



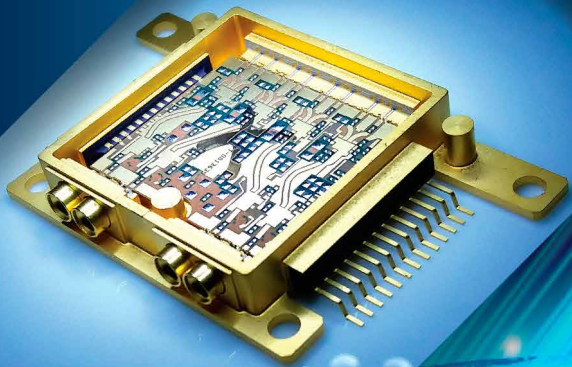
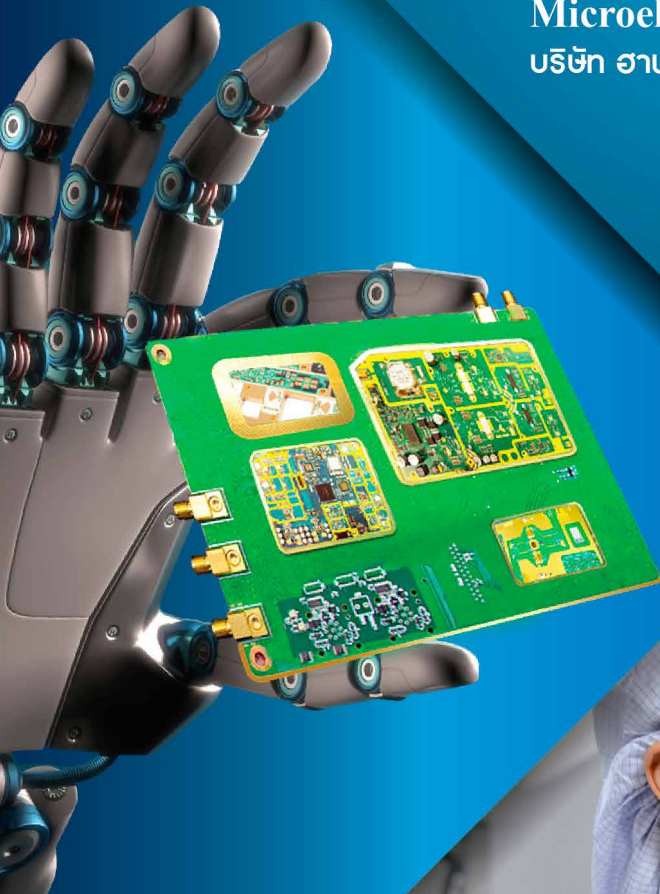
**HANA**

Microelectronics Public Company Limited

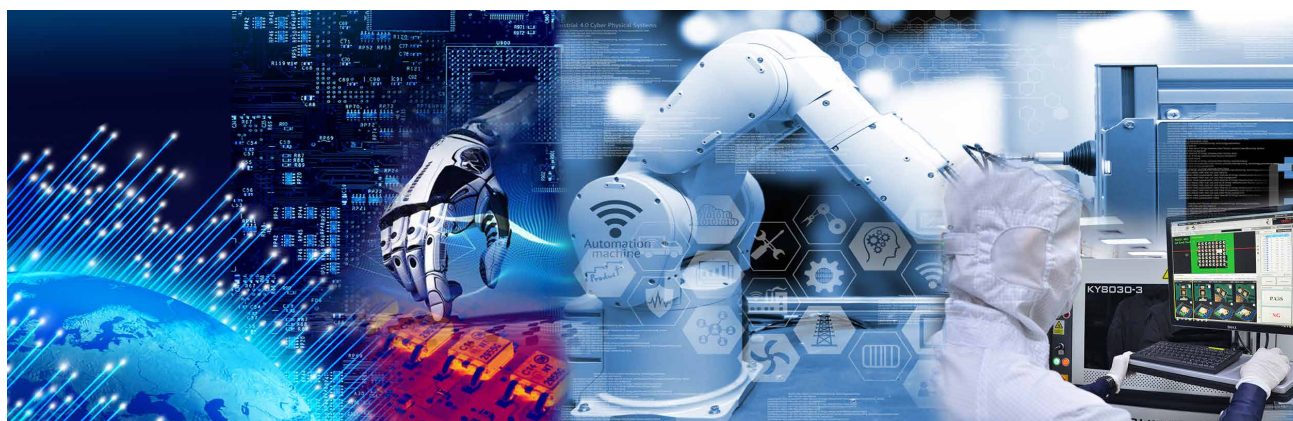
บริษัท ฮานา ไมโครอิเล็กทรอนิกส์ จำกัด (มหาชน)

# ANNUAL REPORT 2017

## รายงานประจำปี 2560







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# The Group Financial Highlights

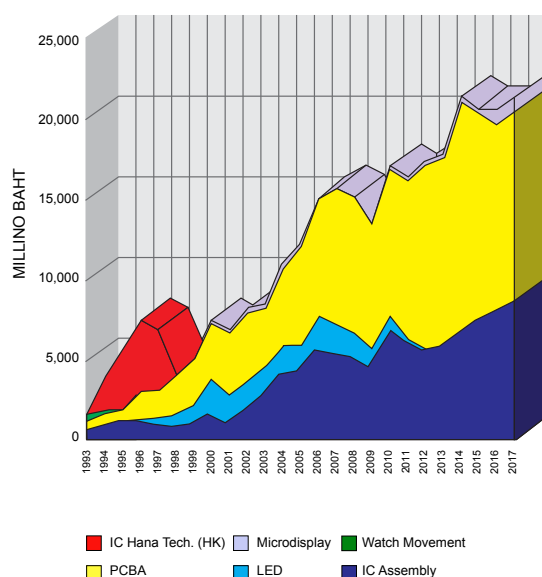
(Millions Baht)

	2017	2016	2015	2017/2016 % change
Total Revenue	22,583	21,064	20,989	7%
Sales Revenue	21,551	20,523	20,521	5%
Gross Profit	3,214	2,876	3,030	12%
Operating Profit	2,290	1,969	2,161	16%
Net Profit before Non Recurring Items	2,357	2,027	2,328	16%
Net Profit (Loss) for the year	2,888	2,105	2,066	37%
Recurring EBITDA*	3,374	3,149	3,329	7%
Total Assets	24,403	23,756	23,123	3%
Total Liabilities	3,713	3,794	3,699	-2%
Shareholders Equity	20,690	19,962	19,424	4%
Net (Cash**) Debt / Equity	-0.27	-0.29	-0.26	
Net Profit (after tax) % Sales	13%	10%	10%	30%
Recurring EBITDA Margin	16%	15%	16%	2%
Return on Equity	14%	11%	11%	32%
Dividend per share (from the profits of)	2.00	2.00	2.00	0%
Payout ratio	56%	76%	78%	-27%
EPS before Non Recurring Items	2.93	2.52	2.89	16%
EPS after Non Recurring Items	3.59	2.62	2.57	37%
Book Value per share (net of treasury shares)	25.71	24.80	24.13	4%
Shares balance repurchased (m)	-	-	-	
Net Number of shares outstanding (year end)	804.88	804.88	804.88	0%

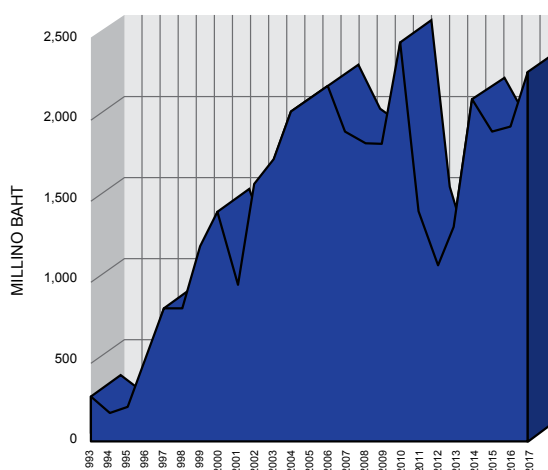
\* Operating revenues plus other income before deducting of finance cost, income tax expenses, depreciation and amortization

\*\* Cash: Cash and cash equivalents and short-term investments

## Sales Revenue



## Operating Profit



# Chairman's Statement



## Dear Shareholder,

It gives me great pleasure upon my maiden year as your Chairman, to report for 2017 a particularly strong year for the Hana Group driven by expectations for increased US consumer demand, clear signs of a recovery in the Euro zone and a resumption of China growth. This resulted in a new upward cycle for the semiconductor industry towards the year end of 2016 which continued throughout 2017.

Our semiconductor division enjoyed this strong demand for IC packaging & test throughout the year which was further supported by our successful navigation of the many customer M&A events affecting us. The overall strength in the semiconductor market was driven by strong demand for smart phones, IoT (Internet of Things) devices, Optocoupler and automotive electronics. Our diverse portfolio of sensor and standard packaging solutions coupled with a strong quality performance also helped us grow our volumes in 2017. With the cycle set to continue at least in the near term, we have completed the construction of a ~3,000sq/m storage facility which will free sufficient space within our current manufacturing building allowing for an additional ~30% increase in output in the future.

Our microelectronics business continued to grow during the year with strong demand for automotive electronics, test & measurement equipment sub-assemblies, IoT and RFID (Radio Frequency Identification) devices. The decline in demand for touch pads for laptop computers seems to have levelled off and our medical business is starting to look promising as we win new hearing aid and other medi-tech device customers.

During the year Hana Cambodia continued to lay down the necessary infrastructure and factory accreditations in preparation for bringing in new business. A team of technicians have been trained in Thailand to operate PCBA assembly equipment which will support new opportunities and we are confident that this will help towards adding new customers in Hana's latest facility during 2018.

In China, whilst we also enjoyed the stronger IC demand, our continued high labour turnover and the strengthening RMB dampened the gains and overall our performance was relatively flat year-on-year.

Our Microdisplay division in Ohio, USA started the year with very strong demand, in particular for thermal imaging camera modules, indeed it turned out that the output was in excess of real demand which meant it was hard for the division to continue to incrementally perform better until the inventory levels were corrected. Nevertheless, continued strong demand for our tyre tag business, and asset ID tags, resulted in a good performance which was well up year-on-year.



# Chairman's Statement

Our key financial performances were as follows:

- Revenues up 5% from THB 20,523 million in 2016 to THB 21,551 million in 2017
- Operating income up 16% from THB 1,969 million to THB 2,290 million
- EBITDA income up 7% from THB 3,149 million to THB 3,374 million
- NPAT up 37% from THB 2,105 million to THB 2,888 million
- Net cash & financial investments at year end decreased 2% to THB 9.7 billion in 2017 from THB 9.9 billion in 2016

As part of our continued quest to diversify and target higher margin activity for the future, we have established an R&D center in Korea targeting the power module business. We have assembled a technical team there and we will launch this activity in Q1/18. Additionally we are targeting developers in other high growth electronics sectors whom we hope to partner with, aiming to supply higher value components/subsystems to our existing client base in the future.

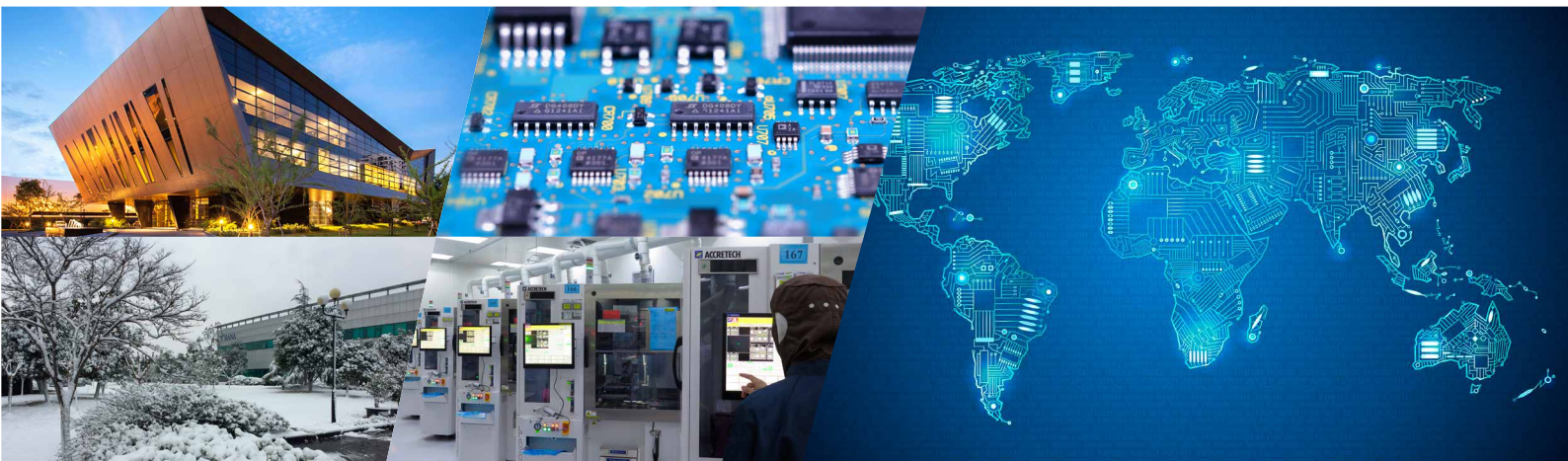
The upturn in the semiconductor cycle has been strong throughout 2017 and so far it continues driven by an expectation of stronger consumer demand as global growth gathers momentum - in addition recent US tax reforms look supportive of this continuation. All major PMI (Purchasing Manager Indexes) show positive growth and this bodes well for the start of 2018. Whilst demand continues to remain strong, it is against a strong appreciation of the Thai Baht over the US Dollar and continued wage inflation that we enter the new year. This will certainly create some headwinds for our group. However we shall continue to work on our productivity efforts spearheaded by our in-house automation groups and feel confident we can effectively meet these challenges as we have done in the past.

In summary, Hana enters the new year with a strong balance sheet and we are well positioned to grow organic demand and also develop new capabilities targeting our longer term growth plans. Demand for 'electronic manufacturing services' remains strong supported by an expectation of a continuation of global growth and we are well positioned to participate in this upward cycle.

I would like to thank my fellow board members and all the staff of the Hana Group for all their support during the year. Together we look forward to another year of growth in 2018.



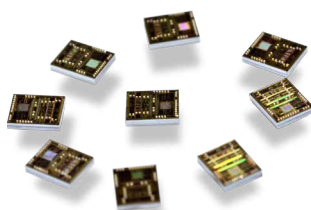
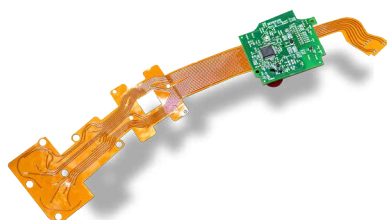
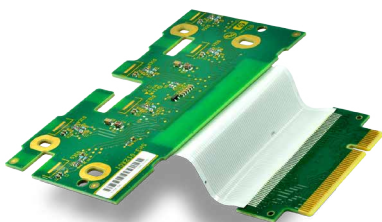
John Thompson  
Chairman of the Board of Directors



# Operation Review



## Hana Microelectronics Public Co., Ltd. (Lamphun)



After the last two years of global industrial weakness, the electronics industry picked up strongly in 2017 with Hana Lamphun benefiting, with both revenue and profits increasing over 10% from 2016. Looking ahead we continue see a good outlook for demand in 2018.

To order to meet the growing demand and in particular increased quality and tighter specifications required by our customers we have invested in various new state-of-the-art technology equipment such as auto-inspection, auto-selective soldering and wafer level probing. With increasing demand for automotive products our team is moving to implement IATF 16949, a new quality certification for our automotive products.

We have also invested heavily in new IT software systems to enhance our factory and related manufacturing systems automation, such as MES (Manufacturing Execution System), PDM (Production Data Management), NPI (New Product Introduction) to reduce manual procedures and errors and make more timely decisions. People development is also our focus, with our corporate training staff setting up many training topics for our middle and upper management to upgrade their managerial skills.

In addition, we continue to win Thailand's annual awards for QCC (Quality Control Circle) and Kaizen (continuous improvement) which encourage the teamwork of our employees, and make cost savings, improve productivity and yield.

This year, Hana LPN also received another two prestigious awards - "The National Award for Safe, No Disease, and Happy Workplace", and "Best Company (Golden) Award - Occupational Health and Safety". These national awards give recognition to our strong and successful focus on environmental control and health and safety issues.

The year 2018 will be a year of expansion, as there is strong demand for flip-chip (FC), chip-scale-package (CSP), system-in-package (SIP) and RF Modules, which will require us to increase our capacity and resources to handle these new opportunities. We are also facilitating the second floor of our second site (Lamphun 2) which will provide another 6,000 square meters of manufacturing space.

With the enhancement of our manufacturing systems, new state-of-art equipment, additional manufacturing space and focus on human resource development, we expect that it will be a very positive year in 2018 allowing us to sustain our strong manufacturing capability in Northern Thailand.

I would like to thank all our Hana LPN staff for their hard work in 2017 and we look forward to 2018 with confidence and readiness to meet our new challenges.

Mr. Wing Keung Chow

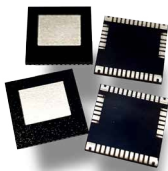
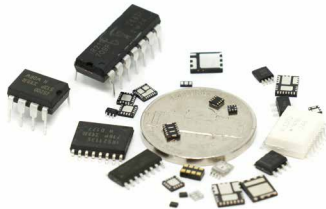
Vice President and General Manager



# Operation Review



## Hana Semiconductor (Ayutthaya) Co., Ltd.



Continuing on from 2016, Hana Semiconductor (Ayutthaya) “Hana-AYT” had another year of solid growth in 2017. With our dedicated team and the support from our loyal and valued customer base, Hana-AYT achieved record sales revenues and double digit growth in volume shipped. In 2017, we developed new technologies and capabilities across multiple types of applications and packaging methodologies. We also invested in a new facility at our existing site to provide more floor space for expansion. These investments will provide us the basis for new opportunities in both commodity and custom packaging in 2018 and beyond.

In addition, we continued to work towards protecting our technology edge by filing for intellectual property protection for new developments. During 2017, Hana-AYT was awarded two US patents in custom package and sensor development and this focus will continue in 2018. Hana-AYT will strategically invest and focus on products for selected segments of the market which will provide us with a quantifiable differentiator from our competitors. We strongly believe that this will allow Hana-AYT to become a supplier of choice in the industry.

The team at Hana-AYT continued to focus on automation initiatives to improve on both quality and productivity. Our philosophy of “quality as a business enabler” has met with increased customer satisfaction which has in turn helped drive more sales opportunities.

During 2017, we continued to perform well in all audits for both commercial and automotive customers helping us to further improve customer confidence which in turn increased sales. We also focused on our manufacturing process controls, improving quality at each step, both on the line and across all departments.

Throughout the year we continued with our focus on “talent” identification and “developing” the next generation of leaders at Hana-AYT. We launched many programs and activities towards this goal. This focus on our human assets will continue in 2018 and is a major part of our strategy for growth and sustainability.

Finally, a word of thanks to all the staff at Hana-AYT. You are a super team who truly believe in striving for continuous improvement and reaching higher levels of achievement. It is due to your dedication, loyalty, trust and teamwork that we have been able to develop so much in 2017. With such a strong and dedicated team, I very much believe that 2018 will be another year of growth for Hana-AYT.

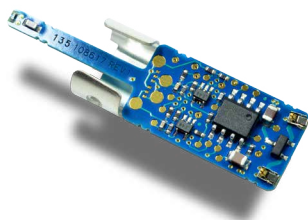
**Mr. Sanjay Mitra**

Vice President and General Manager

# Operation Review



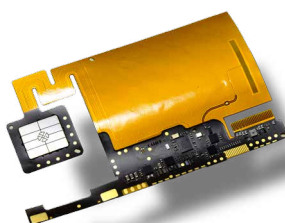
## Hana Microelectronics (Jiaxing) Co., Ltd.



In 2017 sales revenue grew for the first time since 2015. Sales had been lower in the last two years due to the weak demand from our largest customer in computer parts. The IC, LED packaging and test business strengthen significantly. Although the PCBA business remained flat, the good sign is, the demand from many of our top 10 customers has started to grow again, which enabled us to offset the continued decline in the PC-related business.



The manufacturing cost was under severe pressure in 2017 due to the price increase of electronic components and the stronger Chinese Yuan. We focused on Value Analysis/Value Engineering programs and labor efficiency improvement in order to achieve the profitability goals and improve our cost competitive position in the market. Another big challenge we encountered during the year was the extended raw materials order lead time. Our supply chain management team worked closely with both our customers and suppliers to ensure material supply and on time delivery to our customers.



Following our business roadmap, we restructured and strengthened our NPI (New Product Introduction) and Technology organization by adding mechanical parts design and test development capability. The new capability enabled us to be involved in early stage of development of our customer's new products. The BLE (Bluetooth Low Energy) test system that we installed has helped our sales team capture BLE and IoT (Internet of Things) business opportunities. The installation of the new IGBT (Insulated-gate bipolar transistor) power assembly line is also in good progress. We believe that these new capabilities will help build the foundation for the continued growth of Hana Jiaxing in the future.

As always, we are committed to providing our customers with high quality products and world class services. The coming year will continue to be challenging in many aspects but with the dedicated management team in Jiaxing, the strong support from our long term customers and suppliers, we are prepared and confident to meet our targets and plans in 2018.

**Mr. Steven Lee**

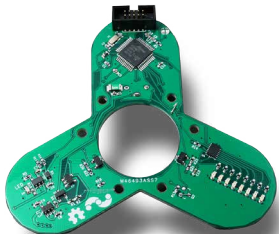
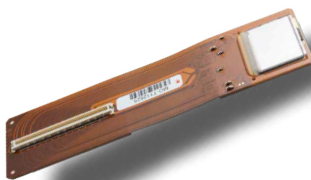
Vice President and General Manager



# Operation Review



## Hana Microdisplay Technologies, Inc.



Hana Microdisplay Technologies “HMT” grew again in 2017 on a year-on-year basis. The momentum of the fourth quarter of 2016 continued on into the first quarter of 2017 before settling out in Q2 and beyond. The Telecom market segment decreased for HMT in 2017, compared to 2016, but significant growth in both Consumer Electronics and Radio-Frequency Identification (RFID) compensated for it.

RFID growth in 2017 came primarily from tire tags. The majority of tire tags were shipped into European markets in 2016. While that is still true, there was significant growth in shipments to North America during 2017, and some growing prospects in Asia, resulting in significant growth in sales. RFID inlay manufacturing for asset tracking remains a strong market for HMT. HMT produced more inlays in 2017, but the product mix was such that the overall revenue for this market was slightly reduced. Customer pressure for increased manufacturing capability in the US may result in HMT adding capacity in 2018.

Microdisplay growth came from the consumer electronics market segment, in the form of camera modules, near-to-eye displays, and other LC-based electronic devices. After an unusually high first quarter, the production rate in this market settled into a more stable position for the last 2 quarters of the year. That effect, coupled with price pressures will likely result in the 2018 numbers for this sector to be more like those of 2016. The portion of the Microdisplay telecom market that HMT supports was down in 2017, and thus HMT saw a reduction in the production of Liquid-Crystal on Silicon (LCOS) devices to support that market. This market appears to be stable and growing in 2018, but the migration is to smaller, less expensive units. This will result in a relatively flat 2018 in this market for HMT.

HMT also continued to increase its manufacturing partnerships with its sister companies in Lamphun and Ayutthaya. In early 2018 the first meaningful production shipment of an HMT product will come out of the JiaXing factory. HMT will look for opportunities for growth in that relationship in 2018 as well.

HMT expects to continue its strong operational performance in 2018. While there are projected to be lower sales numbers for Microdisplays, production costs can also be reduced proportionally. Further growth is forecasted for HMT in RFID in 2018. New customers and prospects were added in the second half of 2017 that will start moving into production in 2018.

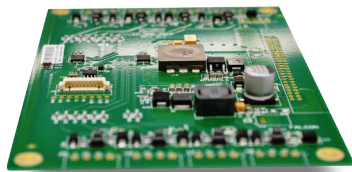
HMT is looking forward to an energetic and prosperous 2018, hoping that strengthening relationships with both customers and suppliers will lead to another rewarding year.

**Dr. John Erdmann**  
President and Chief Executive Officer

# Operation Review



## Hana Microelectronics (Cambodia) Co., Ltd.



Year 2017 was a very exciting year for Hana Cambodia; we put significant time and effort to train and develop many of our local staffs for both technical and management knowledge and skills. We also further enhanced our Quality Management Systems, achieving ISO 9001:2008 and UL certification. We have also achieved IATF 16949:2016 certification and upgraded our ISO 9001 from version 2008 to version 2015 during year 2017 so that we will be able to manufacture automotive cable wire harness products.

IATF 16949:2016 certification will enable us to offer automotive (labour intensive) related assembly work now in much demand by that industry due to increasingly high labor costs and limited work force in many Asian countries. Automotive cable wire harness assembly is one of our targeted industries and Cambodia enjoys special tariff privileges of Generalized System of Preferences “GSP” for European/US/Asian market and Trade Agreement Act “TAA” for the US market, with 0% import/export duty adding to Cambodia’s attraction as an assembly location.

In our first full year of operations we have concentrated on our human resource development which has been challenging. However, we were able to win additional business with new products added to our portfolio which increased from five models at the start of the year to fifteen models right now for Secure Reader Box Build: RFID (Radio-Frequency Devices) Readers and Smart Card Readers, USB Cable Harness for Secure Reader Box Build and Pre-Assembly: Semi-Electronic and watch movement components.

2018 is expected to remain a challenging year for us but I am confident that we will be able meet our goals for substantial business and operational growth since we have recently received IATF 16949:2016 certificate as of December 2017. We will continue to focus on quality systems, cost reduction, production efficiency and human development. Encouragingly, we have seen several new business opportunities from both existing and new customers for automotive cable wire harness products and box build assembly product which we expect to start running mass production during 2018.

I would like to take this opportunity to thank all of our employees at Hana Cambodia and all the support teams from Hana’s other divisions for their support, dedication and commitment during year 2017. Teamwork is a key to our success and everyone is working toward the same common goals that will help increase our future business expansion and revenue.

**Mr. Somchai Chanchirathumrong**  
General Manager



# Hana Board of Directors



**1. Mr. Terrence Philip Weir**

Executive Director

**2. Mr. Yingsak Jenratha**

Independent Director

**3. Mr. Richard David Han**

Executive Director

**4. Mrs. Salakchitt Preedaporn**

Independent Director

**5. Mr. Winson Moong Chu Hui**

Executive Director

**6. John Thompson**

Chairman of the Board of Directors

# Hana Executives



**1. Mr. Winson Moong Chu Hui**

President and Chief Operating Officer

**2. Mr. Terrence Philip Weir**

Executive Vice President and Chief Financial Officer

**3. Mr. Richard David Han**

Executive Vice Chairman and Chief Executive Officer

**4. Mr. Wing Keung Chow**

Vice President and General Manager  
Hana-Lamphun Operation

**5. Ms. Achara Chaicharncheep**

Senior Financial and Accounting Manager



# Management Team



## Hana Microelectronics Public Co., Ltd. - Headquarter Management

1 2 3 4 5 6 7

1. **Ms. Jirapa Kongmanee**  
Senior Manager of Internal Audit
2. **Ms. Vitchuwan Pringpuangkeo**  
Senior Manager of Corporate Training
3. **Ms. Achara Chaicharncheep**  
Senior Manager of Financial and Accounting
4. **Mrs. Puntipa Tanthana**  
Senior Director of Corporate Administration and Human Resources
5. **Mr. Chwee Heng Teo**  
Director of Technologies & Products Development
6. **Mr. Insuk Kim**  
Corporate Vice President Technologies & Products Development
7. **Mr. Peter Wuei Hwang**  
Director of Business Development



## Hana Microelectronics Public Co., Ltd. - Lamphun Management

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

1. **Ms. Juthamard Trerattanawongse**  
Senior Manager of Finance
2. **Ms. Napassanun Namwongsa**  
Senior Manager of Quality Management Support
3. **Mr. Kam Fu Yim**  
Director of Quality Management
4. **Mr. Sathit Umpai**  
Director of Operations
5. **Mr. Christian Robert Cron**  
Director of Supply Chain Management
6. **Mr. Wing Keung Chow**  
Vice President & General Manager
7. **Mr. Wichai Sukprasertkul**  
Senior Director of Operations
8. **Mr. Wasan Suthum**  
Director of Operations
9. **Ms. Kittima Kongsing**  
Senior Manager of Production & Material Control
10. **Ms. Krongtong Wannawichit**  
Senior Manager of Human Resources
11. **Ms. Tipawan Duangkaew**  
Senior Manager of Customer Service
12. **Mr. Adul Meesup**  
Senior Manager of Operation
13. **Mr. Chukiat Suksatian**  
Senior Manager of Operation
14. **Mr. Tosaporn Musikcharoen**  
Senior Manager of Manufacturing Support
15. **Mr. Stephen Boyd**  
Senior Manager of Operation
16. **Mr. Ian Donald Ticehurst**  
Senior Manager of Corporate Management Information System (MIS)
17. **Mr. Thawatchai Kumprasert**  
Senior Manager of Management Information System (MIS)
18. **Mr. Nikorn Tolongtong**  
Senior Manager of Customer Service
19. **Mr. Somjai Namwongsa**  
Senior Manager of Human Resources Development
20. **Mr. Wan Wah Vincent Wong**  
Senior Manager of Procurement

# Management Team



## Hana Semiconductor (Ayutthaya) Co., Ltd. Management

10 11 12 13 14 15 16 17 18 19 20 21  
1 2 3 4 5 6 7 8 9

1. **Ms. Areenee Kittisupornpong**  
Director of Management Information System (MIS)
2. **Ms. Sirirat Silapapipat**  
Senior Manager of CSO Operations
3. **Mrs. Saowanee Rachatakarn**  
Director of Financial Controller
4. **Ms. Suparin Kengradomkij**  
Senior Manager of Logistic and Store
5. **Ms. Samantha Kulasinghe**  
Senior Director of Manufacturing Support, Production & Material Control and Industrial Engineering
6. **Mrs. Thawanvaree Pichitnorakarn**  
Senior Manager of Purchasing
7. **Ms. Praphaphun Naradilok**  
Director of Human Resources and Training
8. **Mrs. Rhodora F. Ceballo**  
Senior Manager of Front of Line, Process Engineer, and New Product Introduction
9. **Ms. Tappawong Na Tarlang**  
Director of Marketing and Account Management
10. **Mr. Chaweng Tantiyaphorn**  
Senior Director of Test Operations
11. **Mr. Punsak Eammongkolchai**  
Senior Director of IC Manufacturing & Hybrid / Metal Can Operations
12. **Mr. Paitoon Kungsaranuwat**  
Senior Manager of Test Equipment & Maintenance
13. **Mr. Pongsakorn Jangsatian**  
Senior Manager of Quality System and Quality Engineer (QS & QE)
14. **Mr. Supakit Tantara**  
Director of Assembly Engineering and New Product Introduction (NPI)
15. **Mr. Sanjay Mitra**  
Vice President and General Manager
16. **Mr. Anake Wannathong**  
Senior Manager of CSO Test Operations
17. **Mr. Pongsak Klongjai**  
Senior Manager of Assembly Productions
18. **Mr. Seri Sukchean**  
Senior Manager of Facility, Industrial Engineering, Environment and Safety
19. **Mr. Sithigorn Petchruk**  
Senior Manager of Equipment Technical Support
20. **Mr. Wanakorn Nonkhunthod**  
Director of Supply Chain Management
21. **Mr. Vicente T. Lau, Jr.**  
Director of Quality and Reliability Assurance (QRA)



## Hana Microelectronics (Jiaxing) Co., Ltd. Management

6 7 8 9 10 11 12  
1 2 3 4 5

1. **Mr. Steven Chua**  
Director of Operations
2. **Mr. Andy Shen**  
Director of Operations
3. **Mr. Steven Lee**  
Vice President & General Manager
4. **Mr. Felix Zheng**  
Director of Operations
5. **Mr. Martin Chen**  
Director of New Product Introduction & Technology
6. **Ms. Jane Li**  
Director of Finance & Logistics
7. **Mr. Gordon Gu**  
Senior Manager of Facility
8. **Mr. Steven Quah**  
Senior Manager of Quality & Reliability Assurance
9. **Mr. SC Ding**  
Director of Production & Materials Control
10. **Mr. Peter Xu**  
Director of Manufacturing Support
11. **Mr. KY Chew**  
Director of Marketing & Account Management
12. **Ms. Lucy Guo**  
Senior Manager of Human Resources



# Management Team



## Hana Microdisplay Technology, Inc. Management

3 4 5  
1 2

1. **Mr. D. Scott Worthington**  
Vice President of Manufacturing
2. **Mr. Paul R. Brown, Jr.**  
Vice President of Business Development
3. **Mr. Edward M. Stiles III**  
Vice President of Product Development
4. **Dr. John H. Erdmann**  
President and CEO
5. **Mr. Michael R. Davis**  
Controller



## Hana Microelectronics, Inc. Management

6 7  
1 2 3 4 5

1. **Mrs. LeAna Bui**  
Account Manager
2. **Mr. Ralph Klouda**  
Manager of Business Development and Customer Support
3. **Mr. Sanjay Mitra**  
President – HMI (USA)
4. **Mr. Mark Wadekamper**  
Director of Business Development and Customer Support
5. **Mrs. Malee Lowchareonkul**  
Senior Manager of Business Development and Customer Support
6. **Mr. Thang Bui**  
Senior Director of Business Development and Customer Support
7. **Mr. Mike Griffin**  
Director of Business Development and Customer Support

# Management Team



**Hana Microelectronics (Cambodia) Co., Ltd. Management**

6 7 8 9 10  
1 2 3 4 5

1. **Ms. Usa Anantakhunupakon**  
Manufacturing Support and Production/Material Control (PMC) Supervisor
2. **Ms. Pongpetch Maneechay**  
Production Officer
3. **Mr. Somchai Chantachirathumrong**  
General Manager
4. **Ms. Kim Montha**  
Human Resources Supervisor
5. **Ms. Autchara Pinkaew**  
Production Officer
6. **Mr. Luechon Boonlue**  
Manager of Facility, Industrial Engineering and Management Information System (MIS)
7. **Mr. Tuy Yeang**  
Manager of Human Resources
8. **Mr. Khiev Khemrin**  
Manager of Supply Chain
9. **Mr. Niwat Hukharn**  
Manager of Operation
10. **Mr. Hay Chhivannarit**  
Manager of Finance and Accounting



# Profiles of Directors & Executives



## 1. Mr. John Thompson

- Independent Director
- Chairman of the Board of Directors
- Chairman of Audit Committee

Age:	53 years old
Date of Appointment:	1 January 2017
Number of years as the director:	1 year
Working Experience:	<ul style="list-style-type: none"> <li>• 2017 – present, Chairman of the Board of Directors, Independent Director and Chairman of Audit Committee, Hana Microelectronics Public Co., Ltd.</li> <li>• 2007 - present, Executive Director, NT Asset (Thailand) Co., Ltd.</li> <li>• 2005 - present, Independent Director and Audit Committee, The Post Publishing Public Co., Ltd.</li> </ul>
Educational Background:	<ul style="list-style-type: none"> <li>• Bachelor (Honours), London University, United Kingdom</li> <li>• Associate Chartered Accountant (ACA), The Institute of Chartered Accountants in England &amp; Wales (ICAEW), United Kingdom</li> </ul>
IOD Training Course:	Directors Accreditation Program (DAP) 57/2006
Take the position as the director or management in other companies:	Yes

Subsidiaries of Hana	Non-listed Company	Listed Company
None	NT Asset (Thailand) Co., Ltd.	The Post Publishing Public Co., Ltd.

Shareholding of Mr. John Thompson				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
0 share	-	-	0 share (0%)	None	None

# Profiles of Directors & Executives

## 2. Mr. Richard David Han

- **Executive Director**
- **Executive Vice Chairman and Chief Executive Officer**
- **Nomination Committee**



Age:	61 years old
Date of Appointment:	26 July 1993
Number of years as the director:	25 years
Working Experience:	<ul style="list-style-type: none"> <li>• 2004 – present, Nomination Committee Hana Microelectronics Public Co., Ltd.</li> <li>• 1993 – present, Executive Vice Chairman and Chief Executive Officer, Hana Microelectronics Public Co., Ltd.</li> </ul>
Educational Background:	<ul style="list-style-type: none"> <li>• B.A. Business Studies, Westminster, London, UK</li> <li>• M.B.A. (Marketing), City University, London, UK</li> </ul>
IOD Training Course:	<ul style="list-style-type: none"> <li>• Director Accreditation Program (DAP) 57/2006</li> <li>• Understanding the Fundamental of Financial Statements (UFS) 4/2006</li> </ul>

Take the position as the director or management in other companies: Yes

Subsidiaries of Hana:	Non-listed Company	Listed Company
1. Hana Semiconductor (BKK) Co., Ltd. 2. Hana Semiconductor (Ayutthaya) Co., Ltd. 3. Hana Microdisplay Technologies, Inc. 4. Hana Microelectronics, Inc. 5. Hana Microelectronics (Jiaxing) Co., Ltd. 6. Hana Microelectronics Investment Co., Ltd. 7. Hana Microelectronics International Co., Ltd. 8. Hana Microelectronics Enterprise Co., Ltd. 9. Hana Technologies Group Ltd. 10. Hana Technologies Investment Ltd. 11. Hana Semiconductor Holdings Ltd. 12. Hana Semiconductor International Ltd. 13. Hana Macau Commercial Offshore Ltd. 14. Omac Sales Ltd. 15. Hana Microelectronics (Cambodia) Co., Ltd. 16. Power Master Semiconductor Co., Ltd.	1. Omac (HK) Limited 2. Omac Limited 3. Rainbow Joy Limited	1. Thai British Security Printing Public Co., Ltd.

Shareholding of Mr. Richard David Han				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
1,040,000 shares	-	-	1,040,000 shares (0.129%)	None	None



# Profiles of Directors & Executives

## 3. Mr. Winson Moong Chu Hui

- **Executive Director**
- **President and Chief Operating Officer**



Age: 72 years old  
 Date of Appointment: 26 July 1993  
 Number of years as the director: 25 years  
 Working Experience: 1993 - present, Executive Director, Hana Microelectronics Public Co., Ltd.  
 Educational Background: Bachelor of Engineering, Cheng Kong University, Taiwan  
 IOD Training Course: Director Accreditation Program (DAP) 117/2015

Take the position as the director or management in other companies: Yes

Subsidiaries of Hana:	Non-listed Company	Listed Company
1. Hana Semiconductor (BKK) Co., Ltd.	None	None
2. Hana Semiconductor (Ayutthaya) Co., Ltd.		
3. Hana Microdisplay Technologies, Inc.		
4. Hana Microelectronics, Inc.		
5. Hana Microelectronics (Jiaxing) Co., Ltd.		
6. Hana Technologies Group Ltd.		
7. Hana Technologies Investment Ltd.		
8. Hana Macau Commercial Offshore Ltd.		
9. Hana Microelectronics (Cambodia) Co., Ltd.		

Shareholding of Mr. Winson Moong Chu Hui				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
6,280,000 shares	-	-	6,280,000 shares (0.780%)	None	None

# Profiles of Directors & Executives

## 4. Mr. Terrence Philip Weir

- **Executive Director**
- **Executive Vice President and Chief Financial Officer**
- **Chairman of Corporate Governance Committee**
- **Chairman of Risk Management Committee**



Age: 59 years old  
 Date of Appointment: 26 July 1993  
 Number of years as the director: 25 years  
 Working Experience: 1993 - present, Executive Director, Hana Microelectronics Public Co., Ltd.  
 Educational Background: Bachelor of Economics, Macquarie University, CPA, Australia  
 IOD Training Course: Director Certification Program (DCP) 6/2001, Diploma  
 Take the position as the director or management in other companies: Yes

Subsidiaries of Hana:	Non-listed Company	Listed Company
1. Hana Semiconductor (BKK) Co., Ltd. 2. Hana Semiconductor (Ayutthaya) Co., Ltd. 3. Hana Microdisplay Technologies, Inc. 4. Hana Microelectronics, Inc. 5. Hana Microelectronics (Jiaxing) Co., Ltd. 6. Hana Microelectronics Investment Co., Ltd. 7. Hana Microelectronics International Co., Ltd. 8. Hana Microelectronics Enterprise Co., Ltd. 9. Hana Technologies Group Ltd. 10. Hana Technologies Investment Ltd. 11. Hana Semiconductor Holdings Ltd. 12. Hana Semiconductor International Ltd. 13. Hana Macau Commercial Offshore Ltd. 14. Omac Sales Ltd. 15. Hana Microelectronics (Cambodia) Co., Ltd. 16. Power Master Semiconductor Co., Ltd.	None	None

Shareholding of Mr. Terrence Philip Weir				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
325,000 shares	-	-	325,000 shares (0.040%)	None	None



# Profiles of Directors & Executives



## 5. Mrs. Salakchitt Preedaporn

- Independent Director
- Audit Committee
- Nomination Committee
- Corporate Governance Committee

Age:	57 years old
Date of Appointment:	1 December 2013
Number of years as the director:	5 years
Working Experience:	<ul style="list-style-type: none"> <li>• 2013 – Present, Independent Director, Hana Microelectronic Public Co., Ltd.</li> <li>• 2009 – Present, Financial and Accounting Consultant</li> <li>• 1992 – 2009, Accounting Manager, S. Napa (Thailand) Co., Ltd. &amp; Group Company</li> </ul>
Educational Background:	Bachelor of Accounting, Thammasat University, Thailand
IOD Training Course:	<ul style="list-style-type: none"> <li>• Risk Management for Committee Program (RMP) 2/2013</li> <li>• Director Accreditation Program (DAP) 107/2014</li> <li>• Director Certification Program (DCP) 205/2015</li> <li>• Nomination Committee Best Practice Guideline Seminar</li> </ul>
Other Trainings:	<ul style="list-style-type: none"> <li>• Independent Directors: Roles, Duties and Expectations of Local Shareholders by Thai Investors Association and Members of the Federation of Accounting Professions under the Royal Patronage of His Majesty The King – November 2017</li> <li>• Business in the Age of Uncertainty by EY Office Limited – November 2017</li> <li>• Board Oversight of Cyber Risk Management by Securities and Exchange Commission (SEC) and BSA The Software Alliance – December 2017</li> </ul>

Take the position as the director or management in other companies:

Listed company : None

Non-listed company : None

Shareholding of Mrs. Salakchitt Preedaporn				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
0 share	-	-	0 share (0%)	None	None

# Profiles of Directors & Executives

## 6. Mr. Yingsak Jenratha

- Independent Director
- Audit Committee
- Chairman of Nomination Committee
- Corporate Governance Committee



Age:	71 years old
Date of Appointment:	1 December 2013
Number of years as the director:	5 years
Working Experience:	<ul style="list-style-type: none"> <li>• 2013 - Present, Independent Director, Hana Microelectronics Public Co., Ltd.</li> <li>• 2010 - 2011, Management Advisor, International Precision Product Co., Ltd.</li> <li>• 2008 - 2009, Vice President and General Manager, Hana Microelectronics Co., Ltd. (Jiaxing), China</li> </ul>
Educational Background:	<ul style="list-style-type: none"> <li>• Bachelor of Art in Political Sciences, Chaingmai University, Thailand</li> <li>• Mini MBA, Kasetsart University, Thailand</li> <li>• Operation Management Certificate from GIBA (Graduated Institute of Business Administration), Chulalongkorn University, Thailand</li> </ul>
IOD Training Course:	<ul style="list-style-type: none"> <li>• Anti-Corruption for Executive Program (ACEP) 9/2014</li> <li>• Director Accreditation Program (DAP) 11/2014</li> <li>• Role of the Nomination and Governance Committee (RNG) 8/2016</li> </ul>
Take the position as the director or management in other companies:	
Listed company	: None
Non-listed company	: None

Shareholding of Mr. Yingsak Jenratha				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
65,000 shares	-	45,000	20,000 shares (0.002%)	None	None

## 7. Mr. Wing Keung Chow

- 

Take the position as the director or management in other companies:

Non-listed company : None

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# Profiles of Directors & Executives

## 8. Ms. Achara Chaicharncheep

- Senior Financial and Accounting Manager



Age: 49 years old

Date of Appointment: 14 October 2013

Working Experience: 1996 – present, Senior Accounting Manager,  
Hana Microelectronics Public Co., Ltd. (Headquarter)

Educational Background: Bachelor of Accounting, Kasetsart University, Thailand

IOD Training Course: None

Take the position as the director or management in other companies:

Listed company : None

Non-listed company : None

Shareholding of Ms. Achara Chaicharncheep				Indirect Shareholding	
Number of shares as of 1 January 2017	Movement during the year		Number of shares as of 31 December 2017	Spouse	Minor Child
	Acquisition	Disposition			
30,000 shares	-	-	30,000 shares (0.004%)	None	None



# Hana Overview and Nature of Business

## Hana Overview

Hana Group is one of South East Asia's leading independent "Electronics Manufacturing Service" (EMS) producers. The Company's headquarters is located in Bangkok and there are 6 manufacturing facilities, which are located in Lamphun and Ayutthaya provinces in Thailand, Jiaxing in China, Ohio in USA and a new manufacturing facility in Koh Kong, Cambodia.

Hana Microelectronics Public Co., Ltd. is the parent company. Initially, the Company was established under the name of Hana Microelectronics Co., Ltd. on 28 February 1978 and then was registered to be a public company limited on 26 July 1993 and the name changed to Hana Microelectronics Public Company Limited.

## Vision, Mission and Corporate Objectives

In 2017, the Board of Directors annually reviewed and approved the Company's vision, mission and corporate objectives or the long term goals as below.

### Vision

To become the electronic manufacturing services' company of choice, by providing world class quality manufacturing through a diverse field of related disciplines.

### Mission

To create long-term shareholder value in a manner which minimizes fluctuations in earnings; to develop and promote our employees' wellbeing; to create strong customer-satisfaction and to be a good corporate citizen maintaining high corporate, environmental and social practices for the benefit of all stakeholders.

### Corporate objectives/Long term goals

1. Develop and foster our human resources base for continuous expansion and in order to meet the ever changing demands of the market and for their own personal career paths
2. Build strong and long relationships with our core customers to foster continuous growth
3. Understand our customers' demands and endeavor to meet them
4. Diversify our customer base, geographic and industry exposure in order to cope with fluctuations in economic cycles
5. Create and grow shareholder value through the distribution of profits and increasing returns
6. Maintain integrity through business ethics in dealings with all stakeholders

# Hana Overview and Nature of Business

## Major Changes and Development of the Company

Major changes and development of the Company and subsidiaries in the past 3 years are as follows.

- |             |   |
|-------------|---|
| <b>2015</b> | <ul style="list-style-type: none"><li>• Hana Microelectronics Public Co., Ltd., Sahaphat Group Industrial Park branch, Lamphun province started operation in January and this is the second manufacturing factory in Lamphun. The main products are for assembling Semiconductors and Printed Circuit Board Assembly.</li><li>• Hana Microelectronics (Cambodia) Co., Ltd. is located at Koh Kong Special Economic Zone, Koh Kong Province started the operation in September, initially assembling RFID access control readers and Printed Circuit Board Assembly.</li></ul> |
| <b>2016</b> | <ul style="list-style-type: none"><li>• Hana Microelectronics Public Co., Ltd., Sahaphat Group Industrial Park branch purchased additional land located next to the existing factory totally 24 rai amounting to THB 72.3 million for future business expansion.</li></ul>  |
| <b>2017</b> | <ul style="list-style-type: none"><li>• Hana Microelectronics Public Co., Ltd., Sahaphat Group Industrial Park branch made the decision to facilitate the second floor for manufacturing space, which will double the available area of the factory, in order to prepare for new business expansion. This will be completed in Q4/18.</li><li>• A subsidiary, Hana Semiconductor (Ayutthaya) Co., Ltd., built a 3-story building for the warehouse, to meet the capacity expansion, which will be a start use in Q1/18.</li></ul>   |





# Hana Overview and Nature of Business

## 2017 Awards and Recognition



Hana was rated “excellent” in Corporate Governance Rating (CGR) by the Thai Institute of Directors Association (IOD).

Hana received the ESG 100 honor from the THAIPAT Institute. Hana is ranked among the top 100 listed companies for three consecutive years winning an outstanding performance in terms of environmental, social, and governance (ESG) aspects.



Hana received the Standard for Corporate Social Responsibility (CSR-DIW) Award from the Department of Industrial Works, Ministry of Industry. The award recognized the Company for its implementation under given CSR-DIW standards and sustainable development.

# Hana Overview and Nature of Business

## 2017 Awards and Recognition

Hana received the best of “The National Award for Safe, No Disease, and Happy Workplace” from the Ministry of Public Health granted in 2017 and valid until 2020. Workplace wellness is our health promotion and wellbeing initiatives designed to support healthy employees in our workplace and to improve their wellness to enable them to work safely and effectively.



Hana received the golden award of “The National Occupational Health, Safety and Environment” from the Ministry of Labor for 2 consecutive years. The award reflects the collaboration between employer and employees to develop and upgrade safety standards in the workplace and can be a model for other businesses as a way to improve working safety.

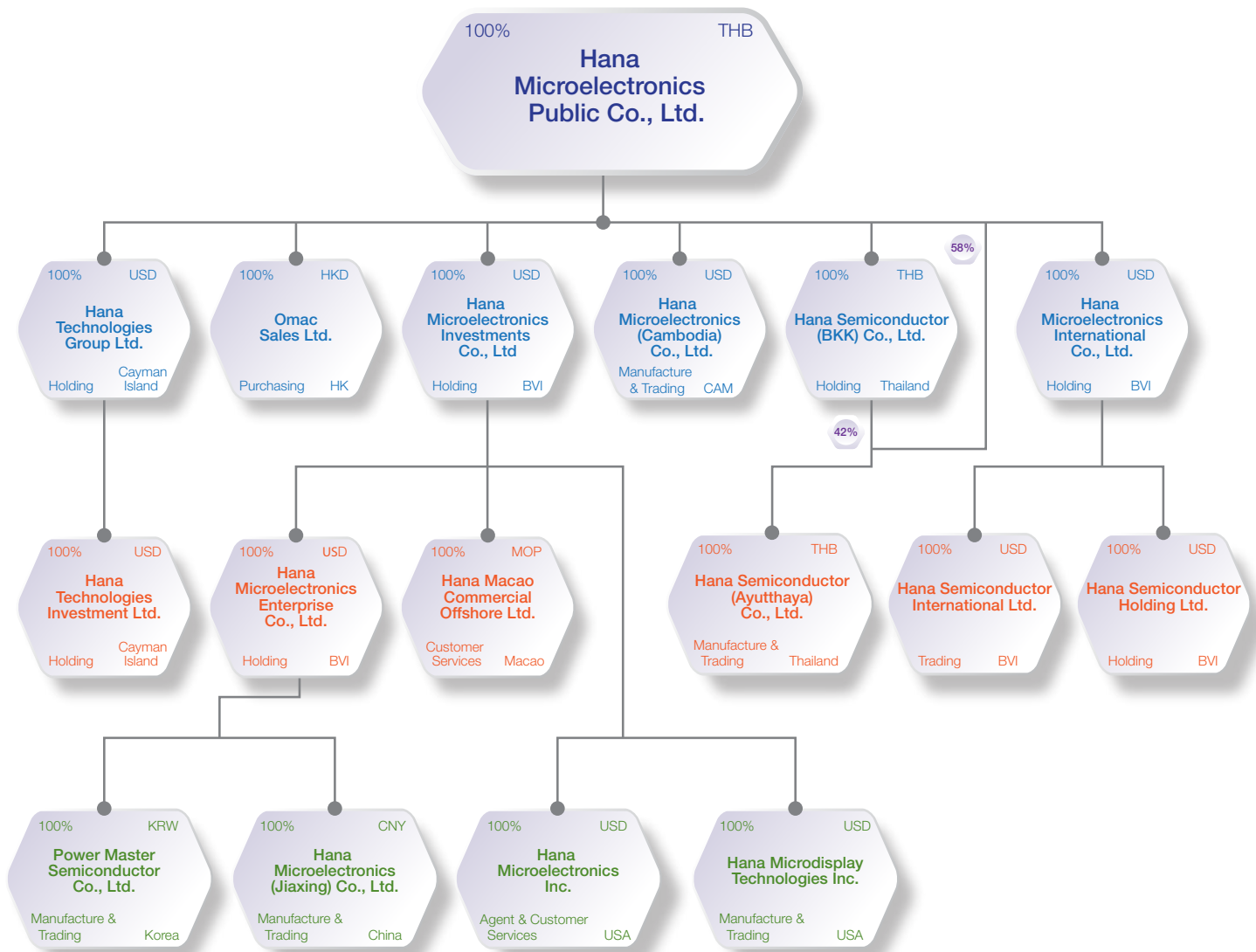
Hana received two diamond awards of 2017 Thailand Quality Prize for QCC (Quality Control Circle) granted by Technology Promotion Association (Thailand-Japan) and 2017 Thailand Kaizen Award (continuous improvement) from the Ministry of Industry. These national awards represent excellence in all aspects of organization management and operating results.





# Hana Overview and Nature of Business

## Hana Group Structure





# Hana Overview and Nature of Business

## Business Operating Policy

Hana has the policy to diversify its business to multiple manufacturing locations strategically located and setting up the necessary companies for customer service, purchasing center, trading and holding companies to serve the group requirement.

### Manufacturing

Hana Microelectronics Public Co., Ltd.  
Hana Semiconductor (Ayutthaya) Co., Ltd.  
Hana Microelectronics (Jiaxing) Co., Ltd.  
Hana Microdisplay Technologies, Inc.  
Hana Microelectronics (Cambodia) Co., Ltd.  
Power Master Semiconductor Co., Ltd.

### Purchasing

Omac Sales Ltd.

### Trading

Hana Semiconductor International Ltd.

### Holding

Hana Semiconductor (BKK) Co., Ltd.  
Hana Microelectronics International Ltd.  
Hana Microelectronics Investment Ltd.  
Hana Technologies Group Ltd.  
Hana Semiconductor Holdings Ltd.  
Hana Technologies Investment Ltd.  
Hana Microelectronics Enterprises Co., Ltd.

### Customer services

Hana Macao Commercial Offshore Ltd.

### Agent and customer services

Hana Microelectronics, Inc.

## Shareholding in subsidiaries which the Company holds shares of them directly and indirectly 10% up

Holding shares by the Company directly	Type of business	No. of shares/ Registered shares (Type of stock - Common stock)
Hana Semiconductor (BKK) Co., Ltd. 65/98 Soi Vibhavadi-Rangsit 64 Junction 2, Kwang Talad Bangkokhen, Khet Lakxi, Bangkok 10210, Thailand	Holding	99,999,994/100,000,000 Baht
Omac Sales Ltd. 16 E, On Fook Industrial Building, 41-45 Kwai Fung Crescent, Kwai Chung, N.T., Hong Kong	Purchasing of electronic components and equipment	99,999/100,000 HKD
Hana Microelectronics International Co., Ltd. P.O. Box 71, Craigmuir Chambers, Road Town, Tortola, British Virgin Islands	Holding	2/2 USD
Hana Microelectronics Investment Co., Ltd. P.O. Box 71, Craigmuir Chambers, Road Town, Tortola, British Virgin Islands	Holding	2/2 USD
Hana Technologies Group Ltd. P.O. Box 309, Ugland House, South Church St., George Grand Cayman, Cayman Islands	Holding	2/2 USD

# Hana Overview and Nature of Business

Holding shares by the Company directly	Type of business	No. of shares/ Registered shares (Type of stock - Common stock)
<b>Hana Semiconductor (Ayutthaya) Co., Ltd.</b> 100 Moo 1, T. Baan Lane, A. Bang Pa-in, Ayutthaya Province 13160, Thailand	Manufacturing and trading of electronic components	69,999,993/120,000,000 Baht
<b>Hana Microelectronics (Cambodia) Co., Ltd.</b> Neang Kok Village, Pakkhleng Commune, Mondul Seyma District, Koh Kong Province Cambodia	Manufacturing and trading of electronic components	5,000,000/5,000,000 USD
Holding shares by the Company's subsidiaries	Type of business	No. of shares/ Registered shares (Type of stock - Common stock)
<b>Hana Semiconductor International Ltd.</b> P.O. Box 957, Offshore Incorporations Center, Road Town, Tortola, British Virgin Islands	Trading of electronic components	1,851,283/10,000,000 USD Holding shares by Hana Microelectronics International Co., Ltd.
<b>Hana Semiconductor Holdings Ltd.</b> P.O. Box 957, Offshore Incorporations Center, Road Town, Tortola, British Virgin Islands	Holding	709,118/10,000,000 USD Holding shares by Hana Microelectronics International Co., Ltd.
<b>Hana Technologies Investments Ltd.</b> P.O. Box 309, Ugland House, South Church St.George, Grand Cayman, Cayman Islands	Holding	100 / 100 USD Holding shares by Hana Technologies Group Ltd.
<b>Hana Microdisplay Technologies, Inc.</b> 2061 Case Parkway South, Unit # 6, Twinsburg, Cleveland, Ohio 44087, USA	Manufacturing and trading of electronic components	437,752/ 437,752 USD Holding shares by Hana Microelectronics Investment Co., Ltd.
<b>Hana Microelectronics, Inc.</b> 3130 De La Cruz Boulevard Unit # 10, Santa Clara, California 95054 USA	Agent and customer services	1,000/1,000 USD Holding shares by Hana Microelectronics Investment Co., Ltd.
<b>Hana Microelectronics Enterprise Co., Ltd.</b> P.O. Box 957, Offshore Incorporations Center, Road Town, Tortola, British Virgin Islands	Holding	2/2 USD Holding shares by Hana Microelectronics Investment Co., Ltd.
<b>Hana Macao Commercial Offshore Ltd.</b> Rua De Pequim No. 126 EDF. Commercial I TAK C18 Macao	Customer services	1/1 MOP (Macau Pataca) Holding shares by Hana Microelectronics Investment Co., Ltd.
<b>Hana Microelectronics (Jiaxing) Co., Ltd.</b> No#18, Hengnuo Road, Xingcheng Industrial Zone, Jiuzhou district, Jiaxing City, Zhejiang Province, 314000 P.R. China	Manufacturing and trading of electronic components	40,000,000/40,000,000 USD Holding shares by Hana Microelectronics Enterprise Co., Ltd.

# Hana Overview and Nature of Business

Holding shares by the Company's subsidiaries	Type of business	No. of shares/ Registered shares (Type of stock - Common stock)
Hana Semiconductor (Ayutthaya) Co., Ltd. 100 Moo 1, T. Baan Lane, A. Bang Pa-in, Ayutthaya Province 13160, Thailand	Manufacturing and trading of electronic components	50,000,001/120,000,000 Baht Holding shares by Hana Semiconductor (BKK) Co., Ltd.
Power Master Semiconductor Co., Ltd. 77 Cheongam-ro, Nam-gu, Pohang-si, Kyeonbuk, Korea	Manufacturing and trading of electronic components	200,000 / 100,000,000 Won Holding shares by Hana Microelectronics Enterprise Co., Ltd.

## Nature of Business

Hana Group's business operations are primarily the assembly of components, sub-assemblies and small electronic finished products. The major product groups are printed circuit board assembly "PCBA", integrated circuit "IC" assembly and test and Microdisplay assembly with factories currently located in Thailand, China and USA providing a wide scope of assembly processes serving a diverse range of electronic industries which includes:-

Manufacturing Service	Location	Ultimate Holding
Printed Circuit Board Assembly, Chip on Board Assembly & Test, Lamination	Hana Microelectronics Public Co., Ltd., Lamphun plant 1 and 2, Thailand	100%
Integrated Circuit Assembly & Test, MEMS, Sensors, SIP, Optocouplers	Hana Semiconductor (Ayutthaya) Co., Ltd., Thailand	100%
SMT, Printed Circuit Board Assembly, Chip on Board and Chip on Flex Assembly & Test, Coil Winding, Integrated Circuit Assembly & Test, LED Packaging and Test	Hana Microelectronics (Jiaxing) Co., Ltd., P.R. China	100%
Liquid Crystal Microdisplays and Radio Frequency Identification (RFID) Devices	Hana Microdisplay Technologies, Inc., USA	100%
Secure Reader Box Build, RFID (Radio-Frequency Devices) Reader, Smart Card Reader, Cable Harness for Secure Reader Box Build, Telecommunication Devices and Computer Components and Pre-Assembly: Semi-Electronic	Hana Microelectronics (Cambodia) Co., Ltd., Cambodia	100%



# Hana Overview and Nature of Business

## Revenue Structure by Product Group

(Unit: Million Baht)

Product	Company	% of share holding by the Company	2017		2016		2015	
			Revenue	%	Revenue	%	Revenue	%
IC ASSEMBLY	HS-AYT & HM-JX	100%	8,653	40	8,046	39	7,543	37
PCBA	HM-LPN, HM-JX & HMC	100%	11,741	55	11,528	56	12,671	62
MICRODISPLAY	HMT	100%	1,157	5	949	5	307	1
Total			21,551	100	20,523	100	20,521	100

Remark:

HS-AYT: Hana Semiconductor (Ayutthaya) Co., Ltd.

HM-LPN: Hana Microelectronics Public Co., Ltd. (Lamphun)

HM-JX: Hana Microelectronics (Jiaxing) Co., Ltd.

HMT: Hana Microdisplay Technologies Inc.

HMC: Hana Microelectronics (Cambodia) Co., Ltd.

## Hana Product Group

### 1. Printed Circuit Board Assembly (PCBA)

Printed Circuit Board Assembly is IC and other electronics part assembling on printed circuit board which holding electronics part on board by SMD (Surface Mount Device) technology. PCBA products are manufacturing in Lamphun and Jiaxing plants. The Company also provides manufacturing services for other products such as COB (Chip-on-Board) Assembly, Wireless Radio Frequency Product and other electronics device (Air Pressure and Temperature Control product, Fiber Optic Device, Wireless Sensor Product, Smart Card Product, etc.). In Cambodia plant, the Company assembles box build products and other labour intensive assemblies.

### 2. IC Assembly and Test

Hana provides IC assembly and test operations with the production bases in Ayutthaya plant in Thailand and Jiaxing plant in China. The Company offers variety of IC assembly and test services such as Standard IC products (QFN/DFN package, LGA, MSOP package, SC, SOT and TSOT package, etc.), LEDs for Automotive Lighting, Optical Mouse, DC-DC Converter Assembly, Fiber Optic Assembly, Products for High Concentrated Photovoltaic, etc.

### 3. Microdisplay

Hana Microdisplay Technology Inc. produces Liquid Crystal on Silicon "LCOS" devices which are be used for microdisplays and optical telecommunications components. The plant also produces RFID (Radio Frequency Identification - RFID) passive tags. The products are developed and initially manufactured by the plant in Twinsburg, Ohio, USA Manufacturing of these devices is also performed in Ayutthaya plant, where a duplicate production line was established in 2004.

## Product Distribution and Raw Material

Hana manufactures the products according to the customers' specification and requirement and sells the products directly to the customers. The major raw materials are directly purchased from suppliers and consignment from customers. The Company imports the major raw materials used in production by import directly, through distributors overseas or through their trading company for local purchase. The Company has not purchased raw materials from one supplier valued at more than 30 percent of the total purchase of raw materials. The Company has the planning system to purchase materials in advance of the planned production to match customer orders.

# Hana Overview and Nature of Business

Some materials are based on world prices market such as gold, copper, steel prices which may fluctuate. The Company has managed various ways to cope with the price fluctuation such as find the second source of substitute raw material, advanced planning for material ordering or discussing with the suppliers and customers.

## Production Capacity

The production capacity in 2017 is as follows.

(Unit: Pieces/ Year)

Manufacturing Plants	2017		2016		2015	
	Production Capacity	Actual Production	Production Capacity	Actual Production	Production Capacity	Actual Production
A) IC						
• Ayutthaya plant	4,320,000,000	3,815,776,000	4,376,000,000	4,003,614,600	3,906,520,000	3,438,296,000
• Jiaxing plant	1,739,000,000	1,117,471,758	1,772,000,000	1,273,285,348	1,798,000,000	1,375,999,109
B) PCBA						
• Lamphun plant	1,200,000,000	1,000,000,000	1,000,000,000	800,000,000	900,000,000	720,000,000
• Jiaxing plant	76,500,000	46,400,000	91,000,000	63,521,559	107,000,000	88,311,516
• Cambodia plant	27,380,000	26,349,144	4,380,000	3,747,995	200,000	200,000
C) MICRODISPLAY						
• USA plant	91,000,000	77,280,000	70,800,000	67,575,000	70,550,000	35,895,000

## Industry Competitive Condition:

In 2017 the markets recovered particularly after the first quarter of the year. The Company sales revenue in USD terms increased 9%, and with increased operating profit.

The Company remains competitive by providing assemblies to the quality level demanded by the customers at a competitive cost. The management believes that the Company maintains a competitive cost structure equal or lower than the majority of its competitors.

### To compete with our competitors:

1. Hana (Thailand) position is towards higher technology and better infrastructure than those in the more labour intensive countries. Even with the recent wage increase, Thailand is still competitive. With the recent high cost situation in China, business is flowing back into Thailand, which leads Thailand to be better competitive with our neighboring countries for more complex assemblies.
2. Hana (China) also provides a competitive geographic location but with more corporate technical and administrative support to distinguish them from local competitors.
3. Furthermore, Hana is also planning to cope with the labor cost increase. Our manufacturing plant in Cambodia has started to operate, to take advantage of the lower labor cost there and is gaining industry quality qualifications.
4. Hana provides a both Integrated Circuit "IC" Assembly and Test and Printed Circuit Board Assembly "PCBA" products and sub-assemblies in various locations in multiple countries to distinguish itself from other competitors.
5. Even with the recent fluctuations in the worldwide economy, Hana has maintained a strong cash flow.
6. Hana has multiple sites which provide alternative production facilities in case any one site has difficulty.

# Hana Overview and Nature of Business

## Future Projects in Plan

Hana Microelectronics Public Co., Ltd., Sahaphat Group Industrial Park branch to expand the second floor for manufacturing space, which will double the area of the factory, in order to prepare for new business expansion. This will be completed in Q4/18.

## Company General Information

Name:	Hana Microelectronics Public Co., Ltd.
Company registration number:	0107536000773
Contact address:	
Headquarter:	65/98 Soi Vibhavadi-Rangsit 64 Junction 2, Kwang Talad Bangkhen, Khet Laksi, Bangkok 10210, Thailand Tel.: 66 2551 1297-8 Fax: 66 2551 1299
Branch 1:	101/2 Moo 4, EPZ Northern Region Industrial Estate, Chiangmai – Lampang Road, T. Baan-Klang, A. Muang Lamphun, Lamphun province 51000, Thailand Tel.: 66 5358 1567 - 73, 66 5355 2361 Fax: 66 5358 1573 - 4, 66 5358 1290
Branch 2:	123 Moo 5, T. Pa Sak, A. Muang Lamphun, Lamphun province 51000, Thailand Tel.: 66 5309 0254, 66 5309 0210 Fax: 66 5353 7629
Website:	<a href="http://www.hanagroup.com">www.hanagroup.com</a>
Nature of business:	Electronics Manufacturing Service “EMS” Producer
Registered share capital:	974,403,900 ordinary share at par value of Baht 1
Paid-up capital:	804,878,860 ordinary share at par value of Baht 1
Other type of shares:	None
References:	<b>Auditor:</b> <b>EY Office Limited</b> 33rd Fl., Lake Rajada Office Complex, 193/136-137 New Rajadapisek Road, Bangkok 10110 Thailand Tel.: 66 2264 0777 Fax: 66 2264 0790 <b>Solicitors:</b> <b>Damrongtham Law Office</b> 63 Soi 8 (Soi Preeda), Sukhumvit Road, Wattana, Bangkok 10110 Thailand Tel.: 66 2255 2550-2, 66 2653 1133-4 Fax: 66 2653 1135, 66 2253 3427 <b>Share Registrar:</b> <b>Thailand Securities Depository</b> 93 Rachadapisek Road, Dindaeng, Dindaeng, Bangkok 10400 Thailand Tel.: 66 2009 9000 Fax: 66 2009 9991 Investors can get more information of the Company from 56-1 report that is posted at <a href="http://www.sec.or.th">www.sec.or.th</a> and <a href="http://www.hanagroup.com">www.hanagroup.com</a>



# Hana Overview and Nature of Business

## Major Shareholders

Major Shareholders as of the latest closing registration book on 14 March 2017

Type of Shares: Ordinary shares

No.	Major Shareholders	No. of Shares	%
1.	OMAC (HK) LIMITED, OMAC LIMITED, RAINBOW JOY LIMITED	253,419,360	31.49
2.	CREDIT SUISSE AG, SINGAPORE BRANCH	84,869,900	10.54
3.	THAI NDVR CO., LTD.	58,901,541	7.32
4.	STATE STREET BANK EUROPE LIMITED	58,231,734	7.23
5.	BNP PARIBAS SECURITIES SERVICES LUXEMBOURG	23,565,800	2.93
6.	CHASE NOMINEES LIMITED	20,072,875	2.49
7.	BNP PARIBAS SECURITIES SERVICES, LONDON BRANCH	14,896,600	1.85
8.	BNP PARIBAS SECURITIES SERVICES S.A., JERSEY BRANCH	10,989,500	1.37
9.	HSBC (SINGAPORE) NOMINEES PTE LTD	10,611,400	1.32
10.	ABERDEEN LONG TERM EQUITY FUND	10,137,700	1.26

Remark: No. (1) Are related companies under Section 258 of the Securities and Exchange Act (No. 4) B.E. 2551

## Dividend Policy

The Company's dividend policy is to pay shareholders is approximately 30-100% of its consolidated net income after deduction of all specified reserves, subject to the Company and its subsidiaries' cash flow and investment plans, and other considerations as deemed appropriate. The dividend policy the subsidiaries to pay the Company is 0 – 100% of appropriated earnings.

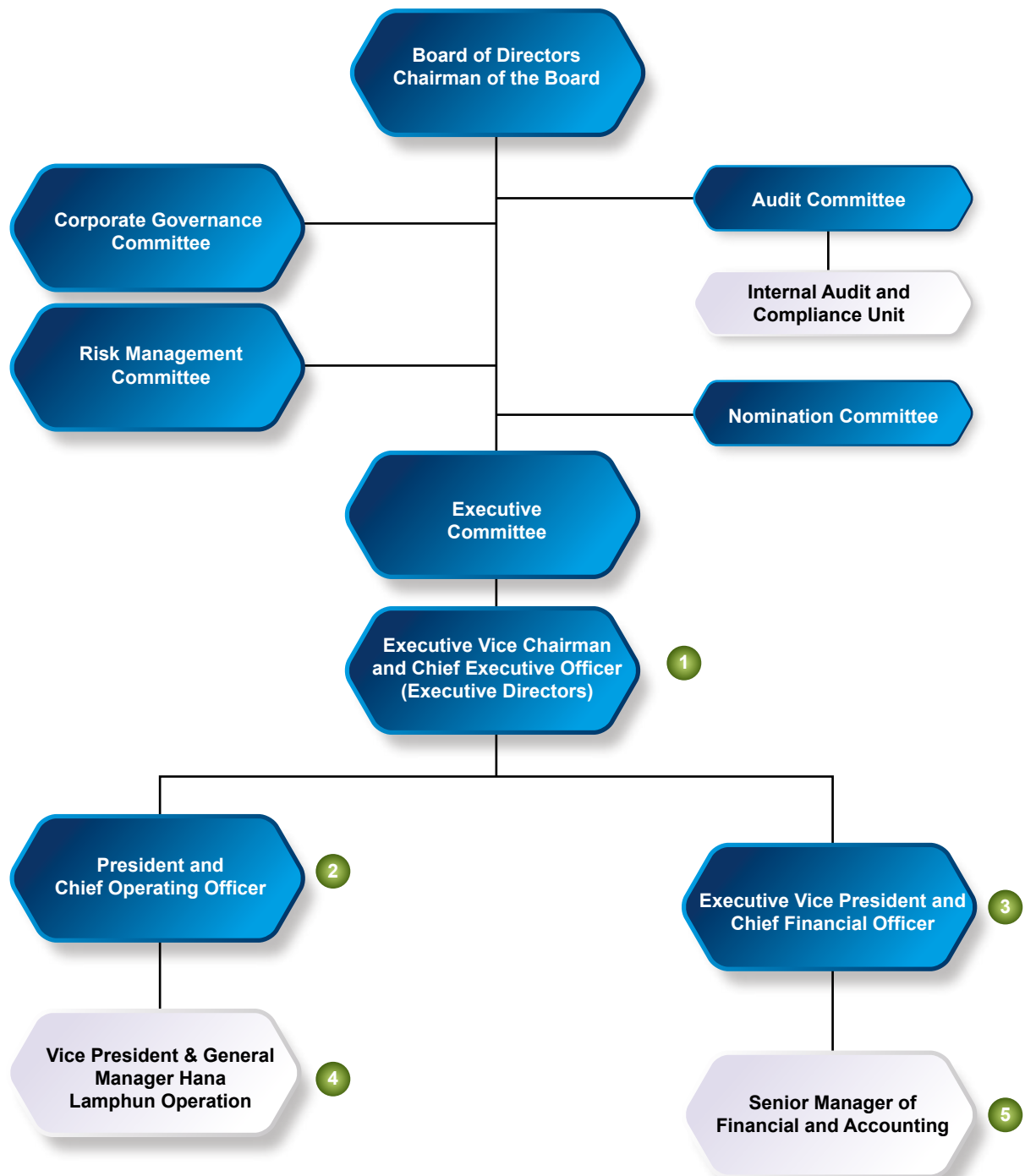
Dividend payment detail	2017	2016	2015
Interim dividend (Baht/share)	1.00	1.00	1.00
Annual Dividend (Baht/share)	1.00	1.00	1.00
Total dividend payment (Baht/share)	2.00	2.00	2.00
Total amount paid (Baht)	1,609,757,720	1,609,757,720	1,609,757,720
Percentage of total dividend payment against the net profit	56%	76%	78%

## Non-Financial KPI

Non-Financial KPIs are other measures used to assess the activities that the Company sees as important to the achievement of its strategic objectives. Following are the common non-financial KPIs that the Company uses as part of performance management.

KPI	Target	Actual in 2017
1. Training hours per year (average hour per person)	30 hours	43 hours
2. Continuous Improvement Program (CIP) participation rate	60%	70%
3. Customers' satisfaction	80%	87%
4. Zero audit failures (customer audit and 3rd party audit)	0	0
5. Customer complaint handling cycle time	100%	100%
6. Zero type A accidents	0	1

# Management Structure



1 - 5 is the Company's Executives according to SEC Regulation

# Management Structure

## Board of Directors

The Board of Directors consists of six directors of whom three are executive directors and three are independent directors.

The Board of Directors as of 31 December 2017 is as follows.

Name	Position	Appointment Date
1. Mr. John Thompson	Independent Director	01 January 2017
2. Mrs. Salakchitt Preedaporn	Independent Director	01 December 2013
3. Mr. Yingsak Jenratha	Independent Director	01 December 2013
4. Mr. Richard David Han	Executive Director	26 July 1993
5. Mr. Winson Moong Chu Hui	Executive Director	26 July 1993
6. Mr. Terrence Philip Weir	Executive Director	26 July 1993

### Term of service of independent directors:

The Board of Directors set the term of service of independent directors shall not over than nine years from the date of their first appointment, with no exception.

### Authorized Directors:

The directors authorized to bind the Company shall be the joint signatures of any two directors and affixed with the Company's seal.

### Board duties and responsibilities:

In conducting the business of the Company, the Board of Directors shall perform their duties and responsibilities with due care and loyalty in the best interest of the Company and its shareholders. The duties and responsibilities of the Board of Directors are as follows.

1. To direct the business in accordance with the relevant laws and objectives enumerated in the Company's Memorandum of Association and have the authority to perform duties provided or related thereto under the resolution of the shareholder meetings
2. To determine the Company's strategic direction, annual business plan, including monitor and oversee the implementation of corporate strategies
3. To determine the vision and mission of the Company and review annually
4. To consider decisions on the material transactions or significant matters such as large investment, the Company key policies, management authority, and any transactions as prescribed by law
5. To review the system of sound internal control and risk management system to be effectively implemented and maintained
6. To ensure that the major related party transactions or conflict of interests are in compliance with the relevant notifications, regulations and guidelines of the Stock Exchange of Thailand
7. To ensure the appropriate accounting systems, the preparation of financial reports and accounting policies in accordance with generally accepted accounting and review by independent auditors
8. To put in place a mechanism for an annual performance evaluation of the Board and sub-committees
9. To ensure business continuity in the long term including employee development plans and the continuation of the executives (Succession Plan)
10. To review the corporate governance policy and its compliance at least annually
11. To govern the subsidiaries in order to protect investor benefits including assigning directors of its subsidiaries to control management under the policies of the Company, including transactions related to securities and exchange laws or SET regulations.
12. To attend every Board of Directors' meeting except special reasonable circumstances



# Management Structure

13. To support the Company's policies and practices related to anti-corruption in all forms

## Authorities of the Board of Directors:

- 1. Related to the Company business** - To approve the Company's vision, mission and business objectives/goals, the matters impacted to financial, debt, future business strategic and performance of the Company, project with capital investment over than Baht 100,000,000, the change of capital structure and accounting policy
- 2. Related to shareholders** - To approve the dividend payment, financial statement and its notes, the auditor opinion, annual report, calling shareholder meeting, the change of the Company's Memorandum of Association, appointment of auditors and their remuneration and the ordinary share issuance and to recommend to the shareholders General Meeting.
- 3. Related to the Board and executive management** - To approve the appointment and removal of director and secretary of the Company and its subsidiaries, delegation or empower the roles and responsibilities to CEO, sub-committee, the charter of Board of Directors and sub-committee, the other Board seats held by director, CEO and executive management as well as related party transactions and conflict of interest
- 4. Related to organization principle** – To approve the corporate governance policy, the code of conduct, social responsibility, risk management and internal control

## Duties and Responsibilities of the Chairman of the Board of Directors:

The Chairman of the Board has additional responsibilities more than other directors as follows.

1. Together with CEO, to call the Board and shareholder meetings and set the agendas of the meetings
2. To act as a chairperson at the meetings of the Board and shareholders including review and sign minutes of meetings
3. To cast a vote to break a tie for the Board and shareholder meetings

## Segregation of duties between the Board of Directors and Management:

The roles and responsibilities between the Board and management are clearly segregated as follows.

The Board of Directors	Management
<ul style="list-style-type: none"><li>• To have the ultimate responsibility for the Company's long-term prosperity</li><li>• To approve the large projects/investment, major transactions, policies, etc.</li><li>• To oversee the overall performance of the Company and the implementation of the policies and plan by management planned effectively and efficiently</li></ul>	<ul style="list-style-type: none"><li>• To run the business of the Company and set its business strategy in accordance with the delegated authority of the Board</li><li>• To have the authority to approve day-to-day operational expenditures, investment, commercial agreement, etc. according to the limited amount approved by the Board</li><li>• To report results to the Board</li></ul>

The Board has approved the separation of duties and authorization and management such as approval limits of day-to-day operational expenses. However, such authorization shall not include that where the grantee can approve the transaction of which he or she is a person who might have any conflict of interest with the Company or its subsidiaries regarding such transaction.

# Management Structure

## Management Team

As of 31 December 2017, the executive of the Company consists of 5 members as follows.

Name	Position
1. Mr. Richard David Han	Executive Vice Chairman and Chief Executive Officer
2. Mr. Winson Moong Chu Hui	President and Chief Operating Officer
3. Mr. Terrence Philip Weir	Executive Vice President and Chief Financial Officer
4. Mr. Wing Keung Chow	Vice President and General Manager
5. Ms. Achara Chaicharncheep	Senior Financial and Accounting Manager

## Duties and Responsibilities of Chief Executive Officer:

The Board delegate authority and responsibility for the conduct of the Company's business to CEO who has following responsibilities:-

1. To manage and monitor the Company's daily operations and performance consistent with the Company's objectives, strategies and relevant policies
2. To recommend to the Board any significant operational changes and major capital expenditures beyond delegated authority
3. To propose appropriation of earnings to the Board for interim and/or annual dividend payments
4. To assign responsibilities to the senior management and supervising the work of executive directors
5. To empower the engagement and commitment for the Company in accordance with all applicable laws and the Company's standards and policies
6. To conduct other duties in accordance with the resolutions of the Board meetings and/or shareholder meetings

## Sub-Committees of the Board of Directors

The Board currently has five committees – Executive Committee, Audit Committee, Nomination Committee, Corporate Governance Committee and Risk Management Committee in fulfilling its responsibilities.

## Executive Committee:

**Structure:** The Committee currently comprises of three members.

**Term:** There is no term limit.

Name	Position
1. Mr. Richard David Han	Executive Vice Chairman and Chief Executive Officer
2. Mr. Winson Moong Chu Hui	President and Chief Operating Officer
3. Mr. Terrence Philip Weir	Executive Vice President and Chief Financial Officer

# Management Structure

## Duties and responsibilities of the Executive Committee:

1. To perform and manage the Company's business to comply with the policies, mission and business plans as determined by the Board of Directors
2. To determine budget and the management's authorities of the Company
3. To monitor and follow up the operation of the Company's policies to ensure its efficiency
4. To monitor and follow up the performance of the Company to ensure its compliance with the business plan
5. To have the authorization for approval limits of day-to-day operational expenses in accordance with the approval authorization policy of the Company and to consider the large investment projects such as a joint venture, a construction of new plant etc. and any significant transactions over than Baht 100,000,000 shall be proposed to the Board for approval
6. To perform other duties as assigned by the Board of Directors

## Audit Committee:

**Structure:** The Audit Committee was formally established since September 10, 1999. The Committee consists entirely of independent directors, who are independent from Hana operations and free from any relationship that might in the opinion of the Board of Directors to be construed as a conflict of interest.

**Term:** The Chairman and members are appointed for an initial term of three years.

Name	Position
1. Mr. John Thompson	Chairman
2. Mrs. Salakchitt Preedaporn	Member
3. Mr. Yingsak Jenratha	Member

Mr. John and Mrs. Salakchitt have the expertise and experience to review the financial statements while Mr. Yingsak has the full experience with the electronic company.

## Duties and responsibilities of the Audit Committee:

1. To review the Company's financial reporting process in order to ensure that it is accurate and adequate
2. To review the Company's internal control system and internal audit system to ensure that they are suitable and efficient, to determine an internal audit unit's independence, as well as to approve the appointment, transfer and dismissal of the head of an internal audit department
3. To review the Company's compliance with the laws on securities and exchange, the regulations of the SET and other laws relating to the Company's business
4. To consider, select and nominate an independent auditor including propose their remuneration, as well as to consider the performance of auditors and dismissal
5. To review the connected transactions, or transactions that may lead to conflicts of interests, to ensure that they are in compliance with the SET regulations and applicable laws, and are reasonable and for the highest benefit of the Company



# Management Structure

6. To prepare and disclose in the Company's annual report, an Audit Committee's report which shall be signed by the Chairman of Audit Committee and consist of at least the following information:
  - 6.1 an opinion on the accuracy, completeness and creditability of the Company's financial report,
  - 6.2 an opinion on the adequacy of the Company's internal control system,
  - 6.3 an opinion on the compliance with related laws i.e. the Securities and Exchange Act, the SET regulations, or the laws relating to the Company's business,
  - 6.4 an opinion on the suitability of an auditor,
  - 6.5 an opinion on the transactions that may lead to conflicts of interests,
  - 6.6 the number of the Audit Committee meetings, and the attendance of such meetings by each committee member,
  - 6.7 an opinion or overview comment received by the Audit Committee from its performance of duties in accordance with the charter, and
  - 6.8 other transactions which, according to the Audit Committee's opinion, should be known to the shareholders and general investors, subject to the scope of duties and responsibilities assigned by the Company's Board of Directors
7. To perform any other act as assigned by the Board of Directors
8. In its performance of duties, if it is found or suspected that there is a transaction or any of the following acts which may materially affect the Company's financial condition and operating results, the Audit Committee shall report it to the Board of Directors for rectification within the period of time that the Audit Committee thinks fit:
  - 8.1 a transaction which causes a conflict of interest;
  - 8.2 any fraud, irregularity, or material defect in an internal control system; or
  - 8.3 an infringement of the SET regulations or any law relating to the Company's businessIf the Board of Directors or management fails to make a rectification within the period of time under the first paragraph, any Audit Committee may report on the transaction or act under the first paragraph to the SEC and the SET.
9. To support and monitor the risk management systems and ensure the measures of the Company are appropriate

## Nomination Committee:

**Structure:** The Nomination Committee was established in November 2004. It consists of two independent directors and one executive director. The Committee will at all time consist of a majority of independent directors.

**Term:** The Chairman and members are appointed for the term of three years.

Name	Position
1. Mr. Yingsak Jenratha	Chairman
2. Mr. Richard David Han	Member
3. Mrs. Salakchitt Preedaporn	Member

# Management Structure

## Duties and responsibilities of the Nomination Committee:

1. To ensure a formal and transparent procedure for the appointments of new directors and key executive management to the Board
2. To select the potential candidates whose qualifications best meet the criteria and propose to the Board
3. To propose and review the executive management succession plan
4. To review annually the size and composition of the Board and to recommend any proposed changes to the Board

## Corporate Governance Committee:

**Structure:** In 2013, the Board established the Corporate Governance Committee that composed of the majority of independent directors.

**Term:** The Chairman and members are appointed for an initial term of three years.

Name	Position
1. Mr. Terrence Philip Weir	Chairman
2. Mrs. Salakchitt Preedaporn	Member
3. Mr. Yingsak Jenratha	Member

## Duties and responsibilities of the Corporate Governance Committee:

1. To consider, review and revise the corporate governance policy continually at least once a year to keep the Company's corporate governance policy update and in line with the international standards, laws, criteria, rules and regulations
2. To monitor and evaluate at the end of each year, the performance of the directors and executives in compliance with best practices as specified in the corporate governance policy
3. To perform any other duties assigned by the Board

## Risk Management Committee:

**Structure:** The Risk Management Committee was established in 2008. The Committee can appoint their management team of each Hana location responsible for ensuring an appropriate risk management process is in place.

**Term:** No term limit

Name	Position
1. Mr. Terrence Philip Weir	Chairman
2. Mr. Wing Keung Chow	Member
3. Mr. Sanjay Mitra	Member
4. Mr. Steven Lee	Member
5. Mr. Somchai Chanchirathumrong	Member

# Management Structure

## Duties and responsibilities of Risk Management Committee:

The Risk Management Committee has the duties and responsibility that has been approved by the Board in implementing the risk management policy, reviewing the effectiveness of risk management profile, presenting the Company's overall risks and solutions to effectively prevent and limit Hana's overall risks at an acceptable level, and reporting the results to the Board periodically.

## Meeting Attendance

Meeting	Board of Directors	Audit Committee	Nomination Committee	Corporate Governance Committee	Non-Executive Meeting	Annual General Meeting
Total number of meetings in 2017	7	4	2	1	1	1
Number of meeting attended/participated in 2017						
Independent Directors:						
Mr. John Thompson	7/7	4/4	-	-	1/1	1/1
Mrs. Salakchitt Preedaporn	7/7	4/4	2/2	1/1	1/1	1/1
Mr. Yingsak Jenratha	7/7	4/4	2/2	1/1	1/1	1/1
Executive Directors:						
Mr. Richard David Han	7/7	4/4	2/2	-	-	1/1
Mr. Winson Moong Chu Hui	7/7*	-	-	-	-	1/1
Mr. Terrence Philip Weir	7/7	4/4	-	1/1	-	1/1

\*Mr. Winson participated via conference call 1 time.

## Corporate Secretary to the Board of the Directors

The Board has formally appointed the corporate secretary since 11 August 2008 to carry out the duties and responsibilities according to Section 89/15 and 89/16 of Securities and Exchange Act No. 4 B.E. 2551 effective from 31 August 2008. The corporate secretary shall perform duties with care and responsibility and in good faith as well as in compliance with all applicable laws, the objectives, the Articles of Association of the Company, and the resolutions of the Board of Directors and the shareholders' meetings.

### Detail of the corporate secretary:

Name	Education	Experience
Ms. Jirapa Kongmanee	<ul style="list-style-type: none"> <li>Bachelor degree in Accounting, Bangkok University</li> <li>Master degree in Business Ministration, Butler University (USA)</li> </ul>	<ul style="list-style-type: none"> <li>1999 – present: The head of internal audit department of Hana Group</li> <li>2008 – present: Corporate Secretary of the Board of Directors</li> <li>2013 – present: The head of Compliance Unit</li> </ul>





# Management Structure

Duties and responsibilities of the corporate secretary are as follows:

1. To prepare and maintain following documents.
  - 1.1 Director registration
  - 1.2 Notification and minutes of the Board of Directors meetings including annual reports
  - 1.3 Notification and minutes of shareholder meetings
2. To maintain Report on Interest of Directors, Executives and Related Persons and send a copy of the report under Section 89/14 of SEC regulation to the Chairman of the Board and Audit Committee within 7 days from the date that the report is received.
3. Other duties regulated by the Securities and Exchange Commission
4. Other duties assigned by the Board of Directors such as
  - Advice on the laws and regulations involved and oversee the activities of the Board to be in accordance with the law
  - Conduct the Board of Directors and shareholders meetings
  - Liaise with regulatory agencies such as the SET and ensure disclosure and press release according to the applicable laws

## Remuneration of the Board of Directors and Executives

### Remuneration for Directors:

The Company provides the remuneration to the independent directors while the executive directors receive the remuneration as the role of employees of the Company. Therefore, the Company has not established the Remuneration Committee as the Board considers and reviews the remuneration of the independent directors by the whole Board. The Company provides the remuneration to the independent directors in forms of meeting allowances and bonus of which the rates are up to the responsibilities of the members. There is no other benefit. The remuneration for directors has been compared with the rate of the same industry and the structure of the remuneration of the Company. All types of the remuneration of directors have always been approved by shareholders every year.

# Management Structure

Individual disclosure of remuneration for the Board of Directors in 2017 is as follows.

Name	Position	Meeting Allowance (Baht)	Bonus (Baht)	Total (Baht)
1. Mr. John Thompson	Independent Director Chairman of Board of Directors Chairman of Audit Committee	736,000	92,000	828,000
2. Mrs. Salakchitt Preedaporn	Independent Director Audit Committee Corporate Governance Committee Nomination Committee	412,500	55,000	467,500
3. Mr. Yingsak Jenratha	Independent Director Audit Committee Chairman of Nomination Committee Corporate Governance Committee	412,500	55,000	467,500
4. Mr. Richard David Han	Executive Director Nomination Committee	-	-	-
5. Mr. Winson Moong Chu Hui	Executive Director	-	-	-
6. Mr. Terrence Philip Weir	Executive Director Chairman of Corporate Governance Committee Chairman of Risk Management Committee	-	-	-
Total				1,763,000

## Remuneration for Executives:

**Basis of key executive remuneration** – The Company is to ensure that key executive remuneration enhance its ability to attract, retain and motivate competent and experience staff. Remuneration of executives of short and long terms is in accordance with performance of each executive. The remuneration of executives including CEO comprises of base salary, cash bonuses (Annual and Personal Performance Bonuses) and employees' welfare such as provident funds, medical benefits, life insurance, etc. The provident fund is a part of the incentive programs to offer executives, management and employees a secure income in the case of death, disability, resignation or retirement. The Company contributes at the rate of 3 - 7.5 percent of their salaries depending on the length of year service with the Company. Other long term incentive program is the retirement benefit which is eligible to receive when retires from the Company.

The Board of Directors has established the written CEO remuneration policy that covers the short-term and long terms incentives. The Board delegates the CEO compensation process to the executive committee within the budget approved by the Board annually. The short-term incentive depends on the group's financial performance and on CEO's own success evaluated by the independent directors. For the long-term incentives, the CEO shall be eligible to receive this long term incentive with the same terms and conditions as employees. For other long term incentives of CEO if any, the executive committee shall seek recommendation from the Board.

**Measurement criteria** - The performance-based has been recognized for the legitimate difference in roles, individual contribution, complexity and responsibility of the position they hold, including the performance of the Company. The determination of remuneration also takes into account the current market rate and annual salary increase of the staff with consideration of the market survey performed by Human Resources Department.

# Management Structure

In 2017, the total remuneration of 5 executive managements is as follows.

Type of remuneration	Amount (Baht)
Salary	15,393,128
Bonus	4,319,500
Provident fund	726,566
Board remuneration	-
<b>Total</b>	<b>20,439,194</b>

## Human Resources

As of 31 December 2017, the Company and its subsidiaries had a total number of employees of 10,539. For 2017, the total remuneration including salary, overtimes, bonus, provident funds, etc. was Baht 3,619 million. In Thailand, there were 8,141 employees with Baht 2,617 million paid for remuneration.

### Number of employees and remuneration in Thailand:

Y2017	Hana Microelectronics Public Co., Ltd.	Hana Semiconductor (Ayutthaya) Co., Ltd.
Production	3,007 employees	3,353 employees
Administration and others	940 employees	841 employees
Total employees	3,947 employees	4,194 employees
<b>Total remuneration</b>	<b>THB 1,253 million</b>	<b>THB 1,364 million</b>



# Corporate Governance

The long-term success of a company is largely determined by the support we earn from our employees, customers, business partners, investors, local community and other stakeholders. Hana believes that good corporate governance will enhance the credibility and reputation of the Company as well as promoting and safeguarding the interests of shareholders and other stakeholders. Hana is committed to good corporate governance by compliance with the best practices of corporate governance wherever possible and practical for the Company. The corporate governance policy, which is published on the Company's website, provides the guidelines under which the Board of Directors operates. We will continue to seek improvements to our solid foundation in good corporate governance to achieve sustainable long-term growth.

A compliance program is an important element in the corporate governance. However, the Company has reviewed our corporate governance practices and there are a couple areas that the Company adapted alternative approaches, having regard to the Company's particular circumstances. As a result, the Company has not complied with certain good corporate governance best practices for the following reasons.

Disclosure of non-compliance	Reasons
<p><b>1. Independent directors more than 50%</b></p> <p>The independent directors should make up more than 50% of the Board.</p>	<p>The Board structure of the Company consists of three independent directors and three executive directors, which is accounted for 50% of the Board, whereby:</p> <ol style="list-style-type: none"> <li>1) The Chairman of the Board and the Chief Executive Officer (CEO) is not the same person;</li> <li>2) The Chairman is an independent director;</li> <li>3) The Chairman and the CEO are not immediate family members;</li> <li>4) The Chairman is not part of the management team.</li> </ol> <p>Furthermore, in 2017 the Board upon the recommendation of the Nomination Committee considered that a current mix of directors with the expertise and experience to fulfill their essential oversight roles is still appropriate.</p>
<p><b>2. Appointment of Remuneration Committee</b></p> <p>The Remuneration Committee should be appointed and composed of majority of independent directors with specified sets of duties and responsibilities and held at least 2 meetings per year.</p>	<p>As the remuneration structure of the Board has been set for the independent directors only, whereas the remuneration of executive directors is paid as senior company employees. The Company has not established the Remuneration Committee as the Board of Directors is capable of reviewing the remuneration of the independent directors by the Board as a whole. The Board is responsible for determining remuneration policy and structure of compensation for independent directors with transparency, benchmarking with industry and considering each director according to individual duties and responsibilities. For the Board's remuneration in all kinds, the Board has proposed to shareholders for final approval annually.</p>

# Corporate Governance

Disclosure of non-compliance	Reasons
3. Disclosure of CEO remuneration	The Board is of opinion that the compensation disclosure is highly sensitive as the CEO receives remuneration as a managerial or employee of the Company, not as a director. The Company has disclosed the remuneration in the form of group executives, the policy on CEO remuneration and performance evaluation of the CEO. Therefore, the disclosure of CEO's remuneration to the public may be considered as deemed appropriate in future.
4. Adopt an internationally recognized reporting framework  The sustainability report should be prepared in form of Global Reporting Initiative (GRI) and more advance to adapt integrated reporting based on IIRC framework.	The Company has not yet prepared the sustainability report in form of GRI and Integrated Reporting. However, the Company has prepared the CSR report in accordance with the CSR-DIW Reporting Initiative which is in line with the industry context in Thailand and is recognized internationally. The report has disclosed on the Company's website ( <a href="http://www.hanagroup.com">www.hanagroup.com</a> ).

In 2017, Hana has adhered to and complied with the good corporate governance for a listed company as recommended by the Stock of Exchange of Thailand in 5 principles as follows.

## 1. Rights of Shareholders

Hana recognizes the importance of shareholders' rights and treats all shareholders either individual investors or institutional investors equitably, fairly and in line with relevant laws where no actions shall be taken to materially diminish shareholders' rights.

- **Rights to attend the shareholders' meeting and vote**

One of the basic rights of shareholders is the right to attend and vote at shareholders' meetings. To encourage shareholders to exercise their rights in shareholders' meeting, the Company takes following actions.

**Before the meeting day:**

The Company sets the date, time and place of the meeting by taking into consideration the convenience of shareholders in attending and encouraging shareholders, including institutional investors, to attend the meeting. The Company holds the Annual General Meeting of Shareholders (AGM) within 4 months after financial year ends. In 2017, the Company held the AGM on 28 April 2017 at 14:00 hrs. at its head office located at 65/98 Soi Vibhavadi-Rangsit 64, Junction 2, Kwang Talad Bangkhen, Khet Laksi, Bangkok making it convenient for shareholders including institutional investors to travel and attend the meeting. The Company arranged with the Thailand Securities Depository Co., Ltd. or "TSD" which is the Company's securities deposit registrar send the notice of shareholders' meeting by posted mail 21 days prior to the meeting date in order to provide sufficient time for shareholders and institutional investors to review the details of information disclosed in the notice of meeting. The notice of meeting expressly indicated the matters to be tabled at the meeting, whether for acknowledgement, approval or consideration, including the Board's opinion on each agenda. Other supporting information and documents were also attached to the notice. In addition

# Corporate Governance

to the direct delivery, the notice of meeting was made available to the shareholders through the Company's website ([www.hanagroup.com](http://www.hanagroup.com)) 30 days in advance and the notice of meeting was published through SET's information system or "ELCID" in both Thai and English versions, which were the same as the original notice mailed to shareholders.

The Company also provides opportunities for shareholders to submit questions or enquiries in advance prior to the meeting with the procedures enclosed in the notice of meeting and available in the Company's website. Further, the Company encourages the exercising of voting rights by shareholders who cannot attend the shareholders' meeting by appointing their proxies to participate in the meeting or appoint the Company's independent directors on their behalf to attend the meeting and vote by providing the proxy form B on which shareholders are able to specify their votes, with the notice of meeting.

## **On the meeting day:**

The Board of Directors is to ensure that the meeting is conducted transparently and efficiently as well as to facilitate the exercise of shareholders' rights. The quorum including the total number of shareholders in attendance in person or by proxies, voting procedures and voting count method are clearly advised to the meeting prior to the discussion of the agenda items. The chairman shall convene the meeting according to the terms and conditions in line with the Company's Articles of Association and manage appropriate time for each agenda set forth in the meeting invitation. During the meeting, shareholders are given the opportunities to raise questions, recommendations as well as provide their opinions on the Company's performance or other concerns on an equitable basis. In regards to the AGM conducted in 2017, 6 out of 6 directors (100%) attended the meeting which included the chairman of the Board, the chairman of all sub-committees, Chief Executive Officer, Chief Operating Officer and Chief Financial Officer. The external auditor also attended the meeting with the directors so that they could listen to shareholders' opinions or suggestions and also answer any questions.

The Board has adopted the technology in using the barcode system for registration and vote counting in order to bring more accuracy and the results of voting can be announced in a timely manner. Each matter of the agenda is required the use of barcode voting card so that shareholders are able to vote as they deem appropriate. Ballots are collected in the event of an objection or abstention and kept for further evidence and verification. In addition, the Company arranges the inspector who was an independent person to count and check the votes in the meeting and clearly inform the voting results as agree, disagree and abstain.

## **After the meeting day:**

The meeting minutes recording the course of the meeting, the list of directors and executives attending the meeting, voting procedures, vote counting methods, the agenda discussed, the results of shareholder voting counts on each agenda and the decisions made by the meeting with the number of votes of shareholders casting affirming, opposing and abstaining votes including shareholders' questions and answers are made available within the appropriate time to shareholders. The minutes of the AGM in 2017 were posted to the Company's website within the following business day after the meeting and at the same time sent to the Stock Exchange of Thailand. If shareholders have any inquiries or comments on the minutes, they can contact to the corporate secretary. The minutes are maintained at the Company's head office.

## ● **Rights beyond voting right**

The Company has provided shareholders beyond voting right as follows.

- The rights to be counted as a shareholder, for example, a right to buy, sell, transfer shares or a right to inspect shareholder records, etc.;
- The right to receive full and fair returns without inequitable treatment from any group of shareholders.;
- The right to access the Company's information such as the quarterly financial results, the minutes of shareholder meeting, the right to request the Company's visit, etc.;





# Corporate Governance

- The right to participate in decision-making for material matters such as the appointment or dismissal of the Company's directors and approval of their remuneration, appointment of auditors and approval of their remuneration, etc.;
- The right to inspect the management of the Board of Directors, who are representatives of shareholders, such as to inspect the Company's books and records through the Company's public filings including annual report, 56-1 report, etc.;
- The right to obtain a redress or a rectification for any violations of their rights.

In 2017, the Company had no actions that violated the right of shareholders, such as not changing or adding agenda items without notifying shareholders in advance or which limit the access to the Company's information that is released to public. In addition, the Company did not prevent or obstruct any opportunities for shareholders to communicate with each other.

## 2. Equitable Treatment of Shareholders

Hana pays special attention to the interest of the Company's owners - the shareholders. Equitable treatment is given with fairness to all categories of shareholders as follows.

### **Treat all class equally:**

The Company ensures fair treatment of shareholders irrespective of the size of each of their share holdings. Foreign shareholders and owners of small stakes (minority shareholders) as well as individual investors or institutional investors are treated equally. All of shareholders, in respect of each class of shares, are entitled to the same dividend payments, and have equal rights in the event of share capital increases. The Company's shareholder meetings are open to all shareholders, and all shares of the same class have the same voting rights. Voting at the shareholder meeting is done by the principle of one share, one vote.

### **Protect minority shareholders' rights:**

The Company has the policies to promote the right of minority shareholders by allowing minority shareholders to propose agenda items and nominate candidates to be elected as the directors in advance at the AGM. For 2017 AGM, shareholders could, during the period from October – December 2016, submit proposals for 2017 annual shareholder meeting to the Board of Directors for consideration. The procedures and criteria to propose agenda items and nominate the directors to the Board of Directors have been posted to the Company's website under section "Investor Relation" title "Corporate Governance." However, in 2017 there were no shareholder proposals sent to the Board of Directors for consideration.

The matters discussed in the AGM and voting were in sequence as given in the invitation letter without changing important information or adding agenda items without notifying shareholders in advance so shareholders had the opportunity to adequately study the information before making the decision. Further, the Board of Directors allowed shareholders to elect each director eligible for election on individual basis.

### **Prevent insider trading:**

The Company has the policy to prevent directors and executives from taking advantage of inside information, from dishonest dealing for themselves and their related parties. Insider trading is prohibited. Hana has established a system to prevent the use of inside information for personal benefits as follows.

- Communicate the compliance of the policy of Business Code of Conduct of the Board of Directors, executives and employees. The directors and executives are required to sign on acknowledgement of the policy on an annual basis.
- Inform the Board and executives by a circular letter that those who may gain inside information shall avoid trading the Company's securities for the period of one month before the Company announces its financial statements to the public and at least 24 hours after the information is widely spread out to the public.

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- Inform the Board and executives for the duties to report the Company security' holdings and movements to the Securities Exchange Commission (SEC) under the Securities and Exchange Act B.E. 2535 and the Stock Exchange of Thailand's regulation.
- Require the Board and executives to inform to the Board or the corporate secretary at least 1 day in advance before actual trading of the Company's security.
- Confirm the shareholding status with individual director and executive through the corporate secretary on a monthly basis.
- Report to the Board for the shareholding status of individual director and executive at every Board's meeting.

In 2017, no director or executive traded the Company's shares by using inside information.

## 3. Roles of Stakeholders

Hana recognizes the rights of stakeholders starting from employees, customers, partners, shareholders, competitors, creditors, communities, society and the environment including government agencies and related organizations. The Board believes that taking into account the concerns and interests of stakeholders according to the legal and regulatory requirements and the respect of the legitimate expectations of all the stakeholders should benefit all parties in the long run. We have the guidelines to encourage active participation between the Company and stakeholders as follows.

### Employees

Employees as the internal stakeholders who are those within an organization play an important role in contributing to the long-term success and performance of the corporation. Our key focus is to retain deserving and talented employees while employees' satisfaction is of utmost importance for them to remain happy and also deliver their level best.

**Health and safety in the workplace:** The combined efforts of the Company and employees are required to improve the health and wellbeing of employees at work. Hana has been certified for the Occupational Health and Safety Management Systems in accordance with OHSAS/TIS 18001. The Company's policy is to provide the safe and proper workplace to protect injury and illness from work. In order to eliminate or reduce health, safety and welfare related risks to our employees, various health and safety management programs have been implemented such as health and safety risk management system including audit, safety activities and safety incentive program to promote health and safety awareness. Employees take part in work environment management, e.g. by reporting hazards, incidents, illness and suggesting measures to be taken.

In 2017, the Company also provided health and safety training for newly hired and existing employees, including our partners and subcontractors, to ensure full awareness occupational hazards, to encourage and promote safety in the workplace.

The accident statistic report is posted on the bulletin board by detailing the target and accident statistics and being updated every day. In 2017, there were 4 cases of accident but no accident death. When an accident occurs, a report describing the circumstances is submitted, and steps are taken to identify the cause and implement necessary improvements.

Accident case	2017	2016	2015
Small accident or employees stop working less than 3 days (case)	3	3	9
Accident that employees stop working more than 3 days (case)	1	0	1
<b>Total</b>	<b>4</b>	<b>3</b>	<b>10</b>

**Employee remuneration:** Compensation paid to employees is complied with all applicable wage laws, including those relating to minimum wages, overtime payment, and legally mandated benefits. The Company has provided the long-term welfare benefits that retain and motivate employees, particularly for the retirement benefits and the provident fund to help

# Corporate Governance

employees to save a portion of their salary in the event of retirement, disability, sickness or unemployment. The Company's provident fund is an alternative saving scheme for retirement where employees contribute a portion of their salaries and the Company makes the contribution equal to the rate of the employee's savings. Employees will benefit from the savings provided by the provident fund management in the form of investment. In summary, the Company has provided various welfare programs for employees to provide them with better life, to make them happy and satisfied, to keep the moral and motivation of employees high, and to raise their standard of living so as to retain our employees for longer duration.

Summary of welfare program provided to employees:

Economic betterment	Healthcare improvement	Family support	Amenities and others
<ul style="list-style-type: none"> <li>Retirement benefits</li> <li>Provident Fund</li> <li>Social Security Fund</li> <li>Hana Cooperative Fund</li> <li>Shift allowance</li> <li>Attendance allowance</li> <li>Long Service Award</li> <li>Outstanding employee awards</li> </ul>	<ul style="list-style-type: none"> <li>Life and accident insurance</li> <li>Annual physical check-up and specific test in case the work environment can affect health</li> <li>Influenza vaccination</li> <li>Medical benefits</li> <li>Nursing room for first aid clinic</li> <li>Fitness center and stadium</li> <li>Health promotion programs such as employee training on hypertension and high cholesterol, cancer in women, pulmonary tuberculosis, and training for pregnant and child care.</li> </ul>	<ul style="list-style-type: none"> <li>Right to leave for vacation, sick leave, maternity leave, etc.</li> <li>Employee assistance program i.e., maternity benefit, employee death benefit, disaster victim, etc.</li> <li>Child education support</li> </ul>	<ul style="list-style-type: none"> <li>Uniform</li> <li>Canteen and low-price consumer goods</li> <li>Dormitory</li> <li>Transportation</li> <li>Recreation activities</li> </ul>



In addition, the Company provides the compensation to employees in line with their performance in both the short term such as bonuses and the long term performance through Career Path Development Program which has been continuously provided to employees in order to define the development of skill sets and identify how individuals move through the organization. The career path/development process has considerable benefits from both an individual employee and an overall organizational perspective. The Company has set the policy and the committees to assess potential candidates, identify the core competencies and perform assessment to verify candidates' abilities and determine strengths and weaknesses to match with currently holding position and the readiness for advancement of each candidate, and plan for training and other development tools.

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**Employee training and development:** Hana has always recognized the need to develop its employees as the most important asset in the organization. In 2017 there was of series of training programs implemented aimed to enhance its employees' professional expertise and to keep up with the existing business challenges in all Hana plants. A variety of learning and development activities were put in place and supported by executive management such as soft skill managerial training, introduction of Corporate Talent Management Program, on the job learning and close coaching and mentoring by supervisors.

The people's development aims to enhance employees' well-being, knowledge and competency which are the key contribution to Hana's ongoing success. The Company has committed its resources to develop employees to perform more productively in key areas of knowledge, skills and other positive mindset training which also increase confidence and happiness in the plants.

Hana's training and people development program was the collaboration between the plant's experienced in house instructors and external professionals from Hana Corporate Training, Hana group of companies, network organization and supply chain. Hana promotes knowledge and experience sharing between its executives and employees within the organization.

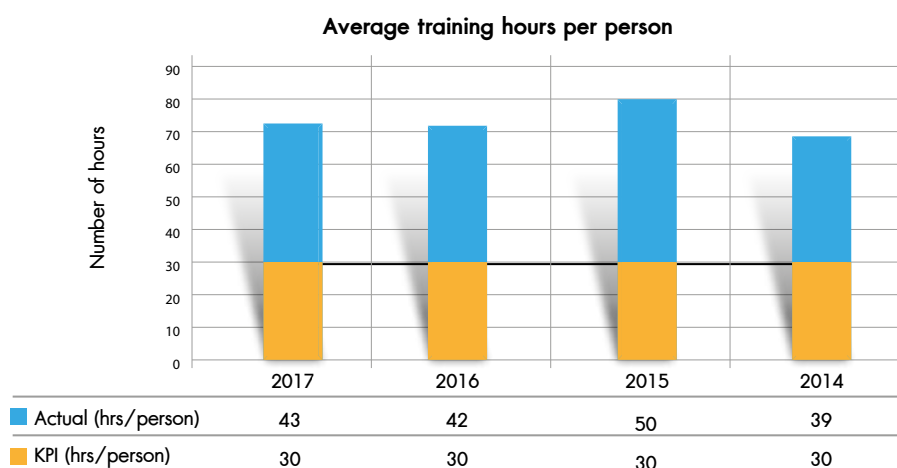
This year was an exciting year as Hana introduced The Corporate Talent Management Program for developing competent and good talented staff, for soft skills managerial training based on business management and leadership topics, case simulation, teambuilding. Final interviews of the selected staff were made by each plant committee with most talented staff taking the expanded job roles, inter plant visit including overseas field trip so that the staff can experience working in a different environment and culture. This also leads to career path advancement based on individual employees' performance and potential through assessment in the Talent Management System.

In 2017, the Company and its subsidiaries developed our employees as following major areas.

## Hana Microelectronics Public Co., Ltd. (Hana Lamphun)

**LPN Corporate Talent Management Program:** It was driven by the plant General Manager in co-ordination with other Hana group of companies. In 2017 Hana LPN made a remarkable success for this program where a group of talented young generation where given an exclusive opportunity to get inspired and learn from Hana executives and management team as a preparation for their further career growth towards a higher managerial level within the organization. Hana LPN Corporate Talent Management Program gained its "Role Module Project Status" where its talents were rewarded with an overseas trip to Hana China plant.

In 2017, the Company provided trainings to employees totally 169,862 hours, for daily employees 104,130 hours and for monthly employees 65,732 hours. Therefore, the average training per person per year for monthly and daily employees versus the KPI in 2017 compared with the previous year is as follows.





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In 2017, a wide range of courses was provided to employees, which can be broken down into the following categories:

Training courses (type)	Number of training hours			%
	Daily employees	Monthly employees	Total hours	
Professional re-certification	33,154	5,289	38,443	22.63
Professional certification	29,960	4,158	34,118	20.00
Technical skills	9,901	13,959	23,860	14.05
Quality	11,151	12,572	23,723	13.97
General	5,882	9,969	15,851	9.33
Safety & EMS	3,443	11,332	14,775	8.70
Management skills	6,369	4,008	10,377	6.11
Multi-Skills	493	4,409	4,902	2.89
Computer skills	3,149	36	3,185	1.88
Job transfer	628	-	628	0.37
<b>Total</b>	<b>104,130</b>	<b>65,732</b>	<b>169,862</b>	<b>100.00</b>

## Hana Semiconductor (Ayutthaya) Co., Ltd. (Hana AYT)

**AYT Corporate Talent Management Program:** Hana AYT launched its first batch of talented staff aiming to groom its new generation of middle managers and executives with intensive training provided along with teambuilding and other related activities to promote individual competency and skills, loyalty and promote togetherness within the plant.

**Career Path Development Program (CPDP):** This program was designed to provide opportunities for managerial staff in a proactive manner. The Appraisal Committee (APC) evaluate managers core competencies and assessment results, then plan intensive training, coaching and formal presentations while recording them for further promotion into higher positions or roles of the candidate.

**Hana Institute of Technology (Ayutthaya) HIT:** People development and career path planning is one of the strategies to retain employees and minimize employees' turnover. Hana Ayutthaya has initiated a career path development program by collaborating with the Office of Non-Formal and Informal Education (NCER) to open the technician classroom for interested and potential employees with the vocational certificate degree in electronic field. The Company supports the facilities and equipment needed while studying takes place during working hours. The target group is the daily employees who want to study a skilled technician. After graduated, their career paths with the job promotion and salary adjustment will be considered in accordance with the conditions met with the Company's criteria. Hana Institute of Technology at Ayutthaya provides our employees with interesting and challenging learning opportunities for career enhancement while the organization benefits from developing improved employee capabilities for the near term and the need to help employees maintain optimism and sustain motivation.

## Hana Microelectronics (Jiaxing) Co., Ltd. (Hana JX)

**Hana JX Corporate Talent Management Program:** This year, Hana JX had the opportunity to launch its talent management program and played host to the overseas trip for Hana LPN to visit the factory in November 2017. This is not only open new horizons in working with new cultures but also lifelong friendships were bond between the talent groups of both plants. Also as it is the first local talent batch launching managerial skills for the talents were implemented during the program duration where executives shared their knowledge and experience with the talents.

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**Technical Orientated Training for its staff and workers:** Hana JX tends to continuously implement technical oriented training for its workers both through online class and examination during their probation period to create on the job knowledge. The technical training is revolving around system and certification requirement, quality systems and replacing the current ISO/TS 16949 QMS standard with IATF 16949.

## **Hana Microelectronics (Cambodia) Co., Ltd.**

**IATF 16949: 2016 Accreditation for Hana Cambodia:** Hana Cambodia put significant time and effort to train and develop local Cambodian staff for technical skills, management knowledge and promote good team work. Hana Cambodia also further enhanced their Quality Management Systems achieving ISO 9001:2008 and UL certification. They have also achieved IATF 16949:2016 certification and upgraded their ISO 9001 from version 2008 to version 2017. Training and People Development are the key major success of Hana Cambodia.

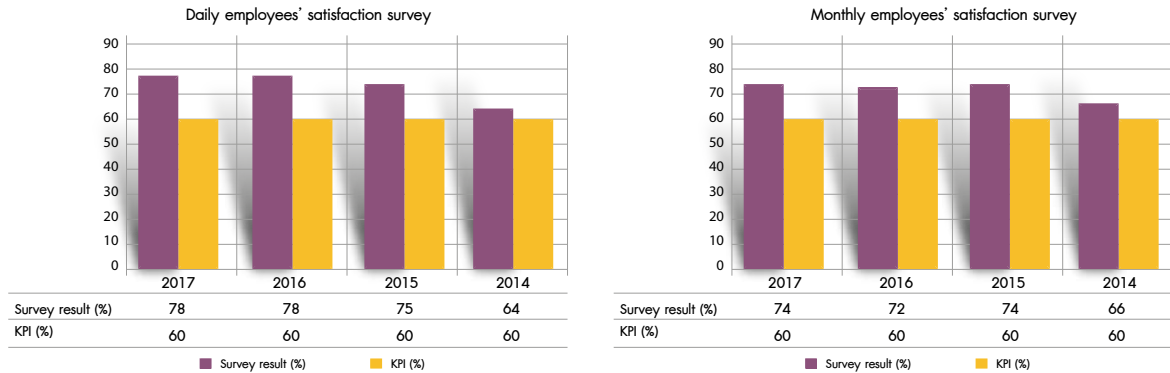
Hana Cambodia has constantly introduced technical orientated training for its growing business expansion in 2018.



**Employees' satisfaction survey** – Hana realize the importance of employees' satisfaction. The Company conducts the employee satisfaction surveys for both daily and monthly employees twice a year to encourage them to provide comments and suggestions as to improve the organization in various areas covering wages and welfare, work environment, job assignment, career advancement, supervisor, colleague, etc.

# Corporate Governance

Employee satisfaction survey vs. KPI of year 2017 compared with the previous years:



## Human rights

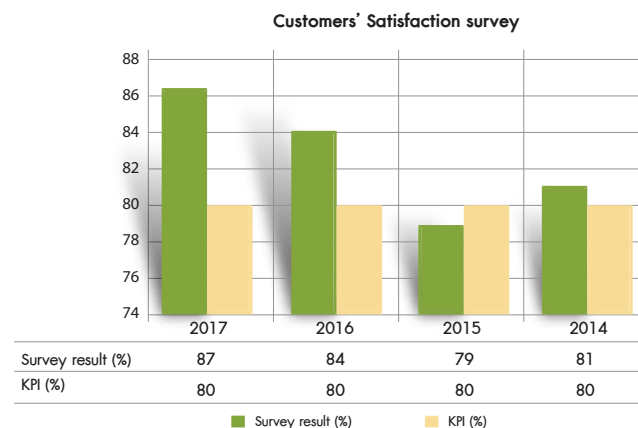
The Company believes that respect of human rights is an important part of being a good corporate citizenship. The Company has upheld human rights in every activity we do and we do not tolerate such discrimination of others. There will be no child labour or abusive hiring. Our Human Resource representatives provide advice and counsel to employees and managers to address issues involving human and labour rights. The Company also establishes a welfare committee as an internal channel of communication to develop a consensus between employees and the Company. In 2017, the Company has no claim or report of human right violations from employees, business partners, or local communities.

## Customers

Hana places the highest value on our customers. The Company aims to meet or exceed our customers' expectation for product quality, delivery, reliability, and competitive prices. Hana has been accredited to Quality Management System (QMS) with the aim to deliver high quality products on time. Our policy is to strive for the customer satisfaction, zero defects, and meeting the international standard requirements. Over 22 years of ISO 9001 certification demonstrates our commitment towards quality, continuous improvement, and sustainment.

The Company and its subsidiaries continue to support the supply chain management particularly for the customers so that we could coordinate such business activities and processes to minimize their total costs and maximize their effectiveness in the marketplace including problems' solving solutions of their complaints or recommendations. Our customer satisfaction surveys conducted yearly help the Company to get actionable customer feedback and to focus on the importance of fulfilling and exceeding customer expectations.

Customers' satisfaction survey vs. KPI of year 2017 compared with the previous years:



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## Intellectual property

Hana has the policy on the intellectual property and copyrights in order to safeguard the tangible and intellectual property of those with whom we do business, which may be used in fulfilling work assignments, and we will comply with all regulations or contractual requirements governing the use of such property. Any reward and copyrights received from the assignment/work given by the Company or any byproduct assignment/work that originated or result from training/tutoring by the Company shall belong to the Company. Directors, management and employees shall use computer and information technology related work according to Computer-Related Crime Act and other local intellectual property and copyright laws. All employees are required to sign for acknowledgement of the agreement of compliance with intellectual property and copyrights and related laws.

## Business partners

Hana promotes fair and open competition and aims at developing and securing long term relationship with suppliers and contractors. Material, product and service purchases will be considered for the quality of materials, products and services in accordance with the respective product requirements. The Board of Directors, management and employees are expected to exercise diligence in their duties with all business partners.

Procurement of goods and services shall be conducted in a manner of the highest ethical standards, which assure a quality end product, as well as the continued confidence of customers, suppliers, and the public. The hire of services or the purchase of goods will be based solely upon price, quality, service, and delivery. Procurement actions will be based on the following principles:

- Impartial selection of capable and responsible suppliers and contractors
- Maximum use of competition
- Compliance with laws, relevant regulations and contractual obligations
- Adopting of an effective monitoring system and management controls to detect and prevent bribery, fraud or other mal-practices in the processes of procurement and tendering

All directors and employees will not be influenced by gifts or favors of any kind from our suppliers or other business partners. They shall not accept or give any gratuity or gift offered or rendered to business partners as a kickback for business influence. All employees must conform to existing policy regarding gift and hospitality and anti-corruption policies and procedures. In 2017, there was no dispute or lawsuit between the Company and suppliers or any business partners.

With the upward cycle of semiconductor industry from year end 2016 throughout 2017, the future global demand pattern becomes one of the business risks. Hana is careful in managing our supply chain to prevent the shortage/excess in our raw material supply and finished goods on-time delivery to customers. Suppliers' communication, relation, and collaboration are also the key to success. Hana Ayutthaya conducts supplier site visits each quarter and also uses the visits as a tool to strengthen relationship and develop communication with these key partner suppliers. With the long term visibility provided to them together with the potential changes in demand, they become more aware of our requirements and business fluctuation risks.







# Corporate Governance

## Shareholders

The Company attempts to achieve growth in earnings for shareholders over the long term. The Board members and executive management shall be qualified for their positions and have a clear understanding of their roles in corporate governance and exercise sound business judgment in the best interest of the Company and shareholders including the preparation and disclosure of financial and non-financial information accurately, completely and timely and devote the time and ability to perform their duties.

Our treatment toward shareholders shall comply with the good corporate governance principles for the right and equitable treatment of all shareholders. The disclosures shall be made on a consistent basis, completely and truthfully in regards to the status of the Company, its operating results, financial standing, accounts and other reports. There shall be no disclosure of inside information to individuals associated with the management or directors, which caused damage to the shareholders as a whole.

## Business competitors

The Board focuses on running its business with open and fairness and have a practical guidance for the competitors such as fair competition, not involved in the competition by the dumping, persecution or deprivation influence in order to avoid competition, not take any action that violates the intellectual property or copyright of competitors, not use dishonest methods to discredit a competitor or no trade secret violations. In 2017, there was no dispute or lawsuit between the Company and any competitors.

## Creditors

The Company treats creditors responsibly with honesty and fairness to obtain a fair return to both parties and comply with the agreement including the terms of guarantee and managing cash flow to be able to pay to the creditors according to the terms and conditions. The Company will notify the creditor status in the event of payment default and to comply with the Consumer Protection Law and other related laws. In case that the Company cannot comply with the agreed terms, the Company shall notify the creditors in advance to jointly find solutions. In 2017, there was no dispute or lawsuit between the Company and any creditors.

## Communities, society and environment

Hana has been certified by the International Standard for Environmental Management Systems or ISO 14001 which provides practical tools for the Company to manage not only its environmental responsibilities but also the business development by focusing on the pollution prevention and environmental protection so overall help reduce the environmental impact as well as reduce operating costs of the business. Moreover, the Company has been certified by international standards for Occupational Health, Safety and Environment (OHSAS 18001 and TIS 18001) with the policy expressing the commitment to operate business not only to resolve health and safety at work but also cover ways to prevent accidents to the workers and the surrounding community.

The Company encourages the use of resources efficiently by arranging various energy saving projects (refer to Corporate Social Responsibility Section). The Board supports the training of all employees to achieve a better understanding and create awareness of the environment. In 2017, various environmental training courses had been provided to employees by both internal and external instructors such as:

**Environmental aspects' assessment:** To identify environmental issues arising from activities, products and services within the scope of the environmental management system for the environmental aspects so the Company can plan to make improvement.

**ISO 14000 Environmental Management:** To develop the knowledge and skills required to implement and maintain the ISO 14001 environmental management system.

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**Advanced energy saving:** To raise awareness of the issues of natural resources and awareness of the environment and energy conservation so that employees can apply the skills, knowledge and experience into practice and everyday life properly and in accordance with the relevant policies.

**Intensive use of chemical safety:** To train employees who perform work related to chemical, emergency team and related functions to understand what the chemical hazards in the workplace and their effect on health and the environment including the control or management of such hazardous chemicals.

**Safety, Occupational Health and Working Environment:** To provide management and staff, as well as contract workers working on site for training and awareness of safe work practices and preventive measures to contribute to the goal of reducing occupational risks of hazards, accidents, injury and disease and improving workplace health and safety

**Basic fire safety training course:** To raise awareness of fire hazards in the workplace and how to act safely in the event of an emergency fire situation, including preparation of fire prevention and suppression plans.



By providing those courses to our employees, the Company could determine priorities and set objectives better for eliminating hazards, reducing risks and the developing continuous improvement. The Company also gains from the efficient use of resources including better effective environmental management.

## Government authorities and associated organizations

Hana requires its executive, directors and employees to understand and abide by those laws, regulations, policies, and procedures that applicable to them in the performance of their job duties including the duties to pay tax to the government properly.

## Anti-corruption

**Anti-corruption policy:** The Company established the anti-corruption policy and has been approved and reviewed by the Board yearly. The anti-corruption policy is as follows.

"Hana has a zero tolerance of bribery and corruption. The Company prohibits the Board of Directors, management, employees or third parties in their relationship with the Company, being involved in any act of corruption in any form in all business transactions to benefit directly or indirectly and shall comply with the applicable laws and regulations in all the countries in which the Company operates."

# Corporate Governance

**Risk assessment:** In 2017, the Risk Management Committee assessed the potential corruption risks by conducting the corruption risks separate from other risks. The risk profile was reported to the Board by having the Compliance Unit perform compliance audit in mitigated risks with the established policy.

**Training and communication:** In 2017, the Company communicated and provided training to employees regarding its anticorruption policy and related policies i.e., corporate code of conducts, gifts and hospitality policy, conflict of interest policy, at which time management received training from the corporate trainers. Employees can get access to the policies via the Company's bulletin boards and intranet website. The supplier code of conduct covering the anti-corruption policy has been communicated with both overseas and local suppliers for their acknowledgment and compliance. In 2017, the Company received the signed acknowledgement from 1,524 suppliers, which was accounted for 100% from the goal of 100%.



**Monitoring and review:** The Audit Committee reviews the anti-corruption policy on an annual basis and proposes any amendment to the Board for approval. The Audit Committee also monitors the implementation of the policy and makes recommendations accordingly. Internal control systems and procedures shall be reviewed periodically by an internal audit department to ensure that they are effective in countering bribery and the audit results are to be discussed with relevant operational personnel and reported to senior management and the Audit Committee. In 2017, the risk assessment including the compliance with the anti-corruption policy was reported to the Board for consideration.

**Certification:** The Company was certified by Thailand's Private Sector Collective Action Coalition Against Corruption since 2015 for the Company's actions and effort to support the mobilization of the private sector in the fight against corruption.

In addition, the Company also became the partnership of PACT Network established by the Thaipat Institute to promote concrete anti-corruption in the private sector.

## Channel of Complaints

The Board provides channels for stakeholders to communicate any concerns about illegal, any suspected fraud or corruption, human right violation, unethical conduct or violation of the good corporate governance, any suggestion or any complaints regarding to activities or conduct of the Company or any of its staff or business partners relating to the Company. Stakeholders can report such complaint or concern in good faith directly to following channels.

Position	Name	Email
Chairman of the Board of Directors and the Audit Committee	Mr. John Thompson	<a href="mailto:john@ntasset.com">john@ntasset.com</a>
Chairman of Corporate Governance Committee and Risk Management Committee	Mr. Terrence Philip Weir	<a href="mailto:terry@hanabk.th.com">terry@hanabk.th.com</a>
Chief Executive Officer	Mr. Richard David Han	<a href="mailto:richardh@hanabk.th.com">richardh@hanabk.th.com</a>
Sr. Corporate Administration and Human Resources Director	Mrs. Puntipa Tanthana	<a href="mailto:puntipat@hanabk.th.com">puntipat@hanabk.th.com</a>
Corporate Secretary and the head of Internal Audit	Ms. Jirapa Kongmanee	<a href="mailto:jirapak@hanabk.th.com">jirapak@hanabk.th.com</a>



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**Mailing address:** Hana Microelectronics Public Co., Ltd., 65/98, Soi Vibhavadi-Rangsit 64, Junction 2, Kwaeng Talad Bangkhen, Khet Laksi, Bangkok 10210, Thailand

Any whistleblower in Hana group should initially make a complaint or report any act of misconduct or suspicions through the respective channels such as through an employee's direct supervisor (manager level and above); the head of Human Resource Department of each Hana location or suggestion/red box available at each Hana location. If employees cannot go to their respective channels, they could report to the above channels.

**Handling of complaints:** The Company will decide how to respond in a responsible and appropriate manner. An investigation will be conducted as speedily and sensitively as possible in accordance with all relevant laws and regulations. The internal audit department will report the details of complaints and investigation results to the Executive Committee or the Audit Committee and the Board depending on the complaint, dispute or issue raised.

**Protection of reporting individual:** It is a policy that the Company will not discharge, demote, suspend, threaten, harass or in any other actions against any person reporting any such complaint that made in good faith.

In 2017, the Board did not receive any complaints about corruption/fraud, breach of business ethics and corporate governance, human right violation or no complaint that damage to the Company's reputation due to the administration of the Board of Directors, as well as no legal dispute concerning labour, human rights, and the environment.

## 4. Disclosure and Transparency

The Company ensures timely disclosure of all material matters and all relevant information is reported to the Stock Exchange of Thailand in accordance with the disclosure requirements. It is critical to have as much information as can be available so that continuous evaluation of investment performance may be conducted. The Company will make the effort to disclose information broadly and proactively through channels of communication that allow equal access to market participants. New information that is likely to materially influence the valuation of the Company's shares shall be disclosed to the market immediately and the information disclosed to investors will be accurate, not misleading and sufficient for investors to make decisions. In addition to the information disclosure in accordance with relevant regulations, through the channels of the Stock Exchange of Thailand and annual report as well as 56-1 report, the Company also discloses information in both Thai and English versions through other channels such as the Company's website with regularly post and update. In 2017, there was no violation that Hana breached the disclosure rules and regulations. The financial reports have been disclosed in a timely manner during the past years.

The Company has not set up the Investor Relations Department, but the Company's executive directors are actively involved in the role of investor relations on a continuous basis as the Company believes that their ability to deliver confident and clear presentation is as important a skill as technical and managerial capabilities. The Corporate Affairs Department is also available to provide basic information upon request. The Company usually arranges an analyst meeting each quarter to inform the investor community of the financial result and also clarify all inquiries from Institutional Investors, Fund Managers and analysts who attend the meeting. In 2017, the Company conducted analyst meetings four times to provide information about the past quarters' performance to the interested persons. Additionally, the Company's visits by interested analysts are also welcome and can be arranged by appointment. All investors can access the Company's financial and non-financial information through the SET's Public disclosure system and at the Company's website: [www.hanagroup.com](http://www.hanagroup.com), or contact to following person.

Name	Department	E-mail	Telephone	Fax
Mr. Terrence Philip Weir	Finance	<a href="mailto:terry@hanabk.th.com">terry@hanabk.th.com</a>	0 2551 1297-8	0 2551 1299
Ms. Jirapa Kongmanee	Corporate Affairs	<a href="mailto:jirapak@hanabk.th.com">jirapak@hanabk.th.com</a>	0 2551 1297- 8 # 117	0 2551 1299
Ms. Penpimol Kotchabhakdi	Corporate Affairs	<a href="mailto:penpimol_k@hanabk.th.com">penpimol_k@hanabk.th.com</a>	0 2551 1297- 8 # 226	0 2551 1299





# Corporate Governance

## Conflict of interest

The Company has the policy in place to deal with conflicts of interest. The Board of Directors has established the policy and procedure for directors and executives to report on conflict of interest to ensure that they are abided by their fiduciary duties in the way that they must not have interest, whether directly or indirectly, in the matter under their decision. Directors and executives are required to disclose any material interest in transactions or matters affecting the Company and its subsidiaries through the established form approved by the Board of Directors. The corporate secretary is responsible for receiving reports from directors and executives who disclose their interests and those of their related parties to the Chairman of Audit Committee and the Chairman of the Board, respectively.

Related party transactions between the Company and a director or executive and/or connected persons, which may lead to the potential conflict of interests, must be considered by the Audit Committee. For material related party transactions, such transaction must be approved by the Board of Directors and/or the shareholders' meeting depending on the nature and the size of transaction as required by Notification of the Capital Market Supervisory Board where those directors and executives shall be excluded from decision making involving transactions in which they have interests or are connected.

In 2017, there was no conflict of interest from directors and executives reported to the Board.

## 5. Responsibilities of the Board of Directors

The Board of Directors consists of 6 directors which are 3 executive directors and 3 independent directors whose is accounted for 50% of the Board. The Board would increase the number of the independent director whenever that will be suitable for the size and structure of the business. The Chairman of the Board is not the same person who holds the Chief Executive Officer position and the chairman is an independent director.

### Board diversify

The Company is open wide to the diversity of the structure of the Board of Directors. The person who will serve as a director should provide complementary qualification to the existing directors such as expertise in specific field, gender, etc. As part of adopting our diversity policy, the Board had nominated a female independent director to serve as its member.

### Nomination of director and independent director

The Board of Directors gives emphasis on the transparency of director nomination. The Company has the policy to use a professional search firm, IOD director pool for new director recruitment or personal recommendation. In addition, the Company has the policy to give the right to minority shareholders to propose appropriate candidates for election to the Board. The Nomination Committee is responsible for review of the qualification and performance of the candidates or those directors who retired by rotation and make recommendations to the Board of Directors for proposing to shareholders for approval.

In 2017, there was no proposal for candidates sent by shareholders to the Nomination Committee to review. Therefore, the Board considered those directors who retired by rotation and which the Board considers based on their qualification, working experiences, expertise, previous year performances, willingness and time devoted to the Board are suitable to be considered for re-election.

### Qualification of director

A person who serves as a director of the Company shall possess the knowledge, ability, personal contribution and shall have at least the following qualifications.

# Corporate Governance

- 1) To have qualification and have no prohibited characteristics as specified by the laws on public company limited including have no manner indicating a lack of trustworthiness to manage the Company from the view of shareholders according to the regulation of Securities and Exchange Commission.
- 2) To have knowledge, skill, expertise, experience, education and gender as the Board deems appropriate for its composition, diversity and that can contribute to the Company's strategies. In addition, at least 1 executive director is to be experienced in the electronic industry or related to the Company's business.
- 3) To devote time especially for making key decision and handle duties for the best interest of the Company and able to participate in all the Board and shareholder meetings unless necessary or emergency.
- 4) To have a moral, ethical, and any other features that may be required by law or deemed appropriate by the Board.

## Qualification of independent director

A person who serves as an independent director of the Company shall possess the knowledge, ability and personal contribution. At least one member of the Audit Committee must have financial knowledge and other qualifications not contrary to any regulations of the Securities Exchange of Commission (SEC) or the Company policies.

To ensure that the Board includes such directors who can exercise their best judgment, all independent directors shall be affirmatively determined that such director meets the requirement set by the Securities Exchange of Commission (SEC). In particular, an independent director is a director who:

- 1) Holds shares less than 0.5% of the total shares eligible to vote of the Company, subsidiaries, associates, or controlling parties, including the shares held by the related parties of an independent director (This shareholding threshold of the Company shares held by the independent directors is more strict than the minimum requirements of the SEC and SET.)
- 2) Who is not an executive director, employee, or consultant who receives remuneration from the Company or any of its subsidiaries, who is also neither a controlling person of the Company or subsidiaries nor a related person at least for the past two years
- 3) Is not the person who has relationship by means of descent or legal registration as father, mother, spouse, brothers and sisters, and children, nor being spouse of daughters and sons of management, major shareholders, controlling party/person who is in the process of nomination to be the management or controlling person of the Company or its subsidiary. This also includes normal business transactions, rent or lease of fixed assets, financial assistance, loan granting or receiving, guarantee, or other related transactions obliged the Company or its contractual party for the liability to pay the other party that is accounting from 3% of net tangible assets of the Company or twenty million baht whichever is lower.
- 4) Have no or never have business relationship with the Company, subsidiaries, associates, or related person that deprives such independence nor being a major shareholder, executive director, management of related person who has business with the Company, associate and subsidiary unless the foregoing status ended at least two years
- 5) Is not or has never been the auditor of the Company, subsidiaries, associates, major shareholders, or controlling person, nor being a major shareholder, controlling person, or partner of the auditing firm unless the foregoing status ended at least two years
- 6) Is not or has never been the professional service provider, nor legal or financial advisor with receive service fee more than two million baht per year from the Company, subsidiaries, associates, major shareholders, or controlling person, and is not a major shareholder, controlling person, or partner of the above mentioned service firms unless the foregoing status ended at least two years
- 7) Is not the director who is nominated to be the representative of directors of the Company, major shareholder, or any other shareholder related to the major shareholders



# Corporate Governance

- 8) Does not conduct the same business and compete business with the Company or subsidiary, nor being a business partner or executive director, paid employee or hold more than 1% of voting shares from other companies which have the same business and compete with the company
- 9) Has no other conditions that unable to exercise independent opinion regarding the business operation of the Company

## **Appointment of directors**

The appointment of directors shall comply with the Company's Article of Association that is from the majority vote of shareholder meeting. Each shareholder shall have one vote on each share. Election of directors may be carried out on either an individual basis or en bloc basis as the meeting deem appropriate. In voting, either on an individual or en bloc basis, a shareholder shall so vote in accordance with the number of votes each shareholder has under and the said shareholder may not allot any number of his votes to any such person. The person obtaining the highest votes and the persons obtaining lesser votes, respectively, (in the case of en bloc election) whose total number does not exceed the positions under the election shall be elected as directors. In the case of tied votes, the last person shall be decided by the casting vote of the chairman of the meeting.

In case a directorship becomes vacant other than on retirement by rotation, the Board shall elect a person who has qualifications and who is not disqualified under the Public Companies Limited Act as replacement at subsequent meeting of the Board of Directors. Unless the remaining duration of the director's term of office is less than two month, the replacing director shall hold office for the remaining term of office of the director whom he replaces. The resolution of the Board of Directors shall be supported by a vote of not less than three-fourth (3/4) of the number of remaining directors.

## **Supervision of subsidiary and associated companies**

The Board has its mechanisms to manage and oversight the subsidiary and associated companies. The Board has delegated to the Executive Committee to oversee and responsible for the operations of its subsidiaries and associates include appointing the representative to be a director or a controlling person and shall report to the Board accordingly. From the Board's resolution No. 6/2013, the Board has resolved that the appointed person must be approved by the Board prior to vote on important matters in the same approval levels of the Company that has to approve by the Board. This includes the connected transaction and the acquisition or disposition of assets by the rules relating to the disclosure of information and the transaction is in line with the rules of the Company. In addition, the maintenance of information and accounting records of the subsidiaries can be verified and financial statements can be consolidated within timelines.

## **Board of directors' meetings**

The Board of Directors set the meeting schedules in advance by informing in the meeting agenda before each year-ending so that the directors can arrange their times to attend the meetings. In 2017, the Company held 7 meetings of the Board of Directors, which are the normal agenda items. The total number of directors attending the meeting must be no less than one half of the total number of directors to constitute a quorum. The chairman of the Board and CEO set the agenda of the Board's meetings. Any director may suggest agenda items and may raise at meetings other matters that they consider importance of discussion. Information and data for the Board's understanding of the business to be discussed at meetings are distributed in advance of meetings according to the policy that is to provide 5 days in advance. To prepare for meetings, directors are responsible for reviewing the materials that are sent to them in advance. If there are additional inquiries, the directors can contact the CEO, the corporate secretary or designate executives. At the Board meeting, ample time is scheduled to allow full discussion of important matters. Management presentations are scheduled to permit an appropriate portion of the Board's meeting time to be available for discussion and comments. The Board's policy is to vote

# Corporate Governance

on the agenda item by having at least 2 out of 3 of total directors present in the meeting for each agenda item. In 2017, the Board invited the General Manager of Hana Ayutthaya plant to attend the Board's meeting in order to provide additional business information and to allow independent directors to visit the plant. The minutes of Board of Directors meeting are properly made and contain key facts such as the timing of start and finish, name of directors present and absent, summary of items of major discussion and resolutions, the minute taker and certifier. The minutes are maintained at the Company's head office and cannot be edited without prior consent of the Board's approval.



## The meeting without attendance of management

The Board encourages the non-executive directors to have a separate meeting in absence of management to encourage more open discussion without management present. In 2017, the independent directors conducted a meeting without attendance of management 1 time on 13 November 2017. The meeting was conducted with the participation of internal and external auditors.

## Orientation for new directors

The newly appointed director shall receive an orientation regarding the Company's business, duties and responsibilities of directors. The brief review shall be led by the Chief Executive Officer, Chief Financial Officer or his appointee. All other necessary information shall be given by the corporate secretary. In 2017, the Company provided the orientation program to a new board member who has no previous experience in the electronic industry by attending the training courses including the factory visit to see the production processes, meet with general manager and employees in order to gain more understanding and experience.



# Corporate Governance



## Director development

The Board's policy is to encourage the development of directors for continuous trainings organized by various institutions such as SET, SEC, IOD or the audit firm, etc.

In 2017, the director attended following training courses/seminar.

Name	2017 Training course/seminar
Mrs. Salakchitt Preedaporn, an independent director	<ul style="list-style-type: none"> <li>Nomination Committee Best Practice Guideline Seminar by Thai Institute of Directors (IOD)</li> <li>Independent Directors: Roles, Duties and Expectations of Local Shareholders by Thai Investors Association and Members of the Federation of Accounting Professions under the Royal Patronage of His Majesty The King</li> <li>Business in the Age of Uncertainty by EY Office Limited</li> <li>"Board Oversight of Cyber Risk Management" conducted by Securities and Exchange Commission (SEC) and BSA The Software Alliance</li> </ul>

In addition, the Board also encourages the corporate secretary to develop her knowledge for proper execution of duties and responsibilities. The corporate secretary, Ms. Jirapa Kongmanee, had attended following training courses.

- Corporate Secretary Program organized by Thai Institute of Directors Association (IOD)
- Effective Minute Taking organized by Thai Institute of Directors Association (IOD)
- CS Seminar for key documentation keeping organized by SEC

In 2017, the corporate secretary further attended the training courses/seminars held by the SET, Thai Investors Association, Thai Institute of Directors and other institutions such as:-

- IOD Open House for Company Secretary by Thai Institute of Directors Association
- PwC Forensics Summit by PricewaterhouseCoopers Consulting (Thailand) Ltd.
- New Laws of Criminal Liability of Directors and Juristic Persons by The Stock Exchange of Thailand (SET)
- S06: Sustainability Report by The Stock Exchange of Thailand (SET)

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- Internal Controls in Thailand 4.0 The Stock Exchange of Thailand (SET) and Federation of Accounting Professions (FAP)
- Basic Finance for IR by The Stock Exchange of Thailand (SET)
- Quality Assurance Program for the Annual General Shareholders' Meeting (AGM) Assessment by the Thai Investors Association

## Service on Other Boards

In order to give proper attention and contribution to the assigned responsibilities, the Board believes that directors including the CEO should limit their services to not more than 3 Boards of publicly traded companies with no exception.

## Performance assessment of the Board of Directors

The Board has conducted its annual performance for individual and as a group evaluation by adopting the self-assessment method from the Stock Exchange of Thailand to assess performance in the latest year. The Board self-assessment questionnaire allowed the Board to assess their effectiveness into 6 aspects:

1. Board structure and qualifications
2. Roles, duties and responsibility of the Board
3. The Board meeting
4. Duties of directors
5. Relationship with management
6. Director's self-improvement and management training

Further, the Board also can provide feedback in the assessment form to improve the Board's performance. The corporate secretary concludes the Board's group performance and report to the Board meeting. In 2017, the overall performance of the Board's group was assessed at "very good" ranking. The Board also has conducted the performance evaluation of an individual director using the self-assessment method with evaluation criteria. In 2017, the corporate secretary concluded the Board's individual performance and reported to the Board's meeting with the average performance was "very good" ranking.

## Performance assessment of the sub-committees

The Board has also annually conducted the performance evaluation of all sub-committees that are the Audit Committee, the Nomination Committee, the Corporate Governance Committee and the Risk Management Committee. Those Committees evaluate their own assessment and the corporate secretary reports the result to the Board. In 2017, each sub-committee got the average score as "very good".

## Performance assessment of CEO

On an annual basis, the performance of CEO is evaluated by the independent directors, where the evaluation criteria have been applied from the guidance of the Stock Exchange of Thailand. The areas to assess CEO cover his leadership, strategy formulation, strategy execution, financial planning and performance, relationships with the board, external relations, human resources management and relations, succession, products/service knowledge and personal qualities. In 2017, the independent directors assessed the CEO with satisfactory performance.



# Corporate Governance

## CEO succession plan

The Board of Directors has improved its succession planning approach by developing the formal CEO succession planning policy in adopting a more comprehensive program that anticipates internal CEO succession while preparing for the possible need to recruit an external candidate depending on the circumstances whether on a planned or emergency basis.

An emergency succession is required when CEO is unable to perform the duties due to accident or other unexpected circumstances. A special meeting of the Board would be convened to decide which of the executives might be appointed as Acting CEO for the remainder of the time required.

In the event of permanent changes due to retirement or planned vacancy, the entire Board shall be involved in choosing a successor. However, the Board could delegate much of the responsibility to implement the search to the Nomination Committee or a special ad hoc committee to work with the Board and current CEO to identify and develop potential internal candidates, monitor the development of candidates and assess the readiness of candidates, or conduct an external search if cannot come to an agreement on an internal candidate, etc.

Managing the CEO succession plan is the Board's responsibility. The plan shall be reviewed annually to ensure that key components are up-to-date, particularly the CEO's job description, minimum qualification requirements, minimum experience and personal characteristics and the succession readiness improvement.

## Business ethics

The Board of Directors attempts to operate its worldwide business in accordance with the highest ethical standards and relevant laws. The Company expects and requires that its directors, officers and employees perform their duties with the highest standards of integrity in the conduct of business. Therefore, the corporate code of conduct has been written as the Company's policy and procedure in order to provide the general guidance for those in recognizing and resolving ethical and legal issues while conducting the Company's business. The written code of conduct is available on the Company website. All directors and employees are notified and encouraged to comply with the set codes. The compliance to the code of conduct is regularly monitored by senior management. The Company shall not tolerate any illegal or unethical acts. Anyone violating the code of conduct will be disciplined, which may include termination of employment.

In 2017 to ensure that employees have the knowledge and understanding of the policies and practices of business ethics, the Company conducted trainings for employees and provided the post-tests to evaluate the training results. In addition, all the directors were required to sign a certification of acknowledgement and compliance with the code of conducts for the Board of Directors. The internal audit department also monitored the implementation and compliance for the code of conducts.

For the available whistleblowing channels, no compliant or dispute regarding ethical issue was reported in 2017.

## Auditor's remuneration

In 2017, the Annual General Meeting of Shareholders approved the appointment of Mrs. Saifon Inkaew, Certified Public Accountant No. 4434 of EY Office Limited to be the Company's auditor with the remuneration of not exceeding Baht 2,270,000.

# Corporate Governance

The Company and its subsidiaries paid the audit fees to EY Office Limited, Thailand as follows.

## 1. Audit fee

(Unit: Baht)

Company	Non-audit fees	2017	2016
1. Hana Microelectronics Public Co., Ltd.	Ms. Saifon Inkaew	2,270,000	2,270,000
2. Hana Semiconductor (Ayutthaya) Co., Ltd.	Ms. Sarinda Hirunprasert	1,160,000	1,160,000
3. Hana Semiconductor (BKK) Co., Ltd.	Ms. Sarinda Hirunprasert	150,000	150,000
4. Hana Semiconductor International Co., Ltd.	Ms. Saifon Inkaew	340,000	340,000
<b>Total</b>		<b>3,920,000</b>	<b>3,920,000</b>

## 2. Non-audit fee

(Unit: Baht)

Company	Non-audit fees	2017	2016
Hana Microelectronics Public Co., Ltd.	1. BOI audit fee	360,000	360,000
	2. Inventory destruction fee	60,000	100,000
Hana Semiconductor (Ayutthaya) Co., Ltd.	1. BOI audit fee	450,000	450,000
	2. Inventory destruction fee	20,000	-
<b>Total</b>		<b>890,000</b>	<b>910,000</b>

For the financial year ended 31 December 2017, the external auditors confirmed to the Audit Committee on the actions they take to maintain their professional independence with respect to the Company and its affiliates in accordance with the Code of Ethics for Professional Accountants issued by Thailand's Federation of Accounting Professions by not holding any shares in the company and its affiliates, not providing non-audit services, and not purchasing goods and services from the company and its affiliates.





# Internal Control and Risk Management

The Board of Directors is responsible for establishing and maintaining the internal control system. The Board has appointed the Audit Committee to review the appropriateness and effectiveness of the internal control system provided by management. The Audit Committee shall ensure that such existing internal control systems are achieving their objectives and that they should provide reasonable assurance concerning the accuracy of financial statements, the safeguard of assets against loss, unauthorized use or fraud, and the assurance of transactions that are executed consistent with company policies and procedures.

In 2017, the Board has performed self-assessment to evaluate the internal control system by applying the control assessment criteria from the Stock Exchange of Thailand. There is an Internal Audit Department and Compliance Unit to monitor and oversee the overall company activities in line with established system and applicable laws and regulations. The Risk Management Committee has been appointed to ensure implementation of the risk management policy to be monitored and limited overall risks at an acceptable level.

From the Board of Directors' Meeting No. 7 held on 6 December 2017 with the Audit Committee attended the meeting, the Board has assessed the Company's internal control system based on 5 components of COSO's Internal Control Integrated Framework which are Control Environment, Risk Assessment, Control Activities, Information & Communication, and Monitoring Activities.

The Board agreed with the Audit Committee that the existing internal control system is considered appropriate and adequate as summarized below.

## 1. Control Environment

The Company has established organization structure, line of control, approval authorities for different managerial levels, and the charter of various committees to assist in discharging duties and responsibilities of the Board of Directors. The policies on corporate governance, code of conduct, anti-corruption policy and the operation policies and procedures are written as guidelines for directors, executive and employees to perform their duties with integrity.

## 2. Risk Assessment

The Risk Management Committee has been appointed to ensure implementation of the risk management policy to be monitored and limited overall risks at an acceptable level. The Company also considers the potential for fraud in assessing risks to the achievement of objectives.

## 3. Control Activities

The Company develops general control activities to mitigate risks such as the segregation of duties among approval, accounting booking and asset's custody, the security control of information technology system, the policy to approve transactions done by people who have no interest in the transaction.

## 4. Information and Communication

The Company's management provides the Board with adequate information for decisions and sends the notice or document to the Board in advance for their preparation. The minutes of the board meeting could be able to track back concerning the duties of the directors. The Company has the whistle blower channels for internal and external parties.

## 5. Monitoring Activities

The appropriateness and adequacy of internal control is monitored regularly through a combination of management review, self-assessment, compliance and internal & external audits. The results of internal & external audit and compliance reviews are reported to the Audit Committee on a regular basis. The Audit Committee also approves the internal audit and compliance unit plans.



# Internal Control and Risk Management

## Internal Audit

The Audit Committee has appointed Ms. Jirapa Kongmanee to the position of head of internal audit unit from 10 September 1999 due to having adequate experiences in internal audit field and have been trained in the training courses related to the scope of internal audit such as Internal Audit Role in Governance, Risk and Control, Business Management Skills, Business Analysis and Information Technology, COSO Internal Control Framework, including training course related to the new laws and new accounting standards, and she understands the activities and operations of the Company so she is appropriate to perform such duties properly and adequately. The internal audit has a reporting line to the Audit Committee who considers and approves the appointment, transfer and dismissal of the head of internal audit.

## Compliance Unit

The Board of Directors' Meeting No. 5 held on 13 November 2013 has appointed Ms. Jirapa Kongmanee to the position of the head of Compliance Unit to be responsible for overseeing the business operations of Hana group in accordance with the laws, rules and regulations of the relevant authorities.

# Related Party Transactions

## Related Transactions in 2017:

According to the note on related party transactions of the consolidated financial statements for the year ended 31 December 2017, relevant details of related party transactions entered into by the Company and its subsidiaries were disclosed. Those related party transactions were entered into in the normal course of business between the Company and its subsidiaries and such transactions have been conducted with fair and at arms' length and will not give rise to a conflict of interest.

In 2017, the Company had no related transaction as the property lease contract between the Company and its major shareholder was expired since 28 February 2014.

## Related Transactions in the past 3 years:

In 2014, the Company had a related transaction of leasing the property between the Company and its major shareholder amounting to Baht 262,374. The leasing contract expired on 28 February 2014 and was not renewed.

Related party	Type of relationship	Summary of transaction	Size of transaction	Reasonable and necessary conditions
Omac Limited	Omac Limited was a shareholder holding the Company shares amounting to 40,939,360 shares equivalent to 5.09 % of paid-up capital <sup>(1)</sup> and Han Family was the major shareholder of Omac Limited <sup>(2)</sup> and a director of the Company was a director of Omac Limited <sup>(3)</sup>	The Company was the sub-lessee of land 5 Rai, 93 Square Wah located on Vibhavadi-Rangsit Road from Omac Limited which was the lessee this land from Mrs. Aphiradee Habananande, Mrs. Piyada Angsanant and Mr. Prempre Watcharapai, the land lord. The landlord agreed to lease the land to Omac Limited from 1986 – 2014.	Rental rate was Baht 262,374 per year. The land lease was expired since 28 February 2014.	The Company subleased the land from Omac Limited since 1991 to be the Company's headquarter and the manufacturing of its subsidiary. The rental rate was reasonable because it was the same rate as Omac Limited agreed with the landlord.

(1) The information as of closing registered date on 14 March 2014

(2) The major shareholders of Omac Limited:

Mr. Richard David Han holds shares equivalent to 15.28%,

Ms. Janine Margaret Han holds shares equivalent to 33.33%, the sister of Mr. Richard David Han

Ms. Alyna Sylvie Han holds shares equivalent to 18.05%, the daughter of Mr. Richard David Han

(3) Mr. Richard David Han is the director of Hana Microelectronics Public Co., Ltd. and Omac Limited

## Procedures for Related Party Transactions:

In case of normal business transactions made with related parties under Section 89/12 (1) as required by the Securities and Exchange Act such as general trading conditions or transactions that support the normal course of business, such transactions shall be approved by the Board of Directors or in compliance with the principle approved by the Board of Directors.



# Related Party Transactions

For related party transaction that may have a potential conflict of interest, the Audit Committee shall review and approve by the board. In case that there is any transaction which has or may have the conflict of interests of directors or related persons, directors who have interests shall inform foresaid transaction to the board and abstain from voting in that agenda.

In addition, the Company and its subsidiaries shall comply with the notifications and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand. The related party transactions which the Company discloses on the note in financial statements shall be presented and considered by the Audit Committee quarterly in order to prevent potential conflict of interest.

Any material related party transactions required shareholders' approval under the notification of Stock Exchange of Thailand, the Company shall disclose the details and rationale of the transactions to shareholders in advance before execution with the below minimum disclosures:

1. The name and relationship of the person who has conflict of interest.
2. The nature and volume of transactions during the year, as well as the continuous transactions or time by time transactions.
3. The reasons to engage the transaction with a person who may have conflict of interest, the benefit to shareholders, and pricing policy and terms is fair and reasonable.
4. The opinions of the Audit Committee.

The transaction shall be approved by the shareholders' meeting and shareholders who have interest in foresaid transaction have no right to vote on such resolution so the decision shall be made by disinterested shareholders.

## Protecting Investors:

When there is any related transaction between the Company or its subsidiary, and the related parties in the future, the transaction shall be approved by the Board of Directors, which has the Audit Committee providing its opinion for the necessity and the appropriateness of the transactions and how utmost benefits to the Company. Directors who have an interest in such transactions shall have no right to vote. If the Audit Committee doesn't have an expertise in the matter of such transactions, the Company shall provide an independent expert or the Company's auditor to provide an opinion as to the necessity, reasons for decision by the board or shareholders in making the transactions, as any case may be. The Company shall also disclose the transactions in the notes of the financial statements audited by the Company's auditor.

## Policy of related transactions in future:

The policies of the Company and its subsidiaries regarding related transactions in future shall be in compliance with the Securities and Exchanges Act, the regulations of Stock Exchange of Thailand and compliance to the requirements regarding the disclosure of the connected transactions and acquisition or disposal of the Company's assets.

The Company's policy is to operate business in the best interest of the Company and its subsidiaries. The Company and its subsidiaries have engaged into the normal business transactions. As such, the related transactions shall be done under the normal course of business conditions with fair and at market prices.

## Opinion of the Audit Committee:

The Audit Committee has considered the previous and current related transactions between the Company and its subsidiaries or the related parties or transactions that may have conflict interest, has the opinion that the Company has disclosed the information correctly and completely. Such transactions were under the normal business conditions with fair and at arms' length.



# Corporate Social Responsibility



Hana recognizes that our long-term success depends on our ability to manage our operations soundly, efficiently in an increasingly complex environment, to create value for our stakeholders and to further contribute to society.

## CSR Policy, Vision, Strategies and Sustainable Development:

**Policy:** The Board of Directors commits that the Company will conduct business with respect to its economic, social, and environmental responsibilities, as well as for other stakeholders. The Board also commits that the Company's business will be conducted in an open, honest, and ethical manner. Hana and its subsidiaries recognize the importance of protecting human rights, consumer rights, environmental management, compliance with applicable laws, regulations and to contribute to community development for long term success of the Company, society and stakeholders.

**Vision:** To operate our business in harmony with society for the mutual benefit of our stakeholders and community.

**Strategy:** Hana's business environment is highly competitive. The Company seeks to expand its sales each year and to continually improve the capabilities and productivity of its production processes. Whilst doing so the management and staff are mindful of the CSR policies for sustainable development and review each change to ensure compliance with the CSR objectives toward sustainable development with regards to the economic, social and environmental impact. In addition, the Company and its subsidiaries have established CSR committees at each plant with representatives from different departments which focus on the Company's relationship with our stakeholders.

# Corporate Social Responsibility



**CSR Development:** In 2017, Hana received CSR-DIW Award from the Department of Industrial Works for sustainable development by adopting the CSR-DIW (Corporate Social Responsibility: Department of Industrial Works) 7 standards; corporate governance, human rights, labour practice, fair operating practice, consumers issue, environment and community involvement and development, including prepared the CSR report in accordance with the CSR-DIW Reporting Initiative which is in line with the industry context in Thailand and is recognized internationally.

## Stakeholders Prioritization:

Our key stakeholder groups are identified as follows.

Stakeholders	Engagement Approach	Expectation/Concerns	Implementation
Shareholder/Investor	<ul style="list-style-type: none"> <li>Analyst meeting</li> <li>Annual General Meeting of Shareholders</li> <li>Annual Report, 56-1 Report, Press Release</li> <li>ESG scorecard questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>Consistent dividend payment</li> <li>Steady growth</li> <li>Environment, Social and Governance</li> </ul>	<ul style="list-style-type: none"> <li>Dividends paid each year based on the Company's cash flow</li> <li>Company vision for constantly strives to grow and be competitive</li> <li>Corporate governance scorecard</li> <li>Environmental management</li> </ul>
Customer	<ul style="list-style-type: none"> <li>Customer audits</li> <li>Customer's satisfaction survey</li> <li>Customer visits</li> <li>Risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Quality products with on time delivery and competitive product pricing</li> <li>Ethical and environmentally responsible</li> <li>Occupational health, Safety and Labour</li> </ul>	<ul style="list-style-type: none"> <li>Quality management system</li> <li>Supply chain management</li> <li>Code of conduct, Electronic Industry Citizenship Coalition (EICC) Code of Conduct</li> <li>Occupational health, safety and labour</li> <li>Green product</li> <li>Productivity improvements</li> <li>Cost reduction programs</li> <li>Working to grow with new and existing customers</li> </ul>

# Corporate Social Responsibility

Stakeholders	Engagement Approach	Expectation/Concerns	Implementation
Employee	<ul style="list-style-type: none"> <li>Employee's satisfaction survey</li> <li>Orientation, exit interview</li> <li>Training and workshop</li> <li>Complaint channels</li> <li>Operation meeting</li> <li>Risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate compensation and welfare</li> <li>Occupational health and safety</li> <li>Career path development</li> </ul>	<ul style="list-style-type: none"> <li>Employee Relation Committee</li> <li>Occupational health, safety and Labour</li> <li>Career path development program</li> </ul>
Business Partner/ Supplier	<ul style="list-style-type: none"> <li>Supplier audit</li> <li>Supplier quality management</li> <li>Risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Fair and transparent supplier selection</li> <li>Payment on time</li> <li>Supply chain management</li> </ul>	<ul style="list-style-type: none"> <li>Code of conduct</li> <li>Treatment of creditors</li> <li>Supply chain management</li> </ul>
Community	<ul style="list-style-type: none"> <li>Activities conducted outside the Company</li> <li>Feedback from Industrial Estate</li> <li>Recruitment</li> <li>Procurement</li> </ul>	<ul style="list-style-type: none"> <li>Operate with no impact to the environment</li> <li>Social contribution</li> <li>Employment opportunities for local people</li> <li>Support local business</li> </ul>	<ul style="list-style-type: none"> <li>Environmental management</li> <li>CSR to support community project</li> <li>Local persons hired when qualified</li> <li>Products and services purchased from local business when qualified</li> </ul>

## Our Priorities:

Following are our sustainability development efforts on areas that are of greatest interest and concerns to our stakeholders.

### Economy

- 1) Strong cash flow and continuous dividend payment
- 2) Good business governance
- 3) Ethic and anti-corruption

### Social

- 1) Occupational Health, Safety and Labour policies
- 2) Labour practice
- 3) Community and social interaction

### Environment

- 1) Environmental policy and management
- 2) Efficient use of resources
- 3) Minimize environmental impact



# Corporate Social Responsibility

In 2017, the Company and its subsidiaries operated our businesses by integrating with CSR principles of the Stock Exchange of Thailand as follows.

## 1. Corporate Governance

The Board realizes and commits to conduct business with the good corporate governance in conformance with OECD Principles of Corporate Governance as a key international standard in making an organization more efficiency, transparency, enhancing the credibility and strengthening sustainable growth. The Board has established and approved the corporate governance policy and the corporate code of conducts as the guidelines for the directors, executives and employees in discharging their duties. Due to our continued development of good corporate governance, the Company received an “excellent or five-star” CG rating as evaluated by Thailand Institute of Directors (IOD) in 2017.

The Board continues making development of good corporate governance practices in order to create maximum benefits to shareholders and other stakeholders resulting in sustainable corporate performance over the long term.

## 2. Fair Operating Practice

**Fair and open competition:** Hana conduct its business in compliance with competition laws and regulations, advising employees to realize the important of fair competition policy, avoiding and anti-monopoly trading, not asking for and not receiving or paying any benefits that are not honest with trading partners or government officers, and not seeking the confidential information of competitors by fraudulent, dishonest, inappropriate, immoral or illegal acts.

**Safeguard the property right of others:** Hana respects the rights of tangible and intellectual property of others by not engaging in any activity that violates such rights e.g. using a superior market power to make abuse, making fake products or violating intellectual property right, etc.

**Customer relationship management:** The customer satisfaction surveys are conducted annually to improve the Company's products, services and other business processes in order to meet the customers' needs and requirements enabling the Company to maintain and expand its customer base in the long term. The Company also complies with the Electronic Industry Citizenship Coalition (EICC) which is the code of conduct for electronic industry best practices.

**Promote value supply chain:** The Company is taking its efforts to build open business relationships and ensure fair and even-handed dealings with its suppliers, cooperative and support CSR activities in aiming at building a sustainable society in full partnership with its suppliers such as ensure to comply with established purchasing procedure. The Company also encouraged its business partners for fair operating practices by requiring suppliers to sign on acknowledgement and compliance with the code of conducts for suppliers as well as performing the supplier audit.

## 3. Anti-Corruption

Hana has been a signatory company of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) since 2013, with the objective to support the Coalition against Corruption aiming to counter corruption in any forms. The Company has been certified as a member of Thailand's Private Sector Collective Action Coalition Against Corruption since October 2015.

The Company realizes the importance of the fight against corruption. The written anti-corruption and related policies have been established with the monitoring process to ensure that employees and concerned parties comply with the policies and anti-corruption programs. The Company also provides whistleblowing channels, set up an anti-corruption committee with the senior management as a chairman, does corruption risk assessment, employees' training as well as participating with partners to fight against corruption. In addition, the Company organizes activities to promote the honesty and integrity of employees and business partners as part of anti-corruption measures. In 2017, there were 200 employees and partners



# Corporate Social Responsibility

awarded for this project, which affirms that the Company has supported the fighting corruption through the implementation of policies and effective mechanisms to prevent corruption at company and industry levels.



## 4. Respect of Human Rights

Hana respects the basic human rights of individuals. The Company has policies to ensure that there shall be no human right violation, all employees treated equally and operate in a workplace that is free from discrimination. The Company has the career path development program for employees to enhance their knowledge and skills and open opportunities for future growth. Employees' remuneration shall be the same standard for men and women. Open communication and direct engagement between workers and management are the best ways to resolve workplace and compensation issues. The Company respects the rights of workers' councils in accordance with local laws. Workers shall be able to communicate openly with management without fear of reprisal, intimidation or harassment. Employee satisfaction surveys have been regularly conducted to provide management with the knowledge and tools to build positive employee relations and a positive work environment. Channels of complaint are also opened to all employees while protecting employees who report violations or wrongdoing in the Company.

In 2017, the Company had no major issues regarding labour and human rights from our key customers' in-depth audits, where those audits had focused on anti-discrimination, anti-harassment and abuse, prevention of involuntary labour and underage labour, working hours, compensation, freedom of association, and etc.

## 5. Fair Labour Treatment

**Non-discrimination in employment:** Hana supports the principles of equal opportunities in employment, promotion or termination and is opposed to all forms of discrimination, including those on the grounds of nationality, color, race, religion, gender, age, disability, marital status, political affiliation, union membership, or any other status protected by country law. All employees will be treated as individuals solely according to their ability to meet job requirements. The Company has implemented the procedure starting with the recruitment process by not having on the employment application form any requirement for candidates to complete the specific information of age, religion, gender, nationality, and disability in order to avoid discrimination in hiring.

In addition, Hana supports projects of the government to protect the rights of disabled persons to provide them with employment opportunities. The Company employs persons who are disabled and arranges the appropriate job matching to their capability. The Company also improved workplace environment to enable employees with disabilities easier access to the Company's facilities. Furthermore, Hana also arranges a place for disabled persons to open shops in the factory compound at no cost, which gain the good support from employees. In 2017, Hana Semiconductor (Ayutthaya) Co., Ltd., a subsidiary of the Company received a prize of "The Top Ten Best Employers in Thailand who supported the disabled persons" by the Office of the National Development and Disabilities, the Ministry of Social Development and Human Security for empowerment and support disability program for 5 consecutive years.

# Corporate Social Responsibility



**Not using forced labour or child labour:** The Company does not use trafficked, forced labour or child labour. The Company shall comply with applicable laws whether laws prohibiting complaints to support slavery or trafficking, and shall not use or enter into the agreement for forced labour including slavery such as assign employees to certain types of work which they either do not willing to do or as punishment. Employees are free to resign from the employment by giving advanced notice and the Company shall not keep their identification cards, passport or work permit with the Company as part of employment obligation.

**Social protection:** Our compensation policy is fair and reasonable according to employees' capability by considering the packages with the same industry and in accordance with their position, experience and their performance in the Company as well as the economic and social situation. Moreover, the Company provides various employees' welfare for example annual vacation, overtime with the consent of employee, medical treatment, educational fund granted for children of low income employees, employees' cooperatives and other welfares such as group life and accident insurances, annual health check, special vaccination such as Influenza vaccine, Fitness Center, library at certain location, etc.

There are also long service awards for employees to honor and recognize their contribution over a period of years. The Company also provides the reward program to recognize exemplary performance of employees who have excellent work attendance, no record of disciplinary action, significant contributions and innovations to reduce the Company's cost or improve efficiency, or demonstrated their ability and willingness to work positively, respectfully, and effectively with others, etc.

# Corporate Social Responsibility



The Company provides pregnancy care support for pregnant employees by providing training regarding midwifery and newborn care, gift sets and pregnancy allowance per month. In 2017, the Company provided the support to pregnant employees and scholarships for employees' children over Baht 1 million.

**Safety, health and environment at the workplace:** The Company focuses on the work environment that is safe for both physical and mental health. The Company has been certified for OHSAS 18000 and TIS 18001 which is an international and Thai's occupational health and safety management system since 2005 to date. The Company is committed to developing environmental and safety, health of employees and those involved, as well as uphold social responsibility and labour, along with operating the business and making continuous improvement as follows.

1. Conserve natural resources and energy effectively to prevent pollution and minimize generation of all wastes.
2. Provide the safe and proper workplace and equipment in order to prevent any accident and incidence from occurrence.
3. Strictly comply with labour and other applicable legal and regulations and provide full support to customers' requirements with regard to occupational health, safety, environment, including social and labour accountability (e.g., Electronic Industry Citizenship Coalition (EICC) Code of Conduct.)

The main content of this policy has been communicated to employees at all levels through the Company's noticeboard, the intranet website, and post on employee's ID card as the guidelines for employees to perform their work with the same objectives. In addition, the Company's policy has been released to the public by posting in front of the factory and communicating to business partners outside the company.



In 2017, the Company received an excellent award for Safety, Occupational Health and Environment in the workplace both at the provincial level given by Lamphun Labor Protection and Welfare Office, and at the country level for 2 consecutive years given by the Department of Labor Protection and Welfare Ministry of Labour. This shows the importance and cooperation between employers and employees in developing the labor relations and welfare system to improve the quality of life of our employees.



# Corporate Social Responsibility



In addition, the Company received the award for the best of “The National Award for Safe, No Disease, and Happy Workplace” from the Department of Disease Control, the Ministry of Public Health. This project has extensive benefits for the Company, its employees and society as healthy employees are productive and increase the efficiency of the work whereas improve the organization quality and reduce the burden on the government as well as generate income for the government in the form of more taxes. As a result, it is good for the economy and society as a whole.

**Recreational activities for employees:** The Company realizes the importance of employees by arranging various recreational activities as part of the Company’s strategy to develop and build relationships between management and employees, as well as creating a “family” culture within the organization which allows employees to enjoy their work. In 2017, the Company and its subsidiaries provided a variety of recreational activities for employees such as sport day, birthday party, Songkran party, Mother’s Day and other major festivals of each Hana location, etc.



The Company also held a “Teacher’s Day” to honor employees who dedicated their times and efforts being a volunteer teacher or lecturer to train staff. In 2017, there were totally 49 internal instructors joining the knowledge sharing program.





# Corporate Social Responsibility

The Company also arranged, meet the management meetings with staff, with a quarterly meeting with existing and new employees including senior staff level and twice a year with all employees. In addition, the Board and executives also arranged the visit to a new factory in Cambodia. This is a good opportunity for management to meet and discuss with employees so that we can have 2-way communication so enable management to bring such feedback for improvement plan and minimize the gap between management and staff as well.



## 6. Customer Responsiveness

The products and services that we make are safe and not harmful to consumers. The Company is accredited with following international standards.

- ISO 9001 quality management system where the Company can demonstrate procedures to consistently provide products that meets customer, applicable statutory and regulatory requirements.
- ISO/TS 16949 quality system for automotive production which focuses on the technical production of high quality automotive parts.
- ISO 13485 quality system used in the medical device industry which is a quality system that mostly focuses on the safety of products.

In addition, the Company promotes fair trading and has the policy to assess customer satisfaction both before and after sale to improve customer satisfaction and continuous improvement.

**Quality improvement program:** It is the policy of the Company to encourage all employees to participate in improving their own work processes i.e., reduce defect in production line, reduce cycle time, reduce error and customer complaints and improve quality through multiple initiative projects such as Quality Control Circles (QCC), improvement project, special projects assigned by the chairman for employees level supervisors or engineers and technicians, employees' suggestion, small group activity, and continuous improvement program (CIP). Our quality improvement programs have been continuously developed and recognized by both internal and external organizations.

**National quality award:** Our employees participated in group activities for Thailand Quality Prize organized by Technology Promotion Association (Thailand-Japan). Hana Microelectronics Public Co., Ltd. received various awards from 2009 to 2017. In 2017, the Company received the diamond award for the Manufacturing QCC Prize, 3 golden awards for Junior Manufacturing QCC Prize,

# Corporate Social Responsibility

and one silver award for Manufacturing QCC Prize: totally 5 awards. The group activity program aims at employees' involvement at all levels to participate in continuous quality improvement as an approach to find problems and ways to improve the quality of products and production processes so enable the enhancement of productivity and quality as well as create a high level of motivation and enthusiasm of our workforce.



## 7. Environmental Care

**Environmental management:** As Hana has its manufacturing sites located in industrial estates, there are a number of control and management systems and standards to prevent pollution and impact to the environment and community. The Company also has been certified for environmental management system ISO 14001 since 1999. The Company operates its business in compliance with the requirements of industrial and environmental legislation and applicable laws. There is the environmental committee responsible for overseeing the environmental management and the effective implementation.

**Use of resource efficiency:** In 2017, the Company implemented the programs to efficiently utilize the resources, reduce and prevent pollution to the environment and the community as follows:

**Electricity:** The Company invested in various projects to reduce energy consumption such as installation of compressed air flow control, replacement of the heat pump motor to a high performance motor, improvement of air system, reduction of compressed air on holidays by using alternative energy including reduction of light usage on holidays, etc. As a result, the Company can save more than 1 million kilowatts of energy per year and reduce CO2 emissions over 700,000 kg per year, which is worth more than 4 million baht per year for the reduction of electricity consumption.

Hana Semiconductor (Ayutthaya) Co., Ltd., a subsidiary, has continued implementing the energy efficiency improvement program which is supported by the government in order to use energy efficiently. This includes the installation of Active Harmonics Filter to reduce harmonic currents in the electrical system to prevent harmonic currents and voltages. Furthermore, Hana AYT also implemented the CDA pressure reduction in air ducts and large cooling projects. Therefore, the subsidiary can save energy more than 2 million kWh per year and reduce CO2 emissions by more than 1 million kilograms per year so enabling the savings of more than 6 million baht per year. Hana AYT has jointly developed a project for the international energy management system ISO 50001, which enables an organization to conserve resources, continuously improve energy efficiency, to reduce greenhouse gas emissions and other impacts on the environment and particularly to reduce the energy costs.

# Corporate Social Responsibility



**Water quality:** The operation of wastewater system is monitored on a daily basis to ensure that the wastewater treatment is under control and better than the government standards. The waste water from the production process was treated and filtered to increase the recycled water usage by 44.53% in 2017 enabling the water savings of 188,000 cubic meters per year or worth 3.9 million baht per year.

**Air quality:** The control of air emissions are in line with the standards and related laws. The Company monitors and does preventive maintenance of equipment related to various air pollution controls and performs measurement of air quality in the workplace. From the implementation, the air quality expelled from our factory is better than the standard required in all indicators.

**Noise level:** The Company maintains machinery and equipment in good condition and provides personal protective equipment (such as ear plugs, ear muffs, etc.) to employees who work in a noisy environment. In working areas where noise levels exceed 85 decibels, the hearing health check-up for those employees have been provided periodically.

**Illumination measurement:** Insufficient or excessive illumination could cause the employees' fatigue. The Company has provided the assessment and measurement of the intensity of the light on a periodic basis as to determine whether improvement measures are needed to protect employees.

**Heat stress measurement:** The Company annually measures to identify whether those employees who may be at risk from heat stress are suffering from any heat related illnesses. The heat stress measurement has been in line with the standard requirement.

**Waste management:** The Company has implemented the separation of waste into three categories: general waste, recycle waste and hazardous waste. The waste disposition is managed according to legal standards of the Department of Industrial Works.

**Chemicals and hazardous substances:** In addition to ISO 14001 certification, our manufacturing plant in China has been certified for IECQ QC080000:2005 Hazardous Substance Process Management "HSPM" since 2008. IECQ accreditation creates competitive advantage in compliance with laws and operations with the highest industry standards as we have the processes in place to properly manage our products to be free from hazardous substances.

**Reduce impact to environment:** Our Lamphun, Ayutthaya and China plants have been certified to the standards of our customers in the project of Green Partner Program regarding environmental management systems by controlling the use of chemicals in the production, prohibiting the use of dangerous substances, discontinuing and reduction in the usage of such substances that impact to the environment such as the use of lead solder inside the product. Further, it is not allowed to use material to make the product or packaging that is harmful such as lead, mercury, etc.



# Corporate Social Responsibility

Our Lamphun and Ayutthaya factories have been certified as “Green Industry Level 3” or “Green System” using the Environmental Management System which includes monitoring, evaluation and improvement. This project is a part of energy conservation of the Ministry of Industry which Hana participates in order to operate its business in an environmentally friendly manner. The Company aims to become the Green Industry Level 4 in the near future. The following are the outcomes that the Company would benefit from being the Green Industry.

- Reduce impact on the environment and the community; as a result, reduce complaints and reduce the risk of future obligations.
- Create positive image and attitude towards the industry for a more environmentally friendly; resulting in a better understanding and acceptance between the industry and the surrounding community.
- Create more job employment related to environment fields, increase worker safety and satisfactory in the workplace.
- Reduce the use of resources and energy; resulting in cost savings and enhance competitive advantage.

**Complaint procedures:** The Company assigned environmental supervisors and operators, to receive training and registration as required by law, to communicate information with the community and residents living around. The Company also has the procedure for complaints and resolving complaints arising from the operations of the Company. In 2017, the Company has no major environmental complaints from the employees or the community.

In summary, Hana Microelectronics Public Co., Ltd. consumed energy and released carbon dioxide in 2017 compared to prior years as follows.

Key energy measurement	2017	2016	2015	Reference
Electricity Consumption/Revenue (kWh/MB)	5,752.62	5,821.49	5,470.58	Total electricity consumption divided by million baht of revenue
CO2 Emission/Revenue (Kg CO2e/MB)	3,002.87	3,265.85	3,068.99	Total CO2 emissions divided by million baht of revenue
Recycled Water Consumption (% of total water consumption)	44.53%	41.92%	40%	
Environmental Issues	None	None	None	

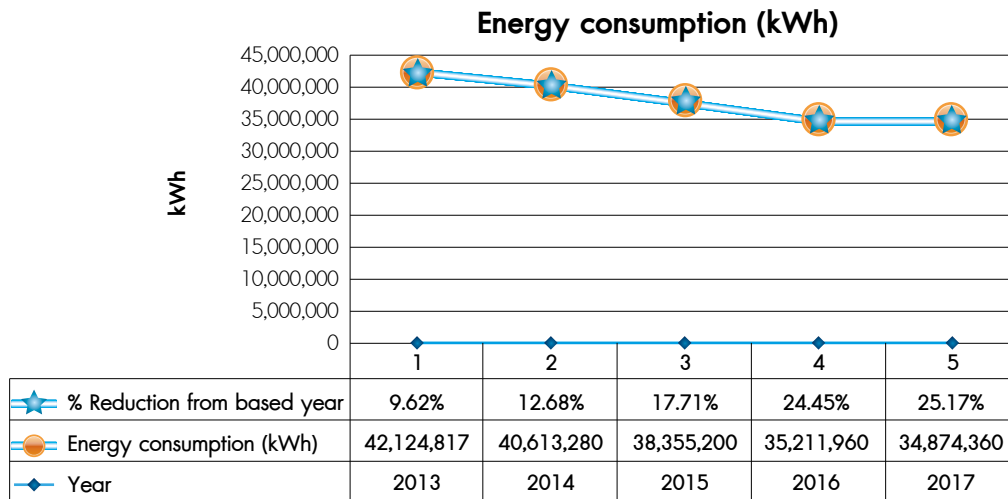
## 2017 Energy Efficiency Program Implementation Summary

Energy saving measures	Energy reduction (kWh)	CO2 Emission Reduction (Kg CO2e)
Install the compressed air flow control	466,560	243,544.32
Improve fresh air supply by join the fresh air duct	345,600	180,403.20
Improve the fresh air supply systems	259,200	135,302.40
Reduce the use of compressed air on holidays by using nitrogen instead	138,600	72,349.20
Reduction of electric power from compressed air motors by improve air leakage	120,909	63,114.50
Reduce the use of electricity from lights during holidays	53,030	27,681.66
Change to high performance Cooling Tower motors	38,016	19,844.35
<b>Total</b>	<b>1,421,915</b>	<b>742,239.63</b>



# Corporate Social Responsibility

From 2013 to 2017, the Company has implemented energy saving programs and continued to implement energy conservation measures. As a result, the Company electricity consumption is in the downward trend as follows.



## 8. Social and Community Development

The Company participates with the community to support social stability and to be a good corporate citizen through following projects.

**Career development and income generation for the community:** “Hana brings hydroponics vegetables to community” is a project that Hana Lamphun built hydroponics farms from its unused equipment and provided knowledge on hydroponics farming system to the community as a learning resource for interested persons to participate and adapt for their career options so enable them to create alternative jobs and income as the major occupation of the community from our survey is the hiring worker.



**Educational support:** Hana aims to contribute to the development of society by providing educational support to the children and young people who will lead the next generation in growing up with their full potential and to achieve career planning and the national development driven.

# Corporate Social Responsibility

- **Knowledge sharing** – Hana Lamphun hosted the student visit program for academic institutions such as Chiangmai University and Wiangsa Vocational College to broaden their understanding of industrial knowledge, the view of production planning and a factory tour for students to observe the real workplace. Nearly 42 students received the hands-on experiences from this project. Hana Lamphun also shared knowledge of Quality Control Cycles to various universities including being the outside instructor for seminars held by other interested organizations.



- **Support the sufficiency economy project** – Hana AYT brought students to learn the development of agriculture and modern agriculture technology at The Golden Jubilee Museum of Agriculture. The museum is a well designed ecology demonstration and to extend the network of the philosophy of sufficiency economy of His Majesty King Bhumibol Adulyadej. Hana AYT also made the donation to the museum and students to support the sufficiency economy.



- **Support the academic needs in rural schools** – The Company provided scholarships and donated books, school supplies, food and cloth for students from local elementary school to college age in Chiangmai, Chiangrai, Ayuthaya, Koh Kong in Cambodia and Jiaxing in China.



# Corporate Social Responsibility



**Support the youth and people within the communities:** The Company arranged various projects to improve the quality of life and strengthen the good relationship between the Company and the communities as below.

- The Company held the Children's Day event annually to enhance the children's learning skills and gain new experiences including encourage assertiveness in children. With the creative activities along with plenty of prizes, there were 1,000 children and parents enjoying in the National Children's Day event held by the Company in 2017.
- To help society with activities for youths, the Company annually arranged a football clinic to teach students nearby.
- To enhance safety and environmental awareness for the youth, the Company provided helmets to children and emphasized safety discipline when riding motorcycles.
- To educate the community about diseases and health threats including prevention methods, such as colds and dengue.
- To support the volunteer projects of the Industrial Estate, the Company's staff helped build the dams to local residents to keep water during dry season.
- To support the reforestation project with Royal Forest Department, Pasuk Municipality and Saha Group industrial park, Lamphun for growing rice and marigold flowers.



# Corporate Social Responsibility

**Social contribution activities:** To encourage employees to care for society and help others, our employees have been joined society benefitting activities initiated by the Company as follows.

- **Employee and family assistance program:** Employees of Hana Lamphun provided financial support and necessary supplies to help victims of natural disasters and those who suffered from illnesses such as cancer, stroke, etc.
- **Blood donation:** Employees of Hana Lamphun, Ayutthya and China joined with the Red Cross for blood donation. In 2017, there were 2,520 employees donated blood more than 906,250 milliliters.



- **Underprivileged and disabled support:** The Company seeks to contribute to improve the quality of life and reduce inequities for the underprivileged in society. The Company has allocated its budget and held CSR activities with employees to donate to the below charities.

**Camillion Home for Children with Disability** – Hana AYT made the donation to support children with disability at Camillion Home and nurtured them with Art Therapy activities by caring for poor disabled children in a family atmosphere and to be a part to help them develop their capacity's conditions for future growth.

**Ririraj Foundation** – Hana AYT made the donation to partially fund patient beds in ICU room for Navamindrapobitr 84th Anniversary Building at Siriraj Hospital. This new building was the last project initiated by the late King Bhumibol Adulyadej to address inadequate facilities at the hospital which will serve as a fully-integrated, specialized medical center for inpatients and outpatients.

**Community Children Foundation (CCF)** – Hana AYT organized “One Department One Product” and made a charitable donation to CCF under the Royal Patronage of HRH Princess Maha Chakri Sirindhorn to support the library and toilet renovation for Wat Sawet Silalarm School, Ayutthaya.

**Thammapakorn Social Welfare Development Center** – Hana Lamphun made the donation to support the elderly in the center in helping them to receive good quality of life and happiness in the end of life.





# Corporate Social Responsibility



- **Other social activities:** Hana jointly with employees for other social activities such as donated dried food, rice, and cash to Wat Phrabat Namphu and those who suffered from flood disaster through Thai Red Cross, donated unused/unexpired medicines for Umphang Hospital, and provided financial support to newborn baby items to female prisoners and their newborn children in Lamphun provincial prison.

## 9. Innovation and its Dissemination

The Company has invested in Manufacturing Execution System to modify the traditional manufacturing process and automate production processes which can increase the competitiveness advantage of the Company by improving product quality, increasing operating efficiency, responding to higher customer requirements, managing labour issues in regards to both labour costs and labour shortages, as well as reducing waste and environmental impact.

**Geared towards corporate excellence by Kaizen:** From joining the competition with Thailand Kaizen Award in 2017 which was organized by the Technology Promotion Association Thailand - Japan, Hana Lamphun won 3 awards from the contest with 1 diamond award from Automation Kaizen and 2 golden awards from Automation Kaizen and Project Kaizen. Hana AYT also received a golden award for Project Kaizen. The factory automation projects applying Kaizen have been successfully implemented from developing the thinking process, brainstorming to increase the capacity and efficiency of the production process, and bring into the practice of employees. With the development of innovative applications using Kaizen successfully, this could raise the Company's operations to a higher standard and strengthen the Company's competitiveness.



# Audit Committee Report



The Audit Committee of Hana Microelectronics Public Company Limited is composed of three independent directors. Members of the Committee meet the qualification and the scope of work is in accordance with the rules and regulations of the Stock Exchange of Thailand.

In performing its oversight responsibilities, the Audit Committee held 4 meetings during 2017. The meeting attendance of each committee is as follows.

Committee	Meeting Attendance
1. Mr. John Thompson, Chairman	4 of 4 times
2. Mrs. Salakchitt Preedaporn	4 of 4 times
3. Mr. Yingsak Jenratha	4 of 4 times

In 2017, the Audit Committee has performed its duties and responsibilities assigned by the Board of Directors and the Charter of the Audit Committee as follows.

- Review the financial statements of the Company and its subsidiaries to ensure the compliance with generally accepted accounting principles, and the disclosure of the notes to the financial statements in accordance with the financial reporting standards. The Audit Committee agreed with the auditors that the financial performance and cash flows of the Company and its subsidiaries for financial year ending 31 December 2017 presented substantial fairly and disclose with generally accepted accounting principles and financial reporting standards. Such disclosure has also made adequately and timely manner.
- Review the adequacy and efficiency of the internal control system by evaluating the internal controls, approving the annual audit plan, reviewing the audit reporting, as well as considering the risk assessment and risk control measures. From the review, the Audit Committee found no deficiency and concluded that the Company has adequate internal control and risk management systems which are appropriate to the business.
- Review the connected transactions to ensure no possible conflict of interests and in compliance with the Securities and Exchange Acts. The Company also has the policy that a director and an executive shall report his interest or a related person's interest which may cause conflicts of interest and the policy to require the board to approve the major transactions. In 2017, the Company's business transactions with related parties arose in the ordinary course of business under the commercial terms and bases agreed upon between the Company and those related parties. There was no connected transactions give rise to potential conflict of interests.

# Audit Committee Report

- Review to ensure compliance with rules and regulations of the Securities and Exchange Commission and applicable regulatory requirements and the board policies. The Audit Committee concludes that the Company has complied with the applicable laws, regulations and established policies.
- Recommend the appointment of the external auditors and their remuneration by giving due consideration to their experience, knowledge, ability, reliability, staff and workload, as well as the independence of auditors in performing such duties. Such auditors must be approved by the Securities and Exchange Commission (SEC). The Audit Committee has proposed to the board to seek further approval from the shareholders' meeting. For financial year ending 31 December 2017, the Audit Committee recommended to appoint Mrs. Saifon Inkaew and/or Mrs. Sarinda Hirunprasurtwutti and/or Ms. Siriwan Suratepin of EY Office Limited as the auditors of Hana Microelectronics Public Co., Ltd. for a total remuneration of Baht 2,270,000.

The Audit Committee concludes its satisfaction with the accuracy, completeness and creditability of 2017 financial statements' preparation and reporting, the adequacy of internal control systems and risk management, the compliance with applicable laws and regulations including reasonable related party transactions. As a result, the Audit Committee concluded no significant deficiency or irregularity.



Mr. John Thompson

Chairman of Audit Committee

# Nomination Committee Report



The Nomination Committee consists of three directors, of which two are the independent directors. The Committee is to assist the Board of Directors to review annually the size and composition of the Board and to maintain the appropriate balance of skills, knowledge, experiences, and diversity to support the Company's strategies including the clear and transparent appointment process for directors. The Committee is responsible for selection and screening of candidate's qualifications and proposing the suitable candidates to the Board. The Board subsequently proposes to the shareholders' meeting for approval according to the nomination processes.

In 2017, the Committee held 2 meetings and the meeting attendance of each director is as follows.

Committee	Meeting Attendance
1. Mr. Yingsak Jenratha, Chairman	2 of 2 times
2. Mrs. Salakchitt Preedaporn	2 of 2 times
3. Mr. Richard David Han	2 of 2 times

In respect of the candidate nominations for new director appointments in the shareholders' meeting in 2017, the Company invited shareholders to propose candidates for election to the Board. The policies and procedures to allow shareholders to propose candidates for the election of the Board are posted on the Company's website. However, there were no proposed candidates to the Committee from the shareholders in previous year. Therefore, the Nomination Committee reviewed those directors whose term expired by rotation in accordance with the Company's Articles of Association. The Committee has considered that those directors can continue to make further contribution to the Board and the Company.

The Nomination Committee believes the candidate nomination for director appointment process is proper and transparent and in compliance of its charter.

A handwritten signature in black ink, appearing to be 'YJ' followed by a stylized flourish.

**Mr. Yingsak Jenratha**  
Chairman of Nomination Committee



# Corporate Governance Committee Report



The Corporate Governance Committee consists of three directors, of which two are the independent directors. The Corporate Governance Committee has performed its responsibilities in compliance with the Corporate Governance Committee Charter approved by the Board of Directors.

In 2017, the Committee held 1 meeting and the meeting attendance of each committee is as follows.

Committee	Meeting Attendance
1. Mr. Terrence Philip Weir, Chairman	1 of 1 time
2. Mrs. Salakchitt Preedaporn	1 of 1 time
3. Mr. Yingsak Jenratha	1 of 1 time

The Committee reviewed the corporate governance policy and its related policies to ensure the policy updated and in line with the international standards, laws, criteria, rules and regulations as well as reviewed the compliance and proposed recommendations including conducted corporate governance self-assessment with related checklists of Thai Institute of Directors Association (IOD), the Stock Exchange of Thailand, the Office of the Securities and Exchange Commission and the Thai Investors Association.

From our continuous implementation and improvement of good corporate governance, the Company was assessed with “excellent” recognition level (5 stars) on corporate governance of Thai listed companies.

The Committee believes that the implementation of good corporate governance with continuous development shape the growth and the future of the Company and long term sustainability to our stakeholders.

A handwritten signature in black ink, appearing to be 'TW'.

Mr. Terrence Philip Weir

Chairman of Corporate Governance Committee

# Management Discussion and Analysis

## Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue increased 5% year on year, at THB 21.6 billion in year 2017 from THB 20.5 billion in year 2016. Sales Revenue in USD terms increased by 9% to USD 635 million in 2017 from USD 581 million in 2016. Operating profits increased 16% to THB 2,290 million Baht in 2017 from THB 1,969 million Baht in 2016. Operating profits increased 21% in USD terms to USD 67 million in 2017 from USD 56 million in 2016.

Net Profit increased by 37% to THB 2,888 million in 2017 from THB 2,105 million in 2016 due to THB 531 million positive change in foreign exchange gain (loss) and higher operating profits.

## Past Performance Analysis

### Revenue Analysis

Group Sales increased 5% in 2017 at THB 21,551 million from 2016 at THB 20,523 million with markets strong throughout the year but particularly after the first quarter on 2017. USD sales were 9% higher in 2017 at USD 635 million up from USD 581 million in 2016 as the average THB/USD exchange rate strengthened 4% to THB/USD 33.93 in 2017 from THB/USD 35.30 in 2016.

The Microelectronics divisions' sales revenue increased 6% [+2% THB] in 2017 over 2016. The microelectronics operation in Lamphun sales increased 7% [+3% in THB terms] and JXG increased by 3% [-1% in THB terms] in 2017. In 2017 IC assembly sales overall increased by 12% in USD terms [+8% in THB terms]. Specifically, IC AYT sales increased 10% [+5% in THB terms], and IC JXG USD sales increased by 26% [+21% in THB terms]. Hana Microdisplay Technologies "HMT", sales increased 27% [+22% THB] for the year.

### The annual sales split was:

	2017	2016	2015
PCBA (Thailand)	38%	38%	43%
PCBA (China)	17%	18%	19%
PCBA (Cambodia)	0%	0%	0%
IC (Thailand)	34%	34%	31%
IC (China)	6%	5%	6%
HMT (USA)	5%	5%	1%
	100%	100%	100%

## Gross Profit / Cost of Sales Analysis and Sales and Administration Analysis

Gross Profit increased by THB 339 million with the gross margin being 15% in 2017 up 1 percentage point from 14% in 2016, due to higher sales revenue and lower depreciation expense.

# Management Discussion and Analysis

## Operating Profit Analysis

The Operating profit margin increased by 1 percentage point to 11% in 2017 from 10% in 2016. SG&A expenses increased by 4% [THB 52 million].

## Payout Analysis

For the year 2017 the Company paid an interim dividend of THB 805 million in Q4/17.

For the year 2016 the Company paid full dividends of THB 1,610 million (THB 2.00/share). An interim dividend paid of THB 805 million in Q4/16 and the final dividend of THB 805 million in Q2/17.

For the year 2015 the Company paid full dividends of THB 1,610 million (THB 2.00/share). An interim dividend paid of THB 805 million in Q4/15 and the final dividend of THB 805 million in Q2/16.

The final dividend is normally announced in the board meeting in February of the following year for approval in the annual general meeting in April and paid out in May.

## Financial Status

The group currently has no interest bearing debt. Cash reserves and financial investments at the 31<sup>st</sup> December, 2017 were THB 9.7 billion down from 31<sup>st</sup> December, 2016 at THB 9.9 billion.

## Asset Quality

### Accounts Receivable

Most of customers are well known and have good reputation in the IC, and electronics industry. Provision is made of amounts outstanding over 90 days and amounts which the management believe may be doubtful. Accounts receivable were 63 days in 2017, 61 days in 2016 and 59 days in 2015.

(Thousand Baht)

Trade Receivables	2017	2016	2015
Less than 3 months	3,713,024	3,404,803	3,110,049
3 - 6 months	14,756	18,549	61,075
6 - 12 months	681	26,032	2,511
More than 12 months	9,130	4,443	1,306
Total accounts receivable - other companies	3,737,591	3,453,827	3,174,941
Less : Allowance for doubtful accounts	(11,159)	(19,855)	(24,245)
	3,726,432	3,433,972	3,150,696



# Management Discussion and Analysis

## Inventory

In general, Hana's production is based on clients' order, consequently, the majority of inventory are raw materials, expendable tools and work in process with little finished goods pending for customer delivery.

The group companies normally write-off out-of-date inventory, and make provision for aged inventory and depletion in the value of fixed assets, if material, each quarter.

Inventory days were 77 days in 2017, 73 days in 2016 and 70 days in 2015.

## Liquidity

The group has THB 9.7 billion in cash and financial investments with no interest bearing debt. Liquidity ratios are high at over 3 times current liabilities. Operating Cashflow (EBITDA) was 7% higher in 2017.

EBITDA at THB 3.4 billion in 2017 and 3.1 billion in 2016 and THB 3.3 billion in 2015.

Cash and financial investments in 2017 decreased by THB 0.2 billion to THB 9.7 billion, due to EBITDA 3.4 billion less final dividend THB 0.8 billion 2016 paid in Q217, interim dividend Q417 THB 0.8 billion, capital expenditure THB 1.1 billion, other items THB -0.9 billion.

Cash and financial investments in 2016 increased by THB 0.8 billion to THB 9.9 billion, due to EBITDA 3.1 billion less final dividend THB 0.8 billion 2015 paid in Q216, interim dividend Q416 THB 0.8 billion, capital expenditure THB 0.8 billion, other items THB +0.1 billion.

Cash and financial investments in 2015 increased by THB 0.5 billion to THB 9.1 billion, due to EBITDA 3.3 billion less final dividend THB 0.8 billion 2014 paid in Q215, interim dividend Q415 THB 0.8 billion, capital expenditure THB 1.6 billion, other items THB +0.4 billion.

## Capital Expenditure

Net Capital Expenditure was THB 1,111 million in 2017, THB 801 million in 2016 and THB 1,583 million in 2015. Capital Expenditure was higher in 2015 due to the higher capital expenditure from Ayutthaya plant compared to recent years after the impact of the flood in 2011 and completion of the building construction in Cambodia.

Generally, capital expenditure for production equipment will follow the increase in sales, particularly in the IC division. However, there is a 3 to 6 month time lag due to the ordering lead time. Plant expansion will depend on the current building utilisation and lead time to construct new plant or expand in an existing plant.

## Source of Financial Capital

As the group has no interest bearing debt and operating working capital is positive the group's funding is from the shareholders equity.





# Management Discussion and Analysis

## Major Factors which could have an Impact on the Company's Performance

The Company business is that of an electronics manufacturing service company. The Company manufactures products on behalf of its customers for shipment to them or their customers. Therefore, the Company's performance is mostly affected by its ability to win and retain business from the existing and new customers.

In turn, customer demand is affected by world economic growth and the customer's sales growth.

The groups sales revenue are in foreign currency (primarily USD) and USD currency costs are approximately 60% percent of sales revenues. The Group operating profit sensitivity to change in the Thai Baht/USD and Chinese CNY/USD exchange rates is currently about Baht 200 million per quarter for every 10% change in the average Baht/USD and CNY/USD rates (i.e.  $(1 - 0.60) \times \text{Sales Revenue} \times 10\%$ ).

Out of the groups foreign exchange exposure, USD 140 million is hedged, Foreign exchange contracts are used to buy THB and Sell USD on a rolling 3 or 6 months basis.

Whilst the book value of the offshore companies are represented in foreign currency, the effect of the change in the exchange rate is shown by the movement of the foreign currency 'Translation Adjustment' in the shareholders funds section of the balance sheet. There is no cash affect concerning its movement.

For Hana being an export group of companies the currency movements cause volatility in earnings due to effects on the operating margins and also inventory valuations (which the management report each quarter when there is a material effect on the profits) and margins.

## Foreign Exchange Rates

The THB/USD currency movements reflected the economic trends in emerging markets and commodities during period. The average rate for 2017 of THB/USD 33.93 was 4% stronger than the THB/USD 35.30 in 2016 which was 3% weaker than the THB/USD 34.25 in 2015.

## Exceptional Items

There were no Exceptional Items in 2017, 2016 or 2015.

## Subsequent Event

None



# Risk Factors

With due recognition by the Board of Directors of Hana Microelectronics Public Company Limited of the various risk factors posing as possible threats to the Company's business operations, the Board therefore assigned the Risk Management Committee to be responsible for the supervision of the organization's risk management practices in a systematic manner.

The Risk Management Committee has formulated risk management policies as follows:

1. To enable the Company to manage any probable risk in an efficient manner, with such management procedures implemented in a sound and systematic manner.
2. To promote preventive risk management procedures to be carried out in a swift, transparent, accurate, and complete manner on a systematic and consistent basis.
3. To encourage and develop all employees and management members at all levels to have thorough understanding and recognition of the significance of risk management procedures, while promoting participation in said risk management system throughout the organization.
4. To facilitate risk management procedures to be implemented in an appropriate manner well conforming to the Company's mission and policy.

For such purpose, the Risk Management Committee has engaged in the evaluation and analysis of those risks possibly affecting the organization, covering both internal and external risk factors, setting priorities for the risk management plan, as well as engaging in regular follow-up on the implementation of such plans and informing the board of such plan and potential material risk management issues.

Those risk factors likely to have impacts on the Company's operations could be summarized as follows:

## 1. Risk Factors which effect to the Company Group's Business

### a) Business Risk

The largest risk management perceived is significant changes within our major client base which may be brought about due to any number of external factors such as a change in their ownership, or a change in their product program. Whilst Hana's key strategy is to maintain a diverse base of customers with different industry exposures; significant changes from any one of our major clients can affect the group's performance. Market conditions resulting from changes in economic growth rates of economies will also affect prices and demand for the Company's services.

To minimize the impact of customer risk the Company has a broad spread of customers selling into a spread of end user markets, with the largest major customer contributing not more than 20% of the group's sales revenue.

### b) Production Risk

The production risks are –

- Changes in manufacturing technology making existing equipment obsolete.

The Company minimizes this risk through regular purchases of the latest capital equipment to upgrade the Companies' manufacturing capabilities.

- A factory partial or whole destruction by fire, flood or earthquake. Whilst the Company has multiple factories there would be a loss of customers and a period of months to years to install new equipment and recover customer orders.

The Company mitigates this risk through having multiple production sites in multiple countries. The Company further reduces facility risks at each factory with numerous measures to minimize the risk of a facility being



# Risk Factors

damaged by such events. The management regularly reviews and audits the measures taken to minimize fire and flood risk. Furthermore, the Company has insurance for property damage and business interruption to further mitigate the risk from facility damage. At the group's major facilities in Thailand the Company has additional flood protection to reduce the risk of damage from flood.

- The Companies' ability to source suitably skilled staff sufficient direct labour.

Each division has an experienced HR staff and has programs to review remuneration levels each year in comparison with the Company's competitors. The Company also has training programs and staff development programs to increase the employee skill levels.

- Material Supply Chain risks. Inability of our suppliers to deliver materials on time and in accordance with specification.

To minimize supply chain interruption, each division as experienced purchasing staff who approved by the customers for each product produced, maintain multiple sources for each raw material.

## c) Management Risk

The company employs a number of expatriate management in key positions. Whilst the Company does not have any individual staff or management who are key to the survival of the business, loss of senior management and the Company's ability to replace key management could affect the Company's market value and business performance.

The Company minimizes management risk through not having key man issues and sufficient management depth to be able to continue to operate the Company in the event of management turnover. The Company also has a policy for that all senior management do not travel on the same aircraft where possible.

## d) Financial Risk

Other risk factors which may affect the Company are exchange rates movements of the Thai Baht, political risk and changes in interest rates and collection of receivables. However, the Company's sales revenues and material costs are almost wholly in USD which provides a natural hedge. Capital expenditure is also in USD as the machines are mostly imported from the region.

As all the groups sales revenue are in foreign currency (primarily USD) and USD currency costs are 60% percent of sales revenues, the Group operating profit sensitivity to change in the Thai Baht/USD and Chinese CNY/USD exchange rates is currently about Baht 200m per quarter for every 10% change in the average Baht/USD and CNY/ USD rates (i.e.  $(1 - 0.60) \times \text{Sales Revenue} \times 10\%$ ).

To reduce the risk of volatile exchange rate, out of the groups foreign exchange exposure, USD 140 million is hedged, Foreign exchange contracts are used to buy THB and Sell USD on a rolling 3 or 6 months basis.

The Company currently has no net interest bearing borrowings and therefore is not negatively affected by potential interest rate increases.

## 2. Risk Factor which effect to shareholders' investment

The Company doesn't have any significant risks for shareholders' investment. There are no conflicts of interests amongst major shareholders and no other conditions that may affect shareholders outside of normal business as the Company. All shareholders have equal rights and the Company maintains good financial standing.

# Report of the Board of Directors' Responsibilities for Financial Statements



The Board of Directors is responsible for the preparation of financial statements in accordance with generally accepted accounting principles and the adoption of appropriate accounting policies on a consistent basis including using judgment carefully and reasonably in preparation of financial statement. The important information is adequately disclosed in the notes to financial statement. The necessary clarification and analysis regarding the financial positions and performances of the Company and its subsidiaries have been provided for the interests of shareholders and investors.

The maintenance of the internal control system and risk management system are the responsibilities of the Board to reasonably assure that assets are safeguarded from unauthorized use or disposition and that the accounting records are sufficiently reliable to permit the preparation of financial statements that conform in all material respects with generally accepted accounting principles.

The Board of Directors has appointed an Audit Committee. The Committee meets during the year to review with management and the auditors any significant accounting, internal control, and auditing matters.

The Board is of the opinion that the financial statements of Hana Microelectronics Public Company Limited and its subsidiaries for the year ended December 2017 are materially accurate, complete, and reliable.

A stylized, handwritten signature in black ink.

Mr. Richard David Han  
Executive Vice Chairman and  
Chief Executive Officer

A stylized, handwritten signature in black ink.

Mr. John Thompson  
Chairman of the Board of Directors





# Independent Auditor's Report

## To the Shareholders of Hana Microelectronics Public Company Limited

### Opinion

I have audited the accompanying consolidated financial statements of Hana Microelectronics Public Company Limited and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2017, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, and have also audited the separate financial statements of Hana Microelectronics Public Company Limited for the same period.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Hana Microelectronics Public Company Limited and its subsidiaries and of Hana Microelectronics Public Company Limited as at 31 December 2017, their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

### Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the Group in accordance with the Code of Ethics for Professional Accountants as issued by the Federation of Accounting Professions as relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

### Key Audit Matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the financial statements of the current period. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

I have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report, including in relation to these matters. Accordingly, my audit included the performance of procedures designed to respond to my assessment of the risks of material misstatement of the financial statements. The results of my audit procedures, including the procedures performed to address the matters below, provide the basis for my audit opinion on the accompanying financial statements as a whole.

The key audit matters and how audit procedures respond for each matter are described below.

#### *Revenue recognition*

The majority of the Group's sales transactions are conducted with a number of major overseas customers under a variety of arrangements and conditions which is normal for the industry and as a result may impact the recognition of revenue of the Group causing risks with respect to the amount and timing of such revenue recognition.

# Independent Auditor's Report

I have examined the revenue recognition of the Group by

- Assessing and testing the Group's internal controls with respect to the revenue cycle by making enquiry of responsible executives, gaining an understanding of the controls and selecting representative samples to test the operation of the designed controls.
- Applying a sampling method to select sales to assess whether revenue recognition was consistent with the conditions or arrangement made with the customers, and whether it was in compliance with the Group's policy.
- On a sampling basis, examining supporting documents for actual sales transactions occurring during the year and near the end of the accounting period.
- Requesting for confirmations of consignment inventory balances located at customers' hubs at the end of the accounting period, observing the physical count of inventory at significant locations and on a sampling basis, examining supporting documents whether the consignment inventories are correctly excluded from sales for the period.
- Reviewing of credit notes that the Group issued after the period-end.
- Performing analytical procedures of disaggregated data to detect possible irregularities in sales transactions throughout the period, particularly for accounting entries made through journal vouchers.

## *Inventory*

Estimating the net realisable value of inventory, as disclosed in the related accounting policy in the Note 4.4 and Note 5.1 to the financial statements, is one of an area of significant management judgement, particularly with regard to the estimation of allowance for diminution in the value of slow-moving and obsolete inventory. This requires detailed analysis of the product life cycle, the competitive environment, economic circumstances and the situation within the high-technology industry. There is a risk with respect to the amount of provision set aside for diminution in the value of inventory.

I have assessed and tested the internal controls of the Group relevant to the determination of provision for diminution in the value of inventory by making enquiry of responsible executives, gaining an understanding of the controls and selecting representative samples to test the operations of the designed controls. In addition, I also assessed the method and the assumptions applied by management in determining such provision. The procedures that I performed included:

- Gaining an understanding of the basis applied in determining the provision for diminution in value of inventory and reviewing the consistency of the application of that basis, and the rationale for the recording of specific provisions.
- Comparing the inventory holding periods and inventory movements to identify product lines with indicators of lower than normal inventory turnover.
- Comparing details of sales transactions occurring after the date of the financial statements with the cost of inventory for each product line.
- Comparing historical data of actual losses on sales and write-offs of inventory during each of the previous years with the provision for diminution in value of inventory recorded at the preceding year-end.

## *Provision for long-term employee benefits*

The valuation of long-term employee benefit obligations is one of a significant accounting estimate to the financial statements because the Group has a large number of employees and has defined benefit plans as discussed in the related accounting policy in the Note 4.12 and Note 5.3 to the financial statements. In addition, the calculation of long-term employee benefit obligations requires the management to select the calculation method and exercise a high degree of judgement in determining appropriate assumptions such as discount rates, future salary increases, mortality rates and staff turnover rates. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. There is therefore a risk with respect to the amounts of the provision for long-term employee benefits.

# Independent Auditor's Report

I assessed and tested the Group's internal control with respect to the assessment of provision for long-term employee benefit by making enquiry of responsible executives, gaining an understanding of internal controls and testing the method and significant assumptions both demographic and financial aspects used by the management to calculate the long-term employee benefit obligations and considering the impact of changes in key assumptions on the valuation of long-term employee benefit obligations. In addition, I reviewed the disclosure in the notes to the financial statements with respect to the provision for long-term employee benefits.

## Other Information

Management is responsible for the other information. The other information comprise the information included in annual report of the Group, but does not include the financial statements and my auditor's report thereon. The annual report of the Group is expected to be made available to me after the date of this auditor's report.

My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated.

When I read the annual report of the Group, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance for correction of the misstatement.

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the 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 are responsible for overseeing the Group's financial reporting process.

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

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Thai Standards on Auditing 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 financial statements.

As part of an audit in accordance with Thai Standards on Auditing, I exercise professional judgement and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the 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 my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than

# Independent Auditor's Report

for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

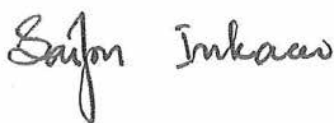
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- 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 I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I 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 I identify during my audit.

I also provide those charged with governance with a statement that I 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 my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

I am responsible for the audit resulting in this independent auditor's report.



**Saifon Inkaew**

Certified Public Accountant (Thailand) No. 4434

EY Office Limited

Bangkok: 28 February 2018



# Statement of financial position

Hana Microelectronics Public Company Limited and its subsidiaries

As at 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	6	4,756,538,170	6,347,594,742	402,022,774	963,993,806
Short-term investments	8	4,517,582,271	3,292,934,416	250,000,000	-
Current portion of long-term fixed deposits					
with financial institution	12	465,390,797	-	-	-
Trade and other receivables	7, 9	3,904,177,600	3,634,647,725	1,320,169,690	1,320,122,455
Inventories	10	4,082,873,656	3,651,125,522	1,746,911,653	1,285,344,345
Other current assets		166,895,567	86,196,148	21,738,900	35,229,470
<b>Total current assets</b>		<b>17,893,458,061</b>	<b>17,012,498,553</b>	<b>3,740,843,017</b>	<b>3,604,690,076</b>
<b>Non-current assets</b>					
Investments in subsidiary companies	11	-	-	3,583,449,338	3,583,449,338
Long-term fixed deposits with financial institution					
- net of current portion	12	-	313,262,334	-	-
Other long-term investments	13	65,458,800	97,000	97,000	97,000
Investment property	14	72,303,750	72,303,750	72,303,750	72,303,750
Property, plant and equipment	15	6,065,872,244	6,145,488,371	2,632,563,156	2,538,126,649
Land leasehold rights	16	130,882,070	146,620,335	-	-
Other intangible assets	17	49,942,131	40,115,190	32,219,654	24,978,184
Deferred tax assets	23	26,709,952	13,542,829	1,391,494	4,952,842
Other non-current assets		98,471,005	11,773,908	3,423,113	10,000
<b>Total non-current assets</b>		<b>6,509,639,952</b>	<b>6,743,203,717</b>	<b>6,325,447,505</b>	<b>6,223,917,763</b>
<b>Total assets</b>		<b>24,403,098,013</b>	<b>23,755,702,270</b>	<b>10,066,290,522</b>	<b>9,828,607,839</b>

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

# Statement of financial position (continued)

Hana Microelectronics Public Company Limited and its subsidiaries

As at 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Liabilities and shareholders' equity					
Current liabilities					
Trade and other payables	7, 18	2,920,964,877	2,788,385,619	1,080,012,337	1,111,798,790
Short-term provisions	19	326,809,000	358,307,000	-	-
Income tax payable		40,486,036	42,022,677	2,103,049	8,217,199
Other current liabilities		97,658,235	150,342,580	22,001,075	21,139,173
<b>Total current liabilities</b>		<b>3,385,918,148</b>	<b>3,339,057,876</b>	<b>1,104,116,461</b>	<b>1,141,155,162</b>
Non-current liabilities					
Provision for long-term employee benefits	20	327,301,816	454,879,424	128,110,137	239,914,410
<b>Total non-current liabilities</b>		<b>327,301,816</b>	<b>454,879,424</b>	<b>128,110,137</b>	<b>239,914,410</b>
<b>Total liabilities</b>		<b>3,713,219,964</b>	<b>3,793,937,300</b>	<b>1,232,226,598</b>	<b>1,381,069,572</b>
Shareholders' equity					
Share capital					
Registered					
974,403,900 ordinary shares of Baht 1 each		974,403,900	974,403,900	974,403,900	974,403,900
Issued and fully paid-up					
804,878,860 ordinary shares of Baht 1 each		804,878,860	804,878,860	804,878,860	804,878,860
Share premium		1,723,218,982	1,723,218,982	1,723,218,982	1,723,218,982
Retained earnings					
Appropriated - statutory reserve	21	443,691,136	428,283,816	100,000,000	100,000,000
Unappropriated		17,504,229,412	16,088,535,322	6,205,966,082	5,819,440,425
Other components of shareholders' equity		213,859,659	916,847,990	-	-
<b>Total shareholders' equity</b>		<b>20,689,878,049</b>	<b>19,961,764,970</b>	<b>8,834,063,924</b>	<b>8,447,538,267</b>
<b>Total liabilities and shareholders' equity</b>		<b>24,403,098,013</b>	<b>23,755,702,270</b>	<b>10,066,290,522</b>	<b>9,828,607,839</b>

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

# Income statement

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
<b>Revenues</b>					
Sales	25, 26	21,550,861,024	20,522,623,734	8,199,161,086	7,921,119,877
Interest income		206,196,691	202,538,917	7,543,227	13,089,793
Dividend income	11	57,375	54,000	930,057,375	880,054,000
Gain on exchange		530,633,995	78,769,983	-	71,813,524
Other income		295,472,840	260,293,553	39,437,151	34,124,409
<b>Total revenues</b>		<b>22,583,221,925</b>	<b>21,064,280,187</b>	<b>9,176,198,839</b>	<b>8,920,201,603</b>
<b>Expenses</b>	22				
Cost of sales		18,336,460,489	17,646,812,814	6,922,889,564	6,769,121,792
Selling expenses		156,102,532	160,197,788	38,014,922	38,073,230
Administrative expenses		1,063,670,366	1,007,250,913	321,149,197	313,468,054
Loss on exchange		-	-	8,939,365	-
<b>Total expenses</b>		<b>19,556,233,387</b>	<b>18,814,261,515</b>	<b>7,290,993,048</b>	<b>7,120,663,076</b>
<b>Profit before finance cost and income tax expenses</b>		<b>3,026,988,538</b>	<b>2,250,018,672</b>	<b>1,885,205,791</b>	<b>1,799,538,527</b>
Finance cost		(7,283,859)	(7,383,897)	(2,087,076)	(2,146,211)
<b>Profit before income tax expenses</b>		<b>3,019,704,679</b>	<b>2,242,634,775</b>	<b>1,883,118,715</b>	<b>1,797,392,316</b>
Income tax expenses	23	(131,974,049)	(137,215,824)	(9,382,552)	(22,853,272)
<b>Profit for the year</b>		<b>2,887,730,630</b>	<b>2,105,418,951</b>	<b>1,873,736,163</b>	<b>1,774,539,044</b>
<b>Profit attributable to:</b>					
Equity holders of the Company		2,887,730,630	2,105,418,951	1,873,736,163	1,774,539,044
<b>Earnings per share</b>	24				
Basic earnings per share					
Profit attributable to equity holders of the Company		3.59	2.62	2.33	2.20
Number of weighted average ordinary shares (shares)		804,878,860	804,878,860	804,878,860	804,878,860

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

# Statement of comprehensive income

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Profit for the year		2,887,730,630	2,105,418,951	1,873,736,163	1,774,539,044
Other comprehensive income:					
Other comprehensive income to be reclassified to profit or loss in subsequent periods:					
Gain on change in value of available-for-sale investments	8.2	109,659,766	175,280,862	-	-
Exchange differences on translation of financial statements in foreign currency, net of income tax	23	(812,648,097)	(245,776,972)	-	-
Other comprehensive income to be reclassified to profit or loss in subsequent periods, net of income tax		(702,988,331)	(70,496,110)	-	-
Other comprehensive income not to be reclassified to profit or loss in subsequent periods					
Actuarial gain, net of income tax	20, 23	153,128,500	113,024,983	122,547,214	51,993,903
Other comprehensive income not to be reclassified to profit or loss in subsequent periods, net of income tax		153,128,500	113,024,983	122,547,214	51,993,903
Other comprehensive income for the year		(549,859,831)	42,528,873	122,547,214	51,993,903
Total comprehensive income for the year		2,337,870,799	2,147,947,824	1,996,283,377	1,826,532,947
Total comprehensive income attributable to:					
Equity holders of the Company		2,337,870,799	2,147,947,824	1,996,283,377	1,826,532,947

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



# Statement of changes in shareholders' equity

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

Note	Consolidated financial statements						
	Issued and paid up share capital	Share premium	Retained earnings		Other components of shareholders' equity		
					Other comprehensive income	Total other components of shareholders' equity	Total shareholders' equity
			Appropriated - Statutory reserve	Unappropriated	Surplus (deficit) on changes in value of available-for-sale investments	Exchange differences on translation of financial statements in foreign currency	
Balance as at 31 December 2015	804,878,860	1,723,218,982	416,331,205	15,491,801,719	(70,372,120)	1,057,716,220	19,423,574,866
Profit for the year	-	-	-	2,105,418,951	-	-	2,105,418,951
Other comprehensive income for the year	-	-	-	113,024,983	175,280,862	(245,776,972)	42,528,873
Total comprehensive income for the year	-	-	-	2,218,443,934	175,280,862	(245,776,972)	2,147,947,824
Dividend paid	-	-	-	(1,609,757,720)	-	-	(1,609,757,720)
Unappropriated retained earnings transferred to statutory reserve	-	-	11,952,611	(11,952,611)	-	-	-
Balance as at 31 December 2016	804,878,860	1,723,218,982	428,283,816	16,088,535,322	104,908,742	811,939,248	19,961,764,970
Balance as at 31 December 2016	804,878,860	1,723,218,982	428,283,816	16,088,535,322	104,908,742	811,939,248	19,961,764,970
Profit for the year	-	-	-	2,887,730,630	-	-	2,887,730,630
Other comprehensive income for the year	-	-	-	153,128,500	109,659,766	(812,648,097)	(549,859,831)
Total comprehensive income for the year	-	-	-	3,040,859,130	109,659,766	(812,648,097)	2,337,870,799
Dividend paid	-	-	-	(1,609,757,720)	-	-	(1,609,757,720)
Unappropriated retained earnings transferred to statutory reserve	-	-	15,407,320	(15,407,320)	-	-	-
Balance as at 31 December 2017	804,878,860	1,723,218,982	443,691,136	17,504,229,412	214,568,508	(708,849)	20,689,878,049

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

# Statement of changes in shareholders' equity (continued)

Hana Microelectronics Public Company Limited and its subsidiaries  
For the year ended 31 December 2017

(Unit: Baht)

	Note	Separate financial statements				
		Issued and paid up share capital	Share premium	Retained earnings		Total shareholders' equity
				Appropriated Statutory reserve	Unappropriated	
Balance as at 31 December 2015		804,878,860	1,723,218,982	100,000,000	5,602,665,198	8,230,763,040
Profit for the year		-	-	-	1,774,539,044	1,774,539,044
Other comprehensive income for the year		-	-	-	51,993,903	51,993,903
Total comprehensive income for the year		-	-	-	1,826,532,947	1,826,532,947
Dividend paid	28	-	-	-	(1,609,757,720)	(1,609,757,720)
Balance as at 31 December 2016		804,878,860	1,723,218,982	100,000,000	5,819,440,425	8,447,538,267
Balance as at 31 December 2016		804,878,860	1,723,218,982	100,000,000	5,819,440,425	8,447,538,267
Profit for the year		-	-	-	1,873,736,163	1,873,736,163
Other comprehensive income for the year		-	-	-	122,547,214	122,547,214
Total comprehensive income for the year		-	-	-	1,996,283,377	1,996,283,377
Dividend paid	28	-	-	-	(1,609,757,720)	(1,609,757,720)
Balance as at 31 December 2017		804,878,860	1,723,218,982	100,000,000	6,205,966,082	8,834,063,924

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

# Statement of cash flows

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Cash flows from operating activities</b>				
Profit before tax	3,019,704,679	2,242,634,775	1,883,118,715	1,797,392,316
Adjustments to reconcile profit before tax to net cash provided by (paid from) operating activities:				
Depreciation	1,072,032,273	1,169,983,889	357,656,106	353,086,596
Amortisation expenses	11,442,158	10,014,255	3,687,921	2,084,891
Reversal of allowance for doubtful accounts	(8,696,268)	(4,390,169)	-	-
Reduction of inventories to net realisable value	45,284,685	94,029,048	37,996,307	57,105,088
Write-off obsolete and damaged inventories	(114,277,206)	(148,363,618)	(108,015,728)	(148,363,618)
Dividend income from subsidiary companies	-	-	(930,000,000)	(880,000,000)
Dividend income from other company	(57,375)	(54,000)	(57,375)	(54,000)
Loss (gain) on disposals/write-off equipment and intangible assets	11,948,498	(12,587,285)	(2,417,331)	(862,100)
Allowance for impairment loss on assets (reversal)	(210,789)	(2,112,616)	(210,789)	211,484
Provision for product warranty	-	13,157,586	-	-
Provision for vacation	1,801,716	1,790,243	886,198	374,705
Provision for long-term employee benefits	36,056,371	46,722,170	15,852,354	24,722,191
Loss (gain) on sales/redemption of short-term investments	(17,318,264)	11,570,250	-	-
Revaluation loss (gain) on investments in securities held for trading	(3,064,128)	3,580,424	-	-
	8,963,507	122,732	(12,587,586)	(50,635,490)
Unrealised loss (gain) on exchange				
Unrealised gain on forward contracts	(151,262,346)	(197,954,159)	-	-
Interest income from short-term investments	(177,177,255)	(161,327,271)	-	-
Profit from operating activities before changes in operating assets and liabilities	3,735,170,256	3,066,816,254	1,245,908,792	1,155,062,063

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

# Statement of cash flows (continued)

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Operating assets (increase) decrease				
Trade and other receivables	(317,305,371)	(228,631,353)	(18,209,604)	92,437,306
Inventories	(362,755,614)	(230,188,653)	(391,547,887)	18,072,885
Other current assets	(2,537,879)	38,891,683	11,464,796	(7,072,363)
Other non-current assets	-	3,802,150	-	1,318,749
Operating liabilities increase (decrease)				
Trade and other payables	99,205,173	526,193,696	(29,996,203)	(103,391,860)
Other current liabilities	2,630,019	(40,109,145)	(23,587)	(36,547,808)
Cash from operating activities	3,154,406,584	3,136,774,632	817,596,307	1,119,878,972
Cash paid for long-term employee benefits	(9,720,611)	(12,644,315)	(4,324,547)	(11,400,644)
Cash paid for tax assessments	-	(50,795,815)	-	-
Cash paid for corporate income tax	(130,490,629)	(64,898,623)	(12,720,220)	(23,835,105)
<b>Net cash from operating activities</b>	<b>3,014,195,344</b>	<b>3,008,435,879</b>	<b>800,551,540</b>	<b>1,084,643,223</b>
<b>Cash flows from investing activities</b>				
Decrease (increase) in fixed deposits with financial institutions	(1,672,156,653)	144,973,165	(250,000,000)	-
Decrease (increase) in short-term investments	46,684,389	(290,041,102)	-	-
Interest income from short-term investments	176,676,517	149,793,049	-	-
Proceeds from sales/redemption of short-term investments	356,926,391	345,163,586	-	-
Dividend income from subsidiary companies	-	-	930,000,000	880,000,000
Dividend income from other company	57,375	54,000	57,375	54,000
Acquisitions of property, plant and equipment and other intangible assets	(943,116,245)	(791,918,707)	(436,813,504)	(302,416,361)
Acquisition of investment property	-	(49,803,750)	-	(49,803,750)
Proceeds from disposals of equipment	16,476,958	269,282,120	7,404,390	5,106,964
Increase in other long-term investment	(65,361,800)	-	-	-
Increase in other non-current assets	(86,697,099)	(9,954,905)	(3,413,113)	-
Cash paid for withholding tax	(12,550,322)	-	-	-
<b>Net cash from (used in) investing activities</b>	<b>(2,183,060,489)</b>	<b>(232,452,544)</b>	<b>247,235,148</b>	<b>532,940,853</b>

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



# Statement of cash flows (continued)

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cash flows from financing activities				
Dividend paid	(1,609,757,720)	(1,609,757,720)	(1,609,757,720)	(1,609,757,720)
Net cash used in financing activities	(1,609,757,720)	(1,609,757,720)	(1,609,757,720)	(1,609,757,720)
Increase (decrease) in cash and cash equivalents	(778,622,865)	1,166,225,615	(561,971,032)	7,826,356
Translation adjustment	(812,433,707)	(245,124,976)	-	-
Net increase (decrease) in cash and cash equivalents	(1,591,056,572)	921,100,639	(561,971,032)	7,826,356
Cash and cash equivalents at beginning of year	6,347,594,742	5,426,494,103	963,993,806	956,167,450
Cash and cash equivalents at end of year (Note 6)	4,756,538,170	6,347,594,742	402,022,774	963,993,806
Supplemental cash flow information				
Non-cash related transactions from investing activities				
Net increase (decrease) in accounts payable for purchase of plant and equipment	83,045,401	(99,638,619)	30,984,769	(14,953,881)
Accrued interest receivable short-term investments	(9,361,497)	(3,069,951)	-	-
Revaluation gain (loss) from changes in fair value of investments	109,659,766	175,280,862	-	-
Translation adjustment for deferred tax assets	999,257	1,265,361	-	-

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

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 1. General information

Hana Microelectronics Public Company Limited (“the Company”) was incorporated as a limited company under Thai law and transformed to be a public limited company under the Public Limited Companies Act on 27 January 1993. The Company operates its business in Thailand and is principally engaged in the manufacture and trading of electronic components. The registered office of the Company is at 65/98, Soi Vibhavadi-Rangsit 64, Junction 2, Kwang Talad Bangkhen, Khet Laksi, Bangkok.

## 2. Basis of preparation

2.1 The financial statements have been prepared in accordance with Thai Financial Reporting Standards enunciated under the Accounting Professions Act B.E. 2547 and their presentation has been made in compliance with the stipulations of the Notification of the Department of Business Development dated 11 October 2016, issued under the Accounting Act B.E. 2543.

The financial statements in Thai language are the official statutory financial statements of the Company. The financial statements in English language have been translated from the Thai language financial statements.

The financial statements have been prepared on a historical cost basis except where otherwise disclosed in the accounting policies.

2.2 Basis of consolidation

a) The consolidated financial statements include the financial statements of Hana Microelectronics Public Company Limited (“the Company”) and the following subsidiary companies (“the subsidiaries”):

Company's name	Nature of business	Country of incorporation	Percentage of shareholding	
			2017	2016
			Percent	Percent
Held by the Company				
Hana Semiconductor (BKK) Company Limited	Holding company	Thailand	100	100
Omac Sales Limited	Purchasing of electronic components and equipment	Hong Kong	100	100
Hana Microelectronics International Company Limited	Holding company	British Virgin Islands	100	100
Hana Microelectronics Investments Company Limited	Holding company	British Virgin Islands	100	100
Hana Technologies Group Limited	Holding company	Cayman Islands	100	100
Hana Microelectronics (Cambodia) Company Limited	Manufacture and trading of electronic components	Cambodia	100	100
Hana Semiconductor (Ayutthaya) Company Limited	Manufacture and trading of electronic components	Thailand	58	58
Held through the subsidiary companies				
Hana Semiconductor International Limited	Trading of electronic components	British Virgin Islands	100	100
Hana Semiconductor Holdings Limited	Holding company	British Virgin Islands	100	100
Hana Technologies Investments Limited	Holding company	Cayman Islands	100	100
Hana Microdisplay Technologies, Inc.	Manufacture and trading of electronic components	USA	100	100
Hana Microelectronics, Inc.	Agent and customer services	USA	100	100
Hana Microelectronics Enterprises Company Limited	Holding company	British Virgin Islands	100	100
Hana Macao Commercial Offshore Limited	Customer services	Macao	100	100
Hana Microelectronics (Jiaxing) Company Limited	Manufacture and trading of electronic components	China	100	100
Hana Semiconductor (Ayutthaya) Company Limited	Manufacture and trading of electronic components	Thailand	42	42
Power Master Semiconductor Company Limited	Manufacture and trading of electronic components	South Korea	100	-

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

- b) The Company is deemed to have control over an investee or subsidiaries if it has rights, or is exposed, to variable returns from its involvement with the investee, and it has the ability to direct the activities that affect the amount of its returns.
  - c) Subsidiaries are fully consolidated, being the date on which the Company obtains control, and continue to be consolidated until the date when such control ceases.
  - d) The financial statements of the subsidiaries are prepared using the same significant accounting policies as the Company.
  - e) The assets and liabilities in the financial statements of overseas subsidiary companies are translated into Thai Baht using the exchange rate prevailing on the end of reporting period, and revenues and expenses translated using monthly average exchange rates. The resulting differences are shown under the caption of "Exchange differences on translation of financial statements in foreign currency" in the statements of changes in shareholders' equity.
  - f) Material balances and transactions between the Company and its subsidiary companies have been eliminated from the consolidated financial statements.
- 2.3 The separate financial statements present investments in subsidiaries under the cost method.

## 3. New financial reporting standards

### (a) Financial reporting standards that became effective in the current year

During the year, the Company and its subsidiaries have adopted the revised financial reporting standards and interpretations (revised 2016) and new accounting treatment guidance which are effective for fiscal years beginning on or after 1 January 2017. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of standards. The adoption of these financial reporting standards does not have any significant impact on the Company and its subsidiaries' financial statements. However, one standard involves changes to key principles, which are summarised below.

#### TAS 27 (revised 2016) Separate Financial Statements

This revised standard stipulates an additional option to account for investments in subsidiaries, joint ventures and associates in separate financial statements under the equity method, as described in TAS 28 (revised 2016) Investments in Associates and Joint Ventures. However, the entity is to apply the same accounting treatment for each category of investment. If an entity elects to account for such investments using the equity method in the separate financial statements, it has to adjust the transaction retrospectively.

This standard will not have any significant impact on the Company and its subsidiaries' financial statements because the management has decided to continue accounting for such investments under the cost method in the separate financial statements.

### (b) Financial reporting standards that will become effective in the future

During the current year, the Federation of Accounting Professions issued a number of revised financial reporting standards and interpretations (revised 2017) which are effective for fiscal years beginning on or after 1 January 2018. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes and clarifications directed towards disclosures in the notes to financial statements.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

The management of the Company and its subsidiaries believe that the revised financial reporting standards will not have any significant impact on the financial statements when they are initially applied.

## 4. Significant accounting policies

### 4.1 Revenue recognition

#### *Sales of goods*

Sales of goods are recognised when the significant risks and rewards of ownership of the goods have passed to the buyer. Sales are the invoiced value, excluding value added tax, of goods supplied after deducting discounts and allowances.

#### *Interest income*

Interest income is recognised on an accrual basis based on the effective interest rate.

#### *Dividends*

Dividends are recognised when the right to receive the dividends is established.

### 4.2 Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and at banks, and all highly liquid investments with an original maturity of three months or less and not subject to withdrawal restrictions.

### 4.3 Trade accounts receivable

Trade accounts receivable are stated at the net realisable value. Allowance for doubtful accounts is provided for the estimated losses that may be incurred in collection of receivables. The allowance is generally based on collection experiences and analysis of debt aging.

### 4.4 Inventories

Raw materials, work in process, and finished goods are valued at the lower of cost (under weighted average method) and net realisable value. The cost of inventories is measured using the standard cost method, which approximates actual cost. Cost of finished goods and work in process include direct materials, direct labour, and factory overheads.

Allowance for diminution in inventory value is set up for obsolete, slow-moving or deteriorated inventories.

### 4.5 Investments

- a) Investments in securities held for trading of a subsidiary are stated at fair value. Changes in fair value of these securities are recorded in profit or loss.
- b) Investments in available-for-sale securities are stated at fair value. Changes in the fair value of these securities are recorded in other comprehensive income, and will be recorded in profit or loss when securities are sold.
- c) Investments in debt securities, both due within one year and expected to be held to maturity, are recorded at amortised cost. The premium/discount on debt securities is amortised/accreted by the effective rate method with the amortised/accreted amount presented as an adjustment to the interest income.
- d) Investment in non-marketable equity securities, which the subsidiary classified as other investment, is stated at cost net of allowance for impairment loss.
- e) Investments in subsidiaries are accounted for in the separate financial statements using the cost method.



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

The fair value of marketable securities is based on the latest bid price of the last working day of the year as quoted on the Stock Exchanges in which the securities are issued. The fair value of debt instruments is determined based on quoted market price in the debt instruments markets.

The weighted average method is used for computation of the cost of investments.

In the event the Company and its subsidiaries reclassify investments from one type to another, such investments will be readjusted to their fair value as at the reclassification date. The difference between the carrying amount of the investments and the fair value on the date of reclassification are recorded in profit or loss or recorded as other components of shareholders' equity, depending on the type of investment which is reclassified.

On disposal of an investment, the difference between net disposal proceeds and the carrying amount of the investment is recognised as income or expenses in profit or loss.

## 4.6 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at cost less accumulated depreciation and allowance for loss on impairment (if any).

No depreciation is provided on investment property in land.

## 4.7 Property, plant and equipment and depreciation

Land is stated at cost. Buildings and equipment are stated at cost less accumulated depreciation and allowance for loss on impairment of assets (if any).

Depreciation of plant and equipment is calculated by reference to their costs on a straight-line basis over the following estimated useful lives:

Leasehold improvements	Period of lease
Buildings	20 - 50 years
Installation	3 - 10 years
Other assets	3 - 20 years

Depreciation is included in determining income.

No depreciation is provided on land, construction in progress and machinery under installation.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal of an asset is included in profit or loss when the asset is derecognised.

## 4.8 Intangible assets

Intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses (if any).

Intangible assets with finite lives are amortised on a systematic basis over the economic useful life and tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method of such intangible assets are reviewed at least at each financial year end. The amortisation expense is charged to profit or loss.

The useful lives of the intangible assets is 5 - 10 years.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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## 4.9 Related party transactions

Related parties comprise individuals or enterprises that control, or are controlled by, the Company, whether directly or indirectly, or which are under common control with the Company.

They also include associated companies, and individuals or enterprises which directly or indirectly own a voting interest in the Company that gives them significant influence over the Company, key management personnel, directors, and officers with authority in the planning and direction of the Company's operations.

## 4.10 Foreign currencies

The consolidated and separate financial statements are presented in Baht, which is also the Company's functional currency. Items of each entity included in the consolidated financial statements are measured using the functional currency of that entity.

Transactions in foreign currencies are translated into Baht at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Baht at the exchange rate ruling at the end of reporting period.

Gains and losses on exchange are included in determining income.

## 4.11 Impairment of assets

At the end of each reporting period, the Company and its subsidiaries perform impairment reviews in respect of the property, plant and equipment and other intangible assets whenever events or changes in circumstances indicate that an asset may be impaired. An impairment loss is recognised when the recoverable amount of an asset, which is the higher of the asset's fair value less costs to sell and its value in use, is less than the carrying amount.

An impairment loss is recognised in profit or loss.

In the assessment of asset impairment if there is any indication that previously recognised impairment losses may no longer exist or may have decreased, the Company and its subsidiaries estimate the asset's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The increased carrying amount of the asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss.

## 4.12 Employee benefits

### Short-term employee benefits

Salaries, wages, bonuses and contributions to the social security fund are recognised as expenses when incurred.

### Post-employment benefits

#### *Defined contribution plans*

The Company, the subsidiaries and their employees have jointly established a provident fund. The fund is monthly contributed to by the employees, the Company and the subsidiaries. The fund's assets are held in a separate trust fund and the Company and the subsidiaries' contributions are recognised as expenses when incurred.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## *Defined benefit plans*

The Company and its subsidiaries have obligations in respect of the severance payments they must make to employees upon retirement under labor law. The Company and its subsidiaries treat these severance payment obligations as a defined benefit plan.

The obligation under the defined benefit plan is determined based on actuarial techniques, using the projected unit credit method.

Actuarial gains and losses arising from defined benefits plans are recognised immediately in other comprehensive income.

## *Provision for vacation*

The Company and its subsidiaries have set up provision for vacation which is calculated in accordance with the Company's policy and formula, taking into consideration the employee's salary, the number of service years and the unused vacation days.

## **4.13 Provisions**

Provisions are recognised when the Company and the subsidiaries have a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

### *Provision for product warranty*

The subsidiaries record provision for product warranty, which is estimated by reference to obligation for product warranty under manufacturing contract.

## **4.14 Income tax**

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

### *Current tax*

Current income tax is provided in the accounts at the amount expected to be paid to the taxation authorities, based on taxable profits determined in accordance with tax legislation.

### *Deferred tax*

Deferred income tax is provided on temporary differences between the tax bases of assets and liabilities and their carrying amounts at the end of each reporting period, using the tax rates enacted at the end of the reporting period.

The Company and its subsidiaries recognise deferred tax liabilities for all taxable temporary differences while they recognise deferred tax assets for all deductible temporary differences and tax losses carried forward to the extent that it is probable that future taxable profit will be available against which such deductible temporary differences and tax losses carried forward can be utilised.

At each reporting date, the Company and its subsidiaries review and reduce the carrying amount of deferred tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

The Company and its subsidiaries record deferred tax directly to shareholders' equity if the tax relates to items that are recorded directly to shareholders' equity.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 4.15 Derivatives

The Company and its subsidiaries have no policy to speculate in or engage in the trading of any financial derivative instruments, other than for managing the foreign currency risk. The subsidiaries have entered into forward exchange contracts to mitigate such exposure.

Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and subsequently remeasured at fair value, which is determined by reliable financial institutions. Gains on losses arising from changes in the fair value of the contracts are recognised in profit or loss.

## 4.16 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between buyer and seller (market participants) at the measurement date. The Company and its subsidiaries apply a quoted market price in an active market to measure their assets and liabilities that are required to be measured at fair value by relevant financial reporting standards. Except in case of no active market of an identical asset or liability or when a quoted market price is not available, the Company and its subsidiaries measure fair value using valuation technique that are appropriate in the circumstances and maximises the use of relevant observable inputs related to assets and liabilities that are required to be measured at fair value.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy into three levels based on categorise of input to be used in fair value measurement as follows:

- Level 1 - Use of quoted market prices in an active market for such assets or liabilities
- Level 2 - Use of other observable inputs for such assets or liabilities, whether directly or indirectly
- Level 3 - Use of unobservable inputs such as estimates of future cash flows

At the end of each reporting period, the Company and its subsidiaries determine whether transfers have occurred between levels within the fair value hierarchy for assets and liabilities held at the end of the reporting period that are measured at fair value on a recurring basis.

## 5. Significant accounting judgements and estimates

The preparation of financial statements in conformity with financial reporting standards at times requires management to make subjective judgements and estimates regarding matters that are inherently uncertain. These judgements and estimates affect reported amounts and disclosures; and actual results could differ from these estimates. Significant judgements and estimates are as follows:

### 5.1 Allowance for diminution in inventory value

In determining an allowance for diminution in inventory value, the management needs to make judgement in estimating loss from obsolescence and slow moving, and the reduction of net realisable value of inventories.

### 5.2 Property plant and equipment and depreciation

In determining depreciation of plant and equipment, the management is required to make estimates of the useful lives and residual values of the plant and equipment and to review estimate useful lives and residual values when there are any changes.



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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In addition, the management is required to review property, plant and equipment for impairment on a periodical basis and record impairment losses in the period when it is determined that their recoverable amount is lower than the carrying cost. This requires judgements regarding forecast of future revenues and expenses relating to the assets subject to the review.

## 5.3 Post-employment benefits under defined benefit plans

The obligation under the defined benefit plan is determined based on actuarial techniques. Such determination is made based on various assumptions, including discount rate, future salary increase rate, mortality rate and staff turnover rate.

## 5.4 Fair value of financial instruments

In determining the fair value of financial instruments recognised in the statement of financial position that are not actively traded and for which quoted market prices are not readily available, the management exercise judgement, using a variety of valuation techniques and models. The input to these models is taken from observable markets, and includes consideration of credit risk (bank and counterparty, both) liquidity, correlation and longer-term volatility of financial instruments. Change in assumptions about these factors could affect the fair value recognised in the statement of financial position and disclosures of fair value hierarchy.

## 6. Cash and cash equivalents

Cash and cash equivalents as at 31 December 2017 and 2016 as reflected in the statements of financial position and cash flows consist of the following:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cash	1,270	23,362	287	461
Bank deposits	3,374,647	2,795,837	401,736	433,533
Fixed deposits with maturity not over 3 months	1,380,621	3,528,396	-	530,000
Total cash and cash equivalents	4,756,538	6,347,595	402,023	963,994

As at 31 December 2017, bank deposits in savings accounts and fixed deposits carried interests between 0.001 and 2.000 percent per annum (2016: 0.001 and 1.550 percent per annum).

## 7. Related party transactions

During the years, the Company had significant business transactions with related parties. Such transactions, which are summarised below, arose in the ordinary course of business and were concluded on commercial terms and bases agreed upon between the Company and those related parties.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Million Baht)

	Separate financial statements		Transfer pricing policy
	2017	2016	
<b>Transactions with subsidiary companies</b> (eliminated from the consolidated financial statements)			
Sales of goods	184	148	Prices agreed between the parties due to the uniqueness of products sold to each customer
Dividend income	930	880	Declared rate
Sales of fixed assets	-	4	Appraisal price
Purchase of materials	151	122	Cost plus mark up
Service fee expenses	9	8	Rates stipulated in the agreement

As at 31 December 2017 and 2016, the balances of the accounts between the Company and those related parties are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Trade and other receivables (Note 9)</b>				
<b>Trade receivables - related parties</b>				
Subsidiary companies	-	-	7,658	47,937
<b>Total trade receivables - related parties</b>	-	-	7,658	47,937
<b>Other receivables - related parties</b>				
Related company (by way of common directors)	76	76	-	-
<b>Total other receivables - related parties</b>	76	76	-	-
<b>Total trade and other receivables</b>	76	76	7,658	47,937
<b>Trade and other payables (Note 18)</b>				
<b>Trade payables - related parties</b>				
Subsidiary companies	-	-	241,780	232,088
<b>Total trade payables - related parties</b>	-	-	241,780	232,088
<b>Total trade and other payables</b>	-	-	241,780	232,088

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## Directors and management's benefits

During the years ended 31 December 2017 and 2016, the Company and its subsidiaries had employee benefit expenses payable to their directors and management as below.

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Short-term employee benefits	88.4	82.5	13.6	13.3
Post-employment benefits	1.4	1.7	0.7	1.0
Total	89.8	84.2	14.3	14.3

## 8. Short-term Investments

(Unit: Thousand Baht)

	Consolidated financial statements			
	2017		2016	
	Cost/ Carrying value	Fair value	Cost/ Carrying value	Fair value
Securities held for trading (Note 8.1)				
Overseas marketable equity securities	163,405	177,102	179,153	188,989
Unsecured subordinated notes	24,162	24,230	24,474	25,338
Total	187,567	201,332	203,627	214,327
Add: Gain on changes in fair value of investments	13,765		10,700	
Investments in securities held for trading	201,332		214,327	
Available-for-sale securities (Note 8.2)				
Overseas marketable corporate bonds	1,263,322	1,423,490	1,349,300	1,460,778
Local quoted bonds	32,683	34,270	35,834	37,307
Overseas quoted bonds	783,357	836,171	1,064,461	1,056,419
Total	2,079,362	2,293,931	2,449,595	2,554,504
Add: Revaluation surplus on changes in fair value of investments	214,569		104,909	
Investments in available-for-sale securities	2,293,931		2,554,504	
Fixed deposit with financial institutions				
Fixed deposits within 1 year	2,022,319	2,022,319	524,103	524,103
Fixed deposits with financial institutions	2,022,319	2,022,319	524,103	524,103
Total short-term investments	4,517,582	4,517,582	3,292,934	3,292,934

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Thousand Baht)

	Separate financial statements			
	2017		2016	
	Cost/ Carrying value	Fair value	Cost/ Carrying value	Fair value
Fixed deposits with financial institution				
Fixed deposits within 1 year	250,000	250,000	-	-
Fixed deposits with financial institution	250,000	250,000	-	-
<b>Total short-term investments</b>	<b>250,000</b>	<b>250,000</b>	<b>-</b>	<b>-</b>

As at 31 December 2017, fixed deposits with financial institutions carried interest between 0.15 and 1.82 percent per annum (2016: 0.6 to 3.25 percent per annum).

## 8.1 Securities held for trading

Since the second quarter of 2011, Hana Microelectronics International Company Limited, an overseas subsidiary company, has invested in bond investment trust of an overseas bank, and during 2012 additionally invested in interest bearing unsecured subordinated notes of a company listed on the Stock Exchange of Australia. During 2016, the subsidiary additionally invested in mutual fund (fixed maturity bond fund) of a company listed on the Stock Exchange of Luxembourg through an overseas bank. The subsidiary has classified these investments as held for trading purpose.

As at 31 December 2017, the subsidiary had assessed the fair value of the bond investment trust, the unsecured subordinated notes and the mutual fund by referring to the value quoted by the banks which are comparable to quoted prices, the result of which was a revaluation surplus on the fair value of USD 0.42 million or equivalent to approximately Baht 13.76 million (31 December 2016: surplus on the fair value of USD 0.30 million or equivalent to approximately Baht 10.70 million). The gain from the change in the fair value from 31 December 2016 approximately Baht 3.06 million (2016: decreased by approximately Baht 3.58 million) were recognised in the income statement.

## 8.2 Available-for-sale securities

In addition, this subsidiary has invested in corporate bonds listed on the overseas stock exchanges and local and overseas quoted bonds through three overseas banks. These investments are classified as available-for-sale investments. During the current year, the subsidiary additionally invested in the overseas listed corporate bonds and the overseas quoted bonds, disposed and redeemed some of the listed corporate bonds and overseas quoted bonds, resulting in net gain of USD 0.52 million or equivalent to approximately Baht 17.32 million (2016: net loss of USD 0.61 million or equivalent to approximately Baht 21.47 million).

As at 31 December 2017, the subsidiary had assessed the fair value of the bonds by referring to the values quoted by the above three banks which are comparable to quoted prices, the result of which was a revaluation surplus on the fair value of USD 6.57 million or equivalent to approximately Baht 214.57 million (31 December 2016: surplus on the fair value of USD 2.93 million or equivalent to approximately Baht 104.91 million). The gain from the change in the fair value from 31 December 2016 approximately of Baht 109.66 million (2016: gain of approximately Baht 175.28 million) were recognised as other comprehensive income in the statement of comprehensive income.



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 9. Trade and other receivables

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Age of receivable				
Trade receivables - subsidiary companies				
Not yet due	-	-	265	21,027
Past due				
Up to 3 months	-	-	628	14,442
3 - 6 months	-	-	138	6,684
6 - 12 months	-	-	1,304	2,137
Over 12 months	-	-	5,323	3,647
Total trade receivables - subsidiary companies (Note 7)	-	-	7,658	47,937
Trade receivables - unrelated parties				
Not yet due	3,065,095	2,882,778	1,010,684	1,056,897
Past due				
Up to 3 months	647,929	522,025	290,552	204,519
3 - 6 months	14,756	18,549	2,728	831
6 - 12 months	681	26,032	94	406
Over 12 months	9,130	4,443	99	101
Total trade receivables - unrelated parties	3,737,591	3,453,827	1,304,157	1,262,754
Less: Allowance for doubtful accounts	(11,159)	(19,855)	-	-
Total trade receivables - unrelated parties - net	3,726,432	3,433,972	1,304,157	1,262,754
Total trade receivables - net	3,726,432	3,433,972	1,311,815	1,310,691
Input tax receivables	55,970	73,442	2,947	2,316
Other receivables - related parties (Note 7)	76	76	-	-
Other receivables - unrelated parties	121,700	127,158	5,408	7,115
Total other receivables	177,746	200,676	8,355	9,431
Trade and other receivables - net	3,904,178	3,634,648	1,320,170	1,320,122

## 10. Inventories

(Unit: Thousand Baht)

	Consolidated financial statements					
	Cost		Reduce cost to net realisable value		Inventories - net	
	2017	2016	2017	2016	2017	2016
Finished goods	746,088	1,057,607	(15,467)	(95,450)	730,621	962,157
Work in process	450,073	459,993	(3,366)	-	446,707	459,993
Raw materials	2,991,451	2,292,697	(125,722)	(118,097)	2,865,729	2,174,600
Goods in transit	39,817	54,376	-	-	39,817	54,376
Total	4,227,429	3,864,673	(144,555)	(213,547)	4,082,874	3,651,126

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Thousand Baht)

	Separate financial statements					
	Cost		Reduce cost to net realisable value		Inventories - net	
	2017	2016	2017	2016	2017	2016
Finished goods	448,286	386,451	(14,013)	(81,706)	434,273	304,745
Work in process	160,111	173,688	-	-	160,111	173,688
Raw materials	1,207,900	839,136	(58,066)	(60,393)	1,149,834	778,743
Goods in transit	2,694	28,168	-	-	2,694	28,168
Total	1,818,991	1,427,443	(72,079)	(142,099)	1,746,912	1,285,344

Detail movement of reduce cost to net realisable value are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Balance at the beginning of the year	(213,547)	(267,884)	(142,099)	(233,357)
Add: Reduce cost during the year	(116,783)	(159,214)	(87,254)	(102,116)
Less: Write off obsolete and damaged inventories during the year	114,277	148,364	108,016	148,363
Less: Reverse during the year	69,228	65,187	49,258	45,011
Add: Translation adjustment	2,270	-	-	-
Balance at the ending of the year	(144,555)	(213,547)	(72,079)	(142,099)

## 11. Investments in subsidiary companies

Details of investments in subsidiaries as presented in separate financial statements are as follows:

(Unit: Thousand Baht)

Company's name	Paid up capital		Shareholding percentage		Cost		Dividend received during the year	
	2017	2016	2017 Percent	2016 Percent	2017	2016	2017	2016
Hana Semiconductor (Ayutthaya) Company Limited	1,200,000	1,200,000	58	58	2,142,910	2,142,910	630,000	280,000
Hana Semiconductor (BKK) Company Limited	1,000,000	1,000,000	100	100	1,011,100	1,011,100	300,000	600,000
Omac Sales Limited	325	325	100	100	273,492	273,492	-	-
Hana Microelectronics (Cambodia) Company Limited	155,947	155,947	100	100	155,947	155,947	-	-
Hana Microelectronics International Company Limited	-	-	100	100	-	-	-	-
Hana Microelectronics Investment Company Limited	-	-	100	100	-	-	-	-
Hana Technologies Group Limited	-	-	100	100	-	-	-	-
Total investments in subsidiary companies					3,583,449	3,583,449	930,000	880,000

In July 2017, Hana Microelectronics Enterprise Company Limited, an overseas subsidiary company, has invested in 200,000 shares of Power Master Semiconductor Company Limited, a newly established company located in South Korea and principally engaged in semiconductor business. The investment of USD 0.09 million or equivalent to Baht 2.91 million, represents 20% of its registered capital and 100% of its issued and paid-up capital.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 12. Long-term fixed deposits with financial institution

As at 31 December 2017 and 2016, the long-term fixed deposits with financial institution of an overseas subsidiary are as follows:

Consolidated financial statements						
Interest rate	Period		Balance as at			
	Effective date	Maturity date	31 December 2017		31 December 2016	
			China Yuan	Equivalent to Baht	China Yuan	Equivalent to Baht
Percent			(Million Yuan)	(Million Baht)	(Million Yuan)	(Million Baht)
4.55	5 March 2015	5 March 2018	50.7	254.2	50.7	261.1
3.75	20 April 2015	20 April 2018	10.1	50.8	10.1	52.2
2.10	10 April 2017	10 April 2018	32.0	160.4	-	-
Total			92.8	465.4	60.8	313.3

(Unit: Thousand Baht)

	2017	2016
Long-term fixed deposits with financial institution	465,391	313,262
Less: Portion due within one year	(465,391)	-
Long-term fixed deposits with financial institution - net of current portion	-	313,262

## 13. Other long-term investments

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	Cost/Amortised cost		Cost/Amortised cost	
	2017	2016	2017	2016
<u>Other long-term investments</u>				
Available-for-sale securities				
Local marketable equity securities	97	97	97	97
	97	97	97	97
Held-to-maturity debt securities				
Overseas debt securities	65,362	-	-	-
	65,362	-	-	-
Other investment				
Overseas equity securities	9,804	-	-	-
Less: Allowance for impairment loss	(9,804)	-	-	-
	-	-	-	-
Total long-term investments - net	65,459	97	97	97

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

During the third quarter of 2017, Hana Microelectronics International Company Limited, an overseas subsidiary company, has invested in a 3-year fund linked capital return note issued by an overseas bank amounting to USD 2 million or equivalent to Baht 65.36 million, with maturity date on 14 July 2020. The parties mutually agreed that the subsidiary will receive the principal amount of USD 2 million at the maturity date and gain from rise of fund price, between the reference price at initial valuation date and the final closing index of the fund upon maturity date at the agreed rate in a case that the closing index of the fund upon maturity date is higher than the initial reference price. This investment is classified as investment in held-to-maturity debt securities.

## 14. Investment property

The net book value of investment property, representing land, as at 31 December 2017 and 2016 are presented below.

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cost	72,304	72,304	72,304	72,304
Net book value	72,304	72,304	72,304	72,304

A reconciliation of the net book value of investment property for the years 2017 and 2016 is presented below.

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Net book value at beginning of year	72,304	-	72,304	-
Acquisition of land	-	72,304	-	72,304
Net book value at end of year	72,304	72,304	72,304	72,304

Fair value of the investment property based on market price as at 31 December 2017 and 2016 amounted to approximately Baht 96 million.



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 15. Property, plant and equipment

(Unit: Thousand Baht)

	Consolidated financial statements								
	Land	Buildings	Leasehold improvement	Installation	Machinery and equipment	Office furniture and equipment	Vehicles	Construction in progress and machinery under installation	Total
<b>Cost</b>									
As at 1 January 2016	356,248	3,640,249	104,185	824,310	12,300,709	565,108	48,162	437,959	18,276,930
Additions	-	36,457	8,055	5,763	365,390	19,532	9,993	356,194	801,384
Disposals	-	(40)	-	(12)	(326,669)	(4,548)	(5,376)	(203,334)	(539,979)
Transfer in (out)	-	-	-	28,817	371,113	14,148	3,043	(417,121)	-
Translation adjustment	-	(55,679)	(5,302)	-	(201,764)	(4,606)	(953)	(13,608)	(281,912)
As at 31 December 2016	356,248	3,620,987	106,938	858,878	12,508,779	589,634	54,869	160,090	18,256,423
Additions	-	4,990	14,998	19,967	485,370	32,201	6,760	547,149	1,111,435
Disposals	-	(17)	-	-	(278,786)	(10,412)	(7,272)	-	(296,487)
Transfer in (out)	-	2,832	-	39,075	367,889	6,729	-	(416,525)	-
Translation adjustment	-	(54,455)	(5,073)	-	(102,394)	(3,252)	(446)	(16,498)	(182,118)
As at 31 December 2017	356,248	3,574,337	116,863	917,920	12,980,858	614,900	53,911	274,216	18,889,253
<b>Accumulated depreciation</b>									
As at 1 January 2016	-	1,249,449	74,889	586,535	8,881,830	469,790	30,850	-	11,293,343
Depreciation for the year	-	175,611	6,740	48,836	887,402	44,860	6,535	-	1,169,984
Accumulated depreciation for disposed assets	-	(3)	-	(7)	(273,966)	(4,171)	(5,138)	-	(283,285)
Translation adjustment	-	(22,871)	(3,389)	-	(118,272)	(3,569)	(456)	-	(148,557)
As at 31 December 2016	-	1,402,186	78,240	635,364	9,376,994	506,910	31,791	-	12,031,485
Depreciation for the year	-	175,565	8,473	49,468	791,277	40,012	7,237	-	1,072,032
Accumulated depreciation for disposed assets	-	(17)	-	-	(252,099)	(9,264)	(6,680)	-	(268,060)
Translation adjustment	-	(12,127)	(4,177)	-	(67,424)	(2,706)	(210)	-	(86,644)
As at 31 December 2017	-	1,565,607	82,536	684,832	9,848,748	534,952	32,138	-	12,748,813
<b>Allowance for impairment loss</b>									
As at 1 January 2016	-	-	-	763	81,468	17	-	-	82,248
Increase during the year	-	-	-	-	211	-	-	-	211
Reversal allowance for impairment during the year	-	-	-	-	(2,644)	-	-	-	(2,644)
Translation adjustment	-	-	-	-	(366)	-	-	-	(366)
As at 31 December 2016	-	-	-	763	78,669	17	-	-	79,449
Increase during the year	-	-	-	-	(211)	-	-	-	(211)
Reversal allowance for impairment during the year	-	-	-	-	(200)	-	-	-	(200)
Translation adjustment	-	-	-	-	(4,470)	-	-	-	(4,470)
As at 31 December 2017	-	-	-	763	73,788	17	-	-	74,568
<b>Net book value</b>									
As at 31 December 2016	356,248	2,218,801	28,698	222,751	3,053,116	82,707	23,078	160,090	6,145,489
As at 31 December 2017	356,248	2,008,730	34,327	232,325	3,058,322	79,931	21,773	274,216	6,065,872
<b>Depreciation for the year</b>									
2016 (Baht 951 million included in manufacturing cost, and the balance in administrative expenses)									1,169,984
2017 (Baht 877 million included in manufacturing cost, and the balance in administrative expenses)									1,072,032

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Thousand Baht)

	Separate financial statements							
	Land	Buildings	Installation	Machinery and equipment	Office furniture and equipment	Vehicles	Construction in progress and machinery under installation	Total
<b>Cost</b>								
As at 1 January 2016	249,865	1,815,430	344,123	2,817,143	182,867	18,410	92,848	5,520,686
Additions	-	-	3,223	30,187	8,684	6,249	223,753	272,096
Disposals	-	(40)	(12)	(92,640)	(538)	(2,989)	-	(96,219)
Transfer in (out)	-	-	22,282	253,613	14	-	(275,909)	-
As at 31 December 2016	249,865	1,815,390	369,616	3,008,303	191,027	21,670	40,692	5,696,563
Additions	-	3,540	19,967	23,074	10,350	-	399,937	456,868
Disposals	-	(16)	-	(55,573)	(265)	(3,600)	-	(59,454)
Transfer in (out)	-	-	20,965	273,125	10	-	(294,100)	-
As at 31 December 2017	249,865	1,818,914	410,548	3,248,929	201,122	18,070	146,529	6,093,977
<b>Accumulated depreciation</b>								
As at 1 January 2016	-	538,853	170,566	2,027,433	141,174	14,130	-	2,892,156
Depreciation for the year	-	85,821	30,276	219,893	14,916	2,181	-	353,087
Accumulated depreciation for disposed assets	-	(3)	(8)	(88,459)	(516)	(2,989)	-	(91,975)
As at 31 December 2016	-	624,671	200,834	2,158,867	155,574	13,322	-	3,153,268
Depreciation for the year	-	85,814	31,307	223,740	14,655	2,140	-	357,656
Accumulated depreciation for disposed assets	-	(16)	-	(51,188)	(256)	(3,008)	-	(54,468)
As at 31 December 2017	-	710,469	232,141	2,331,419	169,973	12,454	-	3,456,456
<b>Allowance for impairment loss</b>								
As at 1 January 2016	-	-	613	4,664	-	-	-	5,277
Increase during the year	-	-	-	210	-	-	-	210
Reversal allowance for impairment during the year	-	-	-	(319)	-	-	-	(319)
As at 31 December 2016	-	-	613	4,555	-	-	-	5,168
Increase during the year	-	-	-	(210)	-	-	-	(210)
Reversal allowance for impairment during the year	-	-	-	-	-	-	-	-
As at 31 December 2017	-	-	613	4,345	-	-	-	4,958
<b>Net book value</b>								
As at 31 December 2016	249,865	1,190,719	168,169	844,881	35,453	8,348	40,692	2,538,127
As at 31 December 2017	249,865	1,108,445	177,794	913,165	31,149	5,616	146,529	2,632,563

## Depreciation for the year

2016 (Baht 220 million included in manufacturing cost, and the balance in administrative expenses) 353,087

2017 (Baht 223 million included in manufacturing cost, and the balance in administrative expenses) 357,656

As at 31 December 2017, certain property and equipment items have been fully depreciated but are still in use. The gross carrying amount, before deducting accumulated depreciation and allowance for impairment loss, of those assets amounted to approximately Baht 8,990 million (2016: Baht 7,676 million) and for the Company amounted to approximately Baht 1,977 million (2016: Baht 1,716 million).

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 16. Land leasehold rights

During the year 2013, an overseas subsidiary entered into land leasehold agreements for building of factory and dormitory for its employees for the period of 50 years.

(Unit: Thousand Baht)

	Consolidated financial statements	
	2017	2016
Cost	153,418	153,418
Less: Accumulated amortisation	(11,991)	(9,045)
Translation adjustment	(10,545)	2,247
Net book value	130,882	146,620
Amortisation for the year	2,946	3,084

## 17. Other intangible assets

Details of intangible assets which are computer software are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements	Separate financial statements
<b>Cost</b>		
As at 1 January 2016	60,965	19,299
Additions	25,033	15,046
Translation adjustment	(1,387)	-
As at 31 December 2016	84,611	34,345
Additions	18,475	10,930
Translation adjustment	(533)	-
As at 31 December 2017	102,553	45,275
<b>Accumulated amortisation</b>		
As at 1 January 2016	38,611	7,282
Amortisation for the year	6,931	2,085
Translation adjustment	(1,046)	-
As at 31 December 2016	44,496	9,367
Amortisation for the year	8,495	3,688
Translation adjustment	(380)	-
As at 31 December 2017	52,611	13,055
<b>Net book value</b>		
As at 31 December 2016	40,115	24,978
As at 31 December 2017	49,942	32,220
<b>Amortisation for the year</b>		
2016	6,931	2,085
2017	8,495	3,688

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 18. Trade and other payables

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Trade payables - subsidiary companies (Note 7)	-	-	241,780	232,088
Trade payables - unrelated parties	2,242,642	2,150,768	733,413	805,401
Advance received from customers	175,969	203,663	16,956	17,608
Other payables for purchase of machinery	145,477	115,924	59,571	28,586
Accrued expenses	356,877	318,031	28,292	28,116
Total trade and other payables	2,920,965	2,788,386	1,080,012	1,111,799

## 19. Short-term provisions

(Unit: Thousand Baht)

	Consolidated financial statements	
	Product warranty	Total
As at 1 January 2016	347,248	347,248
Increase during the year	12,797	12,797
Translation adjustment	(1,738)	(1,738)
As at 31 December 2016	358,307	358,307
Translation adjustment	(31,498)	(31,498)
As at 31 December 2017	326,809	326,809



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 20. Provision for long-term employee benefits

Provision for long-term employee benefits, which represents compensation payable to employees after they retire, was as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Provision for long-term employee benefits at beginning of year	454,880	534,440	239,914	279,200
Included in profit or loss:				
Current service cost	21,759	33,143	8,478	17,864
Interest cost	14,297	13,578	7,375	6,858
Included in other comprehensive income:				
Actuarial (gain) loss arising from				
Demographic assumptions changes	(204,340)	(70,777)	(162,696)	(28,424)
Financial assumptions changes	34,815	(24,417)	21,098	(27,609)
Experience adjustments	15,612	(18,444)	18,266	3,426
Benefits paid during the year	(9,721)	(12,644)	(4,325)	(11,401)
<b>Provision for long-term employee benefits at end of year</b>	<b>327,302</b>	<b>454,879</b>	<b>128,110</b>	<b>239,914</b>

Line items in profit or loss under which long-term employee benefit expenses are recognised are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cost of sales	6,176	10,906	3,127	6,074
Selling and administrative expenses	29,880	35,815	12,726	18,648
<b>Total expenses recognised in profit or loss</b>	<b>36,056</b>	<b>46,721</b>	<b>15,853</b>	<b>24,722</b>

The Company and its subsidiary expect to pay Baht 11.9 million of long-term employee benefits during the next year (Separate financial statements: Baht 9.1 million) (2016: Baht 12.7 million, separate financial statements: Baht 12.2 million).

As at 31 December 2017, the weighted average duration of the liabilities for long-term employee benefit is 14 years (Separate financial statements: 14 years) (2016: 15 years, separate financial statements: 16 years).

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

Significant actuarial assumptions are summarised below:

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	(% per annum)	(% per annum)	(% per annum)	(% per annum)
Discount rate	2.9%	3.4%	2.9%	3.4%
Future salary increase rate (depending on age)	5.0%	5.0%	5.0%	5.0%
Staff turnover rate	9.3% - 38.8%	10.1% - 32.7%	9.3% - 30.4%	10.1% - 28.4%

The result of sensitivity analysis for significant assumptions that affect the present value of the long-term employee benefit obligation as at 31 December 2017 and 2016 are summarised below:

(Unit: Million Baht)

	31 December 2017			
	Consolidated financial statements		Separate financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(40)	48	(16)	19
Salary increase rate	47	(40)	19	(16)
	Increase 5%	Decrease 5%	Increase 5%	Decrease 5%
Turnover rate	(79)	116	(48)	78

(Unit: Million Baht)

	31 December 2016			
	Consolidated financial statements		Separate financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(62)	85	(34)	42
Salary increase rate	74	(62)	42	(35)
	Increase 5%	Decrease 5%	Increase 5%	Decrease 5%
Turnover rate	(12)	14	(4)	4

## 21. Statutory reserve

Pursuant to Section 116 of the Public Limited Companies Act B.E. 2535, the Company is required to set aside to a statutory reserve at least 5 percent of its net income after deducting accumulated deficit brought forward (if any), until the reserve reaches 10 percent of the registered capital. The statutory reserve is not available for dividend distribution.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 22. Expenses by nature

Significant expenses classified by nature are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Raw materials and consumables used	13,237,786	13,069,503	5,297,761	5,143,270
Changes in inventories of finished goods and work in process	244,822	(185,461)	(115,951)	(61,967)
Salaries and wages and other employee benefits	3,618,816	3,450,794	1,367,781	1,267,104
Management benefit expenses	89,773	84,154	14,272	14,348
Depreciation and amortisation expenses	1,083,473	1,179,999	361,344	355,172
Loss on exchange	-	-	8,939	-

## 23. Income tax

Income tax expenses for the years ended 31 December 2017 and 2016 are made up as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Current income tax:</b>				
Current income tax charge	146,423	77,201	7,592	14,441
Adjustment in respect of income tax of previous year	(283)	62,360	(986)	10,327
<b>Deferred tax:</b>				
Relating to origination and reversal of temporary differences	(14,166)	(2,345)	2,777	(1,915)
Effect of the change in tax rate	-	-	-	-
<b>Income tax expense reported in the statement of income</b>	<b>131,974</b>	<b>137,216</b>	<b>9,383</b>	<b>22,853</b>

The amounts of income tax relating to each component of other comprehensive income for the years ended 31 December 2017 and 2016 are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Deferred tax relating to loss on actuarial gains and losses	785	613	785	613
Deferred tax relating to exchange differences on translation of financial statements in foreign currency	214	652	-	-
	<b>999</b>	<b>1,265</b>	<b>785</b>	<b>613</b>

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

The reconciliation between accounting profit and income tax expenses is shown below.

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Accounting profit before tax	3,019,705	2,242,635	1,883,119	1,797,392
Applicable tax rate	0 - 36%	0 - 25%	20%	20%
Accounting profit before tax multiplied by income tax rate	508,123	359,849	376,624	359,478
Adjustment in respect of income tax of previous year	(283)	62,360	(986)	10,327
Effects of:				
Promotional privileges (Note 25)	(318,413)	(284,607)	(176,237)	(162,227)
Dividend income not subject to tax	(11)	(11)	(186,011)	(176,011)
Income not subject to tax	(1)	(2)	-	-
Unused temporary differences and tax losses	1,652	10,615	-	-
Utilised tax losses carry forward	(52,304)	(1,787)	-	-
Non-deductible expenses	762	5,082	-	1,010
Additional expense deductions allowed	(8,620)	(9,345)	-	(1,177)
Others	1,069	(4,938)	(4,007)	(8,547)
Total	(375,866)	(284,993)	(366,255)	(346,952)
Income tax expenses reported in the statement of income	131,974	137,216	9,383	22,853

The components of deferred tax assets and deferred tax liabilities are as follows:

(Unit: Thousand Baht)

	Statements of financial position			
	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Deferred tax assets</b>				
Allowance for diminution in value of inventories	7,322	1,657	458	1,657
Allowance for assets impairment	32	60	32	60
Provision for long-term employee benefits	815	2,797	815	2,797
Provision for vacation	249	147	86	147
Accrued expenses	24,182	10,679	-	-
Consignment inventory	-	292	-	292
Total	32,600	15,632	1,391	4,953
<b>Deferred tax liabilities</b>				
Accumulated depreciation - plant and equipment	(5,890)	(2,089)	-	-
Total	(5,890)	(2,089)	-	-
<b>Deferred tax assets - net</b>	<b>26,710</b>	<b>13,543</b>	<b>1,391</b>	<b>4,953</b>

As at 31 December 2017, the subsidiaries had deductible temporary differences and unused tax losses totaling Baht 180 million (2016: Baht 294 million), on which deferred tax assets have not been recognised as the subsidiaries believe future taxable profits may not be sufficient to allow utilisation of the temporary differences and unused tax losses. The unused tax losses will expire by the year 2025.



## 24. Earnings per share

Basic earnings per share is calculated by dividing profit for the year attributable to equity holders of the Company (excluding other comprehensive income) by the weighted average number of ordinary shares in issue during the year.

## 25. Promotional privileges

The Company and its subsidiaries have received promotional privileges under the Investment Promotion Act B.E. 2520 as approved by the Board of Investment. Subject to certain imposed conditions, significant promotional privileges received with respect to tax are as follows:

Particulars	The Company							
	1328(2)/ 2548	2138(2)/ 2550	1887(1)/ 2552	1234(1)/ 2555	2620(1)/ 2555	2199(2)/ 2557	59-0178-0-00-1-0	60-1432-1-00-1-0
1. Certificate No.								
2. Promotional privileges for	Production of PCBA, RFID, TAG reader	Production of PCBA	Production of Semiconductor i.e. Wireless Sensor	Production of Integrated Circuit (IC)	Production of Electronic Control Unit	Production of PCBA	Production of PCBA	Production of Telecommunication and Wafer Die Test
3. The significant privileges are								
3.1 Exemption from corporate income tax on net income derived from the promoted operation and exemption from income tax on dividends paid from the promoted operations which are tax exempted throughout the period in which the corporate income tax is exempted.	8 years (expired) (tax exempted according with investment)	8 years (expired) (tax exempted according with investment)	8 years	8 years	8 years	8 years (tax exempted according with investment)	8 years (tax exempted according with investment)	6 years (tax exempted according with investment)
3.2 5% allowance of the increment in export income over the preceding years.	-	-	-	-	-	-	-	-
3.3 50 % reduction of the normal corporate income tax rate for net income derived after the expiry date in 3.1	5 years	5 years	5 years	5 years	5 years	5 years	5 years	-
3.4 Exemption from import duty on machinery as approved by the Board.	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted
3.5 2 times deduction of transportation, electricity and water expenses from the first earning operating income	10 years	10 years	10 years	10 years	10 years	10 years	10 years	-
4. Date of first earning operating income	24 March 2006	3 December 2007	2 December 2009	26 February 2016	3 January 2014	3 April 2015	Had not yet started utilising the privileges	Had not yet started utilising the privileges

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

Particulars	Subsidiary						
	Hana Semiconductor (Ayutthaya) Company Limited						
1. Certificate No.	1817(2)/2550	1034(2)/2552	1458(1)/2553	2371(1)/2553	5003(4)/2556	2687(1)/2556	59-1374-1-00-1-0 60-0686-1-00-1-0
2. Promotional privileges for	Production of Integrated Circuit (IC)	Production of Wafer Saw Integrated Circuit (IC) and Integrated Circuit Tested (IC Tested)	Production of Integrated Circuit (IC)	Production of Integrated Circuit (IC)	Production of Integrated Circuit (IC) and Integrated Module	Production of Semi conductor	Production of Integrated Circuit (IC)
3. The significant privilege are	7 years (expired)	8 years	8 years	8 years	4 years (expired)	8 years	6 years
3.1 Exemption from corporate income tax on net income derived from the promoted operation and exemption from income tax on dividends paid from the promoted operations which are tax exempted throughout the period in which the corporate income tax is exempted.	-	-	-	-	-	-	-
3.2 5% allowance of the increment in export income over the preceding years.	-	-	-	-	-	-	-
3.3 50% reduction of the normal corporate income tax rate for net income derived after the expiry date in 3.1	-	5 years	5 years	5 years	-	5 years	-
3.4 Exemption from import duty on machinery as approved by the Board.	Granted	Granted	Granted	Granted	Granted	Granted	Granted
3.5 2 times deduction of transportation, electricity and water expenses from the first earning operating income	-	10 years	10 years	10 years	-	10 years	-
4. Date of first earning operating income	1 September 2010	2 January 2013	10 May 2010	28 November 2014	3 January 2013	Had not yet started utilising the privileges.	Had not yet started utilising the privileges.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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The Company and its subsidiaries have operating revenues for the years ended 31 December 2017 and 2016, divided between promoted and non-promoted operations, are summarised below.

(Unit: Thousand Baht)

	Consolidated financial statements					
	Promoted operations		Non-promoted operations		Total	
	2017	2016	2017	2016	2017	2016
Sales						
Domestic sales	193,000	165,691	847	9,775	193,847	175,466
Export sales	15,354,818	14,579,952	6,002,196	5,767,206	21,357,014	20,347,158
Total sales	15,547,818	14,745,643	6,003,043	5,776,981	21,550,861	20,522,624

(Unit: Thousand Baht)

	Separate financial statements					
	Promoted operations		Non-promoted operations		Total	
	2017	2016	2017	2016	2017	2016
Sales						
Domestic sales	31,835	25,253	847	9,775	32,682	35,028
Export sales	8,165,694	7,884,467	785	1,625	8,166,479	7,886,092
Total sales	8,197,529	7,909,720	1,632	11,400	8,199,161	7,921,120

## 26. Operating segments

Operating segment information is reported in a manner consistent with the internal reports that are regularly reviewed by the chief operating decision maker in order to make decisions about the allocation of resources to the segment and assess its performance.

For management purposes, the Company and its subsidiaries are organised into business units based on their products and have two reportable segments as follows:

1. The Printed Circuit Board Assembly (PCBA) Segment, which produces and sells Printed Circuit Board Assembly (PCBA).
2. The Integrated Circuit (IC) Segment, which produces and sells Integrated Circuit (IC).

No operating segments have been aggregated to from the above reportable operating segments.

The chief operating decision maker monitors the operating results of the business units separately for the purpose of making decisions about resource allocation and assessing performance. Segment performance is measured based on operating profit or loss and total assets and on a basis consistent with that used to measure operating profit or loss and total assets in the financial statements.

The basis of accounting for any transactions between reportable segments is consistent with that for third party transactions.

The following tables present revenue, profit and total assets information regarding the Company and its subsidiaries' operating segments for the year ended 31 December 2017 and 2016, respectively.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

(Unit: Million Baht)

Year ended 31 December 2017	Printed Circuit Board Assembly (PCBA)	Integrated Circuit (IC)	Other	Total reportable segments	Eliminations	Total
Revenue from external customers	11,741	8,653	1,157	21,551	-	21,551
Inter-segment revenue	3,694	917	1,379	5,990	(5,990)	-
Total revenue	15,435	9,570	2,536	27,541	(5,990)	21,551
Segment profit	1,737	1,058	415	3,210	4	3,214
Interest revenue						206
Other income						296
Gain on exchange						531
Selling expenses						(156)
Administrative expenses						(1,064)
Finance cost						(7)
Income tax expenses						(132)
Profit for the year						2,888
Segment total assets						
Additions to property, plant and equipment	577	556	6	1,139	-	1,139

(Unit: Million Baht)

Year ended 31 December 2016	Printed Circuit Board Assembly (PCBA)	Integrated Circuit (IC)	Other	Total reportable segments	Eliminations	Total
Revenue from external customers	11,441	8,133	949	20,523	-	20,523
Inter-segment revenue	3,955	861	1,315	6,131	(6,131)	-
Total revenue	15,396	8,994	2,264	26,654	(6,131)	20,523
Segment profit	1,738	897	219	2,854	22	2,876
Interest revenue						202
Other income						260
Gain on exchange						79
Selling expenses						(160)
Administrative expenses						(1,007)
Finance cost						(8)
Income tax expenses						(137)
Profit for the year						2,105
Segment total assets						
Additions to property, plant and equipment	388	391	26	805	(4)	801



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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## Geographic information

Revenue from external customers is based on locations of the customers.

(Unit: Thousand Baht)

	2017	2016
Revenue from external customers		
Malaysia	7,043,089	6,787,085
China	3,266,205	3,519,310
United States of America	2,907,632	2,167,921
Singapore	2,101,444	2,026,456
Hong Kong	1,751,694	2,503,837
Others	4,480,797	3,518,015
Total	21,550,861	20,522,624
Non-current assets (other than deferred tax assets)		
Thailand	4,519,223	4,345,888
China	1,324,995	1,786,561
Cambodia	459,413	523,370
Hong Kong	135,595	5,160
United States of America	38,601	64,324
Others	5,103	4,357
Total	6,482,930	6,729,660

## Major customers

For the year 2017, the Company and its subsidiaries have revenue from 5 major customers in amount of Baht 10,625 million, arising from sales by the Printed Circuit Board Assembly (PCBA) segment and the Integrated Circuit (IC) segment, (2016: Baht 9,541 million derived from 5 major customers, arising from sales by the Printed Circuit Board Assembly (PCBA) segment and the Integrated Circuit (IC) segment).

## 27. Provident fund

The Company, the subsidiaries and their employees have jointly established a provident fund in accordance with the Provident Fund Act B.E. 2530. Both employees and the Company or the subsidiaries contribute to the fund monthly at the rates of 3.0 - 7.5 percent of basic salary. The fund, which is managed by SCB Asset Management Company Limited, will be paid to employees upon terminating in accordance with the fund rules. The contributions for the year 2017 amounting to approximately Baht 73 million (2016: Baht 70 million) and for the Separate financial statements amounting to approximately Baht 39 million (2016: Baht 37 million) were recognised as expenses.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 28. Dividend paid

During the years 2017 and 2016, the Company and its subsidiaries had dividend payments as follows:

	Approved by	Total dividends (Million Baht)	Dividend per share (Baht)
<b>The Company</b>			
<u>For the year 2017</u>			
Dividends on 2016 income and unappropriated retained earnings	Annual General Meeting of the shareholders on 28 April 2017 Board of Directors' Meeting on 5 October 2017	805	1.00
Interim dividends in respect of the income for the period from 1 January 2017 to 30 June 2017		805	1.00
Total for the year 2017		1,610	2.00
<u>For the year 2016</u>			
Dividends on 2015 income and unappropriated retained earnings	Annual General Meeting of the shareholders on 29 April 2016 Board of Directors' Meeting on 11 October 2016	805	1.00
Interim dividends in respect of the income for the period from 1 January 2016 to 30 June 2016		805	1.00
Total for the year 2016		1,610	2.00
<b>Subsidiary companies</b>			
<b>Hana Semiconductor (Ayutthaya) Company Limited</b>			
<u>For the year 2017</u>			
Dividends on the unappropriated retained earnings	Annual General Meeting of the shareholders on 17 April 2017 Board of Directors' Meeting on 4 October 2017	720	6.00
Interim dividends in respect of the income for the period from 1 January 2017 to 31 August 2017 and unappropriated retained earnings		360	3.00
Total for the year 2017		1,080	9.00
<u>For the year 2016</u>			
Dividends on the unappropriated retained earnings	Annual General Meeting of the shareholders on 18 April 2016	480	4.00
Total for the year 2016		480	4.00
<b>Hana Semiconductor (BKK) Company Limited</b>			
<u>For the year 2017</u>			
Interim dividends in respect of the income for the period from 1 January 2017 to 31 August 2017 and unappropriated retained earnings	Board of Directors' Meeting on 4 October 2017	300	3.00
Total for the year 2017		300	3.00
<u>For the year 2016</u>			
Dividends on the unappropriated retained earnings	Annual General Meeting of the shareholders on 28 April 2016	600	6.00
Total for the year 2016		600	6.00

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 29. Commitments and contingent liabilities

### 29.1 Capital commitments

As at 31 December 2017, the Company and its subsidiaries had capital commitments relating to acquisitions of machinery totaling USD 4.8 million or equivalent to Baht 174 million (2016: USD 2.3 million or equivalent to Baht 80 million) and the Company only of approximately Baht 91 million (2016: Baht 54 million).

### 29.2 Operating lease commitments

The Company and its subsidiaries have entered into the lease agreements in respect of the lease of equipment, lease of land and the lease of building, factory and services. The terms of the agreements are generally between 1 and 3 years.

Future minimum lease payments required under these operating leases contracts were as follows.

(Unit: Million Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Payable:				
In up to 1 year	45.3	17.1	27.2	0.6
In over 1 and up to 3 year	17.8	2.3	3.6	0.2

### 29.3 Marketing supportive service agreement

Since the year 2001, the Company and three subsidiary companies entered into marketing supportive service agreement with an overseas subsidiary company. Under that agreement, the Company and the three subsidiary companies have to pay service fees to that subsidiary company at the rates stipulated in the agreement.

### 29.4 Sale representative agreements

Since the year 2015, an overseas subsidiary entered into sale representative agreement with an unrelated company with the annual service fees of approximately USD 0.6 million.

### 29.5 Guarantees

As at 31 December 2017, there were outstanding bank guarantees of approximately Baht 56 million (2016: Baht 54 million) and the Company only of approximately Baht 26 million (2016: Baht 24 million) issued by the banks on behalf of the Company and its subsidiaries in respect of certain performance bonds as required in the normal course of business of the Company and the subsidiaries to guarantee electricity uses, among others.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 30. Fair value hierarchy

As at 31 December 2017 and 2016, the Company and the subsidiaries had the assets and liabilities that were measured at fair value using different levels of inputs as follows:

(Unit: Thousand Baht)

	31 December 2017		
	Consolidated Financial Statements		
	Level 1	Level 2	Total
<b>Financial assets measured at fair value</b>			
Held for trade investments			
Equity instruments	177,102	-	177,102
Unsecured debt instruments	24,230	-	24,230
Available-for-sale investments			
Marketable corporate bonds	1,423,490	-	1,423,490
Quoted bonds	870,441	-	870,441
Derivatives			
Foreign currency forward contracts	-	89,424	89,424
Investment property	-	96,405	96,405

(Unit: Thousand Baht)

	31 December 2016		
	Consolidated Financial Statements		
	Level 1	Level 2	Total
<b>Financial assets measured at fair value</b>			
Held for trade investments			
Equity instruments	188,989	-	188,989
Unsecured debt instruments	25,338	-	25,338
Available-for-sale investments			
Marketable corporate bonds	1,460,778	-	1,460,778
Quoted bonds	1,093,726	-	1,093,726
Investment property	-	96,405	96,405
<b>Financial liabilities measured at fair value</b>			
Derivatives			
Foreign currency forward contracts	-	62,962	62,962



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 31. Financial instruments

### 31.1 Financial risk management

The Company's and its subsidiaries' financial instruments, as defined under Thai Accounting Standard No. 107 "Financial Instruments: Disclosure and Presentations", principally comprise cash and cash equivalents, trade and other receivables, investments and trade and other payables. The financial risks associated with these financial instruments and how they are managed is described below.

#### *Credit risk*

The Company and its subsidiaries are exposed to credit risk primarily with respect to trade and other receivables. The Company and its subsidiaries manage the risk by adopting appropriate credit control policies and procedures and therefore do not expect to incur material financial losses. In addition, the Company and its subsidiaries do not have high concentrations of credit risk. The maximum exposure to credit risk is limited to the carrying amounts of receivables as stated in the statement of financial position.

#### *Interest rate risk*

The Company's and its subsidiaries' exposure to interest rate risk relates primarily to their cash at financial institutions and short-term investments. Most of their financial assets and liabilities bear floating interest rates, or fixed interest rates which are close to the market rate.

As at 31 December 2017 and 2016, significant financial assets and liabilities classified by type of interest rates are summarised in the table below, with those financial assets and liabilities that carry fixed interest rates further classified based on the maturity dates, or the re-pricing date if this occurs before the maturity date.

	Consolidated financial statements as at 31 December 2017					
	Fixed interest rate		Floating interest rate	Non-interest bearing	Total	Effective interest rate
	Within 1 year	1 - 5 years				
	(Million Baht)					(% p.a.)
Financial assets						
Cash and cash equivalents	1,381	-	2,938	438	4,757	0.001 - 2.000
Short-term investments	4,317	-	24	177	4,518	0.15 - 9.75
Trade and other receivables	-	-	-	3,904	3,904	-
Current portion of long-term fixed deposits with financial institution	-	465	-	-	465	2.10 - 4.55
Other long-term investments	-	-	-	65	65	-
	5,698	465	2,962	4,584	13,709	
Financial liabilities						
Trade and other payables	-	-	-	2,921	2,921	-
	-	-	-	2,921	2,921	

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

	Consolidated financial statements as at 31 December 2016					
	Fixed interest rate		Floating interest rate	Non-interest bearing	Total	Effective interest rate
	Within 1 year	1 - 5 years				
	(Million Baht)					
Financial assets						
Cash and cash equivalents	3,529	-	2,786	33	6,348	0.001 - 1.550
Short-term investments	3,079	-	25	189	3,293	0.15 - 9.75
Trade and other receivables	-	-	-	3,635	3,635	-
Long-term fixed deposits with financial institution	-	313	-	-	313	3.75 - 4.55
	6,608	313	2,811	3,857	13,589	
Financial liabilities						
Trade and other payables	-	-	-	2,788	2,788	
	-	-	-	2,788	2,788	

	Separate financial statements as at 31 December 2017				
	Fixed interest rate within 1 year	Floating interest rate	Non-interest bearing	Total	Effective interest rate
	(Million Baht)				(% p.a.)
Financial assets					
Cash and cash equivalents	-	400	2	402	0.05 - 0.375
Short-term investments	250	-	-	250	1.20
Trade and other receivables	-	-	1,320	1,320	-
	250	400	1,322	1,972	
Financial liabilities					
Trade and other payables	-	-	1,080	1,080	-
	-	-	1,080	1,080	

	Separate financial statements as at 31 December 2016				
	Fixed interest rate within 1 year	Floating interest rate	Non-interest bearing	Total	Effective interest rate
	(Million Baht)				(% p.a.)
Financial assets					
Cash and cash equivalents	530	424	10	964	0.05 - 1.55
Trade and other receivables	-	-	1,320	1,320	-
	530	424	1,330	2,284	
Financial liabilities					
Trade and other payables	-	-	1,112	1,112	-
	-	-	1,112	1,112	

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## Foreign currency risk

The Company's and its subsidiaries' exposure to foreign currency risk arise mainly from trading transactions that are denominated in foreign currencies. The Company and its subsidiaries seek to reduce this risk by entering into forward exchange contracts when they consider appropriate. Generally, the forward contracts will mature within one year.

The balances of financial assets and liabilities denominated in foreign currencies as at 31 December 2017 and 2016 are summarised below.

Foreign currency	Financial assets as at 31 December		Financial liabilities as at 31 December		Average exchange rate as at 31 December	
	2017	2016	2017	2016	2017	2016
	(Million)	(Million)	(Million)	(Million)	(Baht per foreign currency unit)	
China Yuan	319	304	101	78	5.0145	5.1498
US Dollar	229	200	51	50	32.6809	35.8307
Japan Yen	143	143	121	11	0.2898	0.3080
South Korean Won	43	-	-	-	0.0306	0.0297
Indian Rupee	40	40	-	-	0.5104	0.5259
Hong Kong Dollar	12	7	1	-	4.1803	4.6217
Euro	4	4	-	-	39.0273	37.7577
Singapore Dollar	2	3	1	-	24.4503	24.8010
Brazilian Real	2	2	-	-	9.7400	11.0128
Pound Sterling	-	2	-	-	43.9865	44.0356
Macau Pataca	1	1	-	-	3.9891	4.5096

As at 31 December 2017 and 2016, the two overseas subsidiary companies had outstanding forward exchange contracts, of which details are presented below.

As at 31 December 2017		
Sold amount	Contractual maturity date	Contractual exchange rate for amount sold
(Million USD)		(Baht per USD)
140	17 January 2018 - 23 August 2018	32.370 - 33.930

As at 31 December 2016		
Sold amount	Contractual maturity date	Contractual exchange rate for amount sold
(Million USD)		(Baht per USD)
140	13 January 2017 - 21 June 2017	34.930 - 36.080

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

## 31.2 Fair value of financial instruments

The estimated fair value of financial instruments, in comparison with the related amount carried in the statement of financial position, is as follows:

(Unit: Million Baht)

	Consolidated financial statements			
	As at 31 December 2017		As at 31 December 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>				
Cash and cash equivalents	4,757	4,757	6,348	6,348
Short-term investments	4,289	4,518	3,177	3,293
Current portion of long-term fixed deposits with financial institution	465	465	-	-
Trade and other receivables	3,904	3,904	3,635	3,635
Long-term fixed deposits with financial institution	-	-	313	313
Other long-term investments	65,459	62,193	-	1
<b>Financial liabilities</b>				
Trade and other payables	2,921	2,921	2,788	2,788

(Unit: Million Baht)

	Separate financial statements			
	As at 31 December 2017		As at 31 December 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>				
Cash and cash equivalents	402	402	964	964
Short-term investments	250	250	-	-
Trade and other receivables	1,320	1,320	1,320	1,320
<b>Financial liabilities</b>				
Trade and other payables	1,080	1,080	1,112	1,112

The estimated fair value of the derivatives is as follows:

(Unit: Million Baht)

	Consolidated financial statements	
	As at 31 December 2017	As at 31 December 2016
	Fair value	Fair value
	gain	loss
<b>Derivatives</b>		
Forward exchange contracts	89.4	(63.0)

The methods and assumptions used by the Company and its subsidiaries in estimating the fair value of financial instruments are as follows:



# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

For the year ended 31 December 2017

- a) For financial assets and liabilities which have short-term maturity, including cash and cash equivalents, accounts receivable and accounts payable, their carrying amounts in the statement of financial position approximate their fair value.
- b) For debts and equity securities, their fair value is generally derived from quoted market prices, or based on generally accepted pricing models when no market price is available.
- c) For fixed deposit with financial institution carrying interest approximate to the market rate, their carrying amounts in the statement of financial position approximate their fair value.
- d) For derivatives, their fair value has been determined by using a discounted future cash flow model and a valuation model technique. Most of the inputs used for the valuation are observable in the relevant market, such as spot rates of foreign currencies, yield curves of the respective currencies and interest rate yield curves. The subsidiaries had considered to counterparty credit risk when determining the fair value of derivatives

During the current period, there were no transfers within the fair value hierarchy.

## 32. Capital management

The primary objective of the Company's capital management is to ensure that it has appropriate capital structure in order to support its business and maximise shareholder value. As at 31 December 2017, the Group's debt-to-equity ratio was 0.18:1 (2016: 0.19:1) and the Company's was 0.14:1 (2016: 0.16:1).

## 33. Event after the reporting period

On 28 February 2018, the meeting of the Board of Directors of the Company No. 1/2018 passed the resolution approving the final dividend payment for the year 2017 to the Company's shareholders at Baht 1 per share. The dividend will be paid to the shareholders on 11 May 2018.

On 3 November 2017, the Company paid the interim dividend from the net profit from the first six-month period of 2017 to the Company's shareholders at Baht 1 per share or a total of approximately Baht 805 million following the resolution of the Board of Directors Meeting of the Company No. 5/2017 on 5 October 2017.

Therefore, the total dividend payment for the year ended 31 December 2017 will be Baht 2.00 per share. The Company will propose to the Annual General Meeting of Shareholders for acknowledgement of interim dividend payment and approval of the final dividend payment.

# Notes to consolidated financial statements

Hana Microelectronics Public Company Limited and its subsidiaries

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## 34. Reclassification

The Company reclassified the following amounts in the consolidated financial statements for the year ended 31 December 2016 to conform with current year's classification as follows:

(Unit: Baht)

	Consolidated financial statements	
	As at 31 December 2016	
	As reclassified	As previously reported
Inventories	3,651,125,522	3,676,207,012
Trade and other payables	2,788,385,619	2,813,467,109

The reclassifications had no effect to previously reported profit or shareholders' equity.

## 35. Approval of financial statements

These financial statements were authorised for issue by the Company's Board of Directors on 28 February 2018.



**Microelectronics Public Company Limited**

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