

## Management's Discussion and Analysis

Year 2016

### Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue was similar year on year, at THB 20.6 billion in year 2016 up from THB 20.5 billion in year 2015. Sales Revenue in USD terms decreased by 3% to USD 581m in 2016 from USD 599m in 2015.

Net Profit increased by 2% to THB 2,105m in 2016 from THB 2,066m in 2015. THB 340m positive change in foreign exchange gain (loss) offset the lower operating profits.

### Past Performance Analysis

#### Revenue Analysis

Group Sales were similar in 2016 at THB 20,522m from THB 20,521m in 2015 with markets following a similar trend during the year as in 2015. First half of 2016 was generally weaker but stronger in the second half of the year, particularly for Q4 of both 2015 and 2016. USD sales were 3% lower in 2016 at USD 581m from USD 599m in 2015 as the average THB/USD exchange rate weakened 3% to THB/USD 35.30 in 2016 from THB/USD 34.25 in 2015.

The Microelectronics divisions' sales revenue decreased 12% [-10% THB] in 2016 over 2015. The microelectronics operation in Lamphun sales decreased 13% [-11% in THB terms] and JXG decreased by 10% [-7% in THB terms] in 2016. In 2016 IC assembly sales overall increased by 4% in USD terms [+8% in THB terms]. Specifically, IC AYT sales increased 8% [+11% in THB terms], and IC JXG USD sales decreased by 16% [-14% in THB terms]. Hana Microdisplay Technologies "HMT", sales increased 200% [+209% THB] for the year.

The annual sales split was:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
PCBA (Thailand)	38%	42%	47%
PCBA (China)	18%	19%	20%
PCBA (Cambodia)	0%	0%	0%
IC (Thailand)	34%	31%	26%
IC (China)	5%	6%	6%
HMT (USA)	5%	2%	1%
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	100%	100%	100%

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

Gross Profit decreased by THB 155m with the gross margin being 14% in 2016 down 1% from 15% in 2015, due to lower product prices in both PCBA and IC divisions.

### Operating Profit Analysis

The Operating profit margin also reduced by 1% to 10% in 2016 from 11% in 2015. SGA expenses increased by 5% [THB 53m] due to the opening of new plants in Lamphun (Sahaphat Industrial Park) and Cambodia (Koh Kong).

### Payout Analysis

For the year 2016 the company paid an interim dividend of THB 805m in Q4/16.

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

For the year 2014 the company paid full dividends of THB 1,610m (THB 2.00/share). An interim dividend paid of THB 805m in Q4/14 and the final dividend of THB 805m in Q2/15.

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 paid out in May.

### Financial Status

The group currently has no interest bearing debt. Cash reserves and financial investments at the 31st December, 2016 were THB 9.9 billion up from 31st December, 2015 were THB 9.1 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.

Trade Receivables	'000	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>
Less than 3 months		3,404,803	3,110,049	3,196,839
3 - 6 months		18,549	61,075	24,772
6 - 12 months		26,032	2,511	7,732
More than 12 months		4,443	1,306	2,024
Total accounts receivable - other companie		3,453,827	3,174,941	3,231,367
Less : Allowance for doubtful accounts		(19,855)	(24,245)	(24,410)
		<b>3,433,972</b>	<b>3,150,696</b>	<b>3,206,957</b>

### **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 73 days in 2016, 70 days in 2015 and 61 days in 2014.

### **Liquidity**

The group has THB 9.9 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 5% lower in 2016 due to the lower operating profit in PCBA division in 2016.

EBITDA at THB 3.1 billion in 2016 and 3.3 billion in 2015 and THB 3.2 billion in 2014.

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 0.8b 2015 paid in Q216, interim dividend Q416 THB 0.8b , capital expenditure THB 0.9b, decrease in working capital of THB +0.2b.

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 0.8b 2014 paid in Q215, interim dividend Q415 THB 0.8b , capital expenditure THB 1.6b, decrease in working capital of THB +0.4b.

Cash and financial investments in 2014 increased by THB 2.0 billion to THB 8.3 billion, due to EBITDA 3.2 billion less final dividend THB 0.8b, interim dividend Q414 THB 0.8b , capital expenditure THB 0.9b, insurance proceeds of THB 1.3b.

### **Capital Expenditure**

Net Capital Expenditure was THB 801m in 2016, THB 1,583m in 2015 and THB 854m in 2014. 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 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 140m 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 2016 of THB/USD 35.30 was 3% weaker than the THB/USD 34.25 in 2015 which was 5% weaker than the THB/USD 32.48 in 2014.

#### **Exceptional Items**

There were no Exceptional Items in 2016, 2015 or 2014.

#### **Subsequent Event**

None

# HANA MICROELECTRONICS GROUP

## CONSOLIDATED STATEMENT OF EARNINGS

'000 Baht	Year		Year		Year		%	
	2016		2015		2014		2016-2015	2016-2015
<b>REVENUES</b>								
Sales	20,522,624		20,521,353		21,227,209		1,271	0%
consisting of:								
PCBA (Lamphun, Thailand)	7,773,094	38%	8,689,991	42%	9,952,829	47%	(916,897)	-11%
PCBA (Jiaxing, China)	3,669,590	18%	3,959,265	19%	4,290,307	21%	(289,675)	-7%
PCBA (Cambodia)	84,967	0%	22,125	0%	-	0%	62,842	284%
IC (Ayuthaya, Thailand)	6,971,287	34%	6,299,513	31%	5,591,601	26%	671,774	11%
IC (Jiaxing, China)	1,074,834	5%	1,243,137	6%	1,199,624	6%	(168,303)	-14%
HMT (Ohio, USA)	948,852	5%	307,322	2%	192,848	1%	641,530	209%
	<u>20,522,624</u>	100%	<u>20,521,353</u>	100%	<u>21,227,209</u>	101%	<u>1,271</u>	0%
Other Income	260,348		245,121		271,642		15,226	6%
<b>TOTAL OPERATING REVENUES</b>	<u>20,782,972</u>		<u>20,766,474</u>		<u>21,498,851</u>		<u>16,497</u>	0%
<b>EXPENSES</b>								
Cost of Sales	17,646,813	86%	17,490,908	85%	18,358,461	86%	155,905	1%
Selling & Admin. Expenses	1,167,449	6%	1,114,612	5%	1,032,239	5%	52,837	5%
<b>TOTAL EXPENSES</b>	<u>18,814,262</u>	92%	<u>18,605,520</u>	91%	<u>19,390,700</u>	91%	<u>208,742</u>	1%
<b>OPERATING EARNINGS</b>	<u>1,968,710</u>	9%	<u>2,160,955</u>	10%	<u>2,108,151</u>	10%	<u>(192,245)</u>	-9%
Interest	202,539		222,431		214,998		(19,892)	-9%
Interest Expenses	(7,384)		(7,997)		(8,270)		613	-8%
<b>EARNINGS before Income Tax</b>	<u>2,163,865</u>	10%	<u>2,375,388</u>	11%	<u>2,314,879</u>	11%	<u>(211,523)</u>	-9%
Corporate Income Tax	(137,216)	6%	(47,248)	2%	(366,768)	16%	(89,968)	190%
<b>Earnings before Exch. &amp; Exceptional Items</b>	<u>2,026,649</u>	10%	<u>2,328,140</u>	11%	<u>1,948,111</u>	9%	<u>(301,491)</u>	-13%
Exchange Gain (Loss)	78,770		(261,770)		107,382		340,540	
Exceptional Items	-		-		1,350,000		-	
<b>NET EARNINGS for the Period</b>	<u>2,105,419</u>	10%	<u>2,066,370</u>	10%	<u>3,405,493</u>	16%	<u>39,049</u>	2%

# HANA MICROELECTRONICS GROUP

## CONSOLIDATED Balance Sheet

'000 Baht	Year <b>2016</b>	Year <b>2015</b>	Year <b>2014</b>	<b>2016-2015</b>	% <b>2016-2015</b>
<b>ASSETS</b>					
<b>CURRENT ASSETS</b>					
Cash in Hand & at Banks	6,347,595	6,104,135	5,467,223	243,459	4%
Financial Investments	3,292,934	3,016,908	2,863,280	276,026	9%
Accounts Receivable - trade	3,561,206	3,317,966	3,354,080	243,240	7%
Inventories	3,676,207	3,366,602	3,328,914	309,605	9%
Other Current Assets	159,638	202,023	118,864	(42,386)	-21%
<b>TOTAL CURRENT ASSETS</b>	<b>17,037,580</b>	<b>16,007,635</b>	<b>15,132,361</b>	<b>1,029,945</b>	<b>6%</b>
Fixed Deposit	313,262	-	330,690	313,262	
INVESTMENTS IN ASSOCIATED COMPANY	-	-	-		
<b>FIXED ASSETS (net)</b>	<b>6,217,792</b>	<b>6,901,339</b>	<b>6,405,504</b>	<b>(683,547)</b>	<b>-10%</b>
OTHER ASSETS	212,149	213,866	182,778	(1,716)	
<b>TOTAL ASSETS</b>	<b>23,780,784</b>	<b>23,122,840</b>	<b>22,051,332</b>	<b>657,944</b>	<b>3%</b>
<b>LIABILITIES</b>					
<b>CURRENT LIABILITIES</b>					
Bank Overdrafts & Loans	-	-	-		
Accounts & Notes Payable	2,813,467	2,412,958	2,477,893	400,509	17%
Corporate Income Tax Payable	400,330	19,269	171,712	381,060	1978%
Accrued Expenses	-	347,248	360,134	(347,248)	-100%
Other Current Liabilities	150,343	385,350	162,120	(235,007)	-61%
<b>TOTAL CURRENT LIABILITIES</b>	<b>3,364,139</b>	<b>3,164,825</b>	<b>3,171,859</b>	<b>199,314</b>	<b>6%</b>
<b>LONG TERM LIABILITIES</b>					
Long Term Loans					
Other Long Term Liabilities	454,879	534,440	515,862	(79,560)	
<b>TOTAL LIABILITIES</b>	<b>3,819,019</b>	<b>3,699,265</b>	<b>3,687,720</b>	<b>119,754</b>	<b>3%</b>
<b>SHAREHOLDERS EQUITY</b>					
Share Capital	804,879	804,879	804,879	0	
Unrealised gain(loss) on change in investments	-	-	-		
Share Premium	1,723,219	1,723,219	1,723,219	0	
Retained Earnings	-	-	-		
Appropriated Statutory Reserve	428,284	416,331	386,272	11,953	3%
Unappropriated & Treasury Share Reserve	16,088,535	15,491,802	15,028,833	596,734	4%
Translation adj. & Investment revaluation	916,848	987,344	420,409	(70,496)	-7%
Treasury shares	-	-	-		
Excess Cost over Net Book Value of Subsidiary Investments	-	-	-		
<b>TOTAL SHAREHOLDERS EQUITY</b>	<b>19,961,765</b>	<b>19,423,575</b>	<b>18,363,612</b>	<b>538,190</b>	<b>3%</b>
<b>TOTAL LIABILITIES &amp; SHAREHOLDERS EQUITY</b>	<b>23,780,784</b>	<b>23,122,840</b>	<b>22,051,332</b>	<b>657,944</b>	<b>3%</b>

# HANA MICROELECTRONICS GROUP

## CONSOLIDATED Summary Statement of Cashflows

'000 Baht	Year <b>2016</b>	Year <b>2015</b>	Year <b>2014</b>	<b>2016-2015</b>
<b>Cashflow from Operating Activities</b>				
Net Earnings before Tax	2,242,635	2,113,618	3,772,263	129,017
<b>Adjustments to reconcile net earnings to net cash provided by operating activities</b>				
<b>Non Cash items</b>				
Depreciation	1,179,998	1,168,154	1,125,081	11,844
Unrealised (gain) Loss on exchange	123	6,958	17,691	(6,835)
Change in other provisions	(374,434)	144,252	(31,750)	(518,687)
	<u>805,686</u>	<u>1,319,364</u>	<u>1,111,023</u>	<u>(513,678)</u>
<b>Working Capital (increase) decrease</b>				
Trade accounts receivable	(232,345)	81,796	(174,094)	(314,141)
Inventories	(230,189)	(49,350)	(111,281)	(180,839)
Trade accounts payable	551,275	(188,026)	(36,592)	739,301
Other	(122,040)	(321,799)	(377,161)	199,759
	<u>(33,299)</u>	<u>(477,379)</u>	<u>(699,127)</u>	<u>444,080</u>
<b>Net Cashflow from Operating Activities</b>	<u>3,015,023</u>	<u>2,955,603</u>	<u>4,184,159</u>	<u>59,419</u>
<b>Cashflow from Investing Activities</b>				
(Increase) decrease in short term investment	349,889	(560,662)	(476,689)	910,551
Increase in property, plant and equipment	(869,129)	(1,629,428)	(813,343)	760,298
Proceeds from sale of fixed assets	267,603	27,982	25,281	239,621
Increase (decrease) in translation adjustment	(245,125)	795,725	(8,940)	(1,040,850)
Decrease in short term loans to related parties				-
Other	12,599	(20,191)	(2,834)	32,790
	<u>(484,164)</u>	<u>(1,386,574)</u>	<u>(1,276,525)</u>	<u>902,410</u>
<b>Cashflow from Financing Activities</b>				
Cash paid for treasury stock	-	-	-	-
Cash received from increase in share capital & overdraft	-	-	(16,354)	-
Dividend paid	(1,609,758)	(1,609,758)	(1,609,758)	-
Net cash (used in ) from financing activities	<u>(1,609,758)</u>	<u>(1,609,758)</u>	<u>(1,626,112)</u>	<u>-</u>
Net Cash, equivalents and short term liquid investments increase (decrease)	921,101	(40,728)	1,281,522	961,829
Cash and Equivalents at the beginning of the period	<u>5,426,494</u>	<u>5,467,222</u>	<u>4,185,700</u>	<u>(40,728)</u>
Cash and Equivalents at the end of the period	<u>6,347,595</u>	<u>5,426,494</u>	<u>5,467,222</u>	<u>921,101</u>

# HANA MICROELECTRONICS GROUP

## Financial Ratios

'000 Baht	Year <u>2016</u>	Year <u>2015</u>	Year <u>2014</u>	<u>2016-2015</u>
<b>Profitability Ratios</b>				
Gross Profit Margin (%)	14%	15%	14%	-1%
Operating Profit Margin (%)	9%	10%	10%	-1%
Net Profit before Exceptional Margin (%)	10%	11%	9%	-1%
Net Profit after Exceptional Margin (%)	10%	10%	16%	
EBITDA margin (%)	15%	16%	15%	-1%
Return On Equity (%) pa	11%	11%	19%	
Return On Assets (%) pa	9%	9%	15%	
Return On Operating Capital Employed (%) pa	18%	20%	20%	-2%
<b>Efficiency Ratios</b>				
Working Capital turnover	5	5	5	
Account Receivable days	61	59	56	2
Inventory days	73	70	61	3
Accounts Payable days	54	50	49	4
<b>Liquidity Ratios</b>				
Current Ratio	5.1	5.1	4.8	
Quick Ratio	3.9	3.9	3.7	
<b>Financial Capital Ratios</b>				
Debt / Equity	0.2	0.2	0.2	
Net Debt to Equity	-0.3	-0.3	-0.3	
Interest Coverage	n/a	n/a	n/a	