

## **FY2020 Presentation Q&A**

Presenter :Norio Nakajima President

Yoshito Takemura Executive Vice President (Board Member)

### **[FY2021 Projections]**

Q. You mentioned that the Company expects temporary inventory adjustments. During which period of the plan do you expect these adjustments to take place, and what kind of magnitude will they be? If such adjustments were to take place, what would be the reasons that prompt such moves?

Many in the industry forecast that the tight supply/demand condition will continue for capacitors. Are there any risks of those conditions changing? Please tell me how you formulated the forecast for the first and second half of this fiscal year.

A. We see some differences in inventory levels depending on the market. Especially in the automotive market, the appropriate inventory level has increased for all components due to the pandemic-related lockdowns and shortage of semiconductors. We expect this situation to last throughout the first half of FY2021 and will subsequently enter an adjustment phase in the second half.

As for smartphones, orders from local manufacturers in Greater China were robust in Q4 2020 and have remained strong even in April but are now starting to enter a slight downtrend. We think there could be a slight adjustment phase from April to June. But, from July onward, we would enter the timing of components uptake for new models, including in the US and Korea. So, we do not think any major adjustments will take place throughout the year.

Demand is robust on the whole in the first half and price reduction pressures are also modest. As such, we think the tight supply conditions will continue. We think the tight supply/demand will ease off to an extent in the second half, so there will likely be a time or sea change that requires us to review our strategy, including pricing.

Q. The negative impact of JPY72 billion from price reductions in the breakdown of factors behind changes in income feels quite substantial. You expect a larger impact this year than the entire impact last year. Even the QoQ trends show that Q4 sales haven't dropped much despite it being a period for annual changes.

I would have to say that the price assumption being factored into your forecast is somewhat confounding, given that other Japanese manufacturers have at least stated that capacitor prices are unlikely to fall, albeit they will not rise either.

It seems that you assume a pullback in vehicle demand in the second half, but others view that the appropriate inventory would settle down under a new normal. Is it valid to assume that prices would fall so much on deterioration in supply/demand in the second half? If it simply means you are conservative, then that is fine.

A. Being somewhat conservative is one aspect of it. But we don't expect the level of appropriate inventories to remain at the current level, which is elevated due to the shortage of semiconductors. I think there will

be a substantial adjustment in the second half. We expect a certain degree of pricing pressure once the tightness in supply/demand settles down. It's understandable if some people view the degree of that impact to be slightly conservative.

Q. Regarding capital expenditures of JPY160 billion, what would be the difference from last year on the basis of excluding buildings? Please tell me where capacity is being increased this year compared to the results last year, or where it is unnecessary to increase capacity.

A. Until FY2020, a large portion of capital expenditures had gone to securing land for the future and strengthening buildings. As for investments in manufacturing lines, we expect to slightly increase the amount in FY2021 compared to FY2020.

The largest area where production capacity will be increased is for MLCCs. Even if it is 10% on a capacity basis, the denominator is gradually increasing, meaning that the amount of investment is rising considerably.

We have completed some capacity enhancements for RF in the last fiscal year, so there are investments for inductors and batteries.

### **[Capacitors]**

Q. Orders and orders backlog is at elevated levels, while the backlog is continuing to expand. What kind of differences are there in the current situation of MLCCs compared to the period from 2017 to 2018 when there was a shortage of supply? Are there any signs for the price to increase right now or in the near future? Or do you think it's about to happen?

How much of an impact did price reductions have on FY2020 and what degree of impact do you anticipate for capacitors in FY2021?

A. The backlog has continued to expand in April. Regarding the difference between the current situation and during the tight period from 2017 to 2018 when there were excessive inventories, this time, we have a clear idea of where the inventories are located. Simply put, the appropriate inventory levels of customers have increased.

Back in 2017 or 2018, we didn't have a clear view of where the inventories were located. As a result, there were a lot of inventories carried by distributors. A major difference this time is that we reflected on that mistake and made it easier to see the whereabouts of inventories.

As for prices, we cannot provide specific numbers, but the tight conditions in FY2020 resulted in moderate price reductions. We expect a similar level of price reductions in the first half, or Q1 and Q2, of FY2021.

In the second half, we think the supply/demand environment will settle down considerably, so we think it'll be necessary to conduct some degree of price reductions.

Q. You explained that the trend is for customers to have a relatively large amount of inventories for capacitors. I think for automotive demand, one way of seeing it is that demand will grow robustly due to the increase in installed units per vehicle owing to the progress toward electrification.

I think there are multiple factors at play right now, including the decrease in the number of vehicles produced, the increase in installed units per vehicle, and the trend to keep inventory levels slightly high. Could you give us a breakdown of the reasons behind the recent strength in demand?

I would also like to know the background as to why orders are abnormally strong. If you extract the orders for capacitors alone in Q4 FY2020, orders grew even more and the book-to-bill ratio reached around 1.32.

A. There are three reasons why orders increased substantially in Q4 FY2020.

The first and main reason is automotive demand. Inventory levels are being built up ahead of the recovery in production.

Second, a smartphone manufacturer in Greater China is ramping up production, aiming to capture the market share of the previous leading manufacturer in Greater China.

Third, the yen depreciated against target country currencies more than we expected.

On a total sales basis, around 25% to 30% of MLCC was for automotive applications. We expect the product mix to be roughly unchanged from 2020 to 2021. Over the past three years, we have been carrying out large-scale investments aimed at boosting capacity by 10% annually. As such, we have the capacity to cover a certain degree of the required quantity. We have increased capacity based on the calculation that the number of installed units will increase in tandem with the shift to EVs and the advancement of ADAS.

Q. Have you seen any instances of orders with very long delivery periods, or orders that are clearly duplicate or triplicate, among the bloated number of orders? Have you seen such changes in the attributes of orders?

A. I think there were duplicate orders back in 2017, when we didn't know the whereabouts of inventories, including how much was in the market and how much was held by distributors. But, this time, we have a fairly clear idea of how much inventory is held and where it is located.

Q. In FY2020, MLCC grew by 12%, and you expect it to increase by 11% in this fiscal year. What happens if you divide that to volume and ASP?

You have mentioned in the past that the capacity will be increased by 5% to 10%. Have there been any changes to that?

A. First, on a volume basis, the quantity has increased by around 25% to 30% from FY2019 to FY2020. This was chiefly due to a sharp decrease in automotive applications in Q1. The decline has been around 10% for ASP.

We think that, on a volume basis, the quantity will increase by slightly over 10% in FY2021. There is no major change in the product mix, and we think the trend will be for ASP to fall several percent, considering the price decline of 21F2 in the phase when the demand environment settles down.

Q. If ASP fell by 10% due to a decline in automotive applications in the fiscal year ended March 2021, then I think there will be a positive impact on the product mix for 21F once automotive applications recover. Do

you assume that this impact will be offset by the anticipated price in the second half, and that the price will not change much?

A. Right. The first part is in comparison to FY2019, so we have explained this as a decline in automotive applications during that period. The rest is as you say.

### **[Modules]**

Q. You expect module sales to fall by 15%. Last time, you cited some physical constraints on travel due to COVID-19, despite being no less competitive in technology. You explained that the market share for smartphone applications in North America would fall sharply. What do you expect to happen this year, and what do you think of as factors that would allow you to stage a comeback in the next fiscal year—FY2022?

A. Last time, there were still uncertainties when I shared my honest views. The impact of those factors is starting to emerge. Roughly speaking, the factors behind our outlook for a 15% decline this year can be divided into three parts.

The first factor is an intentional withdrawal from Wi-Fi modules. As explained before, the circuit structure has been divided into the front-end part and module part starting from the 2020 module. As a result, we have withdrawn from Wi-Fi modules for smartphones.

The second factor is what I discussed in the last earnings. We were unable to provide support due to physical constraints on travel, leading to a decline in market share, especially for some transmitting modules.

The third factor is the decoupling of the US and China. Especially in China, we have major customers who adopt our RF modules, so the decoupling has had an impact on those orders.

We are moving to recapture our market share in 2022 by taking quick action to strengthen our support structure, including through the resumption of human travel. Additionally, we are taking initiatives to expand our market share amidst an increase in demand.

Several smartphone manufacturers in Greater China have increased their market share subsequent to the US-China decoupling. On the other hand, our modules have particularly been adopted in new platforms of chipset manufacturers. We see 2021 as a transitional period, after which we expect to increase market share by the end of 2021. In this way, we aim to restore our market share, albeit it will take some time. Until then, there will be many cases where modules will not be used much, but I think this can be recovered.

Q. My question is about RF modules. Could you give us some hints as to what kind of changes would be implemented in the new model to be released in the fall compared to last year's model?

I believe you possess a high market share for receiving and diversity modules. What kind of expansionary strategies have you been taking since losing your largest customers in Greater China for modules, including power amps?

A. We do not think there will be any material changes in the fall model catering to the US market, given that we have a certain degree of experience in receiving modules and also have remote support capabilities. The reduction in market share was partly caused by the disadvantages owing to constraints

on human travel during a period when we needed to make fine-tuned adjustments for transmitting modules. As for transmitting models, the largest customer in Greater China had actively adopted them in the past. Based on the technology we've obtained through those transactions; we've already accessed 2022 models. I think we have already made steady progress in expanding sales to local manufacturers in Greater China by producing products that comply with the platforms of chipset manufacturers.

Q. You expect sales to decline by 15% in the current fiscal year but increase meaningfully in the next fiscal year onward. Is that correct?

A. Yes. That's what we believe.

Q. What are the assumptions for MetroCirc™ in the current fiscal year?

You mentioned that the situation would be somewhat tough for modules in the current fiscal year, but there will be a recovery in the next fiscal year onward. I think there will be a recovery in both North America and China. As a major trend, there are considerable changes in 5G technology. For example, the number of antennas and bands is increasing for both receiving and transmitting. I think there are some places that have started making transmitting modules compatible with two antennas. Do you think that you will be able to follow these technological changes, and by way of logic, your market share will increase?

Or, do you think you can ride on the recovery trend and capture demand from smartphone manufacturers in Greater China who are expanding their market share, such as by changing the strategy in China? Or, is it your product and proposal capabilities, such as for XBAR? Please share with us the key points behind the recovery anticipated in the next fiscal year. That is my second question.

A. Our understanding of the module business is that it is exposed to high volatility. This is a major difference compared to capacitors and inductors. The reason why there is so much volatility is that there are many competitors with similar technological capabilities.

Against this backdrop, a very challenging requirement will be to guarantee the filter performance, as smartphones come attached with 5G and advanced MIMO features. By persistently investing in this domain, we intend to turn it into a differentiating technology.

We will need to adopt different strategies depending on the customer of destination. For example, in China, we propose front-end modules so that they can be used in common across various platforms. In the US and Korea, we provide well-customized products that will satisfy customers.

Aside from those independent strategies, we think the volatility will continue unless we can offer an outstanding filter technology.

Q. In terms of filter technology that would help recapture market share, would it be through I.H.P. SAW?

A. Yes, in addition to I.H.P. SAW, I think it would be possible to evaluate XBAR technology from around 2022, when the platform will undergo a major change.

Q. What are your views on MetroCirc™ for the current fiscal year?

A. As for MetroCirc™, we have not lost market share, and the number of installed units has not fallen. The customer has been using MetroCirc™ continuously over a long period, so we have both made progress in streamlining the design, such as through miniaturization or an increase in units. As a result, the price per unit has fallen. Due to the lower price, we expect a modest decline in sales in 2021.

Although the product will not expand rapidly, there will be many instances where we would be able to differentiate the features of our product, such as through millimeter-wave band applications and UWB antennas. Therefore, we aim to differentiate our products through these features.

Q. Originally, you provided guidance that there will be an adjustment for modules in Q4 FY2020. You explained that smartphone adjustments ended up being needless worry. But the QoQ drop looks relatively large for both sales and profits, so please tell me the background behind the drop.

Also, please tell me the technological background based on which you aim to recapture market share from 2022 onwards. Are you confident because you have taken steps in advance to recover the loss stemming from travel restrictions? Or, the advantages of your filters contribute to demand in 2022 and beyond?

A. First, regarding the slump in modules in Q4 FY2020, there was substantial demand from local manufacturers in Greater China in terms of the number of set units, so the demand for smartphones as a whole did not fall significantly. There were changes in the sales mix due to a decline in demand among US and Korean customers, owing to seasonal factors. These are customers who adopt a large quantity of our modules primarily for high-end smartphones.

As for a recovery in 2022 and beyond, we have built a solid support structure, taking early steps in consideration of travel restrictions. We aim to capture a larger market share by proposing differentiated products catering to the slightly challenging specifications in the 5G architecture in 2022.

The part where we explained that the adjustment ended up being a needless worry was regarding MLCCs for components.

Q. What kind of factors are behind that difference? The general understanding is that sales and production in the US did not fall from January to March. Even though you have cited the product mix, I believe relatively high-end products are being sold. Is it because of a time lag? What is happening?

A. Based on components uptake, US customers peak in September and October, and sales gradually decline thereafter due to seasonality. The same was true last year. After that, Korean manufacturers release new models around January, so the peak comes at around November or December. And then orders enter a downtrend from there. In typical years, the seasonal trend is for sales to drop around 60% or to about six-tenths. In the previous fiscal year, this was offset by the substantial increase in demand from local manufacturers in Greater China.

## **[Batteries]**

Q. I would like to ask about batteries. In the FY2020 results, you mentioned shrinking losses. I think sales

this year will increase related to power tools. I don't think it will turn profitable this year, but how much do you have profitability in sight? How much will you be increasing capacity through the capacity enhancement, and what kind of format will the business take? Please tell me about the trend for last fiscal year's results and this fiscal year, along with your views on capital expenditures.

A. In the previous fiscal year, we made a significant policy change whereby we would select and prioritize batteries specializing to an extent in power tools and wearables, while batteries for smartphones have been shrinking. As things stand now, we don't think this strategy wasn't off the mark, and we have been able to significantly curtail losses.

As for your question about whether we can turn the business profitable in FY2021 in line with our commitment, I'm sorry, but I think we would probably need to push back the target a little.

As you say, there are currently robust orders and backlogs, and we will need to make some investments to meet that demand. In addition to investments needed for cylindrical batteries, we will start supplying batteries with a new structure in FY2021. I think there would be no choice but to make investments in the development and launch of the wide variety of new products that will have considerable impact. We hope to change the financial environment at an early stage in FY2022, but we want to allocate a certain degree of capital to investments in FY2021.

Q. You have olivine type lithium iron phosphate electrodes, and people think automotive applications are also very promising, such as for energy system storage batteries. How will you use olivine type lithium iron phosphate, given that you have the material? I think this will be key in the future.

A. We will prioritize investments in parts that need LFP, or lithium olivine phosphate, for power tools that require very high power. As for storage batteries, we have internally declared RE100 last fiscal year, and we will strengthen our environmental conservation efforts, so there are many things that can be used there. In light of that, we would like to add production capacity to a certain extent.

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