018	2017
Fair value interest rate risk		
Financial assets	$ 9,445,057	$ 8,426,152
Financial liabilities	1,049,454	1,120,174
Cash flow interest rate risk		
Financial assets	10,536,721	10,924,347
Financial liabilities	31,322,908	30,180,795

Sensitivity analysis

The sensitivity analysis below was determined based on the Group’s exposure to interest rate risk for non-derivative instruments at the end of the reporting period. For floating rate assets and liabilities, the analysis was prepared assuming the amount of both the assets and the liabilities outstanding at the end of the reporting period was outstanding for the whole year.

If interest rates had been 0.1% higher/lower and all other variables were held constant, the Group’s pre-tax loss for the year ended December 31, 2018 and 2017 would decrease/increase by $20,786 thousand and $19,256 thousand, respectively, which was mainly attributable to the Group’s exposure to interest rate risk on its variable-rate net liabilities.

c) Other price risk

The Group was exposed to equity price risk through its investments in listed equity securities. Equity investments are held for strategic rather than trading purposes. The Group does not actively trade these investments. The Group's equity price risk was mainly concentrated on equity instruments in the electronics industry sector quoted in the Tokyo Share Exchange and the Taipei Exchange.

Sensitivity analysis

The sensitivity analysis below was determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 5% higher/lower, pre-tax profit for the year ended December 31, 2018 would have increased/decreased by $2,519 thousand as a result of the changes in fair value of financial assets at FVTPL, and the post-tax other comprehensive income for the year ended December 31, 2018 would have increased/decreased by $1,340 thousand as a result of the changes in fair value of financial assets at FVTOCI.

If equity prices had been 5% higher/lower, pre-tax profit for the year ended December 31, 2017 would have increased/decreased by $2,508 thousand as a result of the changes in fair value of financial assets at FVTPL, and the post-tax other comprehensive income for the year ended December 31, 2017 would have increased/decreased by $1,634 thousand as a result of the changes in fair value of available-for-sale financial assets.

2) Credit risk

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

In order to minimize credit risk, the management of the Group has set up an approach for credit and accounts receivable management to ensure that follow-up action is taken to recover overdue debt. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate impairment losses are made for irrecoverable amounts.

In this regard, the directors of the Corporation consider that the Group's credit risk was significantly reduced.

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

Trade receivables consisted of a large number of customers, spread across diverse industries and geographical areas. Ongoing credit evaluation is performed on the financial condition of trade receivables.

The Group's concentration of credit risk was related to the three largest customers within the Group. Besides the aforementioned customers, there was no other customer that accounted for 10% of total gross accounts receivable at any time during the years 2018 and 2017. The three largest customers are creditworthy counterparties; therefore, the Corporation believes the concentration of credit risk is insignificant.

Credit risk management for investments in debt instruments - 2018

The Group only invests in debt instruments that are rated the equivalent of investment grade or higher and have low credit risk for the purpose of impairment assessment. The credit rating information is supplied by independent rating agencies. The Group’s exposure and the external credit ratings are continuously monitored. The Group reviews changes in bond yields and other public information and makes an assessment whether there has been a significant increase in credit risk since the last period to the reporting date.

The Group considers the historical default rates of each credit rating supplied by external rating agencies, the current financial condition of debtors, and industry forecasts to estimate 12-month or lifetime expected credit losses. The Group’s current credit risk grading framework comprises the following categories:

Category	**Description**	**Basis for Recognizing Expected Credit Losses**	**Expected Loss Rate**
Performing	The counterparty has a low risk of default and a strong capacity to meet contractual cash flows	12m ECL	-

3) Liquidity risk

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

The Group relies on bank borrowings as a significant source of liquidity. As of December 31, 2018 and 2017, the Group had available unutilized short-term bank loan facilities of approximately $6,578,487 thousand and $4,832,761 thousand, respectively.

a) Liquidity and interest rate risk tables for non-derivative financial liabilities

The following table details the Group’s remaining contractual maturities for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities from the earliest date on which the Group can be required to pay. The tables include both interest and principal cash flows.

Specifically, bank loans with a repayment on demand clause were included in the earliest time band regardless of the probability of the banks choosing to exercise their rights. The maturity dates for other non-derivative financial liabilities were based on the agreed repayment dates.

December 31, 2018

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Non-interest bearing liabilities	$ 3,437,665	$ 3,947,536	$ 1,188,943	$ -	$ -
Fixed interest rate liabilities	-	136,277	276,458	636,719	-
Variable interest rate liabilities	-	707,330	216,519	26,601,190	3,797,869
	$ 3,437,665	$ 4,791,143	$ 1,681,920	$27,237,909	$ 3,797,869

December 31, 2017

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Non-interest bearing liabilities	$ 2,881,251	$ 2,266,830	$ 1,327,396	$ -	$ -
Fixed interest rate liabilities	-	546,916	209,927	363,331	-
Variable interest rate liabilities	572,884	626,998	2,139,901	24,504,613	2,336,399
	$ 3,454,135	$ 3,440,744	$ 3,677,224	$24,867,944	$ 2,336,399

b) Liquidity and interest rate risk table for derivative financial liabilities

The following table details the Group's liquidity analysis of its derivative financial instruments. The table is based on the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

December 31, 2018

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year
Gross settled			
Foreign exchange forward contracts			
Inflows	$1,656,354	$ 409,507	$ 88,180
Outflows	(1,655,351)	(408,106)	(86,966)
	$ 1,003	$ 1,401	$ (1,214)

December 31, 2017

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year
Gross settled			
Foreign exchange forward contracts			
Inflows	$1,336,640	$ 750,257	$ 93,692
Outflows	(1,333,880)	(749,509)	(94,288)
	$ 2,760	$ 748	$ (596)

c) Financing facilities

	December 31	
	2018	2017
Secured bank loan facilities which may be mutually extended:		
Amount used	$ 13,534,928	$ 11,396,343
Amount unused	-	966,000
	$ 13,534,928	$ 12,362,343

34. TRANSACTIONS WITH RELATED PARTIES

Balances and transactions between the Corporation and its subsidiaries, which were related parties of the Corporation, had been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

a. Related Party Name and Relationship

Related Party Name	Relationship with the Corporation
Toshiba Corporation	Substantial related parties
Toshiba Memory Corporation	Substantial related parties
Toshiba International Procurement Hong Kong, Ltd.	Substantial related parties
Toshiba Information Systems (Japan) Corporation	Substantial related parties
Kingston Technology International Ltd.	Substantial related parties
Kingston Digital International Ltd.	Substantial related parties
Kingston Solution, Inc.	Substantial related parties
Kingston Technology Far East Corp.	Substantial related parties
Realtek Singapore Private Limited	Substantial related parties
Realtek Semiconductor corp.	Substantial related parties
Weltrend Semiconductor, Inc. (No longer the related party of the Group since May 29, 2018.)	Substantial related parties
TeraPower Technology Inc.	Associate (Subsidiary of the Group since May 29, 2017.)

b. Sales of goods

Line Item	Related Party Category / Name	For the Year Ended December 31	
		2018	2017
Sales of goods	Substantial related parties		
	Toshiba Memory Corporation	$ 14,821,258	$ 9,430,229
	Other	2,196,783	5,532,535
		17,018,041	14,962,764
	Associates	-	9,909
		$ 17,018,041	$ 14,972,673

Sales transactions with related parties were based on normal commercial prices and terms. In general, the payment terms for the sales of the Group is from 30 days to 150 days starting from the first day of the month following the invoice date.

c. Purchases

Related Party Category	For the Year Ended December 31	
	2018	2017
Substantial related parties	$ 31,724	$ 18

The purchase prices and payment terms were based on negotiations and thus not comparable with those in the market.

d. Operating expenses

Related Party Category	For the Year Ended December 31	
	2018	**2017**
Substantial related parties	$ 273	$ -
Associates	-	1,828
	$ 273	$ 1,828

The rentals with related parties were based on cooperation agreements and were thus not comparable with those in the market.

e. Miscellaneous income

Related Party Category	For the Year Ended December 31	
	2018	**2017**
Substantial related parties	$ 120	$ -

The rentals with related parties were based on cooperation agreements and were thus not comparable with those in the market.

f. Other gains and losses

Related Party Category	For the Year Ended December 31	
	2018	**2017**
Substantial related parties	$ 10	$ 5,152
Associates	-	168
	$ 10	$ 5,320

Mainly includes the remuneration of directors, administration support revenue, difference from collections and payment transfers. The administration support revenue with related parties were based on negotiations and were thus not comparable with those in the market.

g. Contract assets

Related Party Category / Name	December 31	
	2018	**2017**
Substantial related parties		
Toshiba Memory Corporation	$ 511,952	$ -
Other	64,763	-
	$ 576,715	$ -

For the year ended December 31, 2018, no impairment loss was recognized for contract assets from related parties.

h. Accounts receivable from related parties (excluding loans to related parties and contract assets)

Line Item	Related Party Category / Name	December 31 2018	December 31 2017
Accounts receivable from related parties	Substantial related parties		
	Toshiba Memory Corporation	$ 2,451,389	$ 3,578,364
	Others	427,919	451,142
		$ 2,879,308	$ 4,029,506

The outstanding accounts receivable from related parties are unsecured. For the years ended December 31, 2018 and 2017, no impairment loss was recognized for accounts receivable from related parties.

i. Acquisition of property, plant and equipment

Related Party Category	Purchase Price For the Year Ended December 31 2018	Purchase Price For the Year Ended December 31 2017
Substantial related parties	$ 1,102	$ -

The transactions of property, plant and equipment with related parties were based on negotiations of cooperation agreements for which there were no comparable terms under the agreements.

j. Other receivables from related parties

Related Party Category / Name	December 31 2018	December 31 2017
Substantial related parties		
Toshiba Memory Corporation	$ 15,773	$ 5,536
Kingston Solution, Inc.	58	2,340
Realtek Semiconductor Corp.	-	1,310
Other	250	-
	$ 16,081	$ 9,186

k. Other payables from related parties

Related Party Category	December 31 2018	December 31 2017
Substantial related parties	$ 569	$ -

l. Payable expenses and other current liabilities

Related Party Category	December 31 2018	December 31 2017
Substantial related parties	$ 7,301	$ -

m. Compensation of key management personnel

	For the Year Ended December 31	
	2018	2017
Short-term benefits	$ 366,469	$ 350,955
Post-employment benefits	1,836	1,836
	$ 368,305	$ 352,791

The remuneration of directors and key executives was determined by the remuneration committee based on the performance of individuals and market trends.

35. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets had been pledged or mortgaged as collateral mainly for long-term debt, guarantee deposits for exports, L/C, guarantees for settlement and bonded inventories.

	December 31	
	2018	2017
Property, plant and equipment	$ 19,333,168	$ 16,839,881
Pledged deposits (classified as financial assets at amortized cost - current)	21,763	-
Restricted deposits (classified as financial assets at amortized cost - current)	318,534	-
Pledged deposits (classified as financial assets at amortized cost – non-current)	96,815	-
Pledged deposits (classified as debt investments with no active market - non-current)	-	546,703
Pledged deposits (classified as other assets - current)	-	319,755
	$ 19,770,280	$ 17,706,339

36. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

The Group’s significant commitments and contingencies as of December 31, 2018 were as follows:

a. The Corporation and MTI signed the TCC License Agreement with Tessera Inc. on February 27, 2014. After a series of compromises and negotiations during the settlement process, and consulting with attorneys, the settlement amount is proposed to be USD196,000 thousand, payable over 5 years in consideration of early termination of the License Agreement as of December 31, 2012, and the litigation will be dismissed by the parties upon the settlement. The Corporation and MTI recognized a settlement loss for the year ended December 31, 2013. As of the end of December 31, 2017, the Corporation had made the payment in full.

b. In order to develop business in Japan, the subsidiary of Powertech Technology Inc. (Powertech Technology Japan Ltd.) had signed the Share Purchase Agreement and related contracts with Micron Technology Inc. and Micron Memory Japan Inc. that had been approved in the board of directors meeting on April 14, 2017. Powertech Technology Japan Ltd. intends to purchase all of the outstanding shares of Micron Akita, Inc. at the closing date from Micron Memory Japan Inc. in the total consideration not exceeding USD50,000 thousand, and at the same time sign the related assembly and test services agreement.

c. From September 2017 to September 2018, the Corporation signed contracts worth $1,811,372 thousand with Jian Ming Contractor Co., Ltd. for the purchase of machinery and equipment. As of December 31, 2018, the Corporation has paid a total of $76,752 thousand.

d. From April 2018 to September 2018, the Corporation signed contracts worth $992,100 thousand with Jiu Han Engineering Co., Ltd. to set up utilities. As of December 31, 2018, the Corporation had made the payment in full.

e. From September 2017 to June 2018, the Corporation signed the purchase agreements of equipment worth $2,254,499 thousand with Advantest Corporation. As of December 31, 2018, the Corporation has paid a total of $2,135,145 thousand.

f. From August 2017 to August 2018, TeraPower Technology Inc. signed the purchase agreements of equipment worth $1,048,169 thousand with K-Shine Electronic Corporation. As of December 31, 2018, TeraPower Technology Inc had made the payment in full.

g. From October 2017 to October 2018, TeraPower Technology Inc. signed the purchase agreements of equipment worth $540,966 thousand with Accretech Taiwan Co., Ltd. As of December 31, 2018, TeraPower Technology Inc. has paid a total of $226,352 thousand.

h. The unused credit amounts were as follows:

	December 31	
	2018	**2017**
USD	$ -	$ 268
JPY	$ 483,640	$ 2,735,979

37. SIGNIFICANT FINANCIAL ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The Group's significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currencies and the related exchange rates between foreign currencies and respective functional currencies were as follows:

	December 31, 2018		
	Foreign Currency	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 381,991	30.733 (USD:NTD)	$ 11,739,729
USD	7,530	6.8658 (USD:RMB)	231,419
USD	24,290	110.4 (USD:JPY)	746,505
JPY	1,018,342	0.2784 (JPY:NTD)	283,506
JPY	2,197	0.0622 (JPY:RMB)	612
JPY	1,662,052	0.0091 (JPY:USD)	462,715
SGD	3,379	0.7316 (SGD:USD)	75,978
RMB	14,023	0.1456 (RMB:USD)	62,770
RMB	4,517	4.4762 (RMB:NTD)	20,219
EUR	40	35.2031 (EUR:NTD)	1,408
			$ 13,624,861

(Continued)

	December 31, 2018		
	Foreign Currency	Exchange Rate	Carrying Amount
Non-monetary items			
USD	$ 101	30.733 (USD:NTD)	$ 3,116
JPY	9,787	0.2784 (JPY:NTD)	2,725
			$ 5,841
Financial liabilities			
Monetary items			
USD	110,319	30.733 (USD:NTD)	$ 3,390,434
USD	18,638	6.8658 (USD:RMB)	572,802
USD	18,757	110.4 (USD:JPY)	576,459
EUR	1,245	35.2031 (EUR:NTD)	43,828
JPY	2,459,309	0.2784 (JPY:NTD)	684,672
JPY	27,248	0.0622 (JPY:RMB)	7,586
JPY	1,523,956	0.0091 (JPY:USD)	424,269
RMB	36,914	0.1456 (RMB:USD)	165,234
SGD	1,944	0.7316 (SGD:USD)	43,712
			$ 5,908,996
Non-monetary items			
USD	34	30.733 (USD:NTD)	$ 1,047
JPY	3,999	0.2784 (JPY:NTD)	1,113
RMB	14	4.4762 (RMB:NTD)	63
			$ 2,223

(Concluded)

	December 31, 2017		
	Foreign Currency	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 396,095	29.848 (USD:NTD)	$ 11,822,644
USD	4,596	6.512 (USD:RMB)	137,181
USD	4,811	112.66 (USD:JPY)	143,599
JPY	193,074	0.2649 (JPY:NTD)	51,145
JPY	2,749	0.0578 (JPY:RMB)	728
JPY	755,082	0.0089 (JPY:USD)	200,021
SGD	3,135	0.7479 (SGD:USD)	69,985
SGD	72	22.324 (SGD:NTD)	1,607
RMB	27,122	0.1536 (RMB:USD)	124,327
RMB	22,785	4.5840 (RMB:NTD)	104,446
			$ 12,655,683

(Continued)

	December 31, 2017		
	Foreign Currency	Exchange Rate	Carrying Amount
Non-monetary items			
USD	$ 153	29.848 (USD:NTD)	$ 4,575
JPY	2,893	0.2649 (JPY:NTD)	766
			$ 5,341
Financial liabilities			
Monetary items			
USD	153,986	29.848 (USD:NTD)	$ 4,596,174
USD	18,888	6.512 (USD:RMB)	563,769
USD	1,001	112.66 (USD:JPY)	29,878
EUR	1,260	35.67 (EUR:NTD)	44,950
JPY	3,564,088	0.2649 (JPY:NTD)	944,127
JPY	37,278	0.0578 (JPY:RMB)	9,875
JPY	970,330	0.0089 (JPY:USD)	257,040
RMB	17,823	0.1536 (RMB:USD)	81,701
RMB	9,322	4.5840 (RMB:NTD)	42,732
SGD	2,073	22.324 (SGD:NTD)	46,277
NTD	1,546	0.0335 (NTD:USD)	1,546
			$ 6,618,069
Non-monetary items			
USD	2	29.848 (USD:NTD)	$ 45
JPY	57,611	0.2649 (JPY:NTD)	15,261
			$ 15,306

(Concluded)

For the years ended December 31, 2018 and 2017, realized and unrealized net foreign exchange gains (losses) were $215,339 thousand and $(457,141) thousand, respectively. It is impractical to disclose net foreign exchange gains (losses) by each significant foreign currency due to the variety of the foreign currency transactions and currencies of the Corporation.

38. SEPARATELY DISCLOSED ITEMS

Except for the following, the Group has no other significant transactions, investees and investments in mainland China that need to be disclosed as required by the Securities and Futures Bureau.

a. Financing provided to others: Table 1 (attached)

b. Endorsements/guarantees provided: Table 2 (attached)

c. Marketable securities held: Table 3 (attached)

d. Marketable securities acquired or disposed of at costs or prices amounting to at least NT$300 million or 20% of the paid-in capital: Table 4 (attached)

e. Acquisition of individual real estate at costs of at least NT$300 million or 20% of the paid-in capital: Table 5 (attached).

f. Disposal of individual real estate at prices of at least NT$300 million or 20% of the paid-in capital: None.

g. Total purchases from or sales to related parties of at least NT$100 million or 20% of the paid-in capital: Table 6 (attached)

h. Receivables from related parties amounting to at least NT$100 million or 20% of the paid-in capital: Table 7 (attached)

i. Derivative transactions: Note 7.

j. Information of intercompany relationships and significant intercompany transactions: Table 8 (attached).

k. Names, locations, and related information of investees over which the Corporation exercises significant influence: Table 9 (attached)

l. Information on investments in mainland China: Table 10 (attached)

   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 investments at the end of the period, repatriations of investment income, and limit on the amount of investments in the mainland China area: Note 39 (j).

39. SEGMENT INFORMATION

a. The revenues, operating results and financial information of each plant presented to the chief operating decision maker are consistent with the information in the consolidated financial statements. The segment revenues and operating results for the years ended December 31, 2018 and 2017 are shown in the consolidated income statements for the years ended December 31, 2018 and 2017. The segment assets as of December 31, 2018 and 2017 are shown in the consolidated balance sheets as of December 31, 2018 and 2017.

b. Revenue from major products and services

The following is an analysis of the Group's revenue from its major products and services:

	For the Year Ended December 31	
	2018	2017
Revenue from contracts with customers		
Revenue from packaging services	$ 45,521,205	$ 42,727,499
Revenue from testing services	22,091,275	16,620,354
Others	426,899	284,230
	$ 68,039,379	$ 59,632,083

c. Geographical information

The Group's revenue from continuing operations from external customers and information about its non-current assets by geographical location are detailed below.

	Revenue For the Year Ended December 31		Non-current Assets December 31	
	2018	2017	2018	2017
Japan	$ 22,270,182	$ 20,422,543	$ 4,039,712	$ 2,405,181
Singapore	14,947,281	12,857,749	850,875	487,541
Taiwan	13,752,607	12,170,505	55,173,147	53,402,111
America	13,167,078	10,618,829	-	-
Europe	2,052,881	1,842,106	-	-
China and Hong Kong	1,381,878	1,404,213	3,079,323	3,617,837
Others	467,472	316,138	-	-
	$ 68,039,379	$ 59,632,083	$ 63,143,057	$ 59,912,670

Non-current assets exclude long-term equity investments accounted for using the equity method, financial instruments, deferred tax assets, and other assets.

d. Major customers

Sales to customers amounting to at least 10% of total gross sales:

	For the Year Ended December 31			
	2018		2017	
Customer	**Amount**	**% of Total**	**Amount**	**% of Total**
A	$ 18,482,277	27	$ 17,981,516	30
B	14,923,812	22	12,226,172	21
C	8,673,567	13	6,647,619	11

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

FINANCING PROVIDED TO OTHERS
FOR THE YEAR ENDED DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

No.	Lender	Borrower	Financial Statement Account	Related Parties	Highest Balance for the Period	Ending Balance	Actual Borrowing Amount	Interest Rate	Nature of Financing	Business Transaction Amounts	Reasons for Short-term Financing	Allowance for Impairment Loss	Collateral		Financing Limit for Each Borrower (Notes 3 and 4)	Aggregate Financing Limits (Notes 3 and 4)	Note
													Item	Value			
0	Powertech Technology Inc.	Powertech Technology (Singapore) Pte Ltd.	Other receivable	Note 1	$ 921,990	$ 921,990	$ 645,393	2.2%	For short-term financing	$ -	Working capital	$ -	-	$ -	$ 2,050,161	$ 4,100,323	-
		Powertech Technology (Suzhou) Ltd.	Other receivable	Note 2	737,592	737,592	630,027	2.2%	For short-term financing	-	Working capital	-	-	-	2,050,161	4,100,323	-
1	Tera Probe, Inc.	Tera Probe Aizu, Inc.	Other receivable	Note 1	194,880	189,312	183,744	1%	For short-term financing	-	Working capital	-	-	-	299,405	598,811	-

Note 1: Direct investments, the Corporation's wholly-owned subsidiaries.

Note 2: Indirect investments, the Corporation's wholly-owned subsidiaries.

Note 3: The amount of financing provided by PTI to any individual shall not exceed five percent of PTI's net worth. The aggregate amount of financing available shall not exceed ten percent of PTI's net worth.

Note 4: The amount of financing provided by Tera Probe, Inc. to any individual shall not exceed five percent of Tera Probe, Inc.'s net worth. The aggregate amount of financing available shall not exceed ten percent of Tera Probe, Inc.'s net worth.

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars)

Endorser/Guarantor	Endorsee/Guarantee		Limits on Endorsement/ Guarantee Given on Behalf of Each Party (Note 3)	Maximum Amount Endorsed/ Guaranteed During the Period	Outstanding Endorsement/ Guarantee at the End of the Period	Actual Borrowing Amount	Amount Endorsed/ Guaranteed by Collaterals	Ratio of Accumulated Endorsement/ Guarantee to Net Equity In Latest Financial Statements (%)	Aggregate Endorsement/ Guarantee Limit (Note 3)	Endorsement/Guarantee Given by Parent on Behalf of Subsidiaries	Endorsement/Guarantee Given by Subsidiaries on Behalf of Parent	Endorsement/Guarantee Given on Behalf of Companies in Mainland China	Note
	Name	Relationship											
Powertech Technology Inc.	Powertech Technology (Singapore) Pte. Ltd.	Note 1	$ 4,100,323	$ 921,990	$ 921,990	$ 76,833	$ -	2.25%	$ 20,501,613	Yes	-	-	-
	Powertech Technology (Suzhou) Ltd.	Note 2	4,100,323	614,660	614,660	30,733	-	1.50%	20,501,613	Yes	-	Yes	-

Note 1: Direct investments, the Corporation’s wholly-owned subsidiaries.

Note 2: Indirect investments, the Corporation’s wholly-owned subsidiaries.

Note 3: The amount of guarantees provided by PTI to any individual entity shall not exceed ten percent of PTI’s net worth. The aggregate amount of guarantees available shall not exceed fifty percent of PTI’s net worth.

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

MARKETABLE SECURITIES HELD
DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars)

Holding Company Name	Marketable Securities Type and Issuer	Relationship with the Holding Company	Financial Statement Account	September 30, 2018				Note
				Shares (Thousands)	Carrying Value	% of Ownership	Fair Value	
Powertech Technology Inc.	Share							
	Solid state system Co., Ltd.	-	Financial assets at fair value through other comprehensive income - non-current	2,617	$ 26,803	3	$ 26,803	Note 3
Greatek Electronics Inc.	Fund							
	FSITC Money Market Fund	-	Financial assets at fair value through profit or loss - current	283	50,376	-	50,376	Note 4
	Bond							
	01 TSMC 1B	-	Financial assets at amortized cost. - current	10	100,015	-	100,020	Note 2
	P04 Hon Hai 4C	-	Financial assets at amortized cost. - current	100	100,000	-	100,376	Note 2
	P06 Taipower 1A	-	Financial assets at amortized cost. – non-current	300	300,001	-	303,280	Note 2
	P07 Taipower 1A	-	Financial assets at amortized cost. – non-current	200	200,001	-	199,999	Note 2
	02 Taipower 1B	-	Financial assets at amortized cost. – non-current	150	151,518	-	151,503	Note 2
	P06 Taipower 3A		Financial assets at amortized cost. – non-current	100	100,001	-	100,052	Note 2
	P04 FENC 4		Financial assets at amortized cost. – non-current	100	100,000	-	100,922	Note 2
	P06 FPC 1A	-	Financial assets at amortized cost. – non-current	100	100,000	-	100,839	Note 2
	Share							
	POWERTECH TECHNOLOGY INC.	Greatek Electronics Inc.'s parent company	Financial assets at fair value through other comprehensive income - non-current	2,200	145,420	-	145,420	Note 1
	SAMHOP Microelectronics Corp.	-	Financial assets at fair value through profit or loss – non-current	600	-	3	-	Note 5
	Terawins Inc.	-	Financial assets at fair value through profit or loss – non-current	643	-	2	-	Note 5
	Airwave Technologies Inc.	-	Financial assets at fair value through profit or loss – non-current	93	-	1	-	Note 5

Note 1: The fair value was based on the closing price of the share as of December 31, 2018.

Note 2: The fair value was based on the closing price in the share market at the end of the month in hundreds of new Taiwan dollars as of December 31, 2018.

Note 3: The fair value of common share was based on the closing price in the share market at the end of the month, and the fair value of privately placed shares as of December 31, 2018 was determined using valuation techniques.

Note 4: The fair value was based on the net asset value of the fund as of December 31, 2018.

Note 5: The fair value was based on the carrying value as of December 31, 2018.

Note 6: As of December 31, 2018, the above marketable securities had not been pledged or mortgaged.

TABLE 4

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

MARKETABLE SECURITIES ACQUIRED OR DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Company Name	Type and Name of Marketable Securities	Financial Statement Account	Counterparty	Relationship	Beginning Balance (Note)		Acquisition		Disposal				Ending Balance (Note)	
					Shares	Amount	Shares	Amount	Shares	Amount	Carrying Amount	Gain (Loss) on Disposal	Shares	Amount
Greatek Electronics Inc.	Bond Taiwan Power Company	Financial assets at amortized cost	-	-	750	$ 752,745	200	$ 200,001	200	$ 200,000	$ 200,000	$ -	750	$ 751,521

Note: Beginning balance and ending balance include premium value.

TABLE 5

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

ACQUISITION OF INDIVIDUAL REAL ESTATE AT COSTS OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars)

Buyer	Property	Event Date	Transaction Amount	Payment Status	Counterparty	Relationship	Information on Previous Title Transfer If Counterparty is a Related Party				Pricing Reference	Purpose of Acquisition	Other Terms
							Property Owner	Relationship	Transaction Date	Amount			
Powertech Technology Inc.	Buildings	2017.09.18-2018.09.07	$ 1,811,372	$ 76,752	Jian Ming Contractor Co., Ltd.	None	Not applicable	Not applicable	Not applicable	Not applicable	Mutual agreement	Plant expansion	None
	Buildings	2018.04.20-2018.09.25	992,100	992,100	Jiu Han Engineering Co., Ltd.	None	Not applicable	Not applicable	Not applicable	Not applicable	Mutual agreement	Plant expansion	None

POWERTECH TECHNOLOGY INC. 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, 2018
(In Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Transaction Details				Abnormal Transaction		Notes/Accounts (Payable) Receivable		Note
			Purchase/ Sale	Amount	% of Total	Payment Terms	Unit Price	Payment Terms	Ending Balance	% to Total	
Powertech Technology Inc.	Toshiba Memory Corporation	Corporate director's parent company	Sale	$14,650,	3	Note 1	$	-	$2,428,9	4	-
	Kingston Technology International Ltd.	The president and the vice president are the corporate director of the Corporation.	Sale	850,0		Note 1		-	143,5		-
	Toshiba International Procurement Hong Kong, Ltd.	Corporate director's sister company.	Sale	102,2		Note 1		-			-
Greatek Electronics Inc.	Realtek Semiconductor Corp.	Parent company of Greatek Electronics Inc.'s corporate supervisor.	Sale	882,6		Net 60 days from monthly closing dates	Note	-	227,7		-

	Realtek Singapore Private Limited	Same parent company as the Corporate's director.	Sale	196,5		Net 60 days from monthly closing dates	Note	-	39,8		-
TeraPower Technology Inc.	Toshiba Memory Corporation	Parent company of corporate director of TeraPower Technology Inc.'s ultimate parent company.	Sale	170,8		Net 90 days from monthly closing dates		-	22,4		-

Note 1: Mainly paid on the 30th to 90th days after the month of the invoice date.

Note 2: The prices of goods Greatek Electronics Inc. sold to related parties were determined based on general transactions.

TABLE 7

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

RECEIVABLE FROM RELATED PARTIES AMOUNTING TO AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Ending Balance	Turnover Rate	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amount	Action Taken		
Powertech Technology Inc.	Toshiba Memory Corporation	Corporate director's parent company	$ 2,428,94	4.90	$	-	$ 2,428,94	$
	Kingston Technology International Ltd.	The president and the vice president are the corporate director of the Corporation.	143,56	7.59		-	143,56	
Greatek Electronics Inc.	Realtek Semiconductor Corp.	Parent company of Greatek Electronics Inc.'s corporate supervisor	227,77	3.53		-	136,30	

TABLE 8

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

INFORMATION OF INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS
FOR THE YEAR ENDED DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars)

Company Name	Counterparty	Transaction Flow	Intercompany Transactions			
			Financial Statements Items	Amount	Terms	Percentage to Consolidated Total Gross Sales or Total Assets
Powertech Technology Inc.	Powertech Technology (Suzhou) Ltd.	1	Sales	$ 36,689	Note 3	-
	TeraPower Technology Inc.	1	Sales	22,364	Note 3	-
	Powertech Technology Akita Inc.	1	Sales	27	Note 3	-
	Greatek Electronics Inc.	1	Sales	14	Note 3	-
	Powertech Technology (Singapore) Pte. Ltd.	1	Sales	111	Note 3	-
	Powertech Technology (Suzhou) Ltd.	1	Purchase	3,500	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Subcontracting costs	673,230	Note 2	1%
	Greatek Electronics Inc.	1	Subcontracting costs	72,353	Note 2	-
	TeraPower Technology Inc.	1	Subcontracting costs	21,937	Note 2	-
	Tera Probe, Inc.	1	Rent	22,828	Note 2	-
	Tera Probe, Inc.	1	Freight	2,354	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Other gains and losses	2,194	Note 2	-
	Greatek Electronics Inc.	1	Other gains and losses	51,228	Note 2	-
	Powertech Technology Akita Inc.	1	Other gains and losses	8,497	Note 2	-
	TeraPower Technology Inc.	1	Other gains and losses	3,243	Note 2	-
	Powertech Technology (Xian) Ltd.	1	Other gains and losses	6,670	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Interest income	9,611	Note 2	-
	Powertech Technology (Singapore) Pte. Ltd.	1	Interest income	3,853	Note 2	-
	TeraPower Technology Inc.	1	Accounts receivable from related parties	2,506	Note 3	-
	Powertech Technology (Xian) Ltd.	1	Other receivables from related parties	224,738	Note 2	-
	Greatek Electronics Inc.	1	Other receivables from related parties	829	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Other receivables from related parties	634,744	Note 2	1%
	Powertech Technology (Singapore) Pte. Ltd.	1	Other receivables from related parties	697,468	Note 2	1%
	Powertech Technology Akita Inc.	1	Other receivables from related parties	1,711	Note 2	-
	Powertech Technology (Singapore) Pte. Ltd.	1	Disposal of property, plant and equipment	41,869	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Disposal of property, plant and equipment	22,278	Note 2	-
	Powertech Technology (Xian) Ltd.	1	Disposal of property, plant and equipment	6,553	Note 2	-

	Powertech Technology Akita Inc.	1	Disposal of property, plant and equipment	588	Note 2	-
	Greatek Electronics Inc.	1	Purchase of property, plant and equipment	2,400	Note 2	-
	Tera Probe, Inc.	1	Purchase of property, plant and equipment	8,484	Note 2	-
	Powertech Technology (Xian) Ltd.	1	Purchase of property, plant and equipment	774	Note 2	-
	TeraPower Technology Inc.	1	Other payables to related parties	670	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Other payables to related parties	50,769	Note 2	-
	Greatek Electronics Inc.	1	Other payables to related parties	26,553	Note 2	-
	Powertech Technology (Japan) Ltd.	1	Other payables to related parties	8,611	Note 2	-
	Tera Probe, Inc.	1	Other payables to related parties	23,743	Note 2	-
	Powertech Technology (Suzhou) Ltd.	1	Accounts payable to related parties	687	Note 2	-
	Powertech Technology (Xian) Ltd.	1	Payables on construction and equipment	384	Note 2	-
Tera Probe, Inc.	TeraPower Technology Inc.	1	Other receivables from related parties	3,615	Note 2	-
Powertech Technology (Singapore) Pte. Ltd.	Greatek Electronics Inc.	2	Sales	85,105	Note 4	-
	Greatek Electronics Inc.	2	Accounts receivable from related parties	7,293	Note 4	-

(Continued)

Note 1: No. 1 - from the parent company to the subsidiary. No. 2 - from the subsidiary to the subsidiary.

Note 2: The transactions for related parties were based on negotiations and thus not comparable with those in the market.

Note 3: The selling prices with subsidiaries were based on negotiations and thus not comparable with those in the market, and the collection period with subsidiaries was same as other customers.

Note 4: The selling prices with sister companies were based on negotiations and thus not comparable with those in the market, and the collection period with sister companies was same as other customers.

(Concluded)

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEES OVER WHICH THE CORPORATION EXERCISES SIGNIFICANT INFLUENCE
DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Investor	Investee	Location	Main Businesses and Products	Investment Amount		Balance as of December 31, 2018			Net Income (Loss) of the Investee	Investment Gain (Loss)	Note
				December 31, 2018	December 31, 2017	Shares (Thousands)	% of Ownership	Carrying Value			
Powertech Technology Inc.	TeraPower Technology Inc.	Hsinchu	Wafer probing test services	$ 1,153,964	$ 859,95	73,38	49	$ 2,235,82	$ 484,30	$ 329,98	Notes 1 and 2
	Powertech Holding (BVI) Inc.	BVI	Investment business	1,679,370	1,679,37	5	100	784,87	(25,01	(25,01	Notes 1 and 2
	Greatek Electronics Inc.	Miaoli	Semiconductor assembly and testing service	6,169,948	6,169,94	244,06	43	7,952,60	2,375,45	1,002,31	Notes 1 and 2
	Powertech Technology (Singapore) Pte. Ltd.	Singapore	Integrated circuit testing and assembly service	USD 85,000	USD 85,00	85,00	100	1,454,09	40,88	40,88	Notes 1 and 2
	Powertech Technology Japan Ltd.	Japan	Investment business	USD 103,052	USD 103,05		100	3,073,81	(281,74	(261,596	Note 1
	Tera Probe, Inc.	Japan	Wafer probing test services	$ 230,616	$ 230,61	1,07	12	372,15	(214,23	(15,83	Note 1
Powertech Holding (BVI) Inc.	PTI Technology (Singapore) Pte. Ltd.	Singapore	Investment business	USD 51,000	USD 51,00	10	100	USD 24,60	USD (88	USD (88	Note 1
Powertech Technology Japan Ltd.	Tera Probe, Inc.	Japan	Wafer probing test services	USD 43,963	USD 43,96	4,44	47	USD 93,20	USD (6,81	USD (3,25	Note 1
	Powertech Technology Akita Inc.	Japan	Semiconductor assembly and testing service	USD 48,917	USD 48,91		100	USD 42,20	USD (8,23	USD (8,23	Note 1
Tera Probe, Inc.	TeraPower Technology Inc.	Hsinchu	Wafer probing test services	JPY4,348,056	JPY3,223,63	76,38	51	JPY4,348,05	JPY1,773,46	JPY 904,46	Note 1
	Tera Probe Aizu, Inc.	Japan	Wafer probing test services	JPY 221,616	JPY 221,61	18	100	JPY 221,61	JPY (23,97	JPY (23,97	Note 1

Note 1: Amount was recognized on the basis of audited financial statements.

Note 2: Excluding unrealized intercompany gains (losses).

POWERTECH TECHNOLOGY INC. AND SUBSIDIARIES

INFORMATION ON INVESTMENTS IN MAINLAND CHINA
DECEMBER 31, 2018
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Equity-method Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital	Investment Type	Accumulated Outflow of Investments from Taiwan as of January 1, 2018	Investment Flows		Accumulated Outflow of Investments from Taiwan as of December 31, 2018	Net Income (Loss) of the Investee	Percentage of Ownership in Investments	Investment Gain (Loss) (Note 2)	Carrying Value as of December 31, 2018 (Note 2)	Accumulated Inward Remittance of Earnings as of December 31, 2018	Note
					Outflow	Inflow							
Powertech Technology (Suzhou) Ltd.	Semiconductor testing and assembly services	$ 2,212, (US$ 72,(	Note 1	$ 1,567,38 (US$ 51,00	$	$	$ 1,567,38 (US$ 51,00	$ (25, (US$ (8	100%	$ (25, (US$ (8	$ 755, (US$ 24,	$	-
Powertech Technology (Xi'an) Ltd.	Semiconductor testing and assembly services	2,151, (US$ 70,(	Note 1	2,151,31 (US$ 70,00		116, (US$ 3,	2,034,98 (US$ 66,21	501, (US$ 16,(	100%	501, (US$ 16,(	2,710,((US$ 88,	116,32 (US$ 3,78	-

Equity-method Investee Company	Accumulated Investments in Mainland China as of December 31, 2018 (US$ in Thousands)	Investment Amounts Authorized by the Investment Commission, MOEA (US$ in Thousands)	Ceiling Amount on the Corporation's Investments in Mainland China
Powertech Technology (Suzhou) Ltd Powertech Technology (Xi'an) Ltd	US$ 51,000 US$ 66,215	US$ 51,000 US$ 70,000	$24,601,936

Note 1: Indirect investment in a company in mainland China, made through investment in a company located in a third region.

Note 2: Amount was recognized on the basis of audited financial statements.

Note 3: Based on the exchange rate as of December 31, 2018.

1. Financial Status

Nonconsolidated Financial Statements

Item \ Year	2018	2017	Difference	
			Amount	%
Current Assets	$ 37,889,542	$ 37,077,396	$ 812,146	2.19
Investment	2,067,913	2,300,786	(232,873)	(10.12)
Fixed Assets	61,980,853	58,663,021	3,317,832	5.66
Intangible Assets	1,162,204	1,249,649	(87,445)	(7.00)
Other Assets	494,989	367,576	127,413	34.66
Total Assets	103,595,501	99,658,428	3,937,073	3.95
Current Liabilities	18,580,671	21,788,688	(3,208,017)	(14.72)
Long-term Liabilities	31,937,463	28,186,311	3,751,152	13.31
Total Liabilities	50,518,134	49,974,999	543,135	1.09
Capital Stock	7,791,466	7,791,466	0	0.00
Capital Surplus	127,734	119,593	8,141	6.81
Retained Earnings	33,361,411	30,555,478	2,805,933	9.18
Other shareholders' Equity & Treasury Stock	(277,385)	(405,727)	128,342	31.63
Equity Belong to Parent Company	41,003,226	38,060,810	2,942,416	7.73
Non-Controlling Interests	12,074,141	11,622,619	451,522	3.88
Total Shareholders' Equity	53,077,367	49,683,429	3,393,938	6.83

Reason for Major Difference:

1. Increased of other assets: Increased of deferred tax property. .

2. Increased of other shareholders’ equity and treasury stock: 2018 overseas subsidiaries gains from accounting standard conversation.

Note: The listed numbers were from consolidated report and audited by CPA using IFRS.

2. Operating Results

(1) Comparison and Analysis Table for Operating Results for Last Two Years

Nonconsolidated Financial Statements

Unit: NT$ Thousands

Item \ Year	2018	2017	Increase (Decrease)	Difference (%)	Analysis
Net Sales	$ 68,039,379	$ 59,632,083	$ 8,407,296	14.10	
Cost of Sales	54,209,337	46,933,571	7,275,766	15.50	
Gross Profit	13,830,042	12,698,512	1,131,530	8.91	
Operating Expenses	4,046,388	3,624,488	421,900	11.64	
Operating Income	9,783,654	9,074,024	709,630	7.82	
Non-Operating Income/Expenses	(348,317)	(186,746)	(161,571)	(86.52)	1
Net Income Before Tax	9,435,337	8,887,278	548,059	6.17	
Income Tax Expense	1,922,775	1,596,003	326,772	20.47	2
Net Income	$ 7,512,562	$ 7,291,275	$ 221,287	3.03	
Analysis of Difference over 20% 1. Increased in non-operating income/expenses due to increase of non-financial assets lost 2 Increased in income tax expenses primarily due to increase in profit before tax.					

(2) Revenue Forecast and Financial Impact:

World Semiconductor Trade Statistics (WSTS) estimated 2019 global semiconductor market is going to grow 2.6% from 2018 and reach US$490.1 billion. IEK estimated 2019 Taiwan semiconductor market is going to grow 5.0%. Smartphone and PC remained the two major application of semiconductor products and demands growth have slowdown. 2019 estimated shipment for smartphone expects to grow 5.3% and PC grow 1.4%. WSTS estimated 2019 sales growth rate for optical component, sensor, discrete devices, analog IC, Logic IC, and micro-component are going to be 6.8%, 5.1%, 3.9%, 3.8%, 3.8%, and 3.0% respectively. Memory product sales is going to decline 0.3% in 2019. Data center, industrial, and automotive products are going to take heavier weight as the development of AI and IoT progress. Semiconductor products manufactured in China is going to exceed CNY$200 billion before 2020.

PTI is expecting mild growth in DRAM, NAND Flash, and Logic in 2019.

2019 Sales forecast as below:

Services	**Forecast Volume**
Assembly	11.0 billion pcs
Testing	7.0 billion pcs
Bumping	800 k wafers
Chip Probing	3.6 k wafers
SSD +SIP	8 million pcs

3. Cash Flow

(1) Cash Flow Analysis for 2018

Unit: NT$ Thousand

Beginning Cash Balance 1/1/2018	2018 Cash Flow from Operating Activities	2018 Cash Flow from Investing Activities	2018 Cash Flow from Financing Activities	Currency Exchange for Cash and Cash Equivalent	Ending Cash Balance 12/31/2018
17,716,582	20,207,098	(16,191,623)	(3,383,088)	195,173	18,544,142

2018 Cash Flow Analysis：

(1) Operating Activities：Increase cash inflow from change in 2018 depreciation and profit.

(2) Investing Activities：Increase of cash outflow was due to acquisition of real estate, property and equipments in 2018.

(3) Financing Activities：The increase of cash outflow was due to change in cash dividends payout in 2018.

(2) Cash Flow Improvement Plan

Not applicable.

(3) Cash Flow Estimation for 2019

Unit: NT$ Thousand

Beginning Cash Balance 1/1/2019	Estimated 2019 Cash Flow from Operating Activities	Estimated 2019 Cash Outflow	Estimated Ending Cash Balance 12/31/2019	Funding for Cash Flow Shortage	
				Investing Activities	Finance Activities
18,544,142	18,000,000	18,000,000	18,544,142	—	—

1. 2019 Cash Flow Analysis:

(1) Operating Activities：The cash inflow is from 2019 estimated net income and depreciation.

(2) Investing Activities：The cash flow is for acquisition of real estate, property, and equipment in 2019.

(3) Financing Activities：The cash flow is for 2019 cash dividends payout and payback bank loan.

2. Funding for Cash Flow Shortage：Not Applicable.

4. Effects of Major Capital Expenditures on Financial Status in Most Recent Year

(1) Major Capital Expenditures and Sources of Capital

Majority of 2018 PTI capital expenditures were for acquiring real estate, property and equipments. The sources of capital were from the Company's own funds and bank loans. In order to stay competitive, PTI has constantly devoted on production efficiency modification, new technology research, upgrade equipments, and capacity expansion to meet customer satisfaction.

5. Investment Policy in Recent Years, Main Causes for Profits or Losses, Improvement Plans, and Investment Plans for the Coming Year

PTI's investment policies conform with its strategies of deep cultivation of core business, strengthening of strategic alliance relationships with major clients and expansion of related industries, excepting to increase return on equity through the investment gains.

Powertech Technology (Japan) Ltd. was established to target for Japan market and future growth. PTI's Board has authorized the Chairman to fund the Japan operation no more than US$132 m (JPY 14,520 billion) to acquire 39.6% of Tera Probe Inc. and 100% of Micron Akita, Inc.

Public offering of JPY 1,100 a share was offered to acquire Tera Probe, Inc. shares. 47.84% of Tera Probe, Inc. shares were purchased total at JPY$4,884 million by end of May 2017. PTI consolidated holding 59.44% of Tera Probe, Inc. with 47.84% new purchased shares and 11.6% existing shares.

Acquisition of Akita was completed by beginning of Aug 2017 at US$48.92 million. The new entity was named Powertech Technology Akita Inc.. Powertech Technology Japan Ltd., the holding company of Powertech Technology Akita Inc., agreed to increase investment of JPY 980 million and accumulated investment at JPY 5,736.99 million and 6,202 shares.

The above investment were consolidated with parent company, therefore, no investment gain or lost in 2018.

Future investment plan will justify with industry condition and potential growing opportunities. Under the direction of strengthen the relationship of alliance and supply chain networking, the Board of Directors will carefully consider all the investment proposals.

6. Risk Analysis and Assessment in the Recent Year and as of Publication Date of Annual Report

(1) Effects of Changes in Interest Rates, Foreign Exchange Rates and Inflation on Corporate Finance, and Future Response Measures:

1. Interest Rate

The semiconductor packaging and testing industry where our company is in is capital intensive therefore large fund is required for the Company to invest into fixed assets. Besides the Company's own funds, the sources of the Company's funding are primarily bank loans, thus the Company's profitability is affected by interest rate movement. To minimize this risk, PTI compares the level of interest rates of its bank loans on a regular basis with market average rate and negotiate timely with the correspondent banks to obtain better interest rates to ensure the financing costs are at comparatively low level.

2. Foreign Exchange Rate:

(1) Effects

Exportation account for 79.79% of 2018 PTI's net sales, so the majority of trade were conducted in foreign currency and US dollars is the most common currency used. Majority of equipments and raw materials were mainly trade in US dollars and Japanese yen as well. Both import and export were affected by currency exchange rate fluctuate. 2018 net foreign exchange gains were about NT$ 215.34 million.

(2) Future Response Measures

-- Foreign currencies from exporting income balance out with importing expenses which creates mutual hedging effects to eliminate exchange rate risks.

-- Finance staff collected information regarding changes of foreign exchange rates, including supply and demand of foreign currencies, monetary tightness condition of the correspondent banks, and trend analysis of exchange rates, which will then serve as reference information to respond to future exchange rate movements.

-- To timely purchase foreign currencies based on the Company's future foreign currency requirements, in order to determine the cost and reduce the impact of movements in exchange rates.

-- To use the bank credit at the right time to convert foreign currency loans to NT dollars borrowing.

-- To apply financial instruments such as derivatives of forward exchange to avoid the risks of changes in exchange rates leading to exchange loss on assets, liabilities and future transactions denominated by foreign currencies.

3. Inflation:

No significant impact of inflation on the PTI's profitability and business operations in 2018.

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

1. PTI has not engaged in any high-risk or high-leveraged investments.

2. PTI proposed and approved by board to authorized Chairman to lend Powertech Technology (Singapore) Pte. Ltd. US$50 m in 2014. Board had reduced the endorsement and guarantees limit to US$30 m in Mar 2016 after review its funding needs. According to Article of Incorporation, PTI and its subsidiary should not endorse

and guarantee to a single entity more than 10% and 50% PTI's net worth. As of Dec 31, 2018 net worth was NT$41.00 b, and the cap for endorsement and guarantee were NT$4.10 b and NT$20.50 b which were all above the amount lent out.

3. 8th Annual 5th Board meeting on Mar 16, 2018 approved to lend Powertech Technology (Suzhou) Ltd. no more than US$24 millon and Powertech Technology (Singapore) Pte. Ltd. no more than US$30 million at the period no longer than 1 year for capacity expansion at estimated annual interest rate 2.2%. As the date of printing, actual lending amount was US$20.5 million (NT$631.9 million) for Powertech Technology (Suzhou) Ltd. and US$21.0 million (NT$647.3 million) for Powertech Technology (Singapore) Pte. Ltd..

As of Dec 31 2018, PTI net worth was NT$41.0 billion and lending amount were NT2.0 billion and NT$4.1 billion for separated entities which were below the lending regulation maximum. The lending for Tera Probe, Inc. JPY 560 million (NT$ 155.9 million) also meet the lending regulation.

4. No major currency exchange gain or loss from currency investment as of the date of printing.

(3) Future Research and Development Plans and R&D Expenses from Expected Investments

The Company has put much emphasis on the development of talents since its establishment. Setting up a R&D department in 1998 and the R&D technology center in 2006, PTI has continually introduced new processes and technologies of packaging and testing. To adapt to the future semiconductor memory device trend towards being versatile, high-speed, highly reliable and high density and the development of new products of our customers, PTI will proactively develop and introduce new technologies in the future. PTI budgets to invest in R&D about NT$1.7 b in 2018 and expects to spend more budged amount.

(4) Effects of and Response to Changes in Policies and Regulations Relating to Corporate Finance and Sales.

PTI has always pay close attention to any international and domestic policies changes, and PTI will make appropriate modifications to the operating systems when necessary. During 2014 and as of the publication date of this annual report, there is no significant change or impact of law on PTI's operations.

(5) Effects of and Response to Changes in Technology and in Industry Relating to Corporate Finance and Sales:

The semiconductor industry, where PTI belongs to, is under rapid changes in products and technology. To adapt to these rapid changes, PTI needs to upgrade its processes and develop new technologies constantly, upgrade its equipments, and expand its capacities in a timely manner. To reduce the risks of overexpansion at the same time keep up with the product development trend, PTI has established collaborative relationships and co-op with strategic alliances with major customers to develop advanced technology capabilities. In addition, PTI has invested in related industries to form a complete supply chain network and diversify the risks caused by market changes. PTI also strengthen its cost control and cash management skills to maintain competitiveness and eliminate the impacts of changes in technology and in industry relating to corporate finance and sales.

(6) The Impact of Changes in Corporate Image on Corporate Risk Management, and the Company’s Response Measures:

Since the establishment of the Company, PTI has consistently maintained an ethical business practices, and has actively strengthened its internal and quality management to build up customer trusts. PTI has a good corporate image and there has been no corporate crisis in recent years caused by changes in corporate image.

(7) Expected Benefits from, Risks Relating to and Response to Merger and Acquisition Plans

No plan of merger and acquisition as of the date of printing.

(8) Expected Benefits from, Risks Relating to and Response to Factory Expansion Plans

Hsin Chu Science Park Plant III is under construction and expect to complete by first half of 2020. The new facility is dedicated for Fan-Out Panel-Level packages (FOPLP).

(9) Risks Relating to and Response to Excessive Concentration on Supply Sources and Customer

The supply sources and major customers of the Company have been disclosed in related sections of this report. As the concentration level of the upper stream memory IC markets gets intense, sales of the downstream packaging and testing providers will get more concentrated. PTI has proactively developed new customers, collaborative relationships, and strategic alliances with existing customers to eliminate the highly customer concentrated risks. PTI has also actively reached out to non-memory IC packaging and testing business. The results are noticeable. In terms of supply sources, PTI has been actively seeking qualified alternative suppliers to reduce the risks of excessive concentration.

(10) Effects, Risks, and Solution for Share Transfers of Shareholders With 10% Or More Shares: None

(11) Effects, Risks, and Solution of Changes in Control over the Company: None.

(12) For litigation or non-litigious matters, clearly state if the Company or the Company’s directors, supervisors, president, actual person in charge, shareholders with 10% shareholdings or more, and affiliated companies that have been concluded or pending

major litigations, non-litigation or administrative litigation matters, whose outcome may have major impact on shareholders' equity or securities prices:

1. The Company's major litigations, non-litigation or administrative litigation matters: None.
2. Major litigations, non-litigation or administrative litigation matters of the Company's directors, supervisors, president, actual person in charge, shareholders with 10% shareholdings or more and affiliated companies: None.

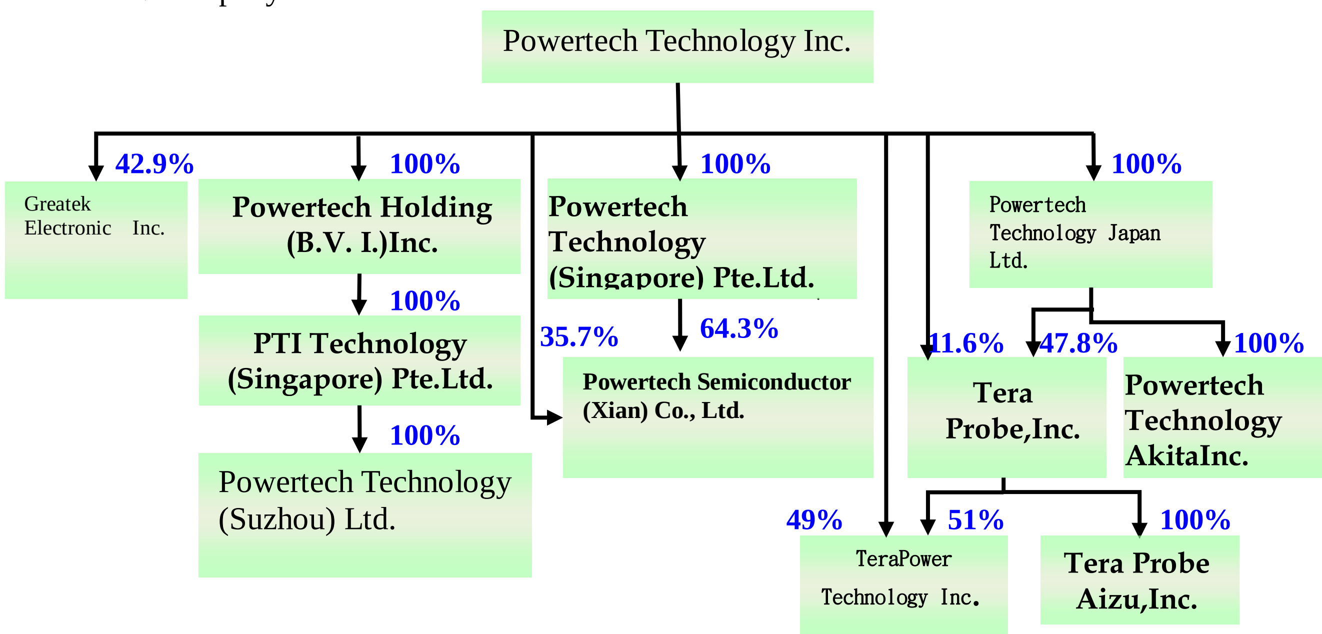
(13) Other Important Risks and Remedies: None.

7. Other Important Matters: None.

1. Summary of Affiliated Companies

(1) Profile of Affiliated Companies

1. Company Structure



2. Names, Date of Establishment, Address, Paid-in Capital and Major Business Items of Consolidated Subsidiaries：

Dec 31 2018；Unit：thousands

Entity Name	Date of Establishment	Address	Paid-In Capital Amount	Major Services
Powertech Holding (B.V.I.) Inc.	Aug 2009	P.O. Box 3444 Road Town, Tortola, B.V.I.	US$52,000	Investment
PTI Technology (Singapore) Pte. Ltd.	Nov 1994	8 Marina Boulevard #05-02 Marina Bay Financial Centre Tower 1Singapore 018981	US$72,102	Investment
Powertech Technology (Suzhou) Ltd.	Aug 1995	No. 33, Xinghai Street, Suzhou Industrial Park, Suzhou, China	US$72,000	Packaging and Final Testing Services
Greaktek Electronics Inc.	Mar 1983	No. 136, Gung-Yi Rd., Chunan Town, Miaoli, Taiwan.	NT$5,688,459	Packaging and Final Testing Services
Powertech Technology (Singapore) Pte. Ltd.	Dec 2005	12 Ang Mo Kio Street 65, Level 3 Singapore 509060	US$85,000	Bumping Services
Powertech Semiconductor (Xian) Co., Ltd.	May 2015	Part B, Shaanxi Xi'an Export Processing Zone, No. 28, Xinxi Avenue, Xi'an, Shaanxi 710119 China	US$70,000	Packaging and Final Testing Services
Powertech Technology Japan Ltd.	Jan 2017	3F, Shiodome Building, #180-181, 1-2-20 Kaigan,	JPY 100,000	Investment & Packaging and Testing

		Minato-ku,Tokyo, 105-0022, Japan		Services
Tera Probe, Inc.	Aug 2005	KAKiYA Bldg., 2-7-17 Shin-Yokohama, Kohoku-ku, Yokohama City, Kanagawa	JPY 11,823,312	Chip Probing Services
Tera Probe Aizu, Inc.	Oct 2015	No.4 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan	JPY 45,000	Chip Probing Services
TeraPower Technology Inc.	Aug 2008	No.20, wenhua Rd.,Hsinchu Industrial Park. Hukou , Hsinchu 303, Taiwan	NT$1,497,670	Chip Probing Services
Powertech Technology Akita Inc.	Apr 1969	89-2 Yamada, Yuwaishida, Akita-shi Akita 010-1222, Japan	JPY 495,000	Packaging and Final Testing Services

3. Presumed to Have Control and Affiliation Relationship: None.

4. Business Items of Affiliated Companies:

The business items of PTI and its affiliated companies cover manufacturing, marketing & sales and investments of electronics.

5. The Names and the Shareholding or Funding Status of the Directors, Committee Members, and President of Each Affiliated Company:

March 31, 2017

Name of Company	Title	Name or Representative	Shareholding	
			Number of shares (capital contribution)	%
Powertech Holding (B.V.I.) Inc.	Director	Powertech Technology Inc. Legal Rep Director: D.K. Tsai	US$ 52,000,000	100%
PTI Technology (Singapore) Pte. Ltd.	Director	Powertech Holding (B.V.I.) Inc. Legal Rep Director: D. K. Tsai, J.Y. Hung ,Jeswant Singh S/O Darshan Singh	US$ 51,000,000	100%
Powertech Technology (Suzhou) Ltd.	Chairman	PTI Technology (Singapore) Pte. Ltd. Legal Rep Director: J.S. Leu	US$50,900,000	100%
	Director	PTI Technology (Singapore) Pte. Ltd. Legal Rep Director: D. K. Tsai, J.Y. Hung		
	Supervisor	PTI Technology (Singapore) Pte. Ltd. Legal Rep Director: Evan Tseng		
	President	Hong Bin Ji	-	-
Greatek Electronics Inc	Chairman	Powertech Technology Inc.	NT$244,064,379	42.91%

		Legal Rep Director: D. K. Tsai		
	Director	Powertech Technology Inc. Legal Rep Director: Boris Hsieh, J.S. Leu, Chien-Chao Ning, Evan Tseng		
	Director	Hung-Wei Venture Capital Company: Eric Chang		
	Independent Director	Chi-Yung Wu	0	0%
	Independent Director	Chu-Chien Feng	0	0%
	Independent Director	M.J. Chuang	0	0%
	President	Chien-Chao Ning	NT$ 2,293,224	0.40%
Powertech Technology (Singapore) Pte. Ltd.	Director	Powertech Technology Inc. Legal Rep Director: DK Tsai, J.Y Hung, Evan Tseng, Tay Hua Nguan	US$ 85,000,000	100%
	President	Tonwey Cheng	-	-
Powertech Semiconductor (Xian) Pte. Ltd.	Chairman	Powertech Technology (Singapore) Pte. Ltd Legal Rep Director: J.S. Leu	US$ 45,000,000	64%
	Director	Powertech Technology (Singapore) Pte. Ltd Legal Rep Director: J.Y. Hung		
	Supervisor	Powertech Technology (Singapore) Pte. Ltd Legal Rep Director: Yohan Lin		
	Director	Powertech Technology Inc. Legal Rep Director: Evan Tseng	US$ 25,000,000	36%
	President	Chris Yeh		
Powertech Technology Japan Ltd.	Executive Director	DK Tsai	JPY 100,000,000	100%
	President	Naohiko Urasaki		
Tera Probe, Inc.	Chairman	Naohiko Urasaki (Powertech Technology Japan Ltd)	4,440,300	47.8%
	Director	DK Tsai, Phu Le, Evan Tseng, Koji Iwama (Powertech Technology Inc.)	1,077,100	11.6%
	Director	Yuichiro Watanabe	6,500	0.06%
	Director	Tsuyoshi Yokoyama	500	0.00%
	Director	Naoki Mori	0	0%
	Director	Takayuki Mashiko	0	0%
	President	Tsuyoshi Yokoyama	500	0.00%
Tera Probe Aizu, Inc.	Chairman & President	Hiroaki Harada (Tera Probe, Inc.)	180,000	100%
	Director	Kazuhito Kanbe, Naokazu Jinushi, Ikuo Yaegashi		
	Supervisor	Takayuki Mashiko		
TeraPower Technology Inc.	Chairman	Tera Probe, Inc. Legal Rep Director：JY Hung	76,381,170	51.0%
	Director	Tera Probe, Inc. Legal Rep Director：Minari		

		Iketa,Naohiko Urasaki		
	Director	Powertech Technology Inc. Legal Rep Director: Evan Tseng, Noty Lin	73,385,830	49.0%
	Supervisor	Takayuki Mashiko		
	President	Noty Lin		
Powertech Technology Akita Inc.	Chairman & President	Shinji Kagaya(Powertech Technology Japan Ltd)	6,202	100%
	Director	DK Tsai,Evan Tseng, Naohiko Urasaki		
	Supervisor	Yohan Lin		

6. Operations of Affiliated Companies

Unit: NT$ Thousands

Name of Company	Paid-in Capital	Total Assets	Total Liabilities	Equity	Revenues	Operating Income	Net income (loss) (after tax)	Earnings Per Share (NT$) (After tax) Note
Powertech Holding (B.V.I.) Inc.	1,601,343	971,917	0	971,917	0	0	(26,570)	N/A
PTI Technology (Singapore) Pte. Ltd.	2,215,896	936,213	0	936,213	0	0	(27,154)	N/A
Powertech Technology (Suzhou) Ltd.	2,622,131	1,813,504	877,554	935,949	1,460,433	22,205	(23,652)	N/A
Greatek Electronics Inc	5,688,459	18,824,560	2,605,496	16,219,064	12,356,434	2,817,913	2,375,453	4.18
Powertech Technology (Singapore) Pte. Ltd.	2,612,305	2,973,587	1,046,978	1,926,609	259,231	(250,910)	41,243	N/A
Powertech Semiconductor (Xian) Pte. Ltd.	2,151,310	4,059,805	1,349,178	2,710,627	5,600,027	599,221	510,406	N/A
Powertech Technology Japan Ltd.	27,840	4,481,119	1,574,026	2,907,093	0	0	(284,956)	N/A
Powertech Technology Akita Inc.	134,525	1,954,708	1744,353	1,210,355	1,480,467	23,877	(244,778)	N/A
Tera Probe Inc.	3,291,610	8,678,503	2,690,394	5,988,110	2,479,763	(285,904)	(217,258)	(23.41)
TeraPower Technology Inc.	1,497,670	10,651,044	6,291,752	4,359,292	3,316,070	641,337	484,307	3.37

Note: No need to calculate EPS for limited companies

Affiliated Companies Overview:

REPRESENTATION LETTER
Mar 14, 2019

The entities that are required to be included in the combined financial statements of Powertech Technology Inc. as of and for the year ended December 31, 2018 under the Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises are the same as those included in the consolidated financial statements prepared in conformity with the International Financial Reporting Standards No. 10, "Consolidated Financial Statements." In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, Powertech Technology Inc. and Subsidiaries do not prepare a separate set of combined financial statements.

Sincerely,

Duh-Kung Tsai

Chairman
Powertech Technology Inc.

Affiliated Companies Report: None.

2. **Private Placement Securities as of the Date of Annual Report Printing: None.**

3. Status of PTI Common Shares and GDR Acquired, Disposed of, and Held by Subsidiaries in 2018 and as of the Publication Date of this Annual Report:

Unit: NTD K; Shares; %

Name of Subsidiary	Capital Received	Source of Fund	% Holding by PTI	Date	Acquired Shares and Amount	Sold Shares and Amount	Investment Gain/Lost	As of Printing Date	
								Holding Shares	Amount
Greatek Electronic Inc.	5,688,459	Self Funding	42.91%	2017	1,800,000 shares NT$158,719	-	-	2,200,000	191,849
				2018	400,000 shares NT$33,130				

Note:
No creation of pledge by the above subsidiary.
PTI did not endorse and guarantee for the above subsidiary.
No fund lent by PTI to the above subsidiary.

4. Other Necessary Supplement: None.

5. Any Events in 2018 and as of the Publication Date of this Annual Report that Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Item 2 Paragraph 2 of Article 36 of Securities and Exchange Law of Taiwan: None.