

eMemory Q1 2020 Results – Earnings Call Transcript

May 13th, 2020 16:00-17:00

Chairman’s opening remarks:

Good afternoon, everyone.

Our revenue and royalty of Q1 was historical high and our reported April revenue grew more than 20% over last year. As we mentioned in the last investor conference, in result of flourishing new tape-outs accumulated in past several years, we are confident that a renewed multi-year growth cycle has already begun. In addition, with the mass production of 16nm and below later this year, the adoption rate of our IPs in FinFet process nodes are anticipated to accelerate. Security IP NeoPUF, our next growth engine that has been designed into IoT and AI applications by industrial leaders, are expected to commercialize by the end of this year. These new developments will mitigate the impact of global pandemic.

Next, I would like to invite our President, Rick, to report our operating results of Q1 and the future outlook of our business. Afterward, I would like to take a moment to introduce the applications of PUFsecurity in 5G.

President’s presentation on operating results and future outlook:

Good afternoon.

Thank you for attending eMemory’s 2020 first quarter investor conference webcast. In today’s presentation, I would like to report our operating results of 2020 Q1, followed by the status update of our technologies and future outlook.

To begin with, I would like to report our 2020 Q1 results.

- 1) Q1 revenue was four hundred and fifteen million NT dollars (NT\$ 415 mil), an increase of 14.8% sequentially and 5.2% year-over-year. In terms of US dollars, Q1 revenue was fourteen million US dollars (US\$ 14 mil), a growth of 17.2% sequentially and 8.1% year-over-year.
- 2) The operating expenses of Q1 was two hundred and twenty-one million NT dollars (NT\$ 221 mil), up 9.4% sequentially, and 10.1% year-over-year.
- 3) Q1 operating income increased 21.6% sequentially, and remains flattish year-over-year. The operating margin was 46.7%, a decrease of 2.4 percentage points year-over-year. This is due to the increase in cost incurred by the establishment of a 100% wholly owned company, PUFsecurity in May 2019.
- 4) EPS of Q1 is 2.38 NT Dollars (NT\$ 2.38) and ROE at 39.5%.

In the following section, I will break down the revenue contribution by licensing and royalty.

- 1) Licensing from Q1 is one hundred and six million NT dollars (NT\$ 106 mil), accounted for 25.6% of the revenue, down 8.2% sequentially, but up 0.6% year-over-year. In terms of US dollars, licensing revenue is 4 million US dollars (US\$ 4 mil), down 6.7% sequentially, but up 3% year-over-year.
- 2) Royalty contributed to 74.4% of the total revenue, is three hundred and nine million NT dollars (NT\$ 309 mil), increased 25.6% sequentially, and 6.8% year-over-year. In terms of US dollars, the royalty is ten million US dollars (US\$ 10mil), up 28.4% sequentially and 9.9% year-over-year.

If we breakdown revenue by technologies, the results are as follows:

- 1) NeoBit accounted for 22.6% of the total licensing revenue of the quarter, decreased 24.5% compared to the previous quarter, but up 20.5% year-over-year. Its royalty accounted for 64.5% of total royalty, increased 19.9% sequentially, but decreased 17.7% year-over-year. The decrease was due to some PMIC customers switching to NeoFuse technology.
- 2) NeoFuse accounted for 70.1% of total licensing revenue of the quarter, up 13.5% sequentially, and 15% year-over-year. Its royalty increased 40.8% sequentially, and 187.8% year-over-year because of increasing contribution from 28nm process nodes. The royalty of NeoFuse contributed 31.8% of total royalty.
- 3) Our new technology, PUF-Based Security IP has contributed to 0.6% of licensing revenue. Although this new technology has not contributed royalty yet, engagement with industrial leaders are still actively ongoing. Thus, we expect more significant contributions from PUF this year.
- 4) As for MTP technology, licensing revenue decreased 49.2% sequentially and 66.1% year-over-year. Royalty from MTP increased 14.8% sequentially, but decreased 12.6% year-over-year. This is because the focus of MTP is in the collaboration with leading customers for automotive applications and the engagement period is relatively long. In addition to that, our MTP team is working with partners on developing MRAM, ReRAM and AI memory.

If we breakdown royalty by 8-inch and 12-inch wafers:

- 1) 8-inch wafers, which accounted for 64.1% of royalty, increased 15% sequentially, and 3.3% year-over-year.
- 2) Royalty for 12-inch wafers contributed 35.9% of royalty, increased 50.4% sequentially and 13.7% year-over-year.

Our result for single-quarter tape-out is a record high. There was a total of 116 product tape-outs in Q1, up 18% from the previous quarter. This indicates that the pandemic has little impact on our R&D activities and operations. We will provide more information in the management report that will be released later today.

In the next section, I would like to address our future outlook.

We expect the growth of revenue to accelerate in the second quarter and beyond as accumulated 249 tape-outs between 55nm to 7nm are on the pipeline, including OLED, Tcon, ISP, bluetooth, switch, Wifi, TWS, SSD, set top box, video processor, digital power, IoT security processor, FPGA and the others, which are moving into production stage and will drive our royalty to grow this year and beyond.

- 1) For licensing revenue, we anticipate that NeoFuse and NeoPUF will continue to grow due to increasing advanced technology platforms and more comprehensive PUF-based security IPs.
- 2) For royalty revenues, royalty of DDI will increase due to a higher penetration rate of OLED DDI of existing customers and new largest Korean OLED panel customer. PMIC will continue to grow due to content increases in 5G devices and higher ASPs from the migration into advanced process nodes. New applications like Multimedia-related products (such as DTV, STB, surveillance, ISP), Networking-related (such as switch, Bluetooth, WiFi) and DRAM will also continue to drive royalty growth. On top of that, the global pandemic has also driven the recent increase in production of 8-inch medical-related MCU, sensors, and NB related applications.

For new application development:

- 1) Our new applications are centered around the development of PUF-based technology. The first being NeoPUF, which was designed into leading customers' products for IoT applications. PUFrt (the IP of NeoPUF-based root of trust) was also adopted by customer for AI application last year. With the pandemic changing our behavior patterns both in life and work, there is an increase in internet activities that will accelerate the demand for PUF in security applications. As mentioned before, our PUF-based security IPs have been adopted by several customers. For example:
 - a) NeoPUF was designed by the largest Chinese chip company into its IoT platform to protect edge devices from external attacks.
 - b) A Chinese AI customer applied NeoPUF to secure AI training modules.
 - c) A leading European company used NeoPUF to protect sensitive data in Wi-Fi chips.
 - d) A US customer used NeoPUF to protect their FPGA IC design from theft.
 - e) A US customer applied NeoPUF into their industrial automation application to ensure data security and increase its attack-resistance ability.
- 2) Aside from our development efforts, we also collaborated with ARM to embed our NeoFuse in its security platform, which already has customer adoption, and has entered the product verification stage.

Contribution from the developments mentioned above will be seen this year.

For new technology developments:

- 1) First, we are continuously improving our technology platforms. In addition to the 5nm technology platform, MRAM, ReRAM, and ARM security IP platform which we mentioned in the previous quarter, we are developing 6nm and 5nm plus (N5P) technology with our leading foundry partner, and have already completed the 6nm development tape-out.

- 2) Second, we are developing new security IPs. After the completion of PUFtrng (PUF-base random number generator) and PUFrt (PUF- based root of trust), we are working with foundry partners to incorporate PUFrt into embedded flash platforms to protect the data stored in the embedded flash. Our PUF- based IoT security solutions, security elements, and hardware security module IPs are also under development.
- 3) Lastly, we are in the process of creating an open platform. This open platform focuses on PUF- based hardware security by integrating OTP, PUF, security-function IPs, and cryptographic algorithm IPs to provide total security solutions for AIoT and 5G applications.

Before we end, I would like to take a moment to share with you my thoughts on how the global pandemic is affecting our business and measures we are taking to address these challenges. First of all, our most precious possessions are the health of our employees. To safeguard the health of our employees, we continue to take precautions and measures to ensure that our employees are working in good health conditions. During the peak of Taiwan's COVID-19 crises, we switched to working remotely to protect employees from potential exposure to viruses. I am particularly pleased by their execution and efficiency in these challenging times and am extremely grateful for their dedication and continuous hard work.

As you all know, we are an R&D company; our business is mainly focused on providing our IP designs and technologies. With that being said, we are not involved in purchasing raw material and facilities, fabrication, testing, or packaging. Thus, our business risks in this situation are relatively low so we see very limited impact on daily operations. Since as all our employees are based in Taiwan, and our R&D cooperation with our customers are mostly conducted via phone calls, conference call or emails with no absolute necessity of physical contact.

As you can see, our company is doing relatively well under the global pandemic. With that, I will conclude my presentation on our operating results and future outlook. Thank you.

Chairman's closing remarks:

eMemory was established in the year 2000. Our first invention, NeoBit, led us to a very high penetration rate in 8-inch and 90nm process, making eMemory a global top ten and the largest semiconductor intellectual property company in Asia. In 2010, we developed NeoFuse for 12-inch applications. After 10 years of process technology development and customer engagement and adoption, we have successfully extended our IP into various allocations as mentioned earlier. We expect a multi-year growth cycle ahead. To do so, we are paving way for the next growth engine after NeoFuse, which is the PUF-based security IP technology, hoping to extend our growth curve five to ten years later. There is a series of brief introduction of PUFsecurity application in 5G from page 25 onwards.

eMemory has always been a company that focuses on the development of technology platforms and innovations in silicon IP that will bring more value to customers and industries. I believe our PUF related IP will play an important role for 5G, IoT, and AI applications in the future. We hope to use our innovation to ensure all online activities are secure, and this is our company's vision - embedded everywhere and secure everywhere! Once again, thank you for your patience and support for eMemory.