

## Management's Discussion and Analysis

Year 2019

### Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue decreased 8% year on year, at THB 20.4 billion in year 2019 from THB 22.3 billion in year 2018. Sales Revenue in USD terms decreased by 5% to USD 656m in 2019 from USD 689m in 2018. Operating profits decreased 39% to THB 1,408m in 2019 from THB 2,309m in 2018.

Net Profit decreased by 24% to THB 1,805m in 2019 from THB 2,375m in 2018 due to lower operating profits more than offsetting an increase in exchange gain of THB 319m in 2019.

### Past Performance Analysis

#### Revenue Analysis

Group Sales decreased 8% in 2019 to THB 20,384m from 2018 at THB 22,264m due to market weakness from the downturn in the semiconductor cycle and the US-China trade war. USD sales were 5% lower in 2019 at USD 656m down from USD 689m in 2018 as the average THB/USD exchange rate strengthened 4% to THB/USD 31.05 in 2019 from THB/USD 32.31 in 2018.

The Microelectronics divisions' sales revenue decreased 1% [-5% in THB terms] in 2019 over 2018. The microelectronics operation in Lamphun sales increased 7% [+3% in THB terms] and JXG decreased by 16% [-25% in THB terms] in 2018. In 2019 IC assembly sales overall decreased by 9% in USD terms [-12% in THB terms]. Specifically, IC AYT sales decreased 7% [-10% in THB terms], and IC JXG USD sales decreased by 22% [-25% in THB terms]. Hana Technologies Inc "HTI" (formerly Hana Microdisplay Technologies), sales decreased 16% [-19% THB] for the year.

The annual sales split was:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
PCBA (Thailand)	45%	40%	38%
PCBA (China)	14%	17%	17%
PCBA (Cambodia)	0%	0%	0%
IC (Thailand)	33%	33%	34%
IC (China)	4%	5%	6%
HTI (USA)	4%	5%	5%
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	100%	100%	100%

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

Gross Profit decreased by THB 889m with the gross margin being 11% in 2019 down 3 percentage points from 14% in 2018, due to lower sales revenue and stronger THB/USD exchange rate.

### Operating Profit Analysis

The Operating profit margin decreased by 3 percentage points to 7% in 2019 from 10% in 2018. SGA expenses decreased by 2% [THB 19m] due to reduced SGA expense at the Jiaying plant.

### Payout Analysis

For the year 2019 the company paid an interim dividend of THB 523m in Q4/19 (THB 0.65/share).

For the year 2018 the company paid full dividends of THB 1,610m (THB 2.00/share). An interim dividend paid of THB 805m in Q4/18 and the final dividend of THB 805m in Q2/19.

For the year 2017 the company paid full dividends of THB 1,610m (THB 2.00/share). An interim dividend paid of THB 805m in Q4/17 and the final dividend of THB 805m in Q2/18.

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

Net Cash reserves and financial investments were THB 8.7 billion at 31st December 2019 similar to THB 8.7 billion at 31st December 2018 .

## **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 64 days in 2019, 63 days in 2018 and 63 days in 2017 .

Trade Receivables	'000	<b><u>2019</u></b>	<b><u>2018</u></b>	<b><u>2017</u></b>
Less than 3 months		3,212,509	3,668,482	3,713,024
3 - 6 months		9,054	34,940	14,756
6 - 12 months		3,579	7,737	681
More than 12 months		3,626	1,480	9,130
Total accounts receivable - other companie		3,228,768	3,712,639	3,737,591
Less : Allowance for doubtful accounts		(4,485)	(21,556)	(11,159)
		<u>3,224,283</u>	<u>3,691,083</u>	<u>3,726,432</u>

### **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 98 days in 2019, 89 days in 2018, and 77 days in 2017.

### **Liquidity**

The group has THB 8.7 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 THB 2,546m in 2019 26% lower than THB 3,420m in 2018.

EBITDA was THB 2.5 billion in 2019 and THB 3.4 billion in 2018 and 3.4 billion in 2017.

Cash and financial investments in 2019 remained stable at THB 8.7 billion, due to EBITDA 2.5 billion less final dividend THB 0.8b 2018 paid in Q219, interim dividend Q419 THB 0.5b , net capital expenditure THB 1.1b, other items THB -0.1b.

Cash and financial investments in 2018 decreased by THB 1.0 billion to THB 8.7 billion, due to EBITDA 3.4 billion less final dividend THB 0.8b 2017 paid in Q218, interim dividend Q418 THB 0.8b , capital expenditure THB 1.9b, other items THB -0.9b.

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 0.8b 2016 paid in Q217, interim dividend Q417 THB 0.8b , capital expenditure THB 1.1b, other items THB -0.9b.

### **Capital Expenditure**

Net Capital Expenditure was THB 1,076m in 2019, THB 2,333m in 2018, and THB 1,111m in 2017. Capital Expenditure was lower in 2019 due to the lower capital expenditure from Ayutthaya plant compared to recent years due to the weakening in the semiconductor industry in 2019 and high capital expenditure in 2018. 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 groups funding is from the shareholders equity.

### **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 200m per quarter for every 10% change in the average Baht/USD and CNY/USD rates (i.e.  $(1 - 0.60) \times \text{Sales Revenue} \times 10\%$  ).

Out of the groups foreign exchange exposure, USD 120m 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 2019 of THB/USD 31.05 was 4% stronger than the THB/USD 32.31 in 2018 which was 5% stronger than the THB/USD 33.93 in 2017.

#### **Exceptional Items**

There were no Exceptional Items in 2019, 2018 or 2017.

#### **Subsequent Event**

None