MediaTek 1Q23 Earnings Call
Friday, April 28, 2023, 3:00pm Taiwan Time

PREPARED REMARKS

Jessie Wang, IR Deputy Director

Good afternoon, everyone. Joining us today are Dr. Rick Tsai, MediaTek CEO and Mr. David Ku, MediaTek CFO. Mr. Ku will report our first quarter results and then Dr. Tsai will provide our prepared remarks. After that, we will open for Q&A.

As a reminder: Today’s presentation will provide forward looking statements based on our current expectations. The statements are subject to various risks and factors which may cause actual results to be materially different from the statements. The presentation materials supplement Non-TIFRS financial measures. Earnings distribution will be made in accordance with financial statements based on TIFRS. For details, please refer to the safe harbor statement in our presentation slides.

In addition, all contents provided in this teleconference are for your reference only, not intended for investment advice. Neither MediaTek nor any of independent providers is responsible for any actions taken in reliance on contents provided in today’s call.

Now I would like to turn the call to our CFO, Mr. David Ku, for the first quarter financial results.

David Ku, Chief Financial Officer

Good afternoon, everyone. Now let’s start with the 2023 first quarter financial results. The currency here is in NT dollar. Revenue for the quarter was NT$95.7 billion dollars, down 11.6% sequentially, and 33% year-over-year.

Gross margin for the quarter was 48%, down 0.3 percentage point from the previous quarter, and 2.3 percentage points year-over-year.

Operating expenses for the quarter were NT$31.5 billion dollars, compared with NT$34.2 billion dollars in the previous quarter and NT$35.3 billion dollars in the year-ago quarter.

Operating income for the quarter was NT$14.4 billion dollars, down 20.6% sequentially and 60.6% year over year. Non-TIFRS operating income for the quarter was NT$15.1 billion dollars.

Operating margin for the quarter was 15%, decreased 1.7 percentage points from the previous quarter and 10.6 percentage points year-over-year. Non-TIFRS operating margin for the quarter was 15.7%.

Net income for the quarter was NT$16.9 billion, down 8.8% sequentially and 49.4% year-over-year. Non-TIFRS net income for the quarter was NT$17.5 billion dollars.
Net profit margin for the quarter was 17.7%, increased 0.6 percentage points from the previous quarter and decreased 5.7 percentage points year-over-year. Non-TIFRS net profit margin for the quarter was 18.3%.

EPS for the quarter was NT$10.64 dollars, down from NT$11.66 dollars in the previous quarter and NT$21.02 dollars in the year-ago quarter. Non-TIFRS EPS for the quarter was NT$11 dollars.

A reconciliation table for our TIFRS and Non-TIFRS financial measures is attached in our press release for your information.

That concludes my comments. Thank you.

**Jessie Wang, IR Deputy Director**

Thank you, David. And now I would like to turn the call to our CEO, Dr. Rick Tsai for prepared remarks.

**Dr. Rick Tsai, Chief Executive Officer**

Good afternoon, everyone.

Today, I would like to give you a market update and describe our strategies and then we will discuss the business condition of our three revenue groups.

As we just reported, our first quarter revenue and gross margin were both within our guidance ranges provided a quarter ago.

In the first quarter, semiconductor industry continued to be affected by customer inventory adjustments and weak demand. We observe customer and channel inventory have continued to come down. However, demand for certain consumer electronics such as smartphone was weaker than expected.

We understand that in a weak demand environment, capital market has concerns over smartphone SoC price competition. According to our observation, intense price competition is mainly limited to certain entry smartphone products. Here I would still like to repeat what we have said a few quarters ago that “racing to the bottom” type of pricing is not an effective strategy, as it is unable to increase end market demand effectively, nor can it change overall market shares materially. Therefore, our strategy has consistently been and will continue to be balancing our market share, revenue and profitability rather than focusing only on price competitions.

Now let me talk about the business of our three revenue groups.

Mobile Phone was the business most affected by the weak consumer demand and a more aggressive customer inventory adjustment in the first quarter. As a result, our mobile business declined 20% quarter-over-quarter in the first quarter to account for 46% of total revenue.
For 2023, we estimate that global smartphone shipment will further decline to approximately 1.1 billion units while global 5G penetration rate will continue to increase to mid-50%. As customers remain cautious about future demand, we expect our mobile revenue to be flattish in the second quarter and to improve in the second half. In such a market, we continue to execute our strategies of expanding into high-end segments as well as bringing the full benefits of our leading 4G and 5G products to customers.

For the high-end segments, we are on track to expand our flagship market share in 2023. Several flagship models powered by Dimensity 9200 and 9000+ are well received in the market. Additional models with Dimensity 9200 are expected to be released in the second quarter. Our third-generation flagship SoC will also be ready soon in the third quarter this year.

Furthermore, all of our flagship SoCs integrate MediaTek’s most advanced APU offering strong AI processing capability to perform AI video and speech features and also support generative AI. We believe the fast development of various AI applications will enable more use cases and higher demand for SoC computing capability. We are currently engaging with customers for our next generation APU which further optimizes advanced AI user experience with good power performance.

In addition to flagship expansion, we continue to fully support our customers with an industry-leading 4G and 5G SoC portfolio across segments. With strong products and supports, we are able to better assist customers in the fast-changing market and have secured good design-wins. For example, in emerging regions such as India, 5G adoption is projected to increase from 20% in 2022 to 40% in 2023 with 4G remaining the majority. We believe we are in a good position to continue to benefit from 5G upgrades and also serve the sizable and long-tail 4G market well.

Now let me move on to Smart Edge Platforms, which performed relatively well among the 3 revenue groups in the first quarter, with a flattish revenue and accounted for 47% of revenue. This performance in the first quarter was supported by our TV SoC, broadband products and tablets.

For TV, overall demand increased in the first quarter as customers’ inventory has been normalized and recent sales is improving, especially in North America. For broadband products, demand from telecom operators also recovered after the sharp correction in the fourth quarter last year. For tablets, several of our customers launched flagship 5G tablets using Dimensity 9000 SoCs. We are happy to see that we are able to leverage our leading technologies from mobile phone to other platforms and enjoy the upgrade benefits.

For the second quarter, we expect demand for TV and broadband products remain robust while demand for other consumer electronics is likely to stay weak.

I like to spend a few minutes on our smart edge platform business. This is a broad, diversified business which fully utilizes our core technologies, i.e. modem, wireless and wired connectivity, low power computing/multimedia processors, etc. With the successes already achieved in the last few years, we strive to further integrate these technologies and expand our presence in higher end segments and diversified customers.
A few examples. The 5G tablets just described is the first one. Secondly, we have successfully made inroads into the top tier telecom operators with an integrated portfolio of WiFi 6, 6E, 5G modem and 10GPON. And, being one of the leaders in WiFi 7, we are securing design-ins in the high-end routers and notebook models also. These efforts certainly will be extended into more segments and customers going forward.

To further this strategy, we are embarking on major initiatives in the automotive as well as ARM-based computing markets. Our overall automotive revenues grew robustly in the past few years with existing products. In the recent announcement of our Dimensity Auto Platform, we depict the thrusts in the cockpit, connect, drive and components areas, incorporating multimedia, AI processor, 5G, WiFi, Bluetooth, navigation, satellite communication and PMIC technologies. We are also working closely with industry partners closely to accelerate these efforts for our future growth.

Now moving on to Power IC, which accounted for 7% of total revenue in the first quarter and declined 13% quarter over quarter. It was mainly due to customer inventory adjustments across almost all applications except for PC where we saw a rebound after a meaningful slowdown in the fourth quarter last year. We expect the demand to be stable in the second quarter for PMIC business.

With those market situations we just discussed, our second quarter guidance will reflect both customers’ cautious outlook about the market demand and our strategies in this competitive environment.

We now expect our second quarter revenue to be in the range of NT$ 91.8 billion dollars to NT$ 99.5 billion dollars, down 4% to up 4% sequentially, and down 41% to 36% year-over-year at a forecasted exchange rate of 30.3 NT dollars to 1 US dollar. Gross margin is forecasted at 47%, plus or minus 1.5 percentage points. Quarterly operating expense ratio to be at 33%, plus or minus 2 percentage points.

As for the outlook for the second half of the year, given the limited visibility in end market demand, we are not able to give you a definite number for now, however, we do expect our business to improve in the second half of the year. With our strong technology and product portfolio, we believe that we can seize the opportunities when market demand improves.

On the operating expenses, we aim to reduce the total expenses by mid-single digit this year while maintaining the investments in the key technologies and key projects for the mid- to long-term growth.

For cash dividend this year, the board has approved a cash dividend of NT$76 per share which includes a regular dividend of NT$60 and a special dividend of NT$16. With the same policy of 80% to 85% payout ratio for regular cash dividend, we plan to propose a change to article of incorporation such that we have the flexibility to pay out regular dividends semi-annually, subject to shareholders’ approval at our AGM on May 31st.

This concludes my prepared comments, thank you.

[Q&A]
Q - Randy Abrams, Credit Suisse
Thank you. I wanted to ask the first question just to go from the flattish outlook in mobile. Just factoring you’ve had a couple quarters already down quite a bit year-on-year, could you discuss the factor on inventory, where you think channel inventory and customer inventory was exiting first quarter, and where you see that continuing ahead? And then, I know you didn't give much outlook on second half yet due to the uncertainty, but is it your view or if you could give a framework how you're thinking about your shipment relative to consumption now? How far below consumption or if you could get at some point an above seasonal once the inventory bleed draws down?

A - Dr. Rick Tsai, CEO
Randy, we believe the inventory both at customer side and the channel is coming down. It's coming up. Actually, we just had a discussion with a major, large customer, OEM. Their inventory level has come down to what they would even deem normal level. Some others are still a bit higher, but definitely coming down from the end of fourth quarter. Now, I think the market sentiment remains, still weak. I think customers are drawing the shipment cautiously, even when their inventory is at the normal level, so-called. Thank you.

Q - Randy Abrams, Credit Suisse
Okay. And to follow up maybe on your product portfolio, when you talked about the new flagship, it sounds like it's a little bit early trying to ready at third quarter. I think recently it launched closer to end of year. Could you talk about if there's early signs or is there much you could do to change the position to continue penetrating more in that flagship category? And then also, if you could talk about the other side, the move toward a lower cost 5G chip, when you see the timing getting that into the market, and if that could provide a lift, especially as you target some of the inflections from markets like India.

A - Dr. Rick Tsai, CEO
Okay, Randy, for the flagship, our second-generation 9200 was launched late last year. I think the launching continued. As I said in my remarks, we will have, I think, pretty major new models in the early third quarter, late second quarter time. So, this is a year-long effort. We also have some pretty good foldable phones using our 9200, which also selling quite well.

The important thing is that this is our second generation of flagships. I think the important thing there, is that we have been working more closely and better with our key customers in optimizing the overall user experiences, both like in camera, in gaming, and also in the power consumption area. Our third generation, as you said, it will be using tape outs, we have the silicon. Progress is very good. We will be able to ship -- launch products according to an aggressive schedule. We believe also, our architecture is such that this third-generation flagship will be very, very competitive.

As to the 5G low-end, we have also new products which will be launched I think late this year. There is also -- we have had very, very good 5G entry products for two, three years now. The following, I think it’s quite a bit better in the cost structure and in the power consumption. So, we look forward to the launch of those two products, both on the high-end and on the entry level. Thank you.

Q - Randy Abrams, Credit Suisse
You mentioned more in the prepared remarks on the AI engine and also capability for generative AI. Could you talk about the position or potential to get additional silicon or get paid for that in your devices, just both with mobile and also in smart edge, where the AI could be more meaningful block and how do you see your competitiveness where -- I know Qualcomm's put a lot up on being able to serve some of these language models and do a bunch on AI, so I'm just curious your competitive positioning as you position that AI engine.

A - Dr. Rick Tsai, CEO
As far as I can tell, Randy, we have as good an AI processor in our SoCs compared to our competitor’s, hardware-wise. I think now it's more important to work with our customers to utilize the capability, and we have also actually demonstrated, and we will certainly in public, we have demonstrated internally the capability to do ChatGPT kind of application, with very good performance. So we’re confident that we will be able to provide the capability for our customers. It is, of course, critical that the customers will come up with applications that are meaningful to consumer user experiences.

Q - Brett Simpson, Arete Research
Rick, I wanted to ask, in your prepared remarks, you talked about mobile phone market being 1.1 billion this year. And I guess if we go back to pre-COVID, we were probably in the 1.4 billion or above range. And I guess, Apple's growing their business since pre-COVID, so all the decline is Android-based. And I wanted to just understand how you reconcile what's going on with the Android ecosystem.

Is it a structural problem with the markets? Is it simply second-hand iPhones just sort of cannibalizing new smartphones in the market? But would love to get your perspective on how to think about long-term growth in mobile and smartphones and how you see the Android portion playing out over the next couple of years. Thank you.

A - Dr. Rick Tsai, CEO
Great question. Indeed, you’re right. The total number has come down from 1.4 billion to now about, as I said, 1.1 plus billion units in 2023. I mean, I don't have a crystal ball per se, but I do believe this is probably at least the short-term bottom for this number. I think the market's ready for a replacement cycle.

Of course, the decline from 1.4 to 1.1 comes come for several reasons, one being a lengthened replacement cycle. The other one is probably also, now, especially recently, during the last 6 months to 12 months, the emergence of the so-called used or refurbished phone, which really is eating into the total unit, the new smartphone sales unit. iPhone certainly has done well, both in China and also in the US internationally. So we are -- the Android ecosystem really needs to work a lot better. The number speaks for itself. I'm not going to use words. But as far as MediaTek is concerned, I hope you understand that with our capability and our investment in the high-end flagship phones and also much more cost-effective entry-level phones will sustain our position in this competitive environment. And we are and we will continue to do that. I have that confidence.

Q - Brett Simpson, Arete Research
Do you think the delta between the 1.4 billion to the 1.1 billion or 1.15 billion. Is that largely explained by refurbished phones cannibalizing new devices? Or is it a mix of things? Because we're all trying to size this secondhand market that seems to be growing and growing structurally. So, any thoughts there?

**A - Dr. Rick Tsai, CEO**

It's definitely a combination. Refurbished phone plays, I think, a significant role. I don't have the definitive number, but our internal estimate is between 50 million to 100 million, give and take. It's a big range, I know, but it is at the stage that -- but the slowdown replacement cycle is another, I think, even more important factor. You see the phone numbers sold in China has remained flat for a few years.

**Q - Brett Simpson, Arete Research**

And maybe just last one from me. I wanted to pick up on Randy's question about generative AI and how you see this playing out on smartphones. How big a semi-content driver is this? When you look at the amount of silicon it's going to take to do inference on a smartphone, 10 billion parameter a model or something like that. Does this really move the needle as far as semiconductor content on the smartphone? And does AI become the driver, the new driver of semi-content on the smartphone? I'd love to get your thoughts there.

**A - Dr. Rick Tsai, CEO**

Again, I think I can address this question, I'm afraid not in a very definite fashion. This is very new. Everybody I think is rushing, to tell the truth, to the applications, rushing to, I guess, including us, to claim that we have the capability to support generative AI, such as ChatGPT, et cetera. Which is definitely true because the AI processor we have built in our SoC is very powerful, which in my mind has not been fully utilized by our customers, actually. So, in many ways we are happy that there is now a new application that will take advantage of the already very strong AI processing capability. However, I think the jury is still out on how much new silicon we need to invest in the AI processing in order to achieve much broader or wider user experience improvement. I think it remains to be seen. It takes a little while.

We have to -- recently we have a roadmap for our AI processor. The roadmap is pretty aggressive. We believe the current roadmap can survive for this generative AI needs. But I think what we need to do, I think the industry needs to do also, really is to understand how we divide work between the cloud and the edge devices, so that -- I mean in a way, if you look at the automotive, it's very similar too. People are adding more and more computing power in the car. But people also need more and more cloud capability.

So I think those two things just move forward hand-in-hand. And that's why we continue to invest, for instance, in the leading-edge processes and packaging, so that we can provide those capabilities when we're convinced that will improve the user experience. and hopefully, a better value for our products.

**Q - Gokul Hariharan, JPMorgan**
First question, I wanted to talk a little bit more on pricing. Rick, I think you mentioned there is some price pressure in the entry-level segments. Could you also give us some more clarity about how pricing is evolving on a like-for-like basis? Let's say, Dimensity 8000, 7000, 6000 segments currently compared to previous generations, are we seeing pricing coming down or are we still seeing pricing moving up, given that we are adding more functionality to a lot of these products?

A – David Ku, CFO
I think like CEO Rick's opening remark talked about we do see some segments have a intensified price competition. And from our perspective, I think that's something we need to respond. But I think the key word is we need to have a balancing strategy. What do we mean by balancing? We need to think about the market share, the profitability, and the pricing. So, we will not just only think about the market share and maximize it or only try to counter-attack about pricing.

So overall, I guess we're trying to look at the totality of the pricing. But in terms of the details that you're asking about the like-for-like comparison, I think in general it's coming down a little bit, mainly due to the competition and also due to the weak demand. But by saying that, I guess you can judge from our second quarter gross margin guidance. The second quarter gross margin guidance is 47% plus minus 1.5% compared to – given the fact that the first quarter disclosed growth margin was 48%, so it's not going to be a huge difference, but also show some pressures on the growth margin. I think that's maybe the better way to look at that.

Q - Gokul Hariharan, JPMorgan
Okay, thanks David. So just to add on to that, so do you expect like last quarter when you mentioned gross margin to stay in this range through the year, or do you think that there’s more gross margin pressure in the second half of the year?

A – David Ku, CFO
Well, I think right now given the market dynamic, we're probably kind of reluctant to give out the full year growth margin guidance. But by saying that, if we recall the earlier statement we talked about, the first quarter’s guidance, it was 47.5% plus minus 1.5%, we think that's right now still going to be the goal we're striving for the full year. And first quarter, which we passed that, second quarter based on the guidance, I think we’ll meet that guidance as well. For the second half, again, that's at least the goal we're working on right now.

Q - Gokul Hariharan, JPMorgan
Okay, understood. Could you, maybe second question on your renewed effort, initiative into the automotive and ARM compute side, could you tell us a little bit more about what are the timelines in terms of product launches and potential customer wins? When do you expect this to become a more meaningful kind of revenue contributor for your Smart Edge business? Is it something that's happening in the next year or is it like something that will take more time to kind of crystallize?

A – David Ku, CFO
Okay, I think for the ARM computing probably will still take a few more year. Because right now we’ve actually been investing aggressively and actively for the ARM computing. But given the overall
development requirement, I guess it will still take probably two plus years or two plus minus years for the ARM computing to see the revenue coming in. On the other hand, for the Dimensity Auto, the good news is actually we've been investing in this for many years already. So for this year, roughly we're talking about $200 million plus revenue already. And we do see that there's strong growth momentum and possibility for the next few years.

But bear in mind, even we say that the design-in is actually pretty healthy, but the design-in and design-win cycle, especially for the revenue ramping up cycle for the automotive is relatively slow compared to the normal consumer product. So, I think the trend is positive, the design-in, design-win is healthy, but in terms of the magnitude, in terms of picking-up the magnitude still takes some time. But right now, at least we see $200 million plus revenue already for this year.

**Q - Sunny Lin, UBS**

So my first question, I just wanted to follow-up on the SoC sell-in versus the smartphone sell-through question. And so if you look at the first quarter of the year, how much do you think the 5G SoC are under shipping versus the smartphone sell-through for China smartphone customers? Do you think the gap is narrowing, going to second quarter? And based on that, how should we think about your seasonality for Q3?

**A – David Ku, CFO**

I think for the earlier number we talked about for the full year, 1.1 billion. That's referring to the market sell-out. And for our sell-in, probably is slightly less than that due to the fact that both customer and channel still have the inventory. I think that's the first question.

The second question you're talking about is seasonality. I think we probably won't be able to give out a detailed guidance, but at least for the trend wise, we do believe actually the second half should be better compared to the first half.

**Q - Sunny Lin, UBS**

And then my second question is on your product mix. I think officially the major China smartphone OEMs are planning to be a bit more aggressive on high-end for margin considerations, but from demand perspective, based on what you see, are you seeing better strength in high-end or low-end? And how should we think about your product mix for smartphone SoC this year versus 2022?

**A – David Ku, CFO**

I think in general, I would say from the mix perspective, if mix defines a the high-end, especially for us, I mean flagship versus the other segments, 2022 is definitely better. If you base on the year-over-year comparison, we're still seeing the flagship revenue and shipment grow year-over-year this year. But for other segments on the smartphone side, definitely we see a decline. So on the mixed side -- mixed-wise, actually, it's getting better. Unfortunately, due to the weak demand, the overall revenue is still coming down. But mixed-wise, definitely improving.

**Q – Brad Lin, BofAML**
I have two questions. One is on the resource allocation and the other on the COWOS and potentially opportunity for AI. So for R&D, given the gradually saturated 5G smartphone and engineers are pretty valuable assets for the firm. How would the firm allocate and realign the R&D resources for the growth segments, including AI and auto, also the ARM processor? And what would be the key segments for MediaTek focus in the next two to three years horizon? Thank you, that's my first question.

A - Dr. Rick Tsai, CEO

We -- in this very demanding environment, we are not reducing people, we're not increasing either. The critical thing is to allocate those precious resources. And you are quite right in your questions. We are definitely moving our resources very, very rapidly toward the automotive and computing area because those areas will provide our growth in the next three to five years in the future. We are, of course, continuing to invest in the flagship SOCs in the mobile, but we are also looking at our portfolio of SOCs. We will not probably build as many as we have before.

And the other thing is we are getting more efficient in the mobile SoC development. Despite the very demanding needs from a flagship, we are -- as you can tell, we can come up with some very much better performance and much lower power and a much more difficult leading-edge process. We keep our schedule quite well.

So I must say we are very proud with our R&D. They are actually delivering more with the same resources and in some cases lower resources. AI is definitely one area that we are putting a lot of resources because the new areas that we are focusing on are all related to computing. So, that's obvious, one area.

Q – Brad Lin, BofAML

So, my second question would be related on the COWOS and advanced packaging. We've learned that MediaTek definitely has a very strong IP portfolio in computing, communication and multimedia. And would you please share with us the latest development and what are the potential action plans that may help fuel MediaTek's growth like a strategic alliance or M&A? It'd be great to elaborate also a bit on your opportunity in the AI space for cloud too. Thank you.

A - Dr. Rick Tsai, CEO

Well, you have many questions in your question. I guess first one, you're talking about packaging. I think the COWOS and the packaging technology you described are more for the high-power computing area. For the mobile, because of the size limitation and the power consumption limitation, these are not that suitable.

For the high-power computing, as we said earlier, the new fields we are moving in definitely will take advantage of the advanced 2D to 3D packaging. But you have to also bear in mind this is a very complex equation here, because you have the demanding requirements, but you have a leading-edge process, whether you want to use 3 nanometer or 2 nanometer, and whether the packaging technology can give you good enough power and also good enough cost structure. It's very complex.

A – David Ku, CFO
I think for the AI right now, we're pretty much focused on the Edge AI, and so we didn't really focus on the Cloud AI. So for most of our AI-related investment, pretty much on the Edge side, and to be precise, probably on the inference side, rather on the training side. And that's actually the direction we're heading right now.

**Q - Bruce Lu, Goldman Sachs**

Hi, thank you for taking my question. In your prepared remark, the smartphone competition is pretty much at the lower end segment, which is the vast majority of the product offering MediaTek at. So do we have the confidence that it won't proliferate to mid-end or even higher end segment? Because in this market, it's a stagnant market for the smartphone, right? You have the duopoly situation, but you still see the intensified competition. What is the rationale behind and what can we foresee for the competition in the longer term in this stagnant market?

**A – David Ku, CFO**

Bruce, I think overall, from a product segmentation perspective, in general, we're looking at the basically for the entry level, it's actually the highest volume, both for 4G and also 5G. I think the bottom-line is that we do feel our product both on performance and cost structure perspective is actually very strong and very competitive. And I guess your question is really why some players out there are trying to launch some irrational price competitions. To be honest, we don't know the answer. But at least from our perspective, we do believe that there's going to be long-tailed demand out there. That's point number one.

Point number two, the bottom-line is actually we don't have strong pressure on inventory, and also we feel comfortable about our cost structure and pricing. So, we need to respond reasonably, but we will not respond irrationally. So, that's why in the opening remark we made it quite clear. There's a dedicated balance, we need to find the right balance between zero and one, but we will not go too aggressively from that because actually that's going to be a long tail business. But the bottom-line is actually our cost structure and product performance is actually very competitive. I think that's our view.

**Q - Bruce Lu, Goldman Sachs**

Thank you. The second question I want to ask is about your strategy to deal with your customer when they are trying to develop the application process by themselves, right? So, I want to know what's MediaTek strategy to accounting for this kind of, shrinking addressable market, i.e. if you try to provide them a very expensive modem, then you might be getting some business out of it, or you try not to provide them any modem, then slow down the whole progress for their internalized chips. So, what kind of strategy MediaTek's working on right now?

**A - Dr. Rick Tsai, CEO**

This is a classic of what they call the co-opetition. I think, first thing first, is whether we have a really strong and competitive product offering ourselves, which we do. I think not just from computing but also from our modern capabilities, everything combined together. We are really confident in that. So in
our mind, it is something we cannot just shy away. We will face up to it. We provide our products, and we believe that – by the way we strongly believe we have a much better cost structure in comparison.

Modem, we are -- look, if I can make a lot of money from modem, I don't mind at all. Modem, as we said, is one area that we want to generate a lot more revenue by itself, not just a supporting role for the SoC.

**Q - Charlie Chan, Morgan Stanley**

Good afternoon. So first question is regarding your ASIC business strategy. I think you already revamped your automotive, right, which is a good sign. But right now, it seems like ASIC, the design demand is still very, very, very strong, but lack of capable vendors. Do you need to expand this ASIC business a little bit to address the cloud AI markets? And would you consider to do some strategic partnerships with some IP or design service industry peers? Thank you.

**A - Dr. Rick Tsai, CEO**

Well, ASIC, relatively speaking, the nature of the business is much less, compared to, for instance, automotive, is less in size. And also, more complicated in that, as you know, the major hyperscalers are all doing their own in-house AI accelerators, et cetera. So, the ASIC opportunity varies from hyperscaler to hyperscaler.

Again, our strength in this area is our capability to bring up the leading-edge process, such as 3 nanometer, TSMC 3 nanometer, sooner than the other ASIC suppliers to scale. And also we have all the necessary IPs that they need for the hyperscalers. So, saying all that, I would say this is also a competitive market, I believe we are making inroads this year. But I hope to be able to say that -- probably near the end of the year we have something to report.

**Q - Charlie Chan, Morgan Stanley**

Great to hear. Thanks, Rick. And my second question is about your chip cost, right? I know pricing environment is pretty difficult to react, but cost could be something you can manage. So, first of all, it's on your manufacturing cost. How are you going to address the foundry cost, no matter wafer cost and back-end cost, since you are facing some pricing pressure as well?

And secondly, it's a little bit mid to long-term cost. IP licensing and royalty, I think there's already public news that ARM, your major CPU IP vendor, tries to hike the fee. So how are you going to address those cost increase issues, and would you consider some alternative like RISC-V CPU IP in your future products? Thank you.

**A – David Ku, CFO**

Charlie, I'll talk about the wafer and also the back-end cost first. I think, long story short, actually, right now, as everyone can see, for the whole industry, we're all suffering about weak demand, both from the design sector and also from the foundry and also back-end sector. So I think everyone knows that.

But the good news is actually because of that bad environment, I think the whole ecosystem is now taking a serious look about the pricing. We've all been going through -- a good time during the COVID situation, and now, post-COVID, demand is weaker. So, we are actively talking to all our supply chain
eco partners and vendors and trying to basically get some support. I think, in general, we’re getting some positive feedback. We probably won’t be able to tell you about the details, but you can rest assured that that's the direction we are working on right now.

**A - Dr. Rick Tsai, CEO**

On the CPU, ARM has been on the news quite a bit recently for different aspects. What I'd like to say is that MediaTek has been working with ARM for many, many years, all through their portfolio. There's definitely discussion on the business model in the leading-edge, very leading-edge, the biggest core.

The important thing is that we believe -- both companies believe, through working closely together, collaborating together, we make more money together. Both companies are very strong, both companies are very capable, and I truly believe that through collaborating together we will have much better products, and they will get their fair share of the return for their investment.

**Q - Charlie Chan, Morgan Stanley**

So, in a case, any impact in terms of the gross margin or operating margin from the potential license fee hike? I know you guys can work together to get more value, right? But purely on the cost side, can you give us some color? And also, again, RISC-V, is that something you will seriously take as a very important alternative in your long-term portfolio?

**A – David Ku, CFO**

Charlie, we normally won’t break out by a single vendor to talk about the impact to the gross margin. But probably the better way to look at that is, if there's any impact, it's already been included in our guidance, both for the gross margin for the second quarter and also we kind of provide a hint for the full-year. I think it has all been incorporated already.

**Q - Charlie Chan, Morgan Stanley**

RISC-V, any comments?

**A - Dr. Rick Tsai, CEO**

No.

-End of Q&A session-