

## **2020 March 24<sup>th</sup> Con-call Meeting Held by Daiwa-Cathay Securities**

### **1) The COVID-19 pandemic impact on eMemory**

#### **R&D development:**

We are an R&D company. Our business is mainly focused on providing our IP designs and technologies. Therefore, we are not involved in purchasing raw material and facilities, fabrication, testing, or packaging. The business risk is relatively small.

So far, all the undergoing R&D projects have a clear development schedule. To safeguard the health of our employees, eMemory had split into operation groups to work from home due to the Coronavirus. Our R&D engineers can still access the company's design environment from their home via secure connections. In terms of the growth of accumulated design projects gained this year comparing 2020 Q1 to 2019 Q1 (tape out 116 vs. 92), it is obvious that the development schedules of those projects were not affected.

In addition, there are more than 400 new chip design cases every year, and 90% of them are using developed IPs that do not require further R&D effort. Overall, the impact of Coronavirus is very limited.

#### **Marketing and sales:**

eMemory not only develops new businesses through our own sales persons but also through worldwide foundries' marketing channel. Our sales used to visit customers once or twice per season in order to learn about their needs. However, since we face hundreds of customers worldwide, most of our project discussion, relationship management, and business development are still communicated via emails, phone calls or video meetings with our customers. Thus, the impact is very limited.

### **2) Future prospect**

Last time we mentioned that the company will enter another growth cycle. We still have strong faith in this statement. The main contributor to our growth is the 12-inch application and royalty from new applications and new customers. That is, the design projects we completed several years ago have been continuously moving to the mass production stage. For example, as OLED triggers the demand for IC chips, not only do

existing customers increase their contribution, but also new Korean customers are heading to mass production which will start making contributions to our royalty revenue.

In addition, new applications i.e. 28nm ISP, networking chips and DRAM are increasing volume production. 8-inch wafer consumption will benefit from content increase of PMIC in 5G mobile phones and medical demand for MCU and sensors. All these will mitigate the impact of demand weakness caused by COVID-19 pandemic.

In addition to the new application, our next growth engine, NeoPUF, has also been adopted by several clients. For example:

- 1) The largest chip provider in China applied NeoPUF to their IoT platform to protect edge devices from external attacks.
- 2) A leading European company used NeoPUF to protect sensitive data in Wi-Fi chips.
- 3) An US customer used NeoPUF to protect their FPGA IC design from theft.
- 4) A Chinese customer applied NeoPUF in blockchain to secure AI training modules.
- 5) A US customer applied NeoPUF into their industrial automation process to ensure data security and increase its attack-resistance ability.

Besides, it is evident that the pandemic changes our behaviors both in life and work, especially as more and more companies are requiring their employees to work from home. The security issues related to telecommuting needs more consideration than ever. These include ensuring the secure access for R&D engineers to the internal servers, also the recent security issue of Zoom. These were only few of many examples as more online activities drive the importance of security.

Currently, we are working with ARM to develop a secure IoT platform. We are also building on open hardware security IP platform through a series of PUF-based IPs for wide applications.

To conclude, we are accelerating our development schedule, including the innovation of security IPs, the leading edge process development and emerging memory development. We are very confident that we can strive towards our long-term growth trend.