Business Results
The First Half of FY2020
(July 2020–December 2020)

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ULVAC Inc.
**Disclaimer regarding forward-looking statements**

Forward-looking statements of the company in this presentation are based on information that was available at the time these documents were prepared.

There are several factors that directly or indirectly impact the company performance, such as the global economy; market conditions for FPDs, semiconductors, electronic devices, and raw materials; trends in capital expenditures and fluctuations in exchange rates. Please note that actual business results may differ significantly from these forecasts and future projections.

**Data included in the documents are stated as follows:**

(All figures are stated on a consolidated basis unless otherwise noted.)

- **Yen values:** Rounded to the nearest 10th of the unit stated.
- **Percentages:** Rounded to the nearest 10th after yen values are rounded.

**Abbreviations of accounting periods:**

- 1Q to 3Q (cumulative): First to third quarter consolidated cumulative period
- 3Q: Third quarter consolidated period
I would like to explain the summary of consolidated business results for the first half.
Both orders and sales are on a recovery trend after 1Q.

Orders received in the first half of FY2020 were ¥91.0 billion, exceeding the initial forecast and increased significantly YoY. 

Both net sales of ¥83.8 billion and operating income of ¥5.8 billion exceeded the initial forecast due to the increase of orders.
Orders received in 1H were ¥91.0 billion, exceeding the initial forecast of ¥79.0 billion and being significantly higher than the ¥72.0 billion in the same period last year.

Sales were ¥83.8 billion, exceeding the initial forecast of ¥78.0 billion due to the contribution of the increased orders received, and operating profit was ¥5.8 billion, exceeding the initial forecast as well.
Please look at orders received by segment.

In semiconductors, investment in metal hard mask processes for logic, DRAM and NAND, as well as PCRAM mass production and development equipment, and in electronics, investment in power devices, optical devices, communication devices, etc., increased mainly in Japan and China. Particularly, in last November we sent several general manager-level engineers from Japan to China for full-scale technical sales activities, and orders and inquiries in China are increasing. As a result, we received ¥19.3 billion in 2Q and ¥28.0 billion in 1H, exceeding the 1H forecast and the same period last year.

In FPDs, orders for OLED backplanes for smartphones in China and additional investments in LCDs for large TVs in China were received as planned, and investments in LCDs for large TVs in China that were scheduled for the 3Q were brought forward.

Sales of components decreased YoY, partly due to restrained investment in the automotive industry.

As a result, orders, which fell to ¥31.2 billion in the 1Q, recovered to ¥59.8 billion in the 2Q, exceeding the forecast.
Net sales were ¥83.8 billion, decreased YoY due to the impact of the decline in orders received in FY2019.

On a quarterly basis, sales are on a recovery trend after 1Q of this fiscal year.
Please look at the semi-annual trends in orders received and sales.

Orders on the left are on a recovery trend after 1H of FY 2019.

The recovery is driven by FPD and Semiconductor & Electronics.
Gross profit margin and operating profit margin declined due to the decrease in net sales.

The profit margin is expected to improve in 2H.
In the consolidated balance sheet, notes and accounts receivable-trade decreased by ¥4.0 billion and notes and accounts payable-trade decreased by ¥500 million.

Net assets increased by ¥1.0 billion, and the equity ratio was 55.5%.
Market Outlook and Approaches
The memory and logic markets are expected to expand along with the increase in the volume of information due to the progress of 5G, smart society, digital transformation, electrification of automobiles, and automated driving.

Investment in DRAM and NAND are resuming and becoming more aggressive, especially in South Korea. In addition to an increase in orders for existing processes, ULVAC has received a high evaluation for its metal hard mask process for logic devices, and expectations are rising for ULVAC as a second vendor that does not require to purchase from a single vendor for the customer.

With regard to PCRAM, U.S. logic manufacturers, which are at the forefront of the market, are actively introducing the expanded use of PCRAM and its high evaluation, and we expect investments to be made in the next fiscal year and beyond. Other memory manufacturers have also begun mass production development, and they are all using ULVAC’s sputtering equipment which the possibility of business is expanding.

In terms of logic investment, two foundries and other companies have announced aggressive investment plans. Most of the investments by the two foundries are in EUV-related processes, and it is expected that 70% of logic investments will be EUV-related investments in 2022. ULVAC entered the logic field by gaining a high reputation for its sputtering equipment for metal hard mask processes, which is necessary to maintain
the accurate patterns made by the use of EUV exposure systems. As further miniaturization progresses, the number of EUV processes will also increase, and the number of sputtering equipment required will also increase. From the next fiscal year onward, we expect to see an increase in the number of products due to miniaturization. In addition, we have started to receive projects for joint development in other processes, and we expect to receive more orders by entering new processes.
As for electronics, in 1H of the year, orders for communication devices, optical devices, and power devices increased in Japan and China.

In November last year, China announced a large-scale investment plan for communication networks such as 5G and data centers, as well as energy networks such as EVs, and on January 29 this year, China announced the "Action Plan for the Development of the Electronic Devices Industry" and put forth measures to strengthen domestic production.

We have already mentioned in our briefing in August last year that capital investment in the electronics field started to pick up around March last year, but with the reiteration of the domestic production policy, we believe that local governments will become even more active in attracting and providing financial support.

At present, investment plans in China are becoming more active, especially in power devices and optical devices for AR/VR.

In order to seize these big opportunities, we have
(1) deployed several general manager-level engineers in technical sales in China to expand our contacts with customers, and
(2) established a network to respond to sampling needs by introducing demonstration equipment in cooperation with China's top-class electronics-related research institutes, and
(3) working to strengthen the system to support local sales.
In addition, by increasing the lineup of modularized products, we are
(1) expanding the range of proposed equipment, and
(2) working to improve our competitiveness by shortening lead times and
reducing costs through standardization.

In terms of power devices, Japan is mainly focused on IGBTs, but business
negotiations for SiC are becoming active in China recently.
Chinese power device manufacturers are planning to start with low-end
products such as those for home appliances and then move on to middle and
high-end products.

In the field of optical devices, investments for AR/VR and automotive displays
are becoming more active.
Particularly in China, investment plans are progressing in a wide range of
fields including μOLEDs for AR/VR, biometrics, and automotive displays.

In the area of communication devices and MEMS, investment in
communication-related products and sensors for 5G is becoming more active.
In China, there is still a large technology gap, and the focus is on R&D, so it
will take time for full-scale investment.
In the FPD business, we received orders for sputtering equipment for backplanes of OLEDs for smartphones in 1H of the fiscal year, and we expect to continue to receive orders for G6-class OLED investments in the next fiscal year and beyond. The evaporation equipment for OLEDs is scheduled to be ordered in 2H of the fiscal year.

As for OLED investment, in addition to smartphones, mass production development of large substrate OLEDs for TVs, tablets, game monitors, etc. is progressing, and we hope to contribute to the market with the know-how we have cultivated in sputtering equipment for large substrates.

As for investment in LCDs for large TVs, we received an order in 2Q for investment in a production plant in China, which was initially scheduled for 3Q.

Demand for PCs, large TVs, game monitors, etc. is growing due to the demand to be consumed inside the house by the new coronavirus pandemic, and we received an order for additional investment in the existing plant in China in 1H.

In the business results presentation in August, we have said that LCD investments would come to a halt, but the investment competition to secure market share in China is heating up in the condition of brisk demand for panels recently, and also the Korean manufacturer has postponed to close their factories. There are also some movement to build new LCD plants for large substrates for tablets.

As we explained at the technical seminar held in December, R2R and
winding systems for touch panels and optical films are beginning to play an active role in the energy field. The business for film capacitors for hybrid vehicles is about 1 to 1.5 billion yen per year, and we believe that it will expand to EV batteries after the current mid-term management plan.

In the FPD business, we have started to improve the profit margin by improving productivity last year, and we are starting to see some results by steadily shortening lead times and building an optimal global procurement system, focusing on our main standard models.
In the components business, orders declined due to the stagnation of automobile-related investment, but we expect a gradual recovery as investment is currently picking up, especially in the semiconductor and electronics industries. As part of our management reform efforts, we have integrated our group sales functions and will continue to integrate our purchasing and production systems. In the cryopump business, we will continue to maintain a high market share in the OLED-related market, and will also focus on developing the semiconductor electronics field.

In the area of materials, demand for panels for PCs, TVs, and games has been strong, and sales of targets for FPDs have been steady. In the future, we will aim to expand our business in the field of semiconductor electronics through powder metallurgy, including tungsten, which is our specialty. In order to improve profitability, we have started efforts to improve yield rate and reduce procurement costs.

Customer support accounts for less than 30% of consolidated sales, and sales for CIP for FPD-related equipment and cryopumps for OLEDs are on the rise. We have also started to offer remote customer support packages.

The above is an explanation of the current market outlook and ULVAC's initiatives.
Although the 1Q results were quite low in terms of orders, sales, and profits, even though we had expected this from the beginning of this fiscal year, the 2Q results exceeded our initial forecast, and we will be on a recovery track from now on.

We will continue to make efforts to realize our basic policy by (1) investment in development for growth and (2) profit-oriented management by changing our business structure by carrying out management reforms, aiming to achieve growth and increase corporate value.
ULVAC vacuum technology contributes to many industries and applications

- Automobile
- Semiconductor
- Flat Panel Display
- Photovoltaic
- Food Processing
- Aircraft
- Bio
- Smart Phone
- Magnetic Device
- Home Appliance
- Aerospace
- Pharmaceutical
- Wearable/VR
- Power Device
- NEMS Device
- Architectural Glass
- Optical
- Flexible
- Packaging Materials
- Battery
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