

Murata Manufacturing Co., Ltd.

Q1 Financial Results Briefing for the Fiscal Year Ending March 2024

July 31, 2023

Event Summary

[Company Name]	Murata Manufacturing Co., Ltd.	
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[Event Name]	Q1 Financial Results Briefing for the Fiscal Year Ending March 2024	
[Date]	July 31, 2023	
[Time]	15:20 – 16:22 (Total: 62 minutes, Presentation: 17 minutes, Q&A: 45 minutes)	
[Venue]	Webcast	
[Number of Speakers]	3	
	Norio Nakajima	President, Representative Director
	Masanori Minamide	Executive Vice President (Board Member), General Manager, Corporate Unit
	Omori Nagato	Executive Vice President, General Manager, Ceramic Capacitor Business Unit
[Analyst Names]*	Daiki Takayama	Goldman Sachs Securities
	Shoji Sato	Morgan Stanley MUFG Securities
	Akihiko Uchino	Mitsubishi UFJ Morgan Stanley Securities
	Fumihide Goto	Mizuho Securities
	Manabu Akizuki	Nomura Securities
	Shingo Hirata	UBS Securities
	Hideki Yasuda	TOYO SECURITIES

Presentation

Moderator: It is time to commence the financial results briefing for Q1 of FY2023 of Murata Manufacturing Co., Ltd.

Thank you very much for taking time out of your busy schedule to join us today.

First, I would like to introduce today's speakers. Norio Nakajima, President, Representative Director.

Nakashima: Thank you.

Moderator: Masanori Minamide, Executive Vice President (Board Member), General Manager, Corporate Unit.

Minamide: Thank you.

Moderator: Nagato Omori, Executive Vice President, General Manager, Ceramic Capacitor Business Unit.

Omori: Thank you.

Moderator: In addition, IR members are also present.

Today's briefing will begin with an explanation of our financial results, followed by a question-and-answer session at around 15:40.

The materials are available in the IR Library of Investor Relations on our website. The Company also discloses the presentation materials in a timely manner, which can be viewed on the TSE's timely disclosure service.

Page numbers of the presentation materials will be specified during the presentation of the financial results, so please refer to them if you are joining us by phone.

Now, Minamide will give you an overview of the financial results.

Minamide: I will now explain the financial results. Thank you very much for your continued support and cooperation in our IR activities. I would like to take this opportunity to express our sincere gratitude.

Financial Results of First Quarter of FY2023

- Revenue were 367.7 billion yen, down 15.8% year on year, and operating profit came to 50.1 billion yen, down 44.8% year on year. Revenue declined because not only did revenue of capacitors decrease in a broad range of applications, mainly for computers and base stations, but sales of connectivity modules and RF modules also fell for smartphones. In terms of profits, a productivity loss from lower capacity utilization and declines in product selling prices were the main profit-decreasing factors.
- The results surpassed the most recent sales forecast as the yen depreciated more than expected in the foreign currency market. However, actual demand for parts is lower than expected.

Projected Financial Results for FY2023

- The Company has kept the full-year projections and dividend forecasts for FY2023 unchanged from the announced figures.

Please see page two. This is the topic for Q1.

Compared to the same period last year, revenue were down 15.8% and operating profit was down 44.8%.

Revenue declined because not only did revenue of capacitors decrease in a broad range of applications, mainly for computers and base stations, but sales of connectivity modules and RF modules also fell for smartphones. In terms of profits, a productivity loss and declines in product selling prices were the main profit decreasing factors.

The yen has weakened more than expected against the latest sales forecast. Although the results were slightly higher than expected due to the impact of weaker yen, the actual demand for parts is slightly lower than expected, and therefore, we have left the full-year forecast for FY2023 unchanged from the announced figures, including the dividend.

Financial Results First Quarter of FY2023

From April 1, 2023 to June 30, 2023
Consolidated Basis

*The Company has voluntarily adopted International Financial Reporting Standards (IFRS) since FY2023 in place of U.S. GAAP, which was previously applied. With this change, the results for FY2022, presented in this material, have been reclassified from U.S. GAAP to IFRS.



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Please see page three. As I have previously announced, we have voluntarily adopted the International Financial Reporting Standards (IFRS) from 2023. Accordingly, the results for FY2022 shown in this document have been reclassified from US GAAP to IFRS.

Financial Results Overview



	FY2022 1st Quarter		FY2022 4th Quarter		FY2023 1st Quarter		Y on Y Change		Q on Q Change	
	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)
Revenue	436.7	100.0	347.6	100.0	367.7	100.0	(69.0)	(15.8)	+20.1	+5.8
Operating profit	90.8	20.8	19.2	5.5	50.1	13.6	(40.6)	(44.8)	+30.9	+161.0
Profit before tax	103.3	23.6	20.0	5.8	62.8	17.1	(40.5)	(39.2)	+42.7	+213.3
Profit attributable to owners of parent	76.1	17.4	31.1	9.0	50.1	13.6	(26.0)	(34.1)	+19.0	+61.0
Average exchange rates yen/US dollar	129.57		132.32		137.37					

*The results for the fourth quarter of FY2022 are presented after being reclassified to IFRS, but the audit by the accounting auditor has not been completed. Therefore, these figures are used as reference for comparison to see changes.

- **Revenue declined year on year because not only did sales of connectivity modules and RF modules decrease for smartphones, but sales of capacitors also fell for computers and base stations although sales of capacitors increased for mobility.**
- **Operating profit decreased year on year due to the occurrence of a productivity loss from lower capacity utilization and reductions in product selling prices, in contrast to the effect of a weaker yen and a decrease in fixed costs.**
- **Reasons for the increase in operating profit from the previous quarter are the effect of a weaker yen, production increase and a decrease in fixed costs including levies such as property tax.**

*Exchange rate sensitivity (per 1 JPY/US\$ change per year) Revenue : 10.0 BJPY Operating profit : 5.0 BJPY

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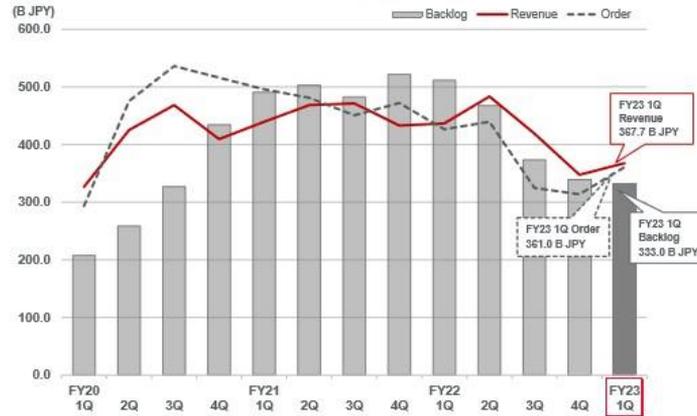
Please see page four. This is a summary of our performance.

Sales and operating profit are roughly as I mentioned earlier.

As for operating profit and below, the figures for Q1 and Q4 of the previous year have been slightly revised from those already announced due to the reclassification to IFRS. Please refer to the last page of this financial results presentation for more information on that later.

Quarterly Revenue, Order and Backlog

- On a quarter-on-quarter basis, orders received increased. The order backlog amount includes an increase due to revaluation of orders received that were denominated in foreign currencies as the depreciation of the yen has progressed. However, due to a continued trend for orders received to remain below sales, order backlogs decreased slightly from the previous quarter.
- The book-to-bill ratio remains below 1, but rose from the last quarter.



* Orders = Revenue + Backlogs at the Current Quarter - Backlogs at the Previous Quarter
 Backlogs are calculated based on exchange rates as of the end of each quarter.
 * Exchange rate against the U.S. dollar: 133.54 yen at the end of March 2023, 144.99 yen at the end of June 2023
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Please see page five. This is the performance of revenue, orders, and order backlog.

In Q1, revenue and orders received each increased slightly. The order backlog slightly decreased from Q4.

As for the BB ratio, the overall result was 0.98, and 0.97 for the capacitor.



Revenue by Operating segments

	FY2022 1st Quarter		FY2022 4th Quarter		FY2023 1st Quarter		Y on Y Change		Q on Q Change	
	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)
Capacitors	202.1	46.3	159.5	45.9	169.5	46.1	(32.7)	(16.2)	+9.9	+6.2
Inductors and EMI filters	46.9	10.7	36.8	10.6	38.9	10.6	(8.0)	(17.1)	+2.1	+5.7
High-Frequency Device and Communications Module	108.4	24.8	83.3	23.9	87.9	23.9	(20.5)	(18.9)	+4.6	+5.6
Battery and Power supply	51.3	11.8	44.4	12.8	48.0	13.0	(3.3)	(6.4)	+3.7	+8.2
Functional Device	24.8	5.7	20.9	6.0	20.9	5.7	(3.9)	(15.7)	(0.0)	(0.1)
Others	3.1	0.7	2.7	0.8	2.5	0.7	(0.6)	(20.3)	(0.2)	(7.5)
Revenue	436.7	100.0	347.6	100.0	367.7	100.0	(69.0)	(15.8)	+20.1	+5.8

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Please see page six. This is revenue by operating segment.

First, capacitors and inductors for mobility applications increased YoY, but overall, they decreased YoY.

In the area of high-frequency device and communications, revenue of multilayer resin substrates and SAW filters increased, but overall revenue declined due to a decrease in communication modules.

Batteries and power supply, and functional device also decreased, respectively.

The comparison to the last quarter will be explained on the next page.

Revenue by Operating segments [FY23 1st Quarter vs FY22 4th Quarter]

Capacitors +6.2%	MLCCs : Revenue increased in wide range of applications, mainly for smartphones and PCs.
Inductors and EMI filters +5.7%	Inductors : Revenue increased for smartphones.
High-Frequency Device and Communications Module +5.6%	Multilayer resin substrates, SAW Filters, Connectors : Revenue increased for smartphones.
Battery and Power supply +8.2%	Lithium-Ion secondary batteries : Revenue increased for power tools.
Functional Device (0.1%)	Sensors : Whereas revenue for wearable devices and smartphones increased, revenue decreased for computers.

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Please see page seven.

As you can see, each of the operating segments has increased compared to the previous quarter. However, this was partly due to the depreciation of the yen against the US dollar. Only revenue of sensors increased for wearable devices and smartphones but decreased for computers.

Revenue by Application

	FY2022 1st Quarter		FY2022 4th Quarter		FY2023 1st Quarter		Y on Y Change		Q on Q Change	
	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)
Communication	169.2	38.7	122.4	35.2	134.1	36.5	(35.1)	(20.7)	+11.7	+9.5
Mobility	91.9	21.0	97.7	28.1	99.6	27.1	+7.7	+8.4	+1.9	+1.9
Computers	68.2	15.6	40.6	11.7	45.2	12.3	(22.9)	(33.7)	+4.6	+11.4
Home Electronics	51.3	11.8	39.0	11.2	42.0	11.4	(9.3)	(18.1)	+3.1	+7.9
Industry and Others	56.1	12.9	47.9	13.8	46.8	12.7	(9.3)	(16.6)	(1.1)	(2.4)
Revenue	436.7	100.0	347.6	100.0	367.7	100.0	(69.0)	(15.8)	+20.1	+5.8

*Based on our estimate

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Please see page eight. This page is for YoY comparison. Although revenue for mobility applications increased YoY, that for other applications declined significantly YoY.

Revenue by Application [FY23 1st Quarter vs FY22 4th Quarter]



Communication +9.5%	Revenue of capacitors, multilayer resin substrates, Inductors and SAW Filters increased for smartphones.
Mobility +1.9%	Revenue of capacitors increased due to the revenue increasing factor of a weaker yen.
Computers +11.4%	Revenue of capacitors and connectivity modules increased for PCs.
Home Electronics +7.9%	Revenue of lithium-ion secondary batteries increased for power tools.
Industry and Others (2.4%)	Revenue of capacitors increased for distributors. Revenue of capacitors decreased for Industrial equipment.

*Based on our estimate

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Please see page nine. This explains the comparison to the previous quarter.

The increase in revenue of the mobility application was slightly smaller, but this is because the other applications declined considerably in Q4 of last fiscal year, whereas mobility application did not decline as much in Q4. Based on that factor, the increase is small relative to the other applications.

In the industrial and others application, the revenue increased for distributors, but decreased for industrial equipment.



Segment Information

		FY2022 1st Quarter		FY2023 1st Quarter		Y on Y Change	
		(B JPY)	(%)	(B JPY)	(%)	(B JPY)	(%)
Components	Revenue	252.0	100.0	210.5	100.0	(41.5)	(16.5)
	Operating profit	88.1	34.9	52.5	24.9	(35.6)	(40.4)
Devices and modules	Revenue	184.5	100.0	156.8	100.0	(27.6)	(15.0)
	Operating profit	2.4	1.3	(0.2)	(0.1)	(2.6)	-
Others	Revenue	20.2	100.0	15.2	100.0	(5.0)	(24.5)
	Operating profit	0.2	1.2	(2.2)	(14.4)	(2.4)	-
Eliminations	Revenue	(20.0)	-	(14.9)	-	+5.1	-
Consolidated	Revenue	436.7	100.0	367.7	100.0	(69.0)	(15.8)
	Operating profit	90.8	20.8	50.1	13.6	(40.6)	(44.8)

- Components** Profits fell due to the occurrence of a loss of productivity from a decrease in production output despite the profit-increasing effect of the depreciation of the yen.
- Devices and modules** Profits fell due to a decrease in sales of RF modules and connectivity modules despite an improvement in the profit-loss situation of lithium-ion secondary batteries.

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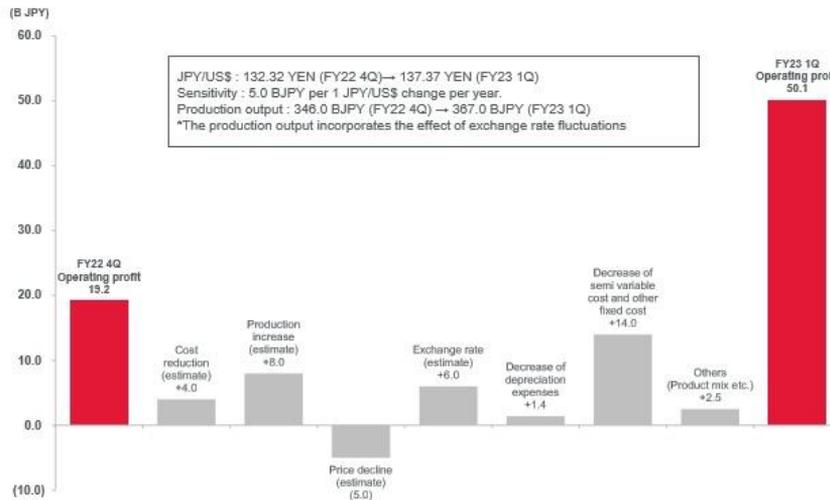
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Please see page 10. This shows profit and loss in each segment.

Compared to Q1 of last year, revenue and profits of components decreased due to a significant decline in productivity.

In the devices and modules segment, profit decreased due to the impact of lower productivity, in addition to a decrease in revenue of high-frequency modules and connectivity modules, despite an improvement in the profit-loss situation of lithium-ion secondary batteries, as explained at the bottom of the page. There was a slight deficit in Q1.

Breakdown of Operating Profit Changes [FY22 4th Quarter to FY23 1st Quarter]



**Production increase* is calculated on the basis of production output excluding the effect of sales price reductions and exchange rate fluctuations.

**Decrease of semi variable cost and other fixed cost* include the impact of levies, such as property tax, that were reported in the 4th quarter of FY2022 in accordance with the rules of IFRS.

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Please see page 11.

This shows the factors of changes in operating profit. This is the change from the previous quarter.

As I mentioned at the beginning of this report, the reclassification to IFRS has resulted in a change in operating profit for the last fiscal year. The operating profit in Q4 of last fiscal year was JPY19.2 billion after this reclassification, compared to JPY25.6 billion under US GAAP.

Due to its impact, semivariable cost and other fixed cost are shown as the factors for large increase of JPY14 billion in this chart. However, a large portion of this is due to the reclassification to IFRS. Under IFRS, property tax and other assessments are recorded in a lump sum at the time the obligation is confirmed, whereas under US GAAP used until the previous year, they were prorated on a quarterly basis. The effect of this is that the full amount was reclassified and recorded in Q4 of last year, which appears to be the increasing factor in profit in Q1.

Also, fixed costs have decreased in some other expenses. For example, repair expenses, compared to Q4, so that is also an increasing factor in profit.

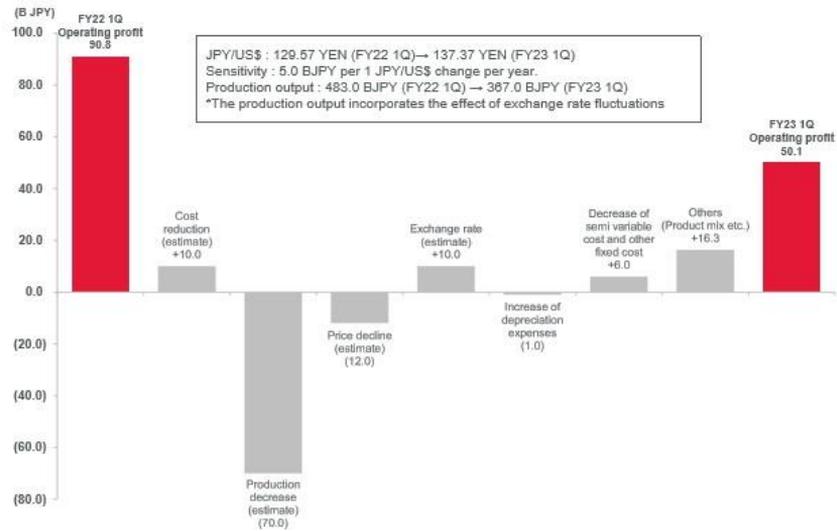
Also, I would like to add here that the production output is stated at JPY367 billion on this page. Since net revenue are JPY367.7 billion, this means that the change in inventories of commercial products and work in progress on the income statement is negative JPY700 million.

In terms of the changes in inventories from the end of the previous fiscal year announced in the financial results statement, total inventories increased by JPY14.0 billion. This difference is partly due to the fact that the part for raw materials is not included, but mostly due to foreign currency translation adjustments for overseas inventories. This is recorded in the balance sheet, but recorded under comprehensive income, therefore, it is not reflected in the income statement.

In conclusion, for the actual inventory change of commercial products and work in progress, I think it is best to look at the negative JPY700 million figure shown on this page.

At the beginning of the fiscal year, we said that we would bring inventories to an appropriate level for the current fiscal year. As for that, there has not been a decrease overall yet, but the inventories in the component business, especially MLCC, which was planned to be reduced in Q1 of this fiscal year, have decreased in Q1.

Breakdown of Operating Profit Changes [FY22 1st Quarter to FY23 1st Quarter]



JPY/US\$: 129.57 YEN (FY22 1Q) → 137.37 YEN (FY23 1Q)
 Sensitivity : 5.0 BJFY per 1 JPY/US\$ change per year.
 Production output : 483.0 BJFY (FY22 1Q) → 367.0 BJFY (FY23 1Q)
 *The production output incorporates the effect of exchange rate fluctuations

Production decrease is calculated on the basis of production output excluding the effect of sales price reductions and exchange rate fluctuations.

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Please see page 12.

Here are the factors for the changes in profit/loss compared to Q1 of last fiscal year.

There is also a slight change in semi-variable and fixed costs, but this is due to a decrease in production-related expenses in line with the decrease in production compared to the previous year.

As for the product mix, the price of raw materials has recovered a little, and the ratio of components has increased a little on a manufacturing output basis, both of which have a positive effect.

Cash Flows

	FY2022	FY2023	Y on Y Change
	1st Quarter	1st Quarter	
	(B JPY)	(B JPY)	(B JPY)
Cash flows from operating activities	32.8	59.4	+26.6
Cash flows from investing activities	(36.0)	(75.7)	(39.7)
Cash flows from financing activities	(91.1)	(49.7)	+41.4
Effect of exchange rate changes	7.7	19.6	+11.9
Cash and cash equivalents at end of period	425.4	423.0	(2.4)
Free Cash Flows	(3.2)	(16.3)	(13.1)
Purchase of property, plant and equipment	(42.0)	(72.2)	(30.2)
Depreciation and amortization	41.1	42.1	+1.0

- Cash flow from operating activities increased as a result of curbing the growth of inventories despite a year-on-year profit decrease.
- Cash flow from financing activities grew since the Company repurchased treasury stock in the same period a year earlier.

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Please see page 13. These are the cash flows.

Cash flow from operating activities was larger than in the previous year, but this was due to a large increase in inventories in the previous year, which had a negative impact on net income.

The cash flows from financing activities show a large negative figure in the previous year, but this was due to a JPY80 billion share buyback in the period of six months in the previous fiscal year. Part of that is recorded in this Q1.

Projected Financial Results for FY2023



	FY2022		FY2023				Y on Y Change	
	Actual		1st Half	2nd Half	Projections		Y on Y Change	
	(B JPY)	(%)	(B JPY)	(B JPY)	(B JPY)	(%)	(B JPY)	(%)
Revenue	1,686.8	100.0	788.0	852.0	1,640.0	100.0	(46.8)	(2.8)
Operating profit	298.2	17.7	84.0	136.0	220.0	13.4	(78.2)	(26.2)
Profit before tax	302.7	17.9	84.0	136.0	220.0	13.4	(82.7)	(27.3)
Profit attributable to owners of parent	243.9	14.5	63.0	101.0	164.0	10.0	(79.9)	(32.8)
ROIC (pre-tax basis) (%)	14.4				10.2		(4.2pt)	
Average exchange rates yen/US dollar	135.48				127.00			

- There are signs of a change in the market environment from the situation of April. However, taking the status of exchange rates as of the end of July into account, there is no significant change to projected financial results at the time of announcing these financial results.
- The Company has not revised the projected financial results for FY2023.

Please see page 15. This is the earnings forecast.

As I mentioned at the beginning of this report, the market environment has been slightly weakening in terms of demand for parts since April. However, based on the assumption of an exchange rate of about JPY135 to JPY140 in July, we again ran simulations and found no major changes in revenue and profit/loss. Therefore, we have not revised our forecast this time for the current fiscal year.

Recognition of Business Environment



	Premises of projected financial results as of April	Recognition of the current situation as of July
Revenue	<ul style="list-style-type: none"> - The smartphone market is expected to recover around the summer - Mounting downward pressure on product prices due to sluggish final demand - Continued holding of BCP inventory by customers for mobility - Inventory adjustment in the power tools market will improve slightly in the second half - Exchange rate set at 127 yen 	<ul style="list-style-type: none"> - The pace of a recovery in demand for parts in each application for the second half will be slower than expected as business confidence deteriorates - Inventory adjustments in the smartphone market have been resolved - No significant inventory adjustment in customers of mobility will take place - More than expected depreciation of the yen
Productions	<ul style="list-style-type: none"> - Execution of production plans for inventory reduction 	<ul style="list-style-type: none"> - Inventory quantities decreased mainly in component products - Production plans for inventory reduction will be maintained
Costs	<ul style="list-style-type: none"> - Continued high level of material prices and energy costs (Estimated based on the situation as of the end of March 2023) - Increase in strategic expenditures such as for strengthening of IT infrastructure 	<ul style="list-style-type: none"> - Material costs have been reduced in the wake of a decline in raw material prices - The effect of surging energy prices and strategic expenditures remain unchanged from the assumption made in April

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I will explain the background for that on page 16. To the left are the premises of projected financial results as of April. We will skip the explanation here.

On the right is the recognition of the current situation. As I mentioned earlier, I feel that the pace of recovery in demand for parts for each application during H2 of the year will be slower than expected.

In the smartphone market, especially in Greater China, there were inventory adjustments of components and sets, which we believe were largely resolved in Q1. However, we also have the impression that final demand is not so strong for smartphones in this Greater China region.

We have mentioned that our mobility customers hold BCP inventories last fiscal year, and although orders received in Q1 by customers have not yet risen slightly due to some uncertainty about the future, we do not think that there will be a major adjustment in parts inventories at this time.

Also, the yen is weakening.

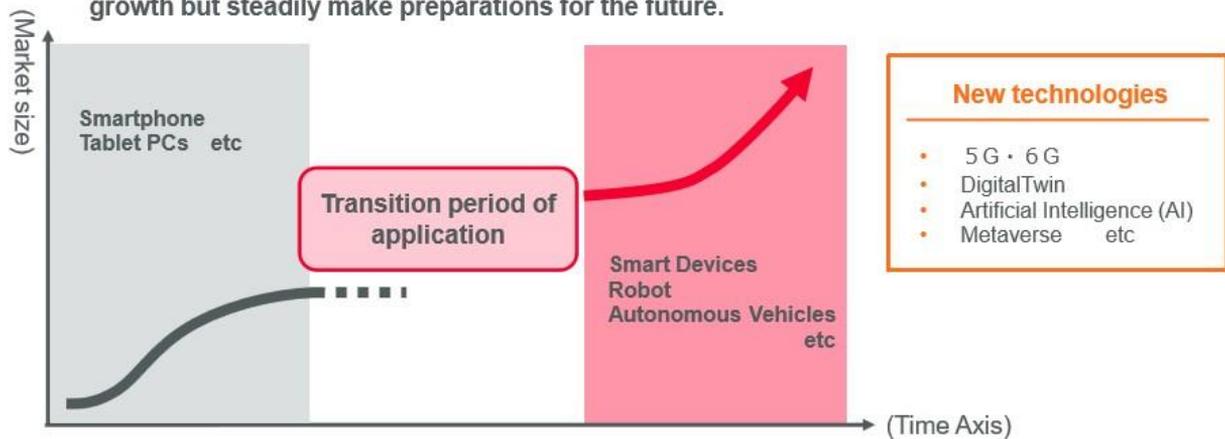
With regard to production, we plan to bring inventories to an appropriate level from Q2 to the Q4, as planned at the beginning of the term.

The rest is as shown.

Perception of the Market Environment



- Regarding the expansion of the electronics domain for 2030, signs of change, such as advancement in automotive electrification, establishment of 5G infrastructure and growing investment in data centers, have started showing up.
- The Company will avoid slackening investment and strategic expenditures for future growth but steadily make preparations for the future.



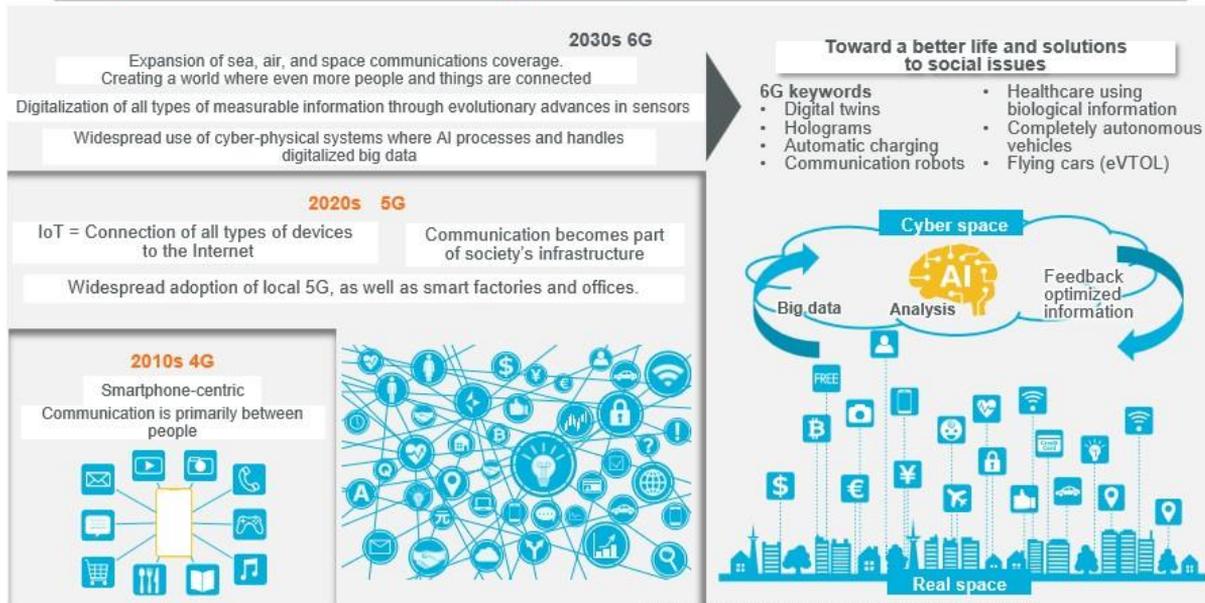
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Please see page 17.

Although demand of parts is currently in an adjustment phase, as was the case in H2 of the previous fiscal year and H1 of the current fiscal year, we believe that demand for components in the electronics field and our business opportunities over the medium to long term will increase steadily, as I have already mentioned.

Expansion of the Usage of Electronics



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Please see page 18.

This is an illustration of the image. We believe that the business opportunities for our company in such a society, where everything and devices are connected, are very large. We are determined to achieve long-term growth by developing products and reinforcing our management base toward this goal.

That concludes my explanation.

Question & Answer

Moderator [M]: We will now move on to the question-and-answer session.

Mr. Takayama from Goldman Sachs, please go ahead.

Takayama [Q]: I think there are two main points. First, on a companywide basis, it would be good if you could tell us what was good and bad in the changes of operating profit of Q1 in comparison to the plan. The exchange rate obviously had a positive effect, but apart from that, I wonder what was better or worse than your expectation.

At the same time, in your full-year forecast, while the foreign exchange rate is expected to have a positive impact, please tell me whether you expect production to decrease compared to the initial forecast. This was my first question.

Nakajima [A]: As Minamide just explained, one major factor is that adjusted manufacturing output did not fall that much due to the gain on productivity. Due to this gain, the profit is larger than we had expected in April, and we expect revenue to rise a little more in Q2 due to seasonal factors.

On the other hand, with the COVID pandemic coming to an end, I have many opportunities to meet with customers, and in this context, I do not feel a strong momentum toward a recovery in demand.

Given these circumstances, I may be a bit conservative, but I think we may have to hold down our revised manufacturing output in H2 of the year, which may be a slight change from our expectation in April.

Takayama [Q]: Just to confirm, while you think the outlook for demand is a bit weak during H1 of the year, the production itself will be done as planned at the beginning of the year. Therefore, the exchange rate would be a net gain on top of that.

Nakajima [A]: Rather than following the plan at the beginning of the fiscal year, we need to increase inventories and raise production for the peak months of October and November, depending on seasonal fluctuations, especially for consumer products, for a certain amount of orders we received or forecasted.

Takayama [Q]: I see. Then, the reason for revenue in Q1 to be in line with the plan, just by looking at the figures, while the profit appears to be better, is that there are gains from the foreign exchange rate but you kept the production level as it is despite the weak outlook. In Q2, you will continue in a similar fashion, but in H2, you may apply the brakes or accelerate the accelerator a little less strongly.

Nakajima [A]: What you said is exactly right.

Minamide [A]: I would like to add one additional point. In Q1, fixed costs were less than planned. However, there are fixed costs planned to be used in Q2 and beyond. Therefore, full-year fixed cost will be as planned and the cost will be a little heavier in that sense. That is the first point.

Second, although the price decline was in line with our plan in Q1, we are concerned that demand may weaken in Q2 and that we may have to lower prices beyond our initial plan in some cases.

Takayama [Q]: Thank you very much. Second, focusing on the MLCC segment, please tell us about the recognition of current situation in H2 of the year as of July, including how you captured the demand, for

automobile and smartphone application separately. Also, please tell us the price movement and operation in MLCC.

Omori [A]: First, I would like to talk about the status of demand capturing for automobile and smartphones. As for smartphones, we have seen a temporary increase in demand capturing in the Chinese smartphone market since early this spring, and this has been reflected in the figures.

On the other hand, for automobile, we have been taking a long-term view and we had an expectation that it would continue to grow. For the period from April to June, demand capturing was slightly slower than our forecast. We will monitor the situation closely on how it will increase going forward.

As for price movements, there has been a certain amount of movement in the smartphone market. However, the price movement is within the range we initially expected.

The same is true for automobiles. We do not expect it to move largely at this point. Although when the supply–demand balance changes in the future, there may be a situation in which prices move to a certain degree. However, it has not moved largely at this point. Our recognition is that the movement in the market is beginning to be slightly slower in response to the expectation that demand will increase.

Then, the status of the operation. As for the factories, although there are slight differences among them, we have a plan to have 80% in terms of operating days from April to June, and to increase the operation by 5% each from July to September and H2. However, we may control it depending on the balance of demand and supply.

As for the outlook for H2 of the fiscal year and beyond, we expect the US market for smartphones to move slightly, and we will make preparations for that part in Q2.

Takayama [Q]: Thank you very much. As a supplement or confirmation, when Mr. Minamide mentioned earlier that a slight buffer in price is incorporated for Q2 onward, he meant other than MLCC since it is in line with the expectation. Is that correct?

Minamide [A]: We have been talking internally that the buffer should be incorporated slightly as a risk for MLCC as well. Also, we have taken action on prices more strongly than we expected for products such as surface wave filter.

Takayama [Q]: Also, from what you just mentioned, if you are increasing operation despite weaker outlook on production and operation, is it correct to understand that there is basically no change in ability from the beginning of the fiscal year? We were told that the inventory is not increasing that much, or even decreasing.

Omori [A]: Yes, I think that is a fair understanding.

Takayama [M]: I understand. Thank you.

Moderator [M]: Next, Ms. Sato from Morgan Stanley MUFG Securities, please go ahead.

Sato [Q]: Thank you. I also have three questions.

First, you explained that revenue of smartphones in China increased in Q1. Please tell us about the outlook for Q2 and beyond, and whether it is correct to expect that revenue of smartphones in North America will increase from Q2 as in previous years. This is the first point.

Nakajima [A]: As you just explained, demand for Chinese smartphones rose to some extent in Q1, but I have a feeling that it has not led to such a strong recovery in demand for Q2 onward.

As I mentioned earlier, as the COVID-19 pandemic has come to an end, we are seeing an increase in face-to-face conversations, but even in this situation, I do not feel that the recovery is very strong.

As for smartphones in North America, there are still some technical issues to be solved, but as far as we have heard so far, the revenue are expected to be in line with the plan.

Sato [Q]: I understand that the production output on a companywide basis is JPY367 billion in Q1. What is your outlook for Q2 onward?

Minamide [A]: As for Q2 and beyond, we will reduce the inventories, especially in H2 of the year against the revenue target we announced at the beginning of the year. You can expect that production output will be decreased against the revenue in H2 of the year.

However, we are not yet in a position to discuss any changes, as we have not yet reviewed our earnings forecast.

Sato [Q]: In that case, for Q2, you explained earlier that you will increase the MLCC operation by 5% to cover the increase in revenue as usual, but is it correct to say that the production of other products will increase as well?

Minamide [A]: Yes. Especially in North America, where smartphone revenue rise seasonally, it is customary for operations to increase in Q2, and we expect this to be the case in the current fiscal year as well.

Sato [Q]: Finally, third, regarding XBAR filters and RF modules with XBAR filters, please tell us what the evaluation by your customers is, what kind of movements are underway toward their adoption, and what you expect in the next fiscal year.

Nakajima [A]: I have consistently said the same thing in the past, but we are now moving forward with sample activities in preparation for application in FY2024. We have received extremely positive evaluation in the technical aspect. For instance, in the extended version of Wi-Fi, such as Wi-Fi 7, and 8 after that, the circuit can be made very simple, which I believe has been very well received by our customers.

Sato [Q]: In that case, when should we expect that mass production of the XBAR filter itself will start and when revenue of modules with the XBAR filter will be recorded?

Nakajima [A]: As I always say, it will involve the changes in the platform. Therefore, we do not expect it to be the driver of the volume immediately. We believe that we will be able to start small-scale mass production to a certain extent in 2024.

Sato [M]: I understand. Thank you.

Moderator [M]: Mr. Uchino from Mitsubishi UFJ Morgan Stanley Securities, please go ahead.

Uchino [Q]: Thank you. I have three questions.

First, you mentioned earlier about MLCC for automobiles that there was a move to increase BCP inventory last year and that you will reduce it. Or you mentioned that you would want to wait for the demand of automobiles and I think your view on its contents loss itself may change. These are the comments that indicate the change in your view of demand for automobiles and its business environment. Could you explain what is currently happening more simply? This is the first question.

Omori [A]: Thank you very much. In our view on automobiles, we see no change in the growth path. However, if we look at the situation on a quarterly basis, we see that growth in orders became moderate in Q1.

We expect production to continue to grow in the future, and we are not considering any major reduction in production at all. Rather, we have been making investments as planned. In terms of volume, smartphones are having a greater impact, and although it is a little difficult to see the volume of automobiles, we believe that we will continue production for automobile application.

Uchino [Q]: Is it a correct understanding that you are not thinking of any particular change in the way customers hold inventories, but rather that there is a temporary small inventory adjustment that is slowing down the growth rate a bit?

Omori [A]: Yes. You can say that.

Nakajima [A]: I think that the current situation is that the customers are on wait-and-see for supply and demand and hold inventories with a buffer of about one month. I don't think we see that they are reducing it currently.

Uchino [Q]: I understand. Thank you. Second, regarding the price decrease of MLCC, I think the competitors in the industry are making significant moves in the current business environment. Please explain how you think prices are likely to move in the future for each application based on the sense of supply and demand and the movement of competitors. This is my second question.

Omori [A]: Let me talk about the competitive environment. First, in the smartphone market, Japanese, Taiwanese, and Chinese low-end smartphones have entered the market. On the other hand, for high-end models, we recognize that Japanese smartphones still have an advantage.

In this situation, the speed of price declines has increased for some low-end products, but the number of manufacturers capable of supplying high-end products is limited to a certain extent. In this sense, we recognize that there has been a clear difference in the competitive environment.

We are now cautiously looking at how prices will move in the future, but when we consider the product mix as a whole, we want to make sure that there is a balance between those for which the price needs to be moved and those for which the prices do not need to be moved.

It is same for automobiles, for which Japanese and Korean manufacturers are strong.

On the other hand, the market is now divided into European, American, and Chinese products, and the movement of goods is slightly different from what we have seen in the past. There is a slight difference in the way things work between the conventional manufacturers and the newcomer manufacturers.

What is different is the speed of certification of products and the level of QCDS requirements. We will respond to what we can while keeping a close eye on these areas.

Although the price movements are in line with our expectations, we recognize that there is a risk of moving a certain price in response to the competitive environment, as I mentioned earlier, when that environment changes in the future.

Uchino [Q]: In your explanation, there are conventional customers and newcomer customers for automobile market. The newcomers are those who are coming from the consumer market, so they are fast and aggressive in their pricing, rather than demanding in a fixed form. I have such an image but is it correct that you refer to these things as risks?

Omori [A]: Yes. That understanding is fine.

Uchino [Q]: I see. Thank you. My last question, and this is just to confirm the numbers: Please tell us how the current monthly orders are moving for MLCC, in April, May, and June.

Minamide [A]: In that case, I will explain the month-on-month comparison of MLCC's monthly orders. From the previous month, April is down 5% to 10%, May is up 10% to 15%, and June is down 0% to 5%.

Uchino [M]: I understand. Thank you.

Moderator [M]: Mr. Goto of Mizuho Securities Co., Ltd., please go ahead.

Goto [Q]: Thank you. I have two questions. One is sort of a continuation of Mr. Takayama's earlier question, but could you tell me one more time about the factor analysis against the plan?

I don't think you were in a situation where demand was so strong in Q1 that you had to increase production to capture productivity gain. Therefore, I don't think it's appropriate to say that the productivity gain was good because production exceeded the plan.

I understand that lower fixed costs had a certain positive impact. Could you tell me what was the other increasing factor in profit that made the profit exceed the plan?

In addition, I understand that there was a one-time negative inventory-related factor in Q4. How was this affected in Q1? This is the first point.

Minamide [A]: Inventories of capacitors decreased slightly in Q1. This means that production is being held down against revenue as planned.

On the other hand, we have increased inventories of communication modules, mainly for high-end communication modules, and multilayer resin substrate in Q1 slightly more than at the beginning of the period, in anticipation of demand from Q2 onward. Overall, there has been no increase or decrease in inventories on a companywide basis as planned.

In addition, again, the fixed costs were kept lower than planned in Q1, and that was a large factor. As for production, as I mentioned earlier, production is based on revenue. In other words, we produced that much, so in relation to revenue, it is a positive factor for the earnings forecast.

Also, the depreciation of the yen is still significant, relative to the Q1 forecast.

Goto [Q]: I understand. Is it a correct understanding that the impact of inventory is small in this comparison to Q4 and Q1?

Minamide [A]: Regarding the inventory provision, there was a slight increase in Q4, but since there was no decrease in it in Q1, there was no reversal of the provision and no additional provision was made. Therefore, there was almost no effect on profit and loss related to the changes in inventory provision in Q1.

Goto [Q]: So its effect was flat in profit QonQ. Is it correct?

Minamide [A]: Yes, you are right.

Goto [Q]: I understand. Thank you. Second, I would like to ask you about AI, which is a hot topic these days. In the high-end computing area, I think there is a trend that capacitors are increasing due to increased processing power. Could you tell us how the impact of AI is affecting your company's current MLCC and other businesses from short-term and mid- to long-term perspective?

In the process of AI implementation being advanced, I think the situation will probably change in the short-term and mid- to long-term. What do you think?

Omori [A]: Regarding the demand for capacitors and MLCCs, we expect that the number of MLCCs in servers will increase when the use of AI advances, as you mentioned. However, at this point, the impact on our overall MLCC business is not that great.

Large-sized product will increase, therefore, there will not be a major impact in terms of quantity.

Its presence will be felt on a mid- to long-term basis when the servers for AI account for an increasing percentage of all servers. In particular, as I mentioned earlier, the larger the size or capacity of the product, the higher the unit price will be, and the impact of the price will have a slight presence.

In terms of timing, we are aware that this fiscal year is still a steppingstone, and that some will appear next year or later.

Goto [M]: Thank you.

Moderator [M]: Mr. Akizuki from Nomura Securities, please go ahead.

Akizuki [Q]: I would like to ask three questions if time allows.

First, in relation to Mr. Goto's question earlier, when we look at the server market for the current fiscal year, or Q2 or Q3, what is happening in the market is that the volume of general-purpose servers is decreasing. Therefore, even if the servers for AI increases, many companies will see the revenue of servers declining on YoY basis.

When using this as a benchmark, even if there is an impact of AI servers from April to June, I don't think it will be a big deal since it is a single month of June. However, when looking at July to September or October to December, will server increase or decrease on YoY in MLCC industry?

In other words, I think that a major impact on capacitors as a whole is still to be seen, but relative to other components, when other components are declining substantially, will MLCC for servers increase or decrease?

Omori [A]: My view is that investment in hyperscalers is being partially restrained in the current economic climate, which is not very good. We are aware that one of the key points is when and at what timing the motivation to invest in this area will increase.

Now that AI has become a very hot topic, in our view, in what circumstances it will be used and how it will be used will become clear all at once, when the motivation for it rises.

The capacitors used will be at a challenging level in terms of degree of difficulty. This means that the whole process will be particularly demanding. We have this product in small numbers in our business, but we recognize that a certain level of production burden will be required. As we have been saying for some time, we have a certain investment plan and are making regular investments in products for automobiles, base stations, servers, and so on.

Akizuki [Q]: As an image, it is the product of extremely high-end, including the one with high-end capacity for automobiles and high-pressure. Is it correct?

Omori [A]: I think that the total capacity requirement, the capacity needed, will be still higher than that.

Akizuki [Q]: I see. I understand. Is it correct that you consider it as an earnings driver?

Omori [A]: Yes.

Akizuki [Q]: I would like to ask the second question, President Nakajima. I think the ROIC of the component and module businesses was announced in the securities report as a reference value this time.

Looking at the report, the low ROIC of the module business stands out. How are you going to raise it? I understood from my calculation that you have invested a lot in the module business. What would be the return of this investment in your thinking?

I think that the change of platform next year is also a very important point. Could tell us how you are going to tackle this point this year and next year?

Nakajima [A]: We use ROIC basically in order to clarify issues and as an indicator of how portfolio management, which is what we advocate, should proceed.

Relatively speaking, in the case of modules, we expect a higher capital turnover ratio and a slightly lower operating profit margin compared to MLCC.

At the same time, however, there are clear differences in businesses. I think the challenge is how to move them in the right direction. In particular, quite a few unprofitable businesses are included in that. We are also working to specify and demonstrate how to handle and improve such business.

Anyway, there are product lines that need to be made more profitable, and I would like to clarify the business strategy and overhead costs in this area.

Akizuki [Q]: I think it's quite important whether you take action or not in terms of changing platform. What is your feeling of response? There were no results yet. Is it so?

Nakajima [A]: That's right. It's my own evaluation but I believe that I have done what I need to do. I also believe that the technical evaluation for it is coming along.

However, as you know, there are still some issues that we cannot see, such as the situation of our customers, and we are not able to change platforms as quickly as we had expected. However, I think we are doing what we can to provide distinctive products and gain an advantage in terms of characteristics.

Akizuki [Q]: Do you mean that the speed is slower than expected on the customer's side?

Nakajima [A]: That's right. Yes.

Akizuki [Q]: I understand. Last, I would like to make this brief, but I think the lithium-ion secondary batteries business had a quite bad impact on Q4, as it became an issue when inventories evaluation loss was discussed at the time of the Q4 result announcement.

Looking at Q1, I saw that revenue were up, and I wondered if that problem had been resolved, but on the other hand, you commented that inventory had been written down as in Q4. Could you tell me about how earnings are moving at energy and devices segment?

Nakajima [A]: First, in our target market of power tools such as gardening tools and cleaners, unfortunately, we do not feel a strong recovery in demand yet this fiscal year.

In Q1, we responded to the need of certain customers that occurred, and this made the result look better. Therefore, we are making progress in reducing the inventory, but it will still take some more time.

Akizuki [M]: I understand. Thank you.

Moderator [M]: Mr. Hirata from UBS Securities, please go ahead.

Hirata [Q]: Thank you for your explanation today. I would like to ask you two questions.

The first point may be related to the previous question, but the devices and modules business went from a loss of JPY18.5 billion in Q4 to almost break even in Q1. Can the reason for this major recovery, despite that inventory evaluation is not resolved, be explained by the improvement in batteries you just explained? Or is there any other reason, such as the improvement in fixed cost, communication module, and multilayer resin substrates? Please tell me about the improvement in modules.

Nakajima [A]: The largest factor is seasonal fluctuation. We have been raising adjusted manufacturing output to meet smartphone demand. In the inventory at the end of the fiscal year, inventory for such device modules for smartphone is recorded, while that for MLCC is reduced in line with the plan.

By doing so, we have been raising our adjusted manufacturing output. In particular, we have seen significant improvements in such product groups as high-frequency devices, communication modules, and multilayer resin substrates.

Hirata [Q]: Second, regarding the movement of inventories, in your explanation at the beginning of the fiscal year, you said that inventories would be significantly reduced in Q1 and Q2, and while it would be reduced in H2 as well, it would be reduced mainly in H1 of the year.

Is it correct to say that inventory is being increased mainly for devices and modules and will not decrease in Q2? Also, could you tell me the reason you changed the strategy on inventories? For instance, is it because the needs of some customers are increasing and you needed to increase inventories in response to that? Please explain the background why you are being so bullish on devices in the midst of weak demand overall.

Minamide [A]: In Q2, we are planning to reduce inventories a little on a companywide basis compared to Q1. As a breakdown, MLCC reduced inventories slightly in Q1 and will continue to do so in Q2. On the other hand, demand is going up.

Also, as for module-related inventories in Q1 you mentioned, we are based on the understanding that they will be sold in Q2. Therefore, they will be reduced slightly in Q2 as well. The current plan is to further reduce inventories in Q3 and Q4 in H2 of the year.

Hirata [Q]: Am I correct in understanding that it has little to do with the demand outlook for modules in particular, or the stronger outlook for multilayer resin substrates?

Nakajima [A]: That's right. It is a usual seasonal factor and we are just responding to it.

Hirata [M]: I see. Thank you very much.

Moderator [M]: Mr. Yasuda from TOYO Securities Co., Ltd., please go ahead.

Yasuda [Q]: Thank you very much for your time today.

Today, there are several topics about AI servers, and since I am engaged in the business for some private investors, I would like to have a more specific image. When AI servers become popular. I think the factors contributing to the popularization of MLCCs will be the addition of GPUs and the increase in installed capacity due to the increase in memory granularity. Could you tell me what kind of capacity increase of MLCC we can expect in each case?

Omori [A]: We do not have a straightforward answer to the question, but we are aware that the capacity will be at least doubled in terms of quantity than the normal servers we have had in the past.

As you can imagine, GPUs will be a very large component of the AI servers, and if you can estimate how many GPUs will be installed in the AI servers, based on the comparison of CPUs and GPUs so far, we think you can make a certain estimate.

Yasuda [Q]: Second, I would like to ask your opinion on the next fiscal year. From what you have mentioned today, I understand that the outlook for H2 for the year has become slightly weak and that your expectation on the change in platform is becoming lower. Could you explain, based on some technological changes, what kind of items will drive your company's performance in the next fiscal year?

Nakajima [A]: As you mentioned earlier, I think the market is very promising for the expansion of AI servers as a new application, while Major IT companies are not very active in terms of investment. For example, in the case of smartphones, for which we have been working, platform changes are bound to occur. I think that 2024 is the time when this will be a reality that will lead to results. I think this is the year when we will see such changes not only in the US but also in Korea and China.

Also for automobiles, the sensors for automatic driving and film capacitors for powertrains that we are currently working on will finally be launched in the market. We expect to see numerical results from what we are doing now by 2024.

Yasuda [M]: I understand. Thank you.

Moderator [M]: This concludes the financial results briefing for Q1 of FY2023 of Murata Manufacturing Co., Ltd.

Thank you very much for taking time out of your busy schedule to join us today.

[END]

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