eMemory Q4 2020 Results – Earnings Call Q&A

February 9th, 2021

Revenue/Profit

1. **eMemory's revenue is NT$ 420 million in January, which is amazing! I would like to ask further:**

   (1) Is the IP License and Service revenue of NT$ 99.43 million a one-time recognition? Is the contribution from NeoPUF or NeoFuse? In the last three months, eMemory's IP License and Service revenues are more than NT$ 50 million. Will this be the norm in the future?

   The licensing revenue is recognized by milestone (not just one time) and without seasonality. We can expect good growth from licensing this year as strong demand from NeoFuse, NeoPUF and MTP technologies.

   (2) According to the annual report, eMemory's royalty revenue accounted for 70% of the total revenue, which is higher than the world's largest IP Company, ARM. This percentage is also significantly better than the domestic Andes Technology's 20% and M31 Technology's 9%. Why is the proportion of eMemory's royalty revenue so high?

   Our business model is aimed for royalty and we charged much less upfront licensing fee. Our current royalty reflects our accumulated effort from the past. The reason we can have the highest percentage of revenue for royalty because first, is with our persistence and stickiness with our business model, second, the technology we invented is the most fundamental part of a semiconductor structure.

2. **Is the 15% employee profit sharing based on revenue or profit?**

   The profit sharing is based on profit before tax.

NeoPUF/PUF-based Solutions

3. **In last week's [PUFsecurity News] PUFsecurity Crypto Co-processor PUFiot Passed NIST CAVP Certification, I would like to ask, by passing NIST CAVP Certification, certified security algorithms include AES, CMAC, DRBG, key packaging, SHA2, HMAC, KDF and ECDSA. Does it mean that NeoPUF has made a great progress, and will it be adopted into IoT-related security applications?**

   Yes. The demand for our PUF related IPs is very strong. We already had tape outs for IoT chips and the other applications, embedded with PUF IPs.

4. **Based on Q4 licensing revenue analysis, PUF-based has declined since Q3 (even lower than Q2). Although the amount declined is not large, but there seems to be a contradiction in the trend. Please explain.**

   The revenue recognition is based on when we sign the contract, which cannot be judged only by one quarter. Our request for PUF are very strong and we expect more licensing to come this year.

5. **It is mentioned in the previous earnings call that royalties from NeoPUF will be seen as early as the second half of this year. Does this schedule still remain?**

   Yes. We expect customers will move into production stage in the second half of the year.

6. **Apple does not use our NeoPUF, and Samsung uses its own SRAM. What are the other areas that NeoPUF could provide opportunities to help the company create high revenue growth?**

   Currently, hardware security is using standalone security element chips, which is the SE chip. Our solution by leveraging our NeoPUF's natural randomness function can make security element chip into a full IP block directly embedded

into chip itself. NeoPUF is just at the beginning stage. We expect this will be the future trend for hardware security.

7. **What are the NeoPUF cases we have received or are negotiating?**

   The demand for our PUF related solution is very strong. There are many projects on-going, ie. Data Center Processors, FPGA, ADAS for Automotive, AI, Industrial Automation, and IoT. All these requirements are from customers in U.S., Europe, Taiwan, and China.

Foundry/Applications

8. **In the current situation of capacity tightness in foundries, does it impact the progress of our new product development and verification? If so, how does the company cope with it?**

   We do not see this as an issue. We have record high number of tape outs for the year, for the quarter, and for the month of January this year. On the other hand, for the long-term development, foundries still allocate certain resources for the new platform development and new product deployment. At this circumstance, eMemory's technology and the technical excellence are quite essential to support foundries and fabless companies to do product development. So, we are now still busy in development projects.

9. **Foundries supplanted the production of panel driver ICs for the production of Automotive chips, causing their production output to reduce. What is the impact on the company?**

   Our IPs are developed in Automotive platforms, as we have reported several times. On the other hand, the tighter the capacity, the better the foundry wafer price, which will benefit our royalty income.

10. **Is there any product tape out in Automotive application? When is royalty income expected?**

    Yes. We have many automotive technology platforms and accumulated tape outs, and already have royalty contribution, constantly increased.

11. **With the new era approaching such as 5G, WiFi 6, and electric vehicles, Gallium nitride (GaN) and Silicon Carbide (SiC) are rapidly becoming mainstream. How will this affect the company?**

    The purpose of using Gallium Nitride and Silicon Carbide is for discrete power, ultra-high voltage, or ultra-high current. Our IPs are adopted for power management, which integrate MCU, clock generator, and RF. The market is different. The trend for power management is moving into more advance process nodes. We even have customers adopt 16nm for digital power solution. In addition, in case more power or higher frequency product can be deployed in the system, and more product applications will bring in more silicon-based IC requirements. So, more IC content is encoded in the electric vehicle. It helps our customers to have more business opportunity and in turn benefit eMemory accordingly.

12. **May you elaborate more on the application and breakthroughs of MTP?**

    We are hoping that we can deliver ReRAM and AI Memory for customers to use in foundries. So, this will bring us to a new era of product applications.

13. **What will be the single largest growth driver (by end-application) in 1Q21 and 2021?**

    At this moment, we foresee a lot of product applications that will drive the revenue growth in the first quarter or in this year, which includes applications such as ISP, OLED and others in 28nm and below.

Recruitment

14. **In the face of the booming era of the semiconductor industry, a large amount of capital expenditures and employees have been increased. What is the company's strategy in employee recruitment?**

    eMemory is an innovative technology company. Hence, we encourage our engineers to create new technology for every new product application. We will recruit new talents based on what we need. eMemory is offering two formal courses on our eNVM and hardware security technology at National Tsing-Hua University. This will help us recruit new talents directly from the school.

15. **What do you look for when hiring engineers? What is unique about your hiring process?**

    eMemory is an innovative technology company. So, engineers that we look for are those who are innovative and proactive. These are the key factors in evaluating the candidates in the hiring process.