

MediaTek 4Q23 Earnings Call

Wednesday, January 31, 2024, 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 fourth 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 fourth quarter financial results.

David Ku, Chief Financial Officer

Good afternoon, everyone. Now let's start with the 2023 fourth quarter financial results. The currency used here is NT dollar. Revenue for the quarter was NT\$129.6 billion dollars, up 17.7% sequentially, and up 19.7% year-over-year. Full year 2023 revenue totaled NT\$433.4 billion, down 21% from 2022.

Gross margin for the quarter was 48.3%, up 0.9 percentage point from the previous quarter, and the same as the year-ago quarter. Gross margin for 2023 was 47.8%, down 1.6 percentage points year-over-year.

Operating expenses for the quarter were NT\$37.9 billion dollars, compared with NT\$34.2 billion dollars in the previous quarter and NT\$34.2 billion dollars in the year-ago quarter. Full year 2023 operating expenses was NT\$135.6 billion, compared with NT\$144.1 billion in 2022.

Operating income for the quarter was NT\$24.7 billion dollars, up 37.8% sequentially and up 36.8% year over year. Non-TIFRS operating income for the quarter was NT\$25.1 billion dollars. Full year 2023 operating income was NT\$71.8 billion, down 43.4% year-over-year. Non-TIFRS operating income for the year was NT\$74.1 billion dollars.

Operating margin for the quarter was 19.1%, up 2.8 percentage points in the previous quarter and up 2.4 percentage points year-over-year. Non-TIFRS operating margin for the quarter was 19.4%. Operating margin for 2023 was 16.6%, down 6.5 percentage points year-over-year. Non-TIFRS operating margin for the year was 17.1%.

Net income for the quarter was NT\$25.7 billion, up 38.5% sequentially and up 38.9% year-over-year. Non-TIFRS net income for the quarter was NT\$26 billion dollars. Full year 2023 net income for was NT\$77.2 billion dollars, down 34.9% year-over-year. Non-TIFRS net income for the year was NT\$79.2 billion dollars.

Net profit margin for the quarter was 19.8%, increased 2.9 percentage points from the previous quarter and increased 2.7 percentage points year-over-year. Non-TIFRS net profit margin for the quarter was 20.1%. Net profit margin for 2023 was 17.8%, down 3.8 percentage points year-over-year. Non-TIFRS net profit margin for the year was 18.3%.

EPS for the quarter was NT\$16.15 dollars, up from NT\$11.64 dollars in the previous quarter and up from NT\$11.66 dollars in the year-ago quarter. Non-TIFRS EPS for the quarter was NT\$16.34 dollars. Full year 2023 EPS was NT\$48.51, compared with NT\$74.59 in 2022. Non-TIFRS EPS for the year was NT\$49.74 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. MediaTek concluded 2023 with a strong fourth quarter. Our revenue exceeded the high end of our guidance, mainly driven by better-than-expected smartphone demand. Gross margin for the fourth quarter reached the high-end of our guidance.

2023 was a challenging year for the global semiconductor industry. At MediaTek, we managed our business with several proactive measures including executing price disciplines, reducing own inventory level, and moderating general operating expenses. All the while we strategically reallocate more internal resources to pursue new growth opportunities. Thanks to these efforts, we have bolstered our resilience in navigating through this cycle and strengthened our global position by introducing leading products. Now, we're a leading player to launch 5G AI flagship SoC and WiFi 7 solutions. We're also one of very few fabless companies that can support a roadmap for multiple applications on the most advanced process nodes such as 3nm and beyond.

We leverage the leading roadmap and engage with global customers aggressively for new growth opportunities across flagship smartphone SoC, wireless connectivity, enterprise ASICs, automotive, and ARM computing. While we continue to execute these new projects in 2024, we expect several of those new businesses to begin volume production starting from late 2025. With that, we see 2024 as the beginning of MediaTek's next growth trajectory.

In particular, we are seeing increasing demand driven by need for better computing and faster data transmission to support ubiquitous AI in the mid to long term, both at the edge and in the cloud.

At the edge, MediaTek is one of the very few companies in the world that has a scalable edge AI SoC product portfolio for a wide range of devices including smartphones, computing devices, robots, automotive and etc. We foresee fast-growing demand for more computing capabilities at the edge for users to enjoy the benefits of better privacy, lower latency, and lower costs. In addition, recent rapidly advancing large language models offer extensive understanding of language and context which enable more accurate, natural, and human-like interactions. This has accelerated the development of generative AI features, especially in the field of personal assistant, creativity, and productivity enhancement tools to provide intuitive and effective user experiences. We are working very closely with the generative AI ecosystem partners and provide high performance and power efficient edge AI SoC solutions for the industry.

In the cloud, our strategic 112G and 224G SerDes IPs are essential for high-speed data transmission in data centers. We also have strong capability in advanced process technology, chiplet architecture design and advanced packaging. In addition, our power management IC solutions are able to accommodate higher computing and storage requirements in data centers.

Furthermore, our leading wireless and wired connectivity solutions play a crucial role in transmitting data between the edge and the cloud. Thus, we firmly believe that we are in a great position to capture the growth opportunities in the era of ubiquitous AI.

For automotive, besides the generative AI opportunities in cars, our Dimensity Auto platform continues to gain traction in the global market. We expect our e-cockpit, 5G telematics and power IC, paired with NVIDIA's ADAS and software, will enable us to be a strong strategic partner for global car makers.

With that, now let me talk about the recent business performance and 2024 outlook of our three revenue groups.

Mobile Phone accounted for 64% of total revenue in the fourth quarter and grew 53% quarter-over-quarter. The strong sequential growth was attributed by 5G and 4G demand and the successful ramp of our flagship SoC Dimensity 9300.

In 2023, our flagship revenue grew strongly at 70%, exceeding US\$ 1billion. Our latest flagship SoC Dimensity 9300 is well received by the market and will continue to gain market share. With the innovative industry-leading All Big Core architecture, Dimensity 9300 offers the best computing performance in the market. In addition, Dimensity 9300's AI capability is ranked no.1 globally by the

independent ETH Zurich AI benchmark. Vivo, OPPO and iQoo's smartphones powered by Dimensity 9300 are able to offer on-device generative AI features such as text to pictures, article summary and user-friendly voice assistant. We also extended generative AI to premium segment with Dimensity 8300 SoCs, providing more hardware platforms for the industry to develop more generative AI features. Today, we're still in the early days of generative AI development and we believe there will be more exciting features to be added in the future.

For 2024, we expect global smartphone shipments to increase by a low-single digit percentage to 1.2 billion units and 5G penetration rate to increase to low-60s% from high-50s% in 2023. We also observe that generative AI is driving smartphone upgrade demand and creates a bigger market for flagship and high-end smartphones. We see continuous 5G migration and our flagship share expansion will be key drivers for our mobile phone business this year.

For the first quarter of 2024, we expect mobile revenue to decline slightly sequentially, following a strong restocking demand in the fourth quarter.

Now let me move on to Smart Edge Platforms, this group declined 19% sequentially in the fourth quarter and accounted for 30% of revenue. The decline was primarily because TV customers reduced orders after the inventory pre-built in the first half of 2023.

For 2023, despite the weak consumer electronics demand, our 5G modem, automotive and ASIC business continued to grow.

For 2024, we expect the overall demand to improve moderately and upgrade demand for connectivity and computing will be important growth drivers.

For computing, we start to see generative AI being added to computing devices such as tablets. Several of our tablet customers have adopted Dimensity 9300 with generative AI capabilities for their flagship tablet models in the first quarter and we expect more to come.

For connectivity, right after Wi-Fi Alliance began Wi-Fi 7 certification, we announced a complete first wave of Wi-Fi 7 certified solutions with various customers' products ready at the CES. Our industry-leading WiFi 7 position has enabled our share gains in high-end retail routers, premium notebooks, broadband devices and more.

For the first quarter of 2024, we expect smart edge platform to be flattish sequentially as growth in TV, tablet and broadband connectivity offset seasonally weaker demand in other consumer electronics.

Now moving to Power IC, which accounted for 6% of total revenue in the fourth quarter and grew 1% quarter-over-quarter. In the fourth quarter, data center power IC grew robustly and the broad-based consumer electronics revenue was flattish.

For 2024 and beyond, we will continue to expand in new areas such as automotive and data center to grow our business. In the first quarter, we expect power IC to decline due to seasonality and product transitions.

Now, for the first quarter of 2024, we expect revenue to grow strongly year over year to reflect a more normalized inventory situation and to decline slightly sequentially. Corporate gross margin is expected to be stable in the current range.

With that, we expect our first quarter revenue to be in the range of NT\$121.8 billion dollars to NT\$129.6 billion dollars, flat to down 6% sequentially, and up 27% to 35% year-over-year at a forecasted exchange rate of 31.2 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 28%, plus or minus 2 percentage points.

For 2024, we believe it will be a year of growth. For gross margin, with our continued efforts to manage our product and customer mix, we expect our 2024 gross margin to remain at a similar level to our first quarter guidance range.

Finally, I'd like to conclude my remark by reiterating that, with all the exciting opportunities ahead of us, we believe 2024 is the beginning of our next growth phase. Thank you.

This concludes my prepared comments, thank you.

[Q&A]

Q – Randy Abrams, UBS

Yes, thank you for taking my question. I wanted to ask the first one about -- just to add on your comments on the Gen AI application opportunity, how are you seeing or viewing the content uplift? Factoring the compute engine, the CPU, the GPU, and the AI processor would see some upgrade, I think Qualcomm talked about a pretty good uplift, but I'm curious your view on content.

And second is how you're viewing the market, given your market share is higher in the mainstream of the market, how you see the features roll out, or if you see opportunity to move it down categories from the flagship category?

A - Dr. Rick Tsai, CEO

For the first question. Randy, we see -- number one, I think our Dimensity 9300 SoC, flagship SoC is in its computing power, CPU, GPU, and AI processing power as good as anybody. There's no question about that in our mind, and I believe in our customers' mind. So -- and with all those computing capabilities, the generative AI features I just mentioned in my remarks, I think only will improve as the time goes on. It's just at the beginning of our introduction and our customers are working very hard with their ecosystem partners to develop more features.

I have no question in my mind that all those computing power will be utilized and to upgrade the user experiences and I also believe -- you know the cadence of our flagship SoC, we really believe going

forward in the next -- starting this year and next couple or three years, the upgrade cycle, because of those generative AI features, will certainly materialize for the flagship SoC and the premium SoCs.

The second question is about --

Q – Randy Abrams, UBS

Or if you could put how much of you have a feel for -- if each category of the market you could see, or at least in the flagship and premium, do you see -- We've moved up quite a bit the last several years where we're about \$100, but do you see that upward category can still push higher or is the opportunity you grow the category and grow market share in the category?

A - Dr. Rick Tsai, CEO

Let me put this way, we see upside in both. I'm not saying we can get immediate upside in our, for instance, ASP very quickly. But there is also no doubt in my mind that the upgrade cycle is beginning, and the consumers will want to come to buy AI -- I should say to buy phones and for that matter, computing devices which will enable AI features. And the features itself -- themselves, some of them I think will be very interesting, some of them maybe not so interesting, but we believe will happen, hopefully are happening. Consumer will flock into the cloud and say, hey, we want the AI devices.

And as such, the total shipment of the, for instance, smartphones may be somewhat, well say muted -- we now talk about low single digit growth in the units. But we believe upgrade toward the high-end, which means flagship and premium segments, market share is increasing -- not will be -- is increasing, especially in China domestic market.

So, we are very confident that we are doing well, and we will be doing well going forward in this AI generated upgrade cycle. Thank you.

Q – Randy Abrams, UBS

Thank you, Rick. The second question I wanted to ask, it's inventory. I think from two perspectives -- you saw a very strong recovery, granted from a decline quite a bit the last few quarters, but the 50% rebound, I'm curious where you think you're shipping relative to market demand and how you feel the channel inventory is?

And then if you could talk about your own inventory, you've done a great job actually to bring it to very low levels. Are you at the point you're constrained, or you'll run at a bit leaner level now?

A - Dr. Rick Tsai, CEO

I think our inventory level is -- right now, it's very healthy. Maybe at the end of fourth quarter, a bit too healthy. And you're right that actually in some cases we are rushing our manufactured partners for shipments to us.

Saying all that. Our goal of course, is to maintain a stable inventory. I think we have learned our lessons -- I hope. And we are seeing our channel, which means our customer and their channel inventory level at, I would say normal level. So, since right now, I think in a stable state, the macroeconomic picture for the two largest market, China and US, I think as you all know, somewhat right now, we don't see

huge demand increase, but they're not bad either. So, I guess a state state is a reasonable description of where we are.

Q – Brad Lin, Bank of America Merrill Lynch

Thank you for taking my question. So firstly, congrats on the good result and also the guidance. So, I have two questions. One is on the smartphone pricing and secondly is on the edge AI opportunity.

So, we learned that the inventory level actually improved at us and also the channel and possibly our competitor as well. So, with that regard, do we see the market ASP also stabilize? And it would be great if we can elaborate a bit by low-end, mid-end, and high-end segments.

And my second question would be on the edge AI, and we have seen the increasing computing power of the, well, smartphone and other end devices as MediaTek's clients continuously proactively requesting to increase even more AI computing power by the end of the year. And do we see a potential bottleneck there in the near future? Thank you. That's my two questions.

A – David Ku, CFO

Well, first of all, probably I comment a little bit about pricing. I think overall we see relatively -- first of all, the competition is always out there, but we see basically just a normal competition situation out there. So pricing is having some pressure, but in general, I think it's still manageable. And that's why, as you can see for Q1, what we guide for the Q1 gross margin guidance, it's actually from a guidance range perspective, it's been flattened out, which is based on 47 plus mins 1.5%. So pricing wise, we see actually is manageable.

A - Dr. Rick Tsai, CEO

As to the edge AI question, we are very excited. I think Dimensity 9300 is just the first. You are seeing with, I would say really tremendous Edge AI for the smartphone platform. But we are not stopping here. In addition to continuous improvement in our edge AI capability, computing, especially capability with smartphone platform, we are investing aggressively in building computing capability into SoC or chiplet-like platforms to be used in other higher power computing devices, such as the computing devices, automotive, et cetera.

So, we are seeing this edge AI thing as kind of pervasive. It is -- I believe, if you look at now the one of the most, the hottest subject is AI PC. These are all at the beginning of the cycle. MediaTek is very excited, and we are well prepared. We are determined to be one of the top providers for the edge AI capability for multiple verticals. Thank you.

Q - Gokul Hariharan, JPMorgan

Thanks for taking my question. My first question is about 2024 growth. I think, Rick, you mentioned it will be a growth year. Could we get a little bit more clarity in terms of how much growth you're expecting given that we are coming off inventory correction year? Usually, the first year after inventory correction is pretty strong growth. So, are we thinking about 15%, 20% kind of growth as possible this year? Just wanted to understand given your end market assumptions are still a little bit cautious, but you have some specific drivers in here.

A - Dr. Rick Tsai, CEO

I think the growth picture remains still a little uncertain. First quarter, obviously, we know well, and we are having, I would say, a strong year over year growth. And we all know one of the major driver is restocking. However, also, I would say our SoC, the flagship SoC for the mobile applications, is also contributing a great deal to our growth.

My expectation is for our flagship SoC's growth to continue into the year. The restocking momentum remains to be seen somewhat. We understand everybody is talking about restocking, maybe it's kind of, shall we say, moderating, not sure, we tend to agree with that. But I think what we're doing both in flagship and for the entry level and the medium level soCs, we're holding up quite well. Quite well.

And for the flagship, no I'm sorry, for the smart edge platforms, I think we're starting to see certain -- also inventory really not only stabilized, but also -- I think we're seeing some, for instance, broadband bidding starting to come back, for instance, in China, which they basically have stopped for almost at least more than half a year. We believe the smart edge platform's inventory situation is gradually improving, but it's gradually improving because we're not seeing a strong momentum as we did with smartphone. But we remain certainly at least hopeful.

But I must say also -- this continuing geopolitical thing across the world -- it is a major uncertainty. And with that, you always -- actually, if you ask me, probably unfortunately, every year people will have this concern. And as such, that's why we kind of refrain from making a full year forecast. We will, as time goes on, I'm sure the picture will get more clear and we will give you not only our forecast, but hopefully try to give you more our takeaway indications. Thank you.

Q - Gokul Hariharan, JPMorgan

Thanks, Rick, that's helpful. Second question, you did talk about replacement cycle in smartphones, especially in the mid to high-end and flagship segment. Could you talk a little bit about what are you seeing in this replacement cycle given your overall unit forecast is still not that great, but -- and it's been a long time since we've seen a smartphone replacement cycle, especially in China. So, could you talk a little bit about what you are observing in terms of this replacement cycle, how it is panning out?

And I think there has been some concern about Huawei's resurgence, especially in the flagship segment having some impact on other brands. And now we are probably six months into that. What are you seeing on that front as well?

A – David Ku, CFO

Okay, so maybe the better way to talk about that is actually to separate smartphone on our flagship segment and other segments. I think for the flagship segment, overall we are doing very strongly, especially from the gaining market share. So, on that front we are enjoying, I would say, not just the restocking cycle, but also market share gain. And plus, due to the AI and all those new features coming in, a shorter replacement cycle. I think that's actually all positive on the Flagship. And I think that's why I think the CEO, even for this year, full year, we feel fairly comfortable to see the flagship continue to grow strongly, very strongly. That's on the flagship.

On the segment for non-flagships, I think obviously starting from fourth quarter and first quarter this year, restocking probably is the major driver. But for the premium sector, especially due to the AI and also other new features, we do feel maybe there's an opportunity to see shorter replacement cycle. Even though it's not a strong signal yet, but with actually the market feedback, we see some positive momentum, at least early signals out there. For the entry level, probably by and large is the restocking.

And also -- but another good news is actually because we monitor both for China and more importantly globally, I understand everyone looking for China for the BCI numbers, it's not super exciting, but when we look at the global numbers, it's actually getting stabilizing and improving. I think that's actually contributing why we feel comfortable for this year will be a year of growth on the smartphone space.

Q - Gokul Hariharan, JPMorgan

Okay, any more clarity, David, in terms of flagship, I think you grew 70% last year. Should we expect something similar to that this year?

A – David Ku, CFO

No, I think I will say something similar to that. It's a very strong – very strong double-digit growth on the revenue.

Q – Laura Chen, Citi

Good afternoon and happy new year. Thank you for taking my question. I have two questions regarding MediaTek's progress on the AI. So we know that actually the Dimensity high-end series are getting quite good momentum. But for many of the large language model like Gemini or Llama 2, for current smartphone AI functions, we know that actually provided by the cloud service provider.

So from that angle, I'm just curious what MediaTek can help your customer to differentiate their AI function on device? Do you need to do more like customized design to help your customers do like AI or machine learning on device and thus can help them to provide some different features such as the instant translation or enhanced personal assistance? Something on that? Yeah, that's my first question.

A - Dr. Rick Tsai, CEO

Okay, Laura, first of all, of course, we work very closely with the key generative AI ecosystem partners such as Meta on Llama 2, Google on their Gemini nano, in China Baidu, Baichuan, et cetera. All those, I'm sure you know well, and stable diffusion.

As to what we have been doing actually over the years, it's not so well known. We have a very very powerful and also friendly AI software toolkit for our AI processing computing unit. We call that NeuroPilot SDK, which enforce our customers, the OEMs, to design their features very effectively and efficiently.

But saying all that, we also work -- a lot of the AI application goes through, for instance, camera multimedia kind of applications. We also gaming for that matter, especially in China. The other thing we have been doing over the past several years, we have a very strong relationship with, for instance, gaming developers in China, and they having -- they also use this NeuroPilot SDK to develop their

games, which can run with much better power efficiency and quality use of experiences on the phones made with our chips.

So, I fully expect this model, this collaboration model, to continue and prosper going forward for the more applications with respect to generative AI. Again, the ones we are seeing and the ones we are talking -- we just said, it's just the tip of the iceberg.

Q – Laura Chen, Citi

Thank you, Rick, for the very clear picture here. I'm just wondering that with this kind of NeuroPilot, the SDK provided by MediaTek, would that also imply probably better profitability? Or since the client's thickness probably will also be higher, will that be what we can expect?

A - Dr. Rick Tsai, CEO

Well, of course we do not charge for customers to use NeuroPilot SDK -- maybe we should. But certainly, I think for us and for our customers, it's very importantly, MediaTek provides these capabilities so that they can prosper. And we will prosper, and hopefully -- not hopefully -- and you will again ignite the upgrade and the replacement cycle. I think that's the main approach we are employing for our growth, which in this vertical, mobile phone, but also other verticals also. Thank you.

Q – Laura Chen, Citi

And also my second question is also about the AI at the cloud side. I think Rick, you just mentioned that your SerDes IP and also the progress at enterprise customers. I think you also mentioned about like late 2025 we can see some contribution. I'm not sure if I heard this correctly. Can you elaborate more on the current progress and what's the project you are engaged right now?

A - Dr. Rick Tsai, CEO

Yeah, first, you heard me right. We did say that -- I guess, quite a few of our new opportunities will start volume production in late 2025, which means we will start seeing the fruits of our investment.

We do have -- we have those in our pipeline, for instance, in the enterprise ASIC. We continue to pursue this with multiple opportunities, but internally we are laser-focused in executing our current project, which is very significant, and we will deliver that project. And I'm very confident that MediaTek will execute and we'll have more good opportunity ahead of us.

Q – Laura Chen, Citi

Thank you. If I may ask, what kind of revenue or the probability you can share with us at this moment? The potential?

A – David Ku, CFO

Laura, unfortunately, we probably won't be able to share any of that due to the confidentiality. But I think we'll update when possible.

Q - Charlie Chan, Morgan Stanley

Hi, Rick. David Jessie, Happy New year. So, my first question is about -- you mentioned the HPC opportunity. So, Rick mentioned that you can use a chiplet technology and to get the HPC device with

some AI computing power. So, I'm curious if that refers to some notebook PC or AI PC opportunity. And I think you also mentioned that some Arm based SoC opportunity. I'm not sure if you refer to the same thing.

And I think a year ago you talked about Windows on Arm, and you mentioned that there are some serious partners in those projects. So, can you give us some updates when you will see this kind of opportunity to turn to a real revenue to MediaTek? This is my first question. Thank you.

A – David Ku, CFO

Charlie, first of all, I think what we mentioned along the line, which is something we call enterprise ASIC, which is actually leveraged about our SerDes technology, our high-end processing technology, and also more importantly, the packaging technology. And if there's any, I think due to the AI trend, obviously for the enterprise side, there's a new demand as well, which feed into our expertise. I think that's actually what we talked about on the enterprise side.

On the PC side, to be precise. I think the area we get in is something called ARM computing. And because we already being one of the leaders on the tablet side and also on the Chromebook. And with the AI trend, we do believe actually the AI will get into this area as well. So, I think that will be the area we will continue to push and grow.

A - Dr. Rick Tsai, CEO

Charlie, I think I might add one word. Well, we -- one important thing is we are working on, and I think -- not I think, I know -- we are also marketing our automotive chip based on chiplet architecture with very powerful GAI capability. That is -- I would say that will be in a way a forerunner for us also in the more generic computing world. I think that's a comment I'd like to add. Thank you.

Q - Charlie Chan, Morgan Stanley

Thanks, Rick. Yeah. So I believe you secure a very strong partner, and I think that partner will also depend on you. So, very well done. And my second part of question also goes back to edge AI. So couple of technical kind of small questions, so bear with me. Just some clarification.

Number one is the Gemini nano. I remember it's kind of Google's service, right. So with that, Gemini Nano can really deploy to the China's smartphone? It's the first small question. And I am very impressed by your compression technology. Does that mean that you don't have to increase the DRAM content and then you can run the LLM? And last part of this topic is that when will you deploy your APU to the mainstream smartphone chips? So just some small questions to clarify. Thanks.

A - Dr. Rick Tsai, CEO

Okay, Charlie, I think that's a very good question. And we certainly are doing 7 billion parameter model, Llama 2 model, and we can certainly also do 13 billion parameter model with our flagship SoC. And one thing that we are doing, certainly, we're kind of pushing down the capability, first to 8300, that's our premium segment SoC, our APU capability actually is prevalent across the portfolio of our SoC offering.

And I think for the more kind of a mainstream-end of the devices right now, probably also not the focus of our customers. Everybody has limited R&D resources, so certainly our customers are focusing their resources on the high-end, as they should. We fully agree. But I think as time goes on, when we go to the next year or two, the computing power will continue to improve. So the 7 billion parameter capability that we have now on flagship will migrate down to more mainstream chips. DRAM -- but you're right, Charlie, certainly the DRAM, especially the bandwidth of the DDR DRAM, is something -- this is an industry-wide issue, industry needs to address from the system architecture point of view. You're right on that.

Q - Charlie Chan, Morgan Stanley

Okay, Gemini Nano, can you deploy that to the China smartphone? The last part of the question.

A – David Ku, CFO

I think, Charlie, the real question actually, Gemini Nano is open-source, and everyone can use it. But whether or not for certain region you can use that service -- because it's a platform service, nothing different. I mean, you can still use the open-source and develop your own service, but if you want to using Google service, maybe you need to follow Google's rules and restrictions for the areas you can use. But for the platform, let's just say LLM model itself, it's actually available.

Q - Brett Simpson, Arete Research

Rick, I have a question about the flagship market. I think congrats on reaching a billion revenue in 2023. Can you maybe just share with us what do you think the TAM is for MediaTek in flagship, or how many flagship units do you think ship within the Android ecosystem that you could address?

And in terms of the competitive dynamic in flagship, we're obviously seeing Exynos coming back in. We're seeing Huawei ramping as well. And Qualcomm has a new platform following their Nuvia acquisition coming at the end of the year. How do you think that these ingredients sort of play into your expectations for share gains over the medium-term? Thank you.

A - Dr. Rick Tsai, CEO

Okay, I think our current TAM. The outlook for current TAM is probably \$4 billion -- 14? Well, my CFO wanted to correct me. No, just kidding. I guess what I'm saying is, in my mind, I understand David's number, but in my mind right now, the number I just said is something that we have high confidence in continuing grabbing shares.

There are more, obviously, TAM. That is, to be honest, you know has higher barrier for us. You mentioned, for instance, Exynos, or in my mind, that's not really our concern. Huawei's case, actually, Huawei is always a very very powerful player. Well, certainly we all know they have the other limitations.

Again, what I believe is the capability we have built for our flagship SoC will enable us to continue to grow -- I mean, David just mentioned the growth, well, he gave some strong indication for this year, and this momentum, I cannot say every year the same percentage. But we have no doubt, number

one, our capability, our competence will enable us to grow while these generative AI features will also enlarge the TAM.

So I'm trying to give you as much transparency as I can. That's where we are, and I'm really very confident and comfortable, very appreciative of our team in making these things happen.

Q - Brett Simpson, Arete Research

Great, thanks for sharing that perspective, Rick. And maybe just a follow-on there. We have seen over the years, certain Chinese smartphone vendors try to build their own silicon. I think we saw Xiaomi and Oppo try to build silicon, and I guess if I look at what ARM is trying to do, they're talking about a turnkey application processor. That's relatively low barriers to entry for potentially a handset vendor to build AP going forward. Do you think that the risk that customers build their own silicon, do you think that's largely behind us, or do you think these types of initiatives that ARM is trying to build out could be a threat long term for your TAM? Thanks.

A - Dr. Rick Tsai, CEO

Well, the best way is to make your competitor into your partner or your customers. Well, of course, easier said than done, but I think we're in the process of doing that. I'm not saying we're attacking our customers. Don't get me wrong at all. Don't get me wrong. Well, when our customers like Xiaomi is known that building their own AP and we work with among – for example with our modem, but we build our partnership with them, and I cannot say whether they will succeed or not for Xiaomi. But we do know Oppo met difficulties for sure, and – but in many ways, I think that makes Oppo now even a stronger partner with us, and vice versa.

For ARM, we understand ARM's business objectives and the business model, but if you look around the industry, MediaTek is one of the very few true AP -- advanced AP suppliers with track record. And I think it's important and maybe even imperative that we work together as ecosystem partner in the -- gain market share together. Thank you.

Q - Brett Simpson, Arete Research

Thank you. If I can maybe ask one final question, Rick, just on Wifi 7. I think this is the start of the transition towards this next standard, and I just wanted to understand what it means for MediaTek. Is there a meaningful content story as Wifi 7 ramps up for MediaTek? If there's any perspective you can share about your market share and the adoption rates for Wifi 7 and what it might mean for your business? That'd be very helpful. Thanks.

A - Dr. Rick Tsai, CEO

First, Wifi is a very important business unit for MediaTek. We have actually experienced very strong growth during the last couple or three years. Last year was not good -- many of our other products. But we are seeing the momentum turning back to a growth mode.

And Wifi, the technology operates around every four or five years, continues, continues. And Wifi7, as far as we can see, for instance, starting from the mobile phone customers, the broadband operators -- all the major broadband operators now only accept Wifi 7 for their device bidding already.

So we see Wifi7 continuing just like the previous generations. That is good, because we have caught up with our competitors in our technology capability. Our goal is to not only to get to the market share that we have at Wifi 6 or Wifi 5 for that matter, but also we like to go in as early as we can so that we don't miss the front part of the cycle. Thank you.

Q - Nicolas Baratte, Macquarie

Yes, hello. If I can go back to a question about volume production starting late 2025 for the ongoing development project, would you classify this, consider this as an entirely new product category, an entirely new revenue stream, meaning both product and customers? Or a continuation of existing established businesses?

A – David Ku, CFO

Well, I think first of all, I think what the CEO talking about is, start to having the first time revenue in late 2025. So by definition, the overall revenue contribution in 2025 probably will be mild, will be small, given actually will start ramp toward the end of the year. So most likely we're going to see more revenue coming in after it starts to ramp.

Q - Nicolas Baratte, Macquarie

Understood, David. But for products that you've done before or never done before?

A – David Ku, CFO

That's a new product.

Q - Nicolas Baratte, Macquarie

Understood. Did I hear correctly that you would roll out those increased AI capabilities into Dimensity 8300 later this year? And if that's the case, do you see the need to roll out into lower categories Dimensity later on?

A – David Ku, CFO

Well, I think for this year, one of the major points still going to be flagship, given the potential revenue opportunity and also the market acceptance of this flagship product. For the premium, we do see actually the opportunity to basically trickle down the AI capability because that will be one of the logical next extension -- trickle down from the flagship to the premium. So we will see how does the premium go for the second half of this year. But we do have the plan to roll out the premium product later this year.

-End of Q&A session-