

Management's Discussion and Analysis

Year 2012

Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue increased 6% year on year, to THB 17.3 billion in year 2012 from THB 16.3 billion in year 2011. Sales Revenue in USD terms increased by 4% to USD 556m in 2012 from USD 535m in 2011. Operating profits decreased 23% to THB 1,076m Baht in 2012 from THB 1,401m Baht in 2011. Operating profits decreased 24% in USD terms to USD 35m in 2012 from USD 46m in 2011.

Past Performance Analysis

Revenue Analysis

Group Sales were higher by 6% in 2012 at THB 17,232m from THB 16,315m in 2011 with markets being stronger in the first half of 2012 and weaker in the second half of the year. USD sales were 4% higher in 2012 at USD 555m from USD 535m in 2011 as the average THB/USD exchange rate in 2012 weakened 2% to THB/USD 31.03 in 2012 from THB/USD 30.53 in 2011.

The Microelectronics divisions' sales revenues increased 14% [+16% THB] in 2012 over 2011. The microelectronics operation in Lamphun increased 14% [15% in THB terms] and JXG by 17% [+19% in THB terms] for 2012.

In 2012 IC assembly sales decreased by 9% in USD terms [-7% in THB terms]. For 2012, the IC division in AYT sales decreased 16% [-14% in THB terms], but increased 27% [+30% in THB terms] for the IC division in JXG. CPG sales fell 71% [-71% THB] in 2012 as the operations ceased in Q1 2012. Hana Microdisplay Technologies "HMT", sales decreased 37% [-36% THB] for the year.

The annual sales split was:

	<u>2012</u>	<u>2011</u>	<u>2010</u>
PCBA (Thailand)	42%	38%	37%
PCBA (China)	25%	22%	17%
CPG - (Bangkok)	0%	2%	5%
IC (AYT)	25%	31%	35%
IC (China)	7%	6%	5%
HMT (USA)	1%	2%	1%
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	100%	100%	100%

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

The Gross Profit margin was 10% in 2012 down 3% from 13% in 2011 due to the change in product mix with the increase in PCBA sales and decrease in IC assembly sales. PCBA sales have a higher material content than IC assembly product sales. Higher labour costs due to the minimum wage increase in 2012 also contributed to a lower margin.

Operating Profit Analysis

The Operating profit margin decreased 3% in 2012 to 6% from 9% in 2011 due to the lower Gross Profit margin.

SGA expenses decreased by 5% [THB 55m] and were 5% of sales revenue in 2012, compared to 6% in 2011.

Payout Analysis

The company paid dividends per share of THB 1.40 in 2010 from the profits of 2009, THB 1.55 in 2011 from the profits of 2010 and THB 1.00 in 2012 from the profits of 2011 being 55%, 45% and 48% dividend payout of net profits before exceptional items respectively. The company also paid an interim dividend of THB 0.50 in Q412.

The final dividends are 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 (and financial investments) reserves at the 31st December, 2012 were THB 5.5 billion down from 31st December, 2011 of THB 5.8 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	'000	<u>2012</u>	<u>2011</u>	<u>2010</u>
Less than 3 months		2,653,880	2,445,169	2,423,065
3 - 6 months		23,758	20,670	8,957
6 - 12 months		16,349	7,236	2,782
More than 12 months		3,173	5,380	-
Total accounts receivable - other companie		2,697,160	2,478,455	2,434,803
Less : Allowance for doubtful accounts		(6,904)	(11,189)	(3,240)
		<u>2,690,256</u>	<u>2,467,266</u>	<u>2,431,564</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 64 days in 2012, 66 days in 2011 and 55 days in 2010.

Liquidity

The group has THB 5.5 billion in cash and short term investments with no interest bearing debt. Liquidity ratios are high at approximately 3 times current liabilities. Operating Cashflow (EBITDA) was 11% lower in 2012 due to the flood of the Ayutthaya plant, stronger exchange rate and increased wage and material costs with EBITDA at THB 2.3 billion in 2012 and THB 2.6 billion in 2011 and THB 3.6 billion in 2010.

Cash and short term investments in 2012 decreased by THB 0.3 billion to THB 5.5 billion, due to EBITDA 2.3 billion less final dividend THB 0.8m, interim dividend Q412 THB 0.4m , capital expenditure THB 1.4 billion.

The cash in 2011 increased from 2010 by THB 0.8 billion to THB 5.8 billion, due to EBITDA 2.6 billion less dividend THB 1.2 billion, capital expenditure THB 1.4 billion and a THB 0.8 billion decrease in working capital.

The cash decrease in 2010 from 2009 was THB 1.0 billion after EBITDA THB 3.7 billion less dividend THB 1.1 billion and capital expenditure THB 2.1 billion and a THB 1.5 billion increase in working capital.

Capital Expenditure

Net Capital Expenditure was THB 1,372m in 2012, THB 1,360m in 2011 and THB 1,976m in 2010. Capital Expenditure was higher in 2012 due to the replacement of equipment damaged in the flood at the Ayutthaya plant.

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 as 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 170m 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 80m 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 2012 of THB/USD 31.03 was 2% weaker than the THB/USD 30.53 in 2010 which was 4% stronger than the THB/USD 31.73 in 2010.

Exceptional Items

The plant of Hana Semiconductor (Ayutthaya) Co., LTD, a 100% owned subsidiary of the company, which is located in Hitech Industrial Estate in Ayutthaya province, was inundated in early October 2011 as a result of the extensive flooding in Thailand during the fourth quarter of 2011.

The plant, equipment and business of the subsidiary suffered major damage with approximately USD 40m of property damage and significant business interruption losses. In the 2011 Financial Statements the subsidiary made full provision for the book value of the damaged property which is to be replaced.

The subsidiary has also expensed repairs incurred during the fourth quarter in the 2011 accounts and in the 2012 accounts. The repairs were completed in 2012.

The subsidiary is in the process of making claims on its property and business interruption insurance policies for the damage resulting from the flood at its Ayutthaya facility. In 2011 THB 300m was booked as receivable for an interim property insurance claim receipt. Net Exceptional items is primarily THB 400m business interruption insurance interim proceeds less THB 163m for flood related damaged materials provisions.

There were no exceptional items in 2010.

Subsequent Event

None