



Management Report for First Quarter Fiscal 2019

Hsinchu, Taiwan, May 10th, 2019 – eMemory Technology Inc. (TPE : 3529) reported financial results for its first quarter ended 31st March 2019.

Executive Summary

- Q1 2019 revenue was NT. 395 mil, a decrease of 2.9% from previous quarter but grew 5.5% year-over-year. Operating income increased 5.3% sequentially and 7.0% year-over-year. EPS was NT\$ 2.39, up 8.6% sequentially and 7.2% year-over-year.
- License revenue decreased 15.2% sequentially and down 7.6% year over year. Quarterly licensing decline was mainly due to prolonged licenses negotiations and expect revenue recognition to the following quarters.
- Royalty revenue was record high, an increase of 2.6% sequentially, and 11.3% year over year. 8 inch royalty remained flat quarterly but increased 6.5% year over year. 12 inch royalty keep its growth trend, up 8.3% from sequentially and grew 22.0% year over year.
- 2nd quarter was traditionally the bottom of the year, reflecting the 1st quarter of wafer shipment from foundries and lack of two foundries royalty payment recognized in Jan. and July. We expect Q2 revenue sequentially down but still grow year-over-year, followed by strong growth in the 2nd half.
- For 2019, we expect 8 inch royalty to pick up momentum as the largest US chip companies are ramping up PMIC production rapidly. 12 inch royalty will grow further as 55nm (Bluetooth, TDDI), 40nm (OLED), 28nm (switch, DTV, multimedia, and surveillance), 25nm (DRAM), and 22nm (networking, DTV) are ramping up production.

Financial Results

(Amounts in thousands of NT dollars)

	Q1 2019	Q4 2018	Q1 2018	Change (QoQ)	Change (YoY)
Revenue	395,061	406,752	374,466	-2.9%	5.5%
Gross Margin	100%	100%	100%	-	-
Operating Expenses	201,088	222,532	193,201	-9.6%	4.1%
Operating Income	193,973	184,220	181,265	5.3%	7.0%
Operating Margin	49.1%	45.3%	48.4%	3.8ppts	0.7ppts
Net Income	177,151	163,611	168,730	8.3%	5.0%
Net Margin	44.8%	40.2%	45.1%	4.6ppts	-0.3ppts
EPS (Unit: NTD)	2.39	2.20	2.23	8.6%	7.2%
ROE	38.9%	34.5%	31.3%	4.4ppts	7.6ppts



Revenue Analysis

(NT \$ Thousand)

	Q1 2019	Q4 2018	Q1 2018	Change (QoQ)	Change (YoY)
Licensing	105,824	124,726	114,540	-15.2%	-7.6%
Royalty	289,237	282,026	259,926	2.6%	11.3%
Total	395,061	406,752	374,466	-2.9%	5.5%

Royalty revenue analysis by wafer size (8 inch vs 12 inch)

Wafer Size	Q1 2019		
	% of Q1	Change (QoQ)	Change (YoY)
8 inch	66.3%	-0.1%	6.5%
12 inch	33.7%	8.3%	22.0%

- Royalty contribution from 12 inch increased mainly due to growing product tape-out activities from advanced nodes (55nm, 40nm, and 28nm) over the prior years in mass production.

Revenue analysis by technology

Technology	Q1 2019								
	Total Revenue			Licensing Revenue			Royalty Revenue		
	% of Q1 Revenue	Change (QoQ)	Change (YoY)	% of Q1 Licensing	Change (QoQ)	Change (YoY)	% of Q1 Royalty	Change (QoQ)	Change (YoY)
NeoBit	66.3%	9.5%	-0.6%	18.9%	-32.5%	-45.2%	83.7%	15.4%	6.5%
NeoFuse	25.0%	-17.8%	51.7%	61.3%	7.9%	24.3%	11.8%	-43.4%	161.2%
NeoEE	6.8%	-0.5%	-8.3%	14.6%	-3.2%	32.1%	3.9%	3.5%	-35.2%
NeoMTP	1.9%	-58.4%	-55.2%	5.2%	-66.4%	-60.9%	0.6%	49.3%	-19.7%

- NeoBit : OTP technology covers from 0.35um to 55nm. Applications : DDI, PMIC, fingerprint, sensors, MCU, and etc.
- NeoFuse : OTP technology covers mainly from 55nm to 7nm. Applications : DRAM, AP, game console, FPGA, DTV, OLED driver, set-top Box, surveillance, CIS, SSD controller, Connectivity IC, auto sensors, and etc.
- NeoEE : MTP technology covers from 0.3um to 0.11um, allowing up to 100K rewritable times with zero additional masking layers. Applications : Fingerprint, MCU, P-gamma, OIS, RFID, and etc.
- NeoMTP : MTP technology covers from 0.18um to 55nm, offering high density memory with 1K rewritable times with zero additional masking layers. Applications : Wireless chargers, type c, smart PMIC, MCU, touch panel controller, gauge IC, and etc.



Key Business Developments

Licensing

- Technology License
 - 3 licensing contracts were signed with three different foundries (2 NeoBit and 1 NeoFuse) during the quarter.
 - As of March 31st, 2019, we have technologies under development for adoption on 97 different process platforms, ranging from 0.18um to 7nm.

Development of Key Technology on 12-inch Nodes

	7/10nm	12/14/16nm	28nm	40nm	55/65nm	80/90nm	Total
Qualified	-	3	17	10	19	11	60
Developing	3	2	15	8	12	9	49

- Design License
 - A total of 94 product tape-outs in the first quarter of 2019.
 - 8 tape-outs at 22nm/28nm for multi-media, network IC, OLED driver, LCD driver, and DRAM.
 - 9 tape-outs at 40nm for OLED driver.
 - 6 tape-outs at 55nm/65nm for PMIC, MCU, and TDDI.
 - 7 tape-outs at 80nm/90nm for OLED driver, LCD driver, and TDDI.
 - 21 tape-outs at 0.11um/0.13um for PMIC, MCU, OLED driver, LCD driver, multi-media, and etc.
 - 37 tape-outs at 0.15um/0.18um for PMIC, LCD driver, MCU, fingerprint, sensor-related, motor driver, network IC, and etc.
 - 6 tape-outs under 0.25um for PMIC, MCU, LED driver, and sensor-related application.
 - As of March 31st, 2019, eMemory's cumulative number of design licenses increased to 4,433, a direct result of our ongoing effort in expanding and diversifying our technologies for adoption in a wide range of applications.

Future growth drivers

License

- NeoFuse will be the main driving force for licensing with strong demand from foundries and product customers. The adoption of NeoFuse extending to memory and logic IDMs also create new revenue streams.

Royalty

- Growth of 8 inch royalty will be driven mainly by our key applications - PMIC, DDI, various sensors, and MCU applied into non smartphone: i.e. EV car, automation, healthcare, autonomous driving, and IoT. Our IP extends to IDMs' internal fabs also create revenue stream.



- Expect 12 inch royalty to grow further as accumulated 133 tape outs in the past 2 years from 55nm (blue tooth, TDDI), 40nm (OLED DDI, networking), 28nm (set up box, DTV, SSD controller, Switch, surveillance), 25nm (DRAM), 22nm (networking IC), 16nm (multimedia), 14nm (surveillance) are moving into production and starting to generate royalty. DRAM customers will start production by the end of the year.

Emerging Memory

- Collaboration with leading international IDMs on Emerging memory: MRAM and ReRAM will contribute to licensing and royalty in the future.

Security

- Work with the largest IP vendor to incorporate NeoFuse and NeoPUF into security CPU.
- Implement NeoPUF-based Hardware Security IPs into foundry platforms and work with leading chip companies for design-in.

Financial Review

Gross margin

Gross margin remained the same at 100%.

Operating expenses and operating margin

- Total operating expenses in the first quarter was NT\$ 201.09 million and represented 50.9% of total revenue, down from 51.6% of total revenue in the prior year.
- Operating expenses decreased 9.6% sequentially but increased 4.1% year-over-year. The sequential decrease was mainly due to lower employee bonus in the quarter.
- Operating margin for the quarter was 49.1%, up 3.8 percentage points from the prior quarter and 0.7 percentage points year-over year.

Non-operating income and income tax expense

- Non-operating income in the first quarter was NT\$ 9.23 million, increased 194.0% sequentially and remained relatively flat year-over-year. The sequential increase was primarily due to we recognize our board members' remuneration in this quarter.
- The first quarter effective tax rate of 12.8% was 1.1 percentage points higher than the prior year.

Net Income and EPS

- Net income for the quarter was NT\$ 177.15 million, increased 8.3% sequentially and 5.0% year-on-year.
- Earnings per share was NT\$ 2.39 in Q1 2019.

Current assets and current liabilities

- As of March 31st, 2019, cash decreased NT\$ 284.09 million from the same quarter of 2018 to NT\$ 1,518.77 million, the decrease was mainly due to the Company repurchased



treasury stocks in the second half of 2018. Total current assets including cash was NT\$ 1,674.22 million.

- Total current liabilities increased NT\$ 12.85 million from December 31st, 2018.
- Net working capital was NT\$1,311.60 million and current ratio was 4.6x.

Cash flows

- As of March 31st, 2019, net cash generated from operating activities totaled NT\$ 233.96 million, including NT\$ 203.21 million from income before income tax, NT \$13.37 million from depreciation and amortization, and NT\$ 17.38 million from other operating activities, which included tax payment of NT\$ 12.45 million.
- Net cash used in investing activities was NT\$ 17.15 million in the ended of March 31st, primarily related to capital expenditures and acquisition of intangible assets.
- Net cash used in financing activities was decrease NT\$3.65 million year-on-year to NT\$ 0.77 million, mainly attributable to exercise of employee share options in Q1 2018.
- As a result, cash increased by NT\$ 216.77 million to NT\$ 1,518.77 million from December 31st, 2018 to March 31st, 2019.

Employee

- As of March 31st, 2019, eMemory had 250 full-time employees, which included 175 R&D engineers.

Cautionary Statement

This report contains forward-looking statements, which are subject to risk factors associated with semiconductor and intellectual property business. It is believed that the expectations reflected in these statements are reasonable. But they may be affected by a variety of variables, many of which are beyond our control. These variables could cause actual results or trends to differ materially which include, but are not limited to: wafer price fluctuation, actual demand, rapid technology change, delays or failures of customers' tape-outs into wafer production, our ability to negotiate, monitor and enforce agreements for the determination and payment of royalties, any bug or fault in our technology which leads to significant damage to our technology and reputation, actual or potential litigation, semiconductor industry cycle and general economic conditions. Except as required by law, eMemory undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

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-Financial Statements To Follow-

eMemory Technology Inc.

BALANCE SHEETS

(In Thousands of New Taiwan Dollars)

	March 31, 2019 (Reviewed)		December 31, 2018 (Audited)		March 31, 2018 (Reviewed)			March 31, 2019 (Reviewed)		December 31, 2018 (Audited)		March 31, 2018 (Reviewed)	
	Amount	%	Amount	%	Amount	%		Amount	%	Amount	%	Amount	%
ASSETS													
CURRENT ASSETS							LIABILITIES AND EQUITY						
Cash	\$1,518,774	66	\$1,302,003	62	\$1,802,860	69	CURRENT LIABILITIES						
Accounts receivable - net	105,307	5	158,335	8	115,038	5	Contract liabilities - current	\$ 43,560	2	\$ 37,822	2	\$ 40,997	2
Other receivables	259	-	225	-	288	-	Other payables	68,976	3	94,104	5	63,533	2
Other receivables - related parties	297	-	251	-	190	-	Bonuses payable to employees and directors	146,862	7	138,092	7	141,135	5
Prepayments	47,218	2	19,889	1	44,987	2	Payables on equipment	2,265	-	6,241	-	1,943	-
Other current assets	2,363	-	2,902	-	1,952	-	Current tax liabilities	96,285	4	71,897	3	81,071	3
Total current assets	<u>1,674,218</u>	<u>73</u>	<u>1,483,605</u>	<u>71</u>	<u>1,965,315</u>	<u>76</u>	Lease liabilities - current	3,075	-	-	-	-	-
							Other current liabilities	1,598	-	1,616	-	1,470	-
NON-CURRENT ASSETS							Total current liabilities	<u>362,621</u>	<u>16</u>	<u>349,772</u>	<u>17</u>	<u>330,149</u>	<u>12</u>
Financial assets at fair value through other comprehensive income - noncurrent	17,300	1	19,180	1	18,697	1	NON-CURRENT LIABILITIES						
Financial assets at amortized cost - noncurrent	33,612	2	33,612	2	33,611	1	Lease liabilities - noncurrent	6,584	-	-	-	-	-
Investment accounted for using equity method	4,932	-	6,046	-	9,060	-	Net defined benefit liabilities - noncurrent	20,198	1	20,334	1	19,107	1
Property, plant and equipment	484,656	21	491,533	23	509,207	20	Guarantee deposits received	530	-	530	-	530	-
Right-of-use assets	9,635	-	-	-	-	-	Total non-current liabilities	<u>27,312</u>	<u>1</u>	<u>20,864</u>	<u>1</u>	<u>19,637</u>	<u>1</u>
Intangible assets	68,743	3	67,162	3	63,137	2	Total liabilities	<u>389,933</u>	<u>17</u>	<u>370,636</u>	<u>18</u>	<u>349,786</u>	<u>13</u>
Deferred tax assets	2,422	-	2,708	-	2,818	-	EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE COMPANY						
Prepayments for equipment	5,823	-	-	-	-	-	Ordinary shares	757,908	33	757,908	36	757,908	29
Refundable deposits	352	-	331	-	331	-	Capital surplus	419,485	18	416,537	20	435,621	17
Total non-current assets	<u>627,475</u>	<u>27</u>	<u>620,572</u>	<u>29</u>	<u>636,861</u>	<u>24</u>	Retained earnings						
							Legal reserve	340,160	15	340,160	16	280,298	11
							Special reserve	926	-	926	-	926	-
							Unappropriated earnings	861,331	37	684,180	32	840,052	32
							Total retained earnings	<u>1,202,417</u>	<u>52</u>	<u>1,025,266</u>	<u>48</u>	<u>1,121,276</u>	<u>43</u>
							Other equity	(63,812)	(3)	(61,932)	(3)	(62,415)	(2)
							Treasury shares	(404,238)	(17)	(404,238)	(19)	-	-
							Total equity	<u>1,911,760</u>	<u>83</u>	<u>1,733,541</u>	<u>82</u>	<u>2,252,390</u>	<u>87</u>
TOTAL	<u>\$2,301,693</u>	<u>100</u>	<u>\$2,104,177</u>	<u>100</u>	<u>\$2,602,176</u>	<u>100</u>	TOTAL	<u>\$2,301,693</u>	<u>100</u>	<u>\$2,104,177</u>	<u>100</u>	<u>\$2,602,176</u>	<u>100</u>

eMemory Technology Inc.

STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share) (Reviewed, Not Audited)

	Three Months Ended March 31			
	2019		2018	
	Amount	%	Amount	%
OPERATING REVENUE	\$ 395,061	100	\$ 374,466	100
OPERATING COSTS	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
GROSS PROFIT	<u>395,061</u>	<u>100</u>	<u>374,466</u>	<u>100</u>
OPERATING EXPENSES				
Selling and marketing expenses	28,959	8	27,469	8
General and administrative expenses	44,108	11	42,093	11
Research and development expenses	127,573	32	124,782	33
Expected credit loss (gain)	<u>448</u>	<u>-</u>	<u>(1,143)</u>	<u>-</u>
Total operating expenses	<u>201,088</u>	<u>51</u>	<u>193,201</u>	<u>52</u>
OPERATING INCOME	<u>193,973</u>	<u>49</u>	<u>181,265</u>	<u>48</u>
NON-OPERATING INCOME AND EXPENSES				
Other income	8,688	2	13,934	4
Other gains and losses	1,710	1	(2,762)	(1)
Finance costs	(49)	-	-	-
Share of loss of associates	<u>(1,116)</u>	<u>-</u>	<u>(1,335)</u>	<u>-</u>
Total non-operating income and expenses	<u>9,233</u>	<u>3</u>	<u>9,837</u>	<u>3</u>

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eMemory Technology Inc.

STATEMENTS OF COMPREHENSIVE INCOME

(In Thousands of New Taiwan Dollars, Except Earnings Per Share)
(Reviewed, Not Audited)

	Three Months Ended March 31			
	2019		2018	
	Amount	%	Amount	%
PROFIT BEFORE INCOME TAX	\$ 203,206	52	\$ 191,102	51
INCOME TAX EXPENSE	<u>26,055</u>	<u>7</u>	<u>22,372</u>	<u>6</u>
NET PROFIT	177,151	45	168,730	45
OTHER COMPREHENSIVE INCOME				
Items that will not be reclassified subsequently to profit or loss:				
Unrealized gain on investments in equity instruments at fair value through other comprehensive income	(<u>1,880</u>)	(<u>1</u>)	<u>577</u>	<u>-</u>
Total comprehensive income	<u>\$ 175,271</u>	<u>44</u>	<u>\$ 169,307</u>	<u>45</u>
EARNINGS PER SHARE				
Basic	<u>\$ 2.39</u>		<u>\$ 2.23</u>	
Diluted	<u>\$ 2.37</u>		<u>\$ 2.22</u>	

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eMemory Technology Inc.

STATEMENTS OF CHANGES IN EQUITY
(In Thousands of New Taiwan Dollars)
(Reviewed, Not Audited)

	Ordinary Shares		Capital Surplus	Legal Reserve	Retained Earnings			Other Equity Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Treasury Shares	Total Equity
	Shares (In Thousands)	Amount			Special Reserve	Unappropriated Earnings	Total			
BALANCE, JANUARY 1, 2018	75,783	\$ 757,823	\$ 427,496	\$ 280,298	\$ 926	\$ 598,616	\$ 879,840	\$ -	\$ -	\$ 2,065,159
Effect of retrospective application	-	-	-	-	-	72,706	72,706	(62,992)	-	9,714
ADJUSTED JANUARY 1, 2018	75,783	757,823	427,496	280,298	926	671,322	952,546	(62,992)	-	2,074,873
Change in capital surplus from investments in associates accounted for by using equity method	-	-	2	-	-	-	-	-	-	2
Net profit for the three months ended March 31, 2018	-	-	-	-	-	168,730	168,730	-	-	168,730
Other comprehensive income for the three months ended March 31, 2018	-	-	-	-	-	-	-	577	-	577
Total comprehensive income for the three months ended March 31, 2018	-	-	-	-	-	168,730	168,730	577	-	169,307
Issuance of ordinary shares under employee share options	8	85	2,794	-	-	-	-	-	-	2,879
Share-based payment	-	-	5,329	-	-	-	-	-	-	5,329
BALANCE, MARCH 31, 2018	75,791	\$ 757,908	\$ 435,621	\$ 280,298	\$ 926	\$ 840,052	\$ 1,121,276	(\$ 62,415)	\$ -	\$ 2,252,390
BALANCE, JANUARY 1, 2019	75,791	\$ 757,908	\$ 416,537	\$ 340,160	\$ 926	\$ 684,180	\$ 1,025,266	(\$ 61,932)	(\$ 404,238)	\$ 1,733,541
Change in capital surplus from investments in associates accounted for by using equity method	-	-	2	-	-	-	-	-	-	2
Net profit for the three months ended March 31, 2019	-	-	-	-	-	177,151	177,151	-	-	177,151
Other comprehensive income for the three months ended March 31, 2019	-	-	-	-	-	-	-	(1,880)	-	(1,880)
Total comprehensive income for the three months ended March 31, 2019	-	-	-	-	-	177,151	177,151	(1,880)	-	175,271
Share-based payment	-	-	2,946	-	-	-	-	-	-	2,946
BALANCE, MARCH 31, 2019	75,791	\$ 757,908	\$ 419,485	\$ 340,160	\$ 926	\$ 861,331	\$ 1,202,417	(\$ 63,812)	(\$ 404,238)	\$ 1,911,760

eMemory Technology Inc.

STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars) (Reviewed, Not Audited)

	Three Months Ended March 31	
	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	\$ 203,206	\$ 191,102
Adjustments for:		
Depreciation expenses	9,781	9,245
Amortization expenses	3,587	3,161
Expected credit loss (gain)	448	(1,143)
Interest on lease liabilities	49	-
Interest income	(2,540)	(3,091)
Share-based payments	2,946	5,329
Share of loss of associates	1,116	1,335
Gain on disposal of investments	-	(5)
Net (gain) loss on foreign currency exchange	(1,386)	2,392
Changes in operating assets and liabilities		
Accounts receivable	53,239	(33,461)
Other receivables - related parties	(46)	387
Prepayments	(16,257)	(24,292)
Other current assets	539	71
Contract liabilities	5,738	7,526
Other payables	(25,132)	(17,384)
Other current liabilities	(18)	19
Net defined benefit liabilities	(136)	(135)
Bonuses payable to employees and directors	8,770	7,510
Cash generated from operations	243,904	148,566
Interest received	2,506	3,041
Income tax paid	(12,453)	(6,184)
Net cash generated from operating activities	<u>233,957</u>	<u>145,423</u>

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eMemory Technology Inc.

STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars) (Reviewed, Not Audited)

	<u>Three Months Ended March 31</u>	
	<u>2019</u>	<u>2018</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of financial assets at fair value through profit or loss	\$ -	(\$ 31,000)
Proceeds from disposal of financial assets at fair value through profit or loss	-	31,005
Acquisition of property, plant and equipment	(6,133)	(4,872)
Increase in refundable deposits	(21)	(16)
Acquisition of intangible assets	(5,168)	(3,868)
Increase in prepayments for equipment	(5,823)	-
Net cash used in investing activities	(17,145)	(8,751)
CASH FLOWS FROM FINANCING ACTIVITIES		
Payments of lease liabilities	(723)	-
Exercise of employee share options	-	2,879
Interest paid	(49)	-
Net cash (used in) generated from financing activities	(772)	2,879
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH HELD IN FOREIGN CURRENCIES	731	(375)
NET INCREASE IN CASH	216,771	139,176
CASH AT THE BEGINNING OF THE PERIOD	1,302,003	1,663,684
CASH AT THE END OF THE PERIOD	\$ 1,518,774	\$ 1,802,860

(Concluded)

Notice to Readers

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

For the convenience of readers, the previously mentioned financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language auditors' report and financial statements shall prevail. For the complete financial statements in Chinese version, please refer to MOPS: <http://mops.twse.com.tw/mops/web/index>