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OVERVIEW:

Company Summary

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PRESENTATION

Operator

Ladies and gentlemen, thank you for standing by. Welcome to the Qualcomm Third Quarter Fiscal 2023 Earnings Conference Call. (Operator Instructions) As a reminder, this conference is being recorded, August 2, 2023. The playback number for today's call is (877) 660-6853. International callers, please dial (201) 612-7415. The playback reservation number is 13739729.

I would now like to turn the call over to Mauricio Lopez-Hodoyan, Vice President of Investor Relations. Mr. Lopez-Hodoyan, please go ahead.

Mauricio Lopez-Hodoyan - *QUALCOMM Incorporated - Vice President of Investor Relations*

Thank you, and good afternoon, everyone. Today's call will include prepared remarks by Cristiano Amon and Akash Palkhiwala. In addition, Alex Rogers will join the question-and-answer session. You can access our earnings release and a slide presentation that accompany this call on our Investor Relations website. In addition, this call is being webcast on qualcomm.com, and a replay will be available on our website later today.

During the call today, we will use non-GAAP financial measures as defined in Regulation G, and you can find the related reconciliations to GAAP on our website. We will also make forward-looking statements, including projections and estimates of future events, business or industry trends or business or financial results.

Actual events or results could differ materially from those projected in our forward-looking statements. Please refer to our SEC filings, including our most recent 10-K, which contain important factors that could cause actual results to differ materially from the forward-looking statements.

And now to comments from Qualcomm's President and Chief Executive Officer, Cristiano Amon.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Thank you, Mauricio, and good afternoon, everyone. Thanks for joining us today. In our fiscal Q3, we delivered results consistent with our guidance, with non-GAAP earnings of \$1.87 per share, above the midpoint of our guidance. We recorded fiscal Q3 non-GAAP revenues of \$8.4 billion, including \$7.2 billion from our chipset business and \$1.2 billion from our licensing business.

This quarter also marked our 11th straight quarter of year-over-year double-digit percentage growth in QCT automotive revenues. We are pleased with our technology, product and design win execution, positioning us well for continued leadership enhancements and future growth and diversification in automotive and IoT.

I will now share some highlights from across the business. Our Snapdragon 8 series mobile platforms continue to set the benchmark for premium tier mobile experiences. Smartphones powered by our Snapdragon 8 Gen 2 represent the top devices according to AnTuTu benchmarks in Android Authority.

We are also pleased that the Snapdragon 8 Gen 2 for Galaxy will again power Samsung's newest flagship device lineup globally, the Galaxy Z Flip5, Galaxy Z Fold5 and the Galaxy Tab S9 series. Our fastest Snapdragon ever for Samsung defines a new standard in smartphone computing capabilities, AI experiences, desktop-level gaming features, professional-grade photography, enhanced mobile productivity and more. This launch underscores Qualcomm and Samsung's mutual commitment to delivering premium consumer experiences for flagship Galaxy devices. We are extremely proud of our successful partnership with Samsung Mobile.

We are also pleased to extend Snapdragon experiences to mass market 5G smartphones. The redesigned Snapdragon 4 Gen 2 mobile platform will bring premium experiences at reduced prices to help drive 4G to 5G migration, especially in new 5G deployments worldwide. We're looking forward to device announcements in the second half of 2023.

In automotive, we hosted our first Automotive Summit in Suzhou, China, with more than 1,000 automotive OEMs, Tier 1s, ecosystem partners, media, analysts and government officials in attendance. The broad participation at the event demonstrates Qualcomm's strong position as a technology partner to the growing automotive ecosystem worldwide, especially EVs as well as Snapdragon Digital Chassis technology and product leadership. We also won more than 10 new designs with leading automakers across the globe for next-generation digital cockpit and telematics systems.

In consumer IoT, the recently announced Meta Quest 3 is the first virtual and mixed reality headset to be powered by a next-generation Snapdragon XR platform developed in collaboration with Meta. The Quest 3 features 2x the graphical performance, higher resolution and a slimmer, more comfortable form factor than the Quest 2. We're also helping to drive the growing ecosystem of VR and MR developers in China. OPPO recently announced their OPPO MR Glass Developer Edition powered by Snapdragon XR2+.

And in compute, our next-generation PC platform with integrated custom Oryon CPUs in a significantly upgraded AI engine remains on track for commercial readiness. We look forward to sharing more information at our Snapdragon Summit in October. In networking IoT, we continue to gain momentum with Wi-Fi 7 customer design wins. As an example, TP-Link expanded its retail small and medium business lines by launching 5 new routers spanning indoor and outdoor deployment scenarios, all based on Qualcomm Networking Pro Wi-Fi 7 platforms. Lastly, we're very pleased to share that we have begun shipping our fixed wireless access solutions in support of Reliance Jio's upcoming 5G FWA service in India.

In industrial IoT, we launched a video collaboration platform suite, which provides OEMs choice and flexibility for the design and deployment of immersive video conference devices across conference rooms, health care settings and at-home video calling with friends and family. Enabling Windows, Android and Linux on our platforms offers the ability to customize and deploy videoconferencing products across diverse environments. Additionally, our platforms offer industry-leading AI-based noise suppression and dynamic framing. We also launched the QCS8550 and QCS4490, our first software-defined IoT solutions, at Hannover Messe. These solutions enable next-gen smart cameras, drones, robotics, cloud gaming, industrial handhelds, panels, point-of-sale devices and more.

Lastly, together with Arrow Electronics, we announced a strategic collaboration to accelerate edge and AI adoption through the formation of Edge Labs, an Arrow Center of Excellence designed to help customers alleviate IoT development challenges while increasing adoption of edge AI across

a variety (technical difficulty) with an update on our progress in generative AI since the last call. We're very pleased and encouraged by the rapid acceleration of gen AI at the edge. This presents a significant opportunity for Qualcomm across our end markets.

Use cases at the edge are evolving differently than the cloud given the inherent context, immediacy, privacy, security, application reliability and personalization capabilities available on device. For example, in handsets, models such as Stable Diffusion and ControlNet are changing user experiences for content creation and photography. Large language models embedded in the user interface can also enable enhanced virtual assistants. In personal computing, real-time Copilots can bring significant enhancements to productivity and creativity, the benefits of which are well understood and very compelling for enterprises across industries.

We believe the automotive industry will use some of the most advanced edge AI capabilities from large language models for personalized and curated content and services, driver and occupant monitoring and AI virtual assistants to contextual search. ADAS and autonomy applications can be enhanced by the fusion of data from cameras and other sensors for combined real world perception, drive path prediction and more. We're helping enable this capabilities and expect gen AI use cases to extend to XR, edge networking and industrial IoT.

Within the quarter, we expanded our collaborations across the ecosystem, and we are engaged with multiple hyperscalers, OEMs and ISVs. Notably, we recently announced a collaboration with Meta on Llama 2-based AI implementations on flagship smartphones and PCs that will enable developers to create new and exciting gen AI applications using the AI capabilities of Snapdragon platforms beginning in 2024. Together with Meta, we're working to optimize the execution of Meta's Llama 2 large language models directly on device.

We also announced a focused collaboration with Microsoft to scale AI capabilities and bring best-in-class AI experience to users across consumer, enterprise and industrial devices. At the Microsoft Build developer conference, our own device, Stable Diffusion, was showcased on a Windows on Snapdragon-powered laptop. We're also working with them to enable a host of productivity-based applications with multiple large models running on the device. As part of this collaboration, our AI Engine Direct SDK is now available to Windows developers to easily accelerate their AI apps on Snapdragon compute platforms. This marks a significant milestone.

In summary, we are uniquely positioned to help shape and capitalize on the upcoming on-device gen AI opportunity. Our AI technology is highly differentiated, with best-in-class high-performance low-power heterogeneous computing across our CPU, GPU and NPU. And as multibillion parameter gen AI models run pervasively and continuously on device, we believe our NPUs' unparalleled AI processing performance and power efficiency will become a requirement. We look forward to sharing more about our gen AI capable products at Snapdragon Summit in October.

Before I turn the call over to Akash, I would like to provide an update on how we are managing our business in the current macroeconomic environment. We remain focused on executing our strategy and prioritizing capital and resource allocation on our future growth and diversification opportunities. Simultaneously, we are focused on long-term operating margin targets, all while maintaining technology leadership across wireless connectivity, high-performance, low-power processing and artificial intelligence.

To that end, we're taking a conservative view of the market and will be proactively taking additional cost actions to ensure Qualcomm is well positioned to deliver maximum value for stockholders in an uncertain environment.

I would now like to turn the call over to Akash.

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Thank you, Cristiano, and good afternoon, everyone. I'll start with our third fiscal quarter results. We delivered non-GAAP revenues of \$8.4 billion and EPS of \$1.87, which was above the midpoint of our guidance. QTL recorded revenues of \$1.2 billion and EBT margin of 66%, reflecting slightly lower-than-expected global devices. QCT revenues of \$7.2 billion and EBT margin of 24% were consistent with the midpoint of our guidance.

Handset revenues of \$5.3 billion reflected the industry landscape we have previously outlined. IoT revenues increased 7% sequentially to \$1.5 billion, driven by consumer and industrial IoT customers. We saw continued momentum in automotive for our Snapdragon Digital Chassis products with revenues of \$434 million, a growth of 13% year-over-year. Non-GAAP operating expenses were flat sequentially at \$2.2 billion.

We have successfully executed on our fiscal '23 cost actions and are on track to exceed our commitment of a 5% reduction relative to fiscal '22 exit rate. During the quarter, the sale of Veoneer's Active Safety business to Magna was completed for net cash proceeds of \$1.5 billion.

Before turning to the fourth fiscal quarter guidance, I'll update you on global 3G, 4G, 5G handset units and channel inventory. We continue to estimate that calendar '23 handset units will be down at least a high single-digit percentage relative to calendar '22, reflecting the macro environment and a slower recovery in China. This forecast contemplates growth in handset units going into the holiday season.

In IoT, channel inventory remains elevated due to weaker demand driven by the broader macroeconomic conditions. Since it remains difficult to predict the timing of a sustained recovery and customers remain cautious with purchases, we continue to operate under the assumption that inventory drawdown dynamics will be a factor through the end of the calendar year.

Turning to guidance for the fourth fiscal quarter. We are forecasting revenues of \$8.1 billion to \$8.9 billion and non-GAAP EPS of \$1.80 to \$2. In QTL, we estimate revenues of \$1.15 billion to \$1.35 billion and EBT margins of 64% to 68%, driven by a slight sequential increase in global handset units. In QCT, we expect revenues of \$6.9 billion to \$7.5 billion and EBT margins of 24% to 26%.

This forecast is consistent with our prior guidance of muted seasonality in QCT revenues primarily due to the timing of purchases by a modem-only handset customer. On a sequential basis, we are forecasting Android handset revenues to be roughly flat, with mid-single-digit decline in IoT and low double-digit growth in automotive. Lastly, we expect non-GAAP operating expenses to be approximately flat relative to the third quarter.

As we approach fiscal '24, our revenue growth will largely depend on macroeconomic environment, global handset units and China recovery. In the first fiscal quarter, we expect 2 drivers of sequential revenue growth: QTL seasonality and handset launch by a modem-only customer. In addition, we expect a sequential decline in IoT and automotive revenues, consistent with the seasonal trend we've seen in the last couple of years.

As you'll recall, we had previously communicated we would evaluate additional cost actions as the environment continues to evolve. Until we see sustained signs of improving fundamentals, our operating framework does not assume an immediate recovery. Given our commitment to operating discipline, we will proactively implement additional cost actions in the first half of fiscal '24. This will be incremental to the reductions we have successfully completed in fiscal '23. Despite these actions, we will preserve investments in our strategic priorities and position ourselves to emerge stronger as the recovery from the broader industry begins to take hold.

In closing, we remain focused on executing on our vision to bring connectivity, high-performance low-power computing and on-device generative AI to the edge. Our guiding principles remain the same: prioritize technology leadership, accelerate diversification and drive earnings growth to create value for our stockholders.

This concludes our prepared remarks. Back to you, Mauricio.

Mauricio Lopez-Hodoyan - QUALCOMM Incorporated - Vice President of Investor Relations

Thank you, Akash. Operator, we are now ready for questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) The first question is from Matt Ramsay with TD Cowen.

Matthew D. Ramsay - TD Cowen, Research Division - MD & Senior Research Analyst

Akash, I guess for my first question, you were kind enough to give us a little bit of color in your prepared script just now on December. And you went through a few things there pretty quickly, so I wanted to double-click on a few. Maybe you could recap for us just the trends you expect in handsets versus IoT and auto that you gave.

And in particular, you talked about some seasonality being better in the fourth calendar quarter in the handset market, but that inventory burn was still going to be part of the dynamic. So if you could talk through that in a little bit more detail, what kind of magnitude are you expecting for the industry in the fourth quarter? What's built into your estimates? And is the inventory burn just an Android dynamic? Or do you think that the prepurchases from Cupertino are still an effect in the December quarter?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Sure, Matt. So there was a lot in there. I'll try to unpack it. Let me divide it into parts. So first, starting with the market. Our forecast does assume sequential growth into the December quarter as we go into the holiday season. From a financial perspective, consistent with historical years, we typically have 2 significant drivers of growth going into December from September. First is QTL, and we expect to see that growth as the market grows as well, and then second is a handset launched by a modem-only customer. Off of the base we have in September, we expect to see that growth as well.

So those would be the 2 significant growth drivers into the quarter. From an IoT and automotive perspective, if you look at the last couple of years, we've seen a trend of a slight decline in both areas quarter-over-quarter from September to December. So we just think the same seasonality will play out, not something that goes beyond that. It's just a normal timing that we've seen in the market in the past.

Maybe the last comment I'll say is our forecast for September and December quarter does assume no material revenues from Huawei. As you are aware, we have a 4G license for shipping into Huawei. We do not have a 5G license, and we are not assuming any material revenue going forward. So hopefully, that covers all the different parts.

Operator

The next question is from Samik Chatterjee with JPMorgan.

Samik Chatterjee - JPMorgan Chase & Co, Research Division - Analyst

I have a couple, but maybe, Akash, if we can start with the calendar fourth quarter comment that you just had. If I look back at some of the seasonality that you typically had in prior years there, we see a wide range, I mean somewhere between sort of 10% plus to somewhat of a higher number as well in the double digits.

Maybe if you can give us a bit more color in terms of -- as you think about, you said in your smartphone outlook as well a recovery in the December quarter in terms of volumes, how are you thinking about it relative to typical seasonality in the prior years?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Yes. So Samik, maybe no additional comments to what I just said. I think if you look at our history, with the growth in the smartphone market, we see QTL grow with it. And so we expect a similar gain this year. And then I'd probably say similar to -- on the modem customer side as well, we'd see something similar to what we've seen in the past. So I think using historical trend as a way to model it going forward is a reasonable way of doing it for those 2 factors.

Samik Chatterjee - *JPMorgan Chase & Co, Research Division - Analyst*

Okay. Okay. And for my follow-up, I mean, obviously, the inventory on the balance sheet did come down a bit, but how are you thinking about the opportunity here to sort of discount to clear some inventory of the balance sheet or even sort of from an investor's perspective, how should we think about the risk about inventory write-down if the recovery is sluggish for a period of time? How should we think about those drivers given that the inventory drawdown has continued for a longer-than-expected duration?

Akash Palkhiwala - *QUALCOMM Incorporated - Chief Financial Officer*

Yes. So Samik, obviously, our analysis is reflected in our results. We think you will understand the drivers that got us to the industry, the inventory balance. It's the overall industry being weaker. And with 6 months lead time, you're planning for a different market. And what we're comfortable with is that we have the inventory on the right parts. There is long lifetime on it, and there's demand for it. So our latest analysis on the topic is reflected in our results.

Operator

The next question is from Mike Walkley with Canaccord Genuity.

Thomas Michael Walkley - *Canaccord Genuity Corp., Research Division - MD & Senior Equity Analyst*

Great. Cristiano, I just want to talk about the Snapdragon 4 Gen 2 that you talked about. How is the initial uptick in terms of Android demand from your customers looking at that? And do you think, given the supply-demand imbalance, that you'll be able to now maybe gain share in 2024 as you move downstream on Android?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Mike, thanks for the question. So let me just start with the Snapdragon 4 Gen 2. What we like about it is its answers, I think, the market needs to drive now the next wave of 4G to 5G migration. Just as an example, Xiaomi just recently launched the Redmi 12 5G smartphone yesterday in India at an ASP at USD 135. So we're very encouraged with now the ability to create this 4G to 5G migration.

I think there are a number of markets now that are deploying 5G in developing economies. And as you pointed out, now we don't have supply constraint anymore at the mass tier. And our new product road map, we're encouraged about the ability to drive that 4G to 5G migration at those price points.

Thomas Michael Walkley - *Canaccord Genuity Corp., Research Division - MD & Senior Equity Analyst*

Just a quick follow-up. Just on the IoT business. Can you give us just an update on the 3 segments? Are any of the segments doing better than others in terms of the inventory (inaudible) or the outlook that you provided?

Akash Palkhiwala - *QUALCOMM Incorporated - Chief Financial Officer*

Sure, Mike. So this is Akash. I'll start and maybe Cristiano can add on top of it. So in the short term, the IoT business is seeing some of the same dynamics as you're seeing come through with our peers from a demand side and what -- the impact it has on the inventory -- channel inventory. When we saw the initial weakness, it started with consumer, but we did see it go across to other parts of IoT as well, especially within China.

But we're pretty happy with the results we had in the June quarter. We are up approximately 7% on revenue, and it was really growth across industrial and consumer that drove that benefit. Difficult to kind of predict the timing of recovery and the inventory drawdown. We did say that it would be a factor through the end of the calendar year. But that's the framework for the very short term on IoT side.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Maybe the only thing I was going to add, Mike, as we indicated multiple times, there's a lot of things in our IoT segment. And there are some of those things that they have yet to materialize. I think we talk about our PC space, which we're excited about the new product we have been developing with our custom CPUs.

We're still in the beginning of virtual reality. We're encouraged by now other players entering the market, which will ignite develop our ecosystem. And I think lastly, on networking. We like the Wi-Fi 7 design win pipeline that could materialize in a new cycle into the future. So as we outlined, there's a number of different things within that segment.

Operator

The next question is from the line of Stacy Rasgon with Bernstein Research.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I wanted to ask about chip gross margins. They seemed reasonably strong in the quarter even with revenues down. They seemed like maybe they were implied up a bit sequentially. The guide seems pretty stable into September.

Can you give us any feeling for drivers of the margin pricing mix? You talked about some additional cost dynamics. I don't know if there's anything in there on the cost of goods side. some of the dynamics there? And how should we expect that to evolve? Is it just mix that drives it going forward? Are there other things that we should think about?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Sure, Stacy. It's Akash. Yes, we did come in a little bit better than forecasted for the September quarter, and it was really primarily driven by a mix of products. We're guiding approximately flat margins going into September from June, and that's a reasonable way of forecasting our margins going forward as well. So we expect to be in the range as we go forward.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

If I could ask one more briefly. Cristiano, you're talking a lot about AI and how that's going to contribute. How does AI actually contribute to the model going forward? Like are you anticipating that venture drives an upgrade cycle? Or is it more content? Or is it ASPs for the chips fall less than they would otherwise? Like how do we think about how that actually drives the model as adoption happens?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Very good. Thanks for the question, Stacy. Look, I think I will unpack the answer to the question. First of all, we're very confident of what we see happening at the edge. On device, I think there's a number of reasons. AI is developing on devices a little bit different in the cloud. Everything that is real-time AI, always-on AI, context, latency, reliability, personalization. And I think that can apply to products across all of our end markets.

When it will happen, we are going to announce a new set of products at the Snapdragon Tech Summit that are all going to be gen AI-capable products that run on phones, on computing products, on all of the other segments in auto and IoT. And we think the monetization will happen 2 ways, right?

The easiest way to think about it is if our customers and our partners that are working with us, we mentioned a few in the prepared remarks, come up with the new use cases, and you have now a gen AI-capable smartphone, that changes the size of the phone market. It could create an upgrade cycle in between 5G and 6G, and changes the size of the market, also improve the mix towards our product lines and ASP increases.

For you to do device -- gen AI on device, you need a different computing platform. And that's what we have been doing with our NPU. I think it's probably unmatched by any of our peers in ability to do high-performance AI pervasively and continuously at low power. And we -- look, those things could create an inflection point. It's hard to predict the timing, but we can see how it changes the mix and improve the ASP in our products.

Operator

Our next question comes from Ross Seymore with Deutsche Bank.

Ross Clark Seymore - Deutsche Bank AG, Research Division - MD

I just have one question, one follow-up. On the December quarter soft guide that you gave, Akash, you talked about your modem-only customer having its typical seasonality in the fourth quarter, calendar fourth quarter. What is typical seasonality and/or your expectations for the Android side of things in that quarter?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Yes. So from an Android perspective, we expect the quarterly trend to be consistent with history. If you look at what typically happens for us in Android as we launch our new chips in the March quarter, and that's when the new premium tier chip comes out and that's typically the stronger quarter for us.

So it's really driven by timing of product launches. But fundamentally, when you look at our position within Android, even within '23, we've actually grown share of sell-through from '22 to '23. So we continue to be in a very strong position, and it's just the market dynamics that's kind of driving the cyclical in the business.

Ross Clark Seymore - Deutsche Bank AG, Research Division - MD

And I guess as my follow-up, sticking with you, Akash. On the OpEx side of things, you talked about macro still being uncertain, and so you were going to take actions in the first half of year fiscal '24 on the cost side of the equation.

Could you give us any more color on that? I assume it's largely on the OpEx side. You guys have been successful in hitting your 5% reduction, if not beating it, exiting this year versus last. Any sort of quantification you can provide on what your expectations are for OpEx in that new cost-cutting plan?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Sure. So let me give you the framework of how we're thinking about it, and I don't have quantification at this point. But we've -- in '23, we exceeded the target we set. And as we've said before, we'll continue to look at additional reductions as the environment evolves. So given that, what we're planning to do is proactively implement additional actions in first half of '24.

And the framework for it is we're going to preserve our strategic priorities. We're going to reduce in certain areas, but then also have the capability to invest in new technology, especially AI, and continue to invest in our diversification plan. So it's really an effort to get our investment portfolio right as consistent with the priorities going forward for the company.

Operator

Our next question is from the line of Chris Caso with Wolfe Research.

Christopher Caso - *Wolfe Research, LLC - MD*

Yes. As a first question, if perhaps you could talk a bit about mix. Where is your mix sitting as compared to where it was last year? And obviously, the mix had skewed higher during times of supply constraints, and now there's greater availability. So how is that affecting margins and revenue? And as things go forward, how do you expect that to change as well? I guess there's some concern that mix shifts down to perhaps some lower end of the portfolio as the 5G cycle matures and emerging markets tend to become a bigger part of the 5G mix.

Akash Palkhiwala - *QUALCOMM Incorporated - Chief Financial Officer*

Yes, Chris. It's Akash. If you look at the mix change, it's really happened through the year where we expanded our position in the lower tiers a bit, and it's already reflected in the comments I made earlier to Stacy's question on gross margin. So really no incremental comments to what I said earlier.

As we look forward, one of the key opportunities for us is really how do we expand the ASP as just we're continuing to see incremental demand across all tiers for more capability in the chipset. And to Cristiano's earlier point, with generative AI becoming so critical in edge devices going forward. It's going to drive an inflection point in terms of our presence there and our ability to expand content.

Christopher Caso - *Wolfe Research, LLC - MD*

That's helpful. Just a follow-up question about geographic revenue in particular to the handset business. And we've been hearing about perhaps greater macro concerns in China as compared to elsewhere. In terms of normalizing the business and getting the global handset market back to where it once was, is this mainly a situation where we need to see China come back and normalize, or is more of a global trend? What needs to improve, in other words, to get back to what used to be normal?

Akash Palkhiwala - *QUALCOMM Incorporated - Chief Financial Officer*

Yes, I'd say a couple of parts. So we've seen weakness across China and other emerging markets. Those are definitely the 2 areas. In developed markets, it has largely held. There is some smaller impact, but not as much. I think the opportunity is really across the board.

I think one is just from an overall replacement rate perspective, you could see that increase going forward, driven by new technology cycles. But also within the emerging markets in China, you could see some normalization of return in demand as things stabilize. So those would be the opportunities. Just to be clear, in the guidance that we're giving at this point, we are not including those, and that would be upside to our plan.

Operator

Our next question is from the line of Brett Simpson with Arete Research.

Brett William Simpson - *Arete Research Services LLP - Senior Analyst*

Akash, I had a near-term question on smartphones. I mean some of your smartphone peers are reporting better fundamentals near term. I think MediaTek's -- in the June quarter, they were up 6% in smartphones, and they're talking about mid-teens growth sequentially in September quarter. And I think Qorvo has also talked about quite a significant uplift in September.

And I know you said there's weakness elsewhere in QCT, but can you just maybe home in on the smartphone business? And can you reconcile with some of the peers and what they're guiding and what you're guiding? Is it just really Apple and Huawei is going through a volatile patch for orders? Or is there something more structural you think it [were]?

And maybe a second question for Cristiano. You talked earlier this year, I think at Mobile World Congress, actually, that you were assuming no Apple business in 2024 because you didn't have orders, any new orders, there. Has anything changed with regards to Apple? And how should we think about this relationship beyond calendar '23?

Akash Palkhiwala - *QUALCOMM Incorporated - Chief Financial Officer*

Yes, Brett. So I'll start with your first question. If you let me break it down into Android and Apple in 2 parts, within Android, 2 comments to keep in mind. First is we don't think there's been any significant shift in share between the players over the last few months. However, what has happened is when you look at our total share of sell-through for '23 relative to '22, as I mentioned earlier, we've actually gained share within Android.

So we continue to have a very strong position, and the seasonality across the quarters for Android is really a reflection of when devices are launched and which tiers we play in, which is the premium and high tier, which they center around the holiday season versus midway through the year. So that's how I would think about the Android market.

On Apple, as I've said before, we expected muted seasonality in the fourth quarter due to the timing of chipset purchases. We did see them buy additional chipsets earlier in the year. And so what we are forecasting now is expected demand, expected shipments into the next quarter. So it's -- that really just speaks to timing again rather than some fundamental trend. As you know, we expect to be a majority of the share in the new upcoming launch, and so it's not really a share question.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Brett, to your second question, for the iPhone that is launching this year, we are going to support the modem. We're not making any updates to our prior plans for 2024.

Operator

Our next question is from the line of Tal Liani, Bank of America.

Tal Liani - *BofA Securities, Research Division - MD, Head of Technology Supersector & Senior Analyst*

Yes. Auto market -- we spoke a lot about the handsets. I have two questions related. Auto market was also weak. Can you give an update on why it grew 13% versus 16% Street expectations? But this 13% is also lower than what we have seen before. So can you talk about the trends there?

IoT was in line with expectations, but it's still declining 24% a year. So what is the trend over there? And on the handset side, I'm just wondering if there was deterioration throughout the quarter or it was improvement throughout the quarter? Kind of what was the intra-quarter trend? Everything is QCP.

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

I understand. I understand. On the handset side, really largely in line with what we'd expected. So no trend one way or the other. Auto, in our actuals, came in slightly below our expectations. However, if you see what we guided for the upcoming quarter, quarter-over-quarter growth, we're guiding low double-digit growth. So it's just timing between the quarters that's impacting it.

Within IoT, I'd say very consistent with comments earlier in the call. It's really the overall environment and how it impacts demand, and impact on inventory is what's reflected in our numbers. Very consistent with what some of our peers have seen as well.

Tal Liani - BofA Securities, Research Division - MD, Head of Technology Supersector & Senior Analyst

And Akash, just a clarification on something you said. You said that December should be in line with normal seasonality. I tried to look back at seasonality, and it's inconsistent. It's very hard to speak about normal. What -- how do you define normal seasonality for the sector?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

If you break it down into parts. I think you look at QTL growth. We've consistently seen QTL grow as a result of mix of devices and total market size. So that would be part one. The second is we've seen the handset market grow primarily due to the launch of a flagship device by a modem-only customer. And so we would see that as well. So those are the 2 factors that would drive majority of our growth into the December quarter.

Operator

Our last question is from the line of Timothy Arcuri with UBS.

Timothy Michael Arcuri - UBS Investment Bank, Research Division - MD and Head of Semiconductors & Semiconductor Equipment

I had 2. So Akash, I'm wondering if you can provide more color just on these channel headwinds. You gave a \$2 billion number, I think, for December, and then that came down to \$1 billion or it was supposed to come down to \$1 billion in March. And it was supposed have been gone by June.

Obviously, it's not gone. Can you kind of quantify what the headwind is? And maybe also talk, is that component inventory at your customer is still coming down? Or is that handset sell-in still being above handset sell-through? And then I had a second question as well.

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Yes. So when we talk about channel inventory, we talk about total inventory across -- beyond us. So it's customers and channel both combined. I mean, clearly, as we've gone through the year, the headwinds have been meaningfully higher than we'd expected going into the fiscal year. So that is reflected in the updates that we're giving.

No fundamental change to our view of our share position and overall market we've talked about as well. So it's just those factors running through our numbers. We don't have an updated estimate of how much the total impact would be, but it's the same factors that we've been talking about through the year. We've not changed the total market size since the last call.

Timothy Michael Arcuri - UBS Investment Bank, Research Division - MD and Head of Semiconductors & Semiconductor Equipment

Got it. And then just last thing. So do you have any data on the refurbished market? It seems that it has gotten pretty large, and maybe it's affecting the new Android market. Sort of what portion of the handset TAM this year do you think is used or refurb? Could it be -- I mean, we've seen numbers

in the 350 million unit range, something like that. So the market is flat to down, but the market for new phones is really actually down quite a bit. Can you actually talk to that?

Akash Palkhiwala - QUALCOMM Incorporated - Chief Financial Officer

Yes. So we have the same data as you do on the refurbished phones. It has grown over the last couple of years. When we give the market the global handset unit information, we're not talking about the refurbished phones. We are talking about new phones. And so it's already factored into the guidance we gave.

Operator

This concludes today's question-and-answer session. Mr. Amon, do you have anything further to add before adjourning the call?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Thank you. We'd just like to thank all of our employees, our customers, our suppliers and partners. I think the key messages were we like our strategy, continue to execute on our strategy. We're executing to plan. I think we have one of the best product road maps in our history. We like the design traction. And in the current uncertain environment, we're just focused on taking action on things we can control and make sure we're prepared when the market rebounds.

Last comment is we see a new inflection point, as I mentioned before, on the edge, for Gen AI. And what we like about it, for that to happen on device, fundamentally, you need a new computing engine. We have CPU, GPU, but you need something different, which is the NPU. I think we have been investing this for over a decade. We're very happy how it performs, and I would like everybody to follow what we're going to show and announce at the upcoming Tech Summit in October. Thank you very much.

Operator

Ladies and gentlemen, this concludes today's conference call. You may now disconnect.

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