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# QUALCOMM, Inc. (QCOM)

Q1 2021 Earnings Call

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**Steven M. Mollenkopf**

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**Cristiano R. Amon**

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## OTHER PARTICIPANTS

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## MANAGEMENT DISCUSSION SECTION

**Operator:** Ladies and gentlemen, thank you for standing by. Welcome to the QUALCOMM first quarter and fiscal 2021 earnings conference call. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session. [Operator Instructions] Please limit your question to one question and one follow-up. As a reminder, this conference is being recorded February 3, 2021. The playback number for today's call is 877-660-6853. International callers, please dial 201-612-7415. The playback reservation number is 13714808.

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

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### Mauricio Lopez-Hodoyan

*Vice President, Investor Relations, QUALCOMM, Inc.*

Thank you and good afternoon, everyone. Today's call will include prepared remarks by Steve Mollenkopf and Akash Palkhiwala. In addition, Cristiano Amon, Alex Rogers, and Don Rosenberg will join the question-and-answer session. You can access our earnings release and the slide presentation that accompanying 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 reconciliation 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 Chief Executive Officer, Steve Mollenkopf.

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### Steven M. Mollenkopf

*Chief Executive Officer & Director, QUALCOMM, Inc.*

Thank you, Mauricio, and good afternoon, everyone. Fiscal 2021 is off to a great start with record first quarter non-GAAP revenues of \$8.2 billion, up 63% year over year, and record non-GAAP earnings of \$2.17 per share, more than doubling from the prior year. The simultaneous global adoption of 5G, combined with increasingly complex technical requirements and a pace of change that is accelerating, drives a significant multiyear industry transition that plays to our strength.

QCT revenues of \$6.5 billion were also a record, up 81% year over year and 32% sequentially. Notably, our strong performance and outlook would have been even stronger had we not been supply constrained. Within QCT, we saw strength across our portfolio. Our RF adjacency demonstrated continued growth with quarterly revenues more than doubling year over year and crossing the \$1 billion threshold, a significant milestone. We are executing extremely well on our strategy to address many of the technical challenges of delivering a true modem-to-antenna 5G experience and capture a higher dollar share of content in smartphones.

We are also well-positioned with design wins across the mobile handset ecosystem, a strong pipeline for further growth in smartphones, and a roadmap to bring our RF expertise to adjacent industries.

Our automotive revenues of \$212 million were up 44% year over year and our design win pipeline has grown to \$8.3 billion from just \$3 billion three years ago, placing us on a trajectory to achieve our fiscal year 2024 revenue target of \$1.5 billion.

Our IoT adjacency also passed the \$1 billion threshold in Q1 and grew 48% year over year, driven by the growth of our core technologies for the digitization of consumer, networking, and industrial applications.

Our team continues to execute extremely well in spite of supply constraints and the continued impact of the pandemic. Our strategy is playing out largely as we expected, positioning us well to capture the rapid deployment of 5G in both the core handset industry, as well as creating new opportunities in adjacencies.

In our licensing business, our broad portfolio of foundational system level innovations and intellectual properties across 3G, 4G and 5G along with valuable implementation patents is unmatched and recognized, in part, by having signed more than 120 5G license agreements, up from 111 license agreements last quarter.

Our continued success in licensing reflects our development of foundational technologies, enabling 5G standards, coupled with leadership in developing the standards themselves. Leadership in developing the products necessary to implement 5G technology and leadership in enabling the industry to rapidly implement 5G seamlessly worldwide. This process continues through the successive releases of 5G currently under development as our foundational innovations, coupled with our ability to implement 5G in products and coordinated deployment in new verticals continues to drive progress outside the handset industry.

We continue to invest in complementary technologies that will enable the adoption of 5G use cases that will benefit consumers and businesses in a variety of industries as well as agriculture and the advanced important social objectives of both urban and rural environments, including improvements in healthcare and education in a more widely connected future.

We have also spent the past decade deep in AI research and development, resulting in the creation of the technology necessary to scale AI across industries and products from smartphones and automotive to the IoT and data centers. To make AI ubiquitous, we focused on making efficient hardware, algorithmic advancements, and software tools available to developers and OEMs. We believe AI will transform industries and our technologies will help accelerate the commercialization and scale of AI, making AI ubiquitous around the globe.

Our commitment to our high-performance processor roadmap was reflected in our recently announced proposed acquisition of NUVIA. We look forward to combining NUVIA's world-class CPU and technology design team with Snapdragon to enable our ecosystem of customers to redefine computing performance, drive innovation, and deliver a new class of products and experiences for the 5G era.

Just two years ago, we first announced our Snapdragon 855 mobile platform, the world's first commercial platform supporting multi-gigabit 5G and demonstrated end-to-end 5G consumer experiences with real demos over live millimeter wave 5G networks and devices. Today, we have an expanding portfolio of differentiated 5G solutions across multiple tiers of our Snapdragon mobile platforms. With high-performance basebands, advanced RF front-end designs, and leading-edge process nodes for our flagship solutions, we are well-positioned to address growing 5G demand in the handset space and across our adjacencies.

In RF, our position today is the result of executing on our strategy to extend the breadth of the products we offer. In just a few years, we have emerged as one of the largest RF suppliers in the smartphone ecosystem with a

long-term roadmap supporting 4G and 5G sub-6 bands in addition to 5G millimeter bands, enabling us to expand our RF leadership into end product applications.

The automotive industry continues to change rapidly and the car is becoming more connected, more autonomous, and more electric. As these trends disrupt the industry, 5G connectivity and new experiences and user demands such as always connected digital cabins for infotainment, real-time navigation, and entertainment are becoming the new standard. We are working to meet the increasing demands of safe and premium driving experiences powered by 4G LTE and 5G connected services.

With integrated cellular V2X, Wi-Fi, Bluetooth, and precise positioning technologies, our 4G and 5G platforms are designed to securely connect vehicles to the cloud, each other, and the surrounding environment. With over 150 million vehicles on the road today connected with our modems, we are a leader in automotive telematics. We are evolving our strong position in automotive telematics to a strategic industry partner, building incumbency with continued innovation as the auto industry undergoes rapid transformation.

Our third-generation automotive cockpit solutions have been selected by 20 of the top 25 automakers, and our recently announced fourth-generation automotive platform demonstrates our leadership in high-performance compute, computer vision, artificial intelligence, and multi-sensor processing.

Lastly, our recently announced strategic engagements with General Motors and leading Tier 1 suppliers, including LG Electronics, Google, Panasonic, and Visteon are further evidence of our strong alignment with the automotive industry.

Turning to IoT, we continue to drive momentum in compute with the launch of our second-generation Snapdragon 8cx, the introduction of our commercial and educational platforms for both Windows and Chrome and continued ecosystem progress. We are also driving industry leadership in XR, with over 40 design wins and strong ecosystem momentum with global operator partnerships. We believe XR has the potential to be the next computing platform.

Our networking solutions target the full potential of Wi-Fi 6 with a blend of advanced technologies and protocols, targeting networks deployed in enterprise, venue, and prosumer applications. We are also extending our advanced Wi-Fi 6 feature profile into the 6-gigahertz spectrum with second-generation platforms.

We are capitalizing on the transformation in private and public networks, enabling millimeter wave indoor and outdoor launches in North America and Japan with our small cell solution, bringing higher reliability and speeds to consumers as well as providing connectivity for 5G enterprise private networks of the future.

Lastly, we are accelerating deployment of our core technologies for digitization of non-mobile industries across retail, utilities, transportation, and manufacturing applications.

It is exciting to see the strategy we laid out several years ago playing out largely as expected and placing QUALCOMM in a very strong position for Cristiano to carry the vision forward as he executes on the many opportunities in front of us over many years.

Being CEO of QUALCOMM for the last seven years has been a privilege and an honor. The foundation of QUALCOMM's leadership is a relentless commitment to innovating with great products, focusing on large industries with technical challenges that are hard to solve. This is what always gave me the confidence we would succeed, even when it wasn't obvious, and I have every confidence Cristiano shares this vision.

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

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## Akash Palkhiwala

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

Thank you, Steve, and good afternoon, everyone.

We're extremely pleased to report strong results to start our fiscal year. We delivered a record first quarter with non-GAAP revenues of \$8.2 billion and non-GAAP EPS of \$2.17, which was above the high end of the strong guidance we provided at the beginning of the quarter. These results reflect year-over-year increases of 63% and 119% in revenues and EPS respectively, driven by strength across QTL and QCT.

In QTL, we recorded revenues of \$1.66 billion, up 18% year over year, and EBT margins of 77%. In the December quarter, we saw a year-over-year reduction of 7% in global 3G/4G/5G handset shipments compared to our planning assumption of a 5% reduction, reflecting the impact of COVID and softness in the domestic China shipments.

In QCT, we delivered record results with revenues of \$6.5 billion, up 32% sequentially and 81% year over year. These results were driven by strength across handsets, RF front-end, automotive, and IoT. Our strong revenue growth drove EBT margins of 29%, which was above the high end of our guidance and increased 900 basis points sequentially, as we realized the benefit of operating leverage. We're also pleased with our continued diversification, as we delivered record revenues in RF front-end, automotive, and IoT.

RF front-end revenues of \$1.1 billion more than doubled on a year-over-year basis, reflecting the strength of our broad product portfolio across all frequency bands and customers. Automotive revenues of \$212 million grew 44% year over year, as our telematics and digital cockpit products continued to benefit from the industry rebound. In IoT, revenues grew 48% year over year to \$1 billion across consumer, networking, and industrial applications, driven by an acceleration in demand for our products and technologies.

Our non-GAAP combined R&D and SG&A expenses of \$1.78 billion was lower than our previous estimate, primarily due to the timing of certain R&D expenses within the fiscal year.

Turning to 5G adoption, we estimate approximately 225 million 5G handsets in calendar 2020 and forecast 450 million to 550 million units in calendar 2021. We're extremely pleased by the adoption of our 5G chipsets across OEM partners with over 800 designs using 5G modem and RF solutions. Our recently announced 5G premium tier mobile platform, the Snapdragon 888, already has over 120 design wins. We now have 5G offerings across several tiers, from our premium tier Snapdragon 888 to our recently announced Snapdragon 480, all capable of supporting millimeter wave.

For global 3G/4G/5G handsets, we estimate that shipments declined 12% on a year-over-year basis in calendar 2020. In calendar 2021, we expect total handsets to grow in high-single digits year over year. This assumes an impact from COVID in the first half, consistent with the exit rate of 2020 and a recovery in the second half. In addition, QCT's addressable market will expand to include Huawei's existing share, which is estimated to be approximately 16% of total handsets in 2019.

Turning to our second quarter guidance, we are forecasting revenues of \$7.2 billion to \$8 billion and non-GAAP EPS of \$1.55 to \$1.75, a year-over-year increase of 46% and 88%, respectively, at the midpoints. In QTL, we estimate revenues of \$1.25 billion to \$1.45 billion and EBT margins of 66% to 70%. This is in line with normal

seasonality following the strong holiday quarter and reflects the slightly lower handset forecast I previously outlined.

In QCT, we expect revenues of \$6 billion to \$6.5 billion, up 52% year over year and EBT margins of 23% to 25%, reflecting EBT dollar growth of 125% versus the year ago quarter.

Consistent with historical trends, we estimate non-GAAP combined R&D and SG&A expenses to be up 5% to 6% sequentially due to normal calendar year resets for certain employee related costs. We estimate that the pending acquisition of NUVIA will increase fiscal 2021 non-GAAP combined R&D and SG&A expenses by approximately \$100 million, a portion of which is contemplated in our second quarter guidance.

Looking forward to the third fiscal quarter, we estimate QTL revenues to be in a similar range as our second quarter guidance and expect QCT earnings to double on a year-over-year basis.

This forecast contemplates the current seasonality of the QCT business, following the strength in the first half of the fiscal year, which was driven by 5G flagship launches including Apple, the holiday season, and Chinese New Year. In addition, we are seeing demand significantly outpacing supply, given the constraints affecting the industry. Beyond the third quarter, we continue to forecast strong growth across QCT driven by new device launches, design win traction, and strength in our adjacent platforms.

Lastly, we launched our latest Annual Corporate Responsibility and ESG report yesterday which is now available on our website. I'm pleased to share that we have successfully met or exceeded our 2020 goals and have disclosed 2025 targets focused across key areas of diversity and inclusion, purposeful innovation, and reducing our carbon footprint.

We continue to respond to the expectations of our stakeholders to disclose ESG information in alignment with international standards.

Before I finish my prepared remarks, I want to thank our employees for their continued hard work and focused execution.

I'll now turn the call back to Mauricio.

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## **Mauricio Lopez-Hodoyan**

*Vice President, Investor Relations, QUALCOMM, Inc.*

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

## QUESTION AND ANSWER SECTION

**Operator:** Thank you. [Operator Instructions] Our first question comes from Samik Chatterjee with JPMorgan. Please proceed with your question.

**Samik Chatterjee**

*Analyst, JPMorgan Securities LLC*

Q

Hi. Thanks for taking my question. And before I ask my question, congratulations to both Steve and Cristiano. And so, if I can just start off with the seasonality here, I think what you're guiding to for the QCT segment is a mid-single digit decline in – seasonally in revenues versus more of a mid-teens decline in QTL. Can you just help us understand the drivers, what's causing that difference? And I think that's leading to some concerns in investors today that the sell-in of chips is greater than the sell-through piece and leading to some inventory build, so I just want to see if you can address that as well.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Hi, Samik. This is Akash. We're not seeing any significant inventory build in the channel, so let me just maybe clarify that to start with. If you think about QTL revenues sequentially from December quarter to March quarter, we've talked about seasonality in that business consistently in the past. And so our guidance really reflects that. So it's no different than kind of the shape of the year that you generally see in the handset market and mix of OEMs being reflected in the dollars.

So in the past, we talked about \$1.7 billion midpoint going to \$1.4 billion from December to March, and what we are guiding is we came in just below the midpoint in the December quarter and we're guiding similarly just below the \$1.4 billion for the March quarter. So that's the message on QTL.

On QCT, clearly with Apple now in our revenue stream, there's a different seasonality than we've had in the past, and so you see kind of that becoming a factor. But when you take – remove that, our seasonality is actually extremely strong with significant growth from December to March quarter, and really strength across not just mobile platform with the launch of our Snapdragon 888 chipset, but also across RFFE, auto, and IoT being strong as well. So it's really strength across the board and what you see in the numbers is the seasonality of the revenue profile showing up.

**Samik Chatterjee**

*Analyst, JPMorgan Securities LLC*

Q

Got it. If I can quickly follow up. I think historically pre – before the US restrictions came into place, you've talked about Huawei not really being material in terms of contribution to earnings even though you had some MSE shipments there. Do you see a likely change or any material change post the restructuring of their business where there's a part of the business sold to – Honor brand and I think there are also some restructurings going on for the Huawei brand, any changes that could lead to?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Samik, as I said in my prepared remarks, we see the Huawei market share or Huawei portion of the market really as a significant SAM growth opportunity for us as either the share goes to other OEMs or to Honor or Huawei



continues we have an opportunity to sell into it. So kind of longer term, in the second half of the year, we feel like that's a significant opportunity for us, but at this point in our second quarter guidance there, we don't have material revenue assumed for Huawei or Honor.

**Operator:** Thank you. Our next question comes from Mike Walkley with Canaccord Genuity. Please proceed with your question.

**Michael Walkley**

*Analyst, Canaccord Genuity LLC*

Q

Great, thanks. And yes, my best to Steve for navigating some tough times and best wishes to Cristiano also. My question, I guess, just focusing on the margin front, really strong margins on QCT. I know there's some seasonality into Q1 and increased costs, but given the strong margins to start the year, Akash, how should we think about margin trends over time as you leverage and harvest that 5G investment?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Yeah. So thanks, Mike, for the question. Very happy with the QCT margins in the December quarter, I mean, really at 29% operating margins and gross margins were extremely strong as well and contributing to the strength in the operating margin profile, so very happy to see that.

Really when you look forward, there're a couple factors driving our margin profile. Overall from a gross margin perspective, there really isn't a specific trend. As we've said in the past, we feel like we have the ability to hold margins in consistent with our recent history and potential upside opportunity to grow it, and so we still have the same view. And operating margin will then just become kind of something that falls out based on the revenue profile. But just kind of when you abstract out the seasonality, we're pretty happy that we set a target at Analyst Day last – about 15 months ago and we're on our way to meeting and exceeding what we set out.

**Michael Walkley**

*Analyst, Canaccord Genuity LLC*

Q

Okay, thank you. And just to follow up on the margins on the QTL side, with a lot of the legal things dying down and signing over 120 5G contracts, do you see leverage on that side also? Maybe if you can reduce legal costs, or are there still high audit costs involved there? Thanks.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Yeah, Mike, from a QTL perspective, really legal costs have been at a stable lower level for the last several quarters, and so the margin profile that you're seeing kind of reflects stabilization of the legal costs. And really it's about the top line revenue and focusing on kind of expanding and keeping the licensing business steady going forward.

**Operator:** Thank you. Our next question comes from Chris Caso with Raymond James. Please proceed with your question. Chris, your line is live. You may proceed with your questions.

**Chris Caso**

*Analyst, Raymond James & Associates, Inc.*

Q

Thank you. So for my first question, what I wish to address is shortages, and obviously that's something we've heard from a number of others in the industry this quarter. Can you talk about the extent to – and in your opening remarks, you mentioned that revenue would have been higher if not for the shortages. Could you help us to quantify that some? And then perhaps talk about the next couple of quarters, how that may play out if you recapture some of the business that you weren't able to ship in the December quarter and how that proceeds.

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**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

Hi, Chris. This is Cristiano. Yeah, happy to address. We have seen, I think, probably shortage across the entire industry. There is a couple factors driving that. One is a V-shaped recovery, I think, across many of the sectors that were present now. We saw acceleration of digital transformation, also consistent with this trend of the enterprise transformation of the home. And especially for QUALCOMM and QCT, we have seen an opportunity with the expansion of addressable market. Huawei represents a 16% of the market. That becomes available to us across all of our OEMs. So that's driving a situation that demand is outpacing supply.

We're happy what we see right now on the premium tier, for example, and high tier, we see share gains in fiscal 2021, and we expect the situation to normalize towards the second half of the year.

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**Chris Caso**

*Analyst, Raymond James & Associates, Inc.*

Q

Okay, thank you. And with that, you made some comments about the fiscal third quarter that perhaps you could clarify. First on the QTL side, you're talking about similar levels on QTL. If you could help us to reconcile that with your view of overall handset units, I think you said growing 7% sequentially.

And then you gave us something to go on with regard to the QCT side with the profitability doubling, and I guess, with that, should we assume that profitability doubling would be at similar operating margins to what you're guiding for, for the March quarter?

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**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Chris, so this is Akash. I think QTL, as we've said in the past, we kind of see the market consistent between March and June quarters in terms of how the overall market, mobile market behaves. And so that's what is reflected in the data point we provided for the June quarter.

QCT, I think it's a fair way of thinking about it. We're expecting it to be extremely strong, doubling profit year-over-year basis, and margin profile is really going to kind of fall out from the scale of the revenue, as we discussed earlier. Just what is reflected in our third quarter numbers is just the natural seasonality of the business now that we have Apple in our revenue stream, and the timing of their purchases within the year is reflected in the data points we are providing.

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**Operator:** Thank you. Our next question comes from Joe Moore with Morgan Stanley. Please proceed with your question.

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**Joseph Moore**

*Analyst, Morgan Stanley & Co. LLC*

Q

Great, thank you. I wonder if you could give us color on the growth in RF being so impressive when you look at 5G units potentially kind of more than doubling, when you look at millimeter wave really at one customer and one

region, I'm just surprised at how robust December is. And kind of can you talk to the sustainability of those revenue levels and the growth drivers going forward?

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

Hi, Joe. This is Cristiano. Yes, it's very consistent with what we have been saying since the beginning of 5G. We saw 5G as an entry point for us. We have a highly differentiated solution with our modem-to-antenna platform. And all of those designs, I think we updated the design count now in 5G as in excess of 800 designs. They all contain 5G RF front-end components.

Also, we like that it's very diversified our RF front-end revenues across all customers, also with a lot of sub-6, it's not only millimeter wave, even though we are very happy with the expansion prospects of millimeter wave, and that's definitely an accelerator for QUALCOMM. So it's a business which is now one of the fastest growing businesses we have. We're happy achieved the threshold of \$1 billion, and we'll continue to grow as we grow 5G.

**Joseph Moore**

*Analyst, Morgan Stanley & Co. LLC*

Q

Great, thank you.

**Operator:** Thank you. Our next question comes from Stacy Rasgon with Bernstein Research. Please proceed with your question.

**Stacy A. Rasgon**

*Analyst, Sanford C. Bernstein & Co. LLC*

Q

Hi, guys. Thanks for taking my questions. First, I wanted to dig again into chipset margin guidance. You're guiding chipset profit dollars down over \$400 million sequentially on about \$280 million revenue decline. It's like 150% negative incremental margins. But presumably, the mix ought to be getting better as Apple and the handset stuff rolls off in the adjacencies. It sounds like they grow. So like what is going on in there? Like why are the margins coming down that much given the revenue trajectory?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

A couple factors, Stacy. It's Akash. First is, as I indicated in my prepared remarks, we typically see kind of a resetting of certain expenses on the OpEx side, so you have OpEx growth that happens between the December and the March quarter, and this is consistent with history. So if you go back and look at our numbers in the past, you kind of see the same increase. So that impacts the margin a bit.

Second is we did see some strength in certain pockets in the December quarter in our gross margin profile. So gross margin profile was higher in the December quarter than our recent trend, and what we're guiding forward is something that's consistent with our recent trend. So any upside to that would be something that, of course, we're going to try to execute on, but it would be upside to our guidance.

**Stacy A. Rasgon**

*Analyst, Sanford C. Bernstein & Co. LLC*

Q

Thank you. And if I can follow up on QTL margins, so you're guiding 68% on whatever it is, \$1.35 billion at the midpoint. In 2019, you were actually running higher than that. You were at like \$1.1 billion to \$1.3 billion, so lower

revenues and you had margins that were in line to higher than what you're guiding now with legal costs that presumably were higher. So like what's going on in the QTL side? Why aren't margins higher on this revenue level?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Stacy, there's no something specific going on. If you go back to Analyst Day, and I don't have the 2019 numbers in front of me, but if you go back to Analyst Day, what we laid out in front of you for the full year for QTL where we thought the margins for the year would be higher than 70% with Huawei resolved, we are very much executing to the target we laid out. We think we're in a good place to execute on it.

**Operator:** Thank you. Our next question comes from Blayne Curtis with Barclays. Please proceed with your question.

**Blayne Curtis**

*Analyst, Barclays Capital, Inc.*

Q

Hey, thanks for taking my question. Just revisiting on the margin side, given the shortages you're seeing, if you could, just comment on your input costs and whether that's kind of rolled in yet or whether that's an impact kind of going forward to QCT margins.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

I think, Blayne, as you would expect, a lot of our conversations with our customers and suppliers are around how we address supply. And our agreements on price generally tend to be longer term, so really that's where we are focused on is kind of being good partners to our customers and focusing on supply. Margin is consistent with our recent history, and that's what's reflected in the guidance.

**Blayne Curtis**

*Analyst, Barclays Capital, Inc.*

Q

Thank you. And then just for the June quarter, the doubling of QCT profits, I think obviously with the new large customer, you may be seasonally down there just on the Android side. That's typically a stronger quarter, particularly if the market is going to double. So just kind of the moving pieces, because it looks like QCT would be down sequentially from March to June to get that doubling of profits, so just any perspective on your outlook on Android within that?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Blayne, there isn't a specific trend that I'd like to point out there. I think the strength of our business remains consistent between the quarters on Android.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

This is Cristiano. I just want to add a small data point. There is, as Akash outlined, seasonality because of one large US customer. But if you look of what is happening outside that, actually we're very happy with what we see in terms of premium and high tier share gains. I pointed to the addressable market that is becoming available to

us from Huawei, and that's going to be a growth story especially for the QCT premium and high tier as we go throughout the quarters.

**Operator:** Thank you. Our next question comes from Tal Liani with Bank of America. Please proceed with your question.

**Tal Liani**

*Analyst, BofA Securities, Inc.*

Q

Hi, guys. You guided smartphone to be going up, going from minus 12% last year to go up high single digit this year. Can you give us like a little bit of color of regions, also kind of types of smartphones, any color on the composition of the growth this year?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Hi, Tal. This is Akash. So really what our guidance, just to reiterate it, we're saying the market was down 12%, 2019 to 2020, calendar 2019 to calendar 2020 and would grow in high single digits from 2020 to 2021, and this reflects kind of continuing COVID impact in the first half and then recovery in the second half.

Really within that market, what's the critical driver for us is how 5G plays out, and so if you look at our 5G forecast, we're expecting it to go up from \$225 million in calendar 2020 to a midpoint of \$500 million. So very strong growth, and that's kind of the key driver for us in terms of how our revenue expands on the chip side.

And then maybe last thing I'll point out is to Cristiano's comment earlier, Huawei has been a very large OEM and it was – really from a chip perspective, it was mostly high silicon that was satisfying the demand. Now with the change in the market, we have kind of 16% of the market that was not available to us before, being available. So as we kind of look further out, we see this as a pretty material expansion of SAM for us.

**Tal Liani**

*Analyst, BofA Securities, Inc.*

Q

Just as a follow-up, if the market is going from declines to growth, what's the impact on QTL at the high level, meaning is this growth going to be in high end countries where any way you're hitting the limit of the ceiling for the price of \$400, or is it going to be mostly in developing markets where the growth in – the improvement in growth can translate also improvement in the total addressable market meaning, units times price? I'm trying to understand the impact of the ceiling to the price for QTL.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Yeah, so I think from a QTL perspective, the way we see 5G benefiting the ASP is, as 5G goes into lower tiers, below the ceiling, it kind of makes the mix richer for us. As people upgrade devices, they buy more expensive devices, and that would be the opportunity for QTL. But we – again, we're not planning that into our forecast at this point, and we see it as a potential upside as it materializes.

**Operator:** Thank you. Our next question comes from Ross Seymore with Deutsche Bank. Please proceed with your question.

**Ross Seymore**

*Analyst, Deutsche Bank Securities, Inc.*

Q

Hey, guys. Thanks for letting me ask a question. First of all, congratulations to both Steve and Cristiano. I wanted to go back on the QCT side to the China dynamic and that 16% increase in your SAM. How are you guys handling the potential inventory dynamic where the Honor side might keep the share and you could just design wins there, but all of the aspiring share gainers are also going to build to take share? So there's potential for inventory coming back, I realize in a period of shortage it might not be an issue for you, but how are you managing avoiding that pitfall?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Yeah, hey, Ross. It's Akash. It's definitely something that we are trying to manage carefully. I mean, we do have very strong demand from various OEMs, but as you rightly pointed out, it really is more of a supply driven market. And so we have more opportunity to sell and increase our revenue than we can supply at this point. So it's really – that's the primary focus and we don't really have any inventory concerns at this point with our customers.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

If I can add...

**Ross Seymore**

*Analyst, Deutsche Bank Securities, Inc.*

Q

As my follow-up...

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

No, Ross, this is Cristiano. I just want to add one thing. Given the size of those customers, the semiconductor supply chain is probably sized for what the market size is. So that in itself provides some correction on inventory.

**Ross Seymore**

*Analyst, Deutsche Bank Securities, Inc.*

Q

Great. Thanks for that color, Cristiano. I guess as my follow-up, if I went back to the margin side of things, it seems like you're guiding the implied gross margin down about 3 points sequentially in the March quarter, and I understand QTL goes down and QCT up, so from a mix perspective that would happen, but it's still a little bit greater than I would have expected. You answered in a prior question, Akash, a little bit about a normalization that you're assuming there. I wanted to dive a little into what was driving the upside in the December quarter, and why would that change going into the March quarter?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Yeah, so I think, Ross, it was – the December quarter upside was just driven by mix across businesses, and we have certain customers who made purchases earlier than they would usually purchase. So it's just more operational mix that drove the upside, and so we're not forecasting that at this point going forward.

**Ross Seymore**

*Analyst, Deutsche Bank Securities, Inc.*



Thank you.

**Operator:** Thank you. Our next question comes from Matt Ramsey with Cowen. Please proceed with your question.

**Matthew D. Ramsay**

*Analyst, Cowen and Company LLC*



Thank you. Good afternoon, guys. My first question, I think a number of folks have asked about this, 16% of the market that was Huawei that's now available to you, and I think you guys all answered about potential inventory builds up to this point. But no secret that Huawei had been building finished goods and semiconductor inventories going into this situation. Cristiano, any thoughts as to how long they can remain in the market and win that opportunity for share shift may present itself to you guys from a timing perspective? Thanks.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*



Hi, Matt. Thanks for your question. Look, we measure those things based on the design activity, and Huawei can really predict how much inventory they have, especially on the high and premium tiers, whether you get range through a carrier in the portfolio or you get range in the retailer, the market's already moving. And as I said earlier, we've seen very strong design activity. We are in a positive position because we're very well hedged.

If iOS win, if Samsung Android wins, if Vivo, Oppo, Xiaomi wins or even if over time companies like Honor wins, we're very well-positioned there and we'll see how you they play out. But I will say that because of how distributors and the carriers think about it, the portfolio is already switching and that's reflecting in the design activity we see right now.

**Matthew D. Ramsay**

*Analyst, Cowen and Company LLC*



Got it. Thank you for that. I guess an unrelated follow-up question, I was interested in the acquisition of NUVIA. The team had made some changes on the CPU side a few years ago to be, I think, more dependent on I guess license cores directly from ARM for the Snapdragon portfolio, and I wonder what the acquisition of NUVIA might signal around your intentions there, number one. And number two, about ambitions into markets that include Chromebooks, notebooks, 5G connected consumer devices, et cetera, if there's any comments there on the TAM, Akash, that would be helpful. Thank you.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*



So Matt, let me just start, and I will shift to Akash to talk about the TAM. Look, we're very excited about the acquisition and it's probably very clear, if you look on the announcement we made, one thing that was really incredible is the support we receive from the mobile ecosystem. Every single OEM was there with the exception of two, which it doesn't really apply to them. And then you have the entire computing ecosystem there, both across the Windows and Chrome.

For us, it basically reflects this view that we had of full conversions between mobile and computing. I think we're in the very beginning of that with our Windows and Snapdragon program and create opportunities for us to do a step

function increase in performance with the power advantage of QUALCOMM both across premium smartphones as well as the computing segment, and that is likely to be a key differentiation for QUALCOMM going forward.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

And really for the – if you think about the addressable market for the PC and the Chromebooks market, this is over a couple hundred million of units, right? So it's a very large market, and what's really important for us is to be able to combine CPU, leading CPU technology along with the other assets that we have in mobile and address this market in a differentiated fashion. And so we feel pretty good about our ability to do that.

I'd also say the CPU has a lot of implications outside mobile phones and PC market along with into auto and IoT as well. So it's an asset that's going to be broadly relevant to the end markets we pursue.

**Operator:** Thank you. Our next question comes from Mitch Steves with RBC Capital Markets. Please proceed with your question.

**Mitch Steves**

*Analyst, RBC Capital Markets LLC*

Q

Yeah, congratulations, guys. I just had a couple questions here, just kind of checking back to the inventory thing, kind of looking at the full year. So maybe first, I mean, how does QUALCOMM kind of mitigate the idea that some people are over-building on the smartphone side, trying to gain share from Huawei, and if you're going to have the back half kind of drop-off?

And then secondly, maybe a better way to ask this question, I know you guys don't give full year guidance, but if I look at the full year in terms of calendar year basis, what type of balance do you guys think the revenue's going to look like? Is it going to be more 45%, 55%? Just how should a calendar year look like now, now that Apple's kind of a major customer for you guys?

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Mitch, on your second question, if you just look at our profile of customers, right, as we go past the third quarter and go into the fourth quarter, we're going to have flagship devices being launched again going all the way to the holiday season. So it does become a kind of pretty area of strength as we go into September and December quarter, relative to June. So we are expecting revenues to grow significantly, not just in mobile, but then RF front-end that goes with it and then also in IoT and auto we're continuing to see strength in the design win pipeline. So it's really across the board.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

And maybe to your first question, Mitch, maybe reiterating what we said before. We don't see, I think we heard a lot in this call about discrepancy between sell-in and sell-out. We don't see that. We actually see demand outpacing supply and of supply availability is what's really regulating the market. So we're not too concerned about that at this point.

**Mitch Steves**

*Analyst, RBC Capital Markets LLC*

Q



I guess, maybe if I could sneak this in. So I guess what do you think is causing that demand surge? Is it just 5G? I'm just curious as to what's giving you guys the confidence that continues for the rest of the year.

**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Sorry, Mitch. Can you repeat that question?

**Mitch Steves**

*Analyst, RBC Capital Markets LLC*

Q

So you guys are saying you're confident that demand is outstripping supply and the sell-through is fine, so I'm curious as to why you believe that demand is there and it's so significant versus prior cycles.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

It's Cristiano. Let me address that again. It's a couple things. We have been saying and I think that's been a key driver in QCT, we are growing on a market that grows single digit. We're growing faster than the market as both I think our expansion into 5G as well as the addressable market that is expanding for us. The Huawei 16% example. That's one.

The other one is we have seen good numbers on 5G. For the calendar year, we actually, the range we went to the high end of the guide, which is 225 million 5G units. And our guide for 2021 is – I think the upper side of the guide is in the 550 million. So the 5G transition is robust, device ecosystem has moved on, and we see an expansion of addressable market. That is all giving confidence.

And the supply chain situation, as I said earlier, has been broad across the industry. It's not unique to handset. We also saw the acceleration of digital transformation across the industry and a V-shaped recovery, but it should get normalized towards the later part of 2021.

**Operator:** Thank you. Our next question comes from the line of Brett Simpson with Arete Research. Please proceed with your question.

**Brett Simpson**

*Analyst, Arete Research Services LLP*

Q

Thanks very much. I just wanted to dig in a bit on the shortages that you flagged. Just specifically, what is the main sort of source here of the shortages? Is it more sort of 5-nanometer yield challenges you're seeing, and that's sort of impacting the premium flagship segment that you operate in? Or is it more sort of PMIC and what's happening with SMIC? And can you maybe just talk a bit more about some of the challenges you're having here? And specifically, when do you think we come out of the shortage situation? Is it going to be the June quarter, or do we have to wait until the second half before things get back to normal? Thank you.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

Thank you for your question. Look, the simple answer is the shortage in the semiconductor industry is across the board, not only leading node, but also legacy nodes. You should think about that legacy process is used in a lot of automotive, it's used in all of the networking products and consumer electronics, and also you see that in more of

the attaches, whether power management chips or RF chips. So the V-shaped recovery that we've seen across the industry and all of the accelerated digitization is driving semiconductors, and we see that across the board.

Specific to 5-nanometer, I think we're ramping a new process. It's very consistent to our expectations. I'd argue that we probably for a ramp of a new process with our partner, this time we shipped more in the quarter early in the ramp for Snapdragon 800. And we expect, to your question, this to normalize towards the later part of 2021 as capacity is put in place and we see some of the demand across other sectors of the industry to catch up with supply.

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**Brett Simpson**

*Analyst, Arete Research Services LLP*

Q

Okay, thanks. And maybe just a follow-up on QTL. So you spoke a lot about some of the success you're having in QCT regarding autos, and you referenced 20 of the top 25 automakers are using the cockpit platform and you've got an \$8.3 billion backlog. How do we think about the QTL opportunity here for specifically for autos? Is there something you can share with us in terms of how royalty agreements are going here and what sort of royalty rates we can expect for 5G given the use cases are very different in autos going forward? Thank you.

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**Alexander H. Rogers**

*Executive Vice President & President, Qualcomm Technology Licensing, QUALCOMM, Inc.*

A

This is Alex. Thanks for the question. We've had a long-term licensing program in automotive telematics for 3G/4G. We're actually having quite good success with our 5G licensing. Of course, not a lot of 5G units have hit the road yet. We haven't released details of the licensing program or the particular royalty structure at this point in time, but maybe at some point in the future.

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**Operator:** Thank you. Our next question comes from C.J. Muse with Evercore. Please proceed with your question.

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**C.J. Muse**

*Analyst, Evercore ISI*

Q

Good afternoon. Thank you for taking the question. I guess first question, with RF front-end doubling calendar 2020 versus calendar 2019, I'm curious if there's a framework that you can provide in thinking about the growth trajectory into 2021. Obviously, you have two quarters now of Apple millimeter wave in there. I would love to hear any thoughts that you could provide in terms of how to think about the growth here in 2021 and beyond if you can.

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**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Hi, C.J. It's Akash. At Analyst Day, we laid out kind of the financial targets for the RF front-end business. We said we want to be greater than 20% of an \$18 billion market. We are very confident that we are on our way to achieving that in an accelerated fashion versus the timeline we laid out. So we said we'd get there in 2022, and we feel like we're there – able to get there in an accelerated fashion, so pretty happy about that.

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**C.J. Muse**

*Analyst, Evercore ISI*

Q

Okay, that's helpful. As my follow-up, you've had a number of questions I guess on the supply constraints front-end and EBT margins for QCT, but I guess I wanted to ask a little bit differently. In terms of higher wafer and OSAT costs and you talked earlier about how you have longer term contracts with set pricing, curious how we

should be thinking about perhaps higher costs earlier in the year versus later in the calendar year? And what that might mean for the trajectory of QCT margins over time? And I guess as part of that, you showed great growth from 14% to 22% in calendar 2020, considering your outlook for 5G, should we be seeing another kind of stair step higher for margins there? Thank you.

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**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

C.J., from a wafer cost and fab cost perspective, really kind of not much of a story for us, it's really consistent with what we'd expected before and we feel confident that we can execute to the margin profiles that we've outlined both kind of from an Analyst Day long-term perspective and also guidance we are providing.

Really as you look at the second half of the year, we're looking forward to strong revenue growth across all of our businesses, and of course the margin will benefit from that as well just as we get scale and the operating leverage benefit shows up.

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**Operator:** Thank you. Our final question comes from the line of Timothy Arcuri with UBS. Please proceed with your question.

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**Timothy Arcuri**

*Analyst, UBS Securities LLC*

Q

Thanks a lot. I guess my first question is just on QCT. So you had guided QCT down I think 15% for March last call, and now it's down just a little bit off of the December base, it was about as you guided. So – and that's even despite some of the constraints you had talked about.

So the story really is that March on the component side is even better than what you thought it was three months ago, but that's despite sell-through on the licensing side being actually a little bit worse than you thought due to COVID. So I guess the first question is why is QCT so much better than what you saw three months ago, and this is the fourth quarter where these two businesses are sort of going in opposite directions, so I guess I wanted to better understand why, Cristiano, why you think it's a problem as you get into the back half of the year? Thanks.

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**Akash Palkhiwala**

*Executive Vice President & Chief Financial Officer, QUALCOMM, Inc.*

A

Tim, it's Akash. One of the things we – the one of the key factors that kind of drives the two businesses going in different direction in this case is just timing of purchases by large customers. And so we saw some accelerated purchases going into the March quarter versus June, and so it's just depending on how the inventory strategies play out for different customers. The timing makes an impact as to when we see the improvement in our financial performance. But the underlying trend, there is no kind of specific story. It's just how things play out based on sell-through and timing of when people buy parts.

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**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*

A

Look, if I could add one thing just real quick. Also, maybe it's the beginning of this process, but QCT is showing also other growth drivers, like the automotive growth driver, the IoT growth driver, so over time as the business gets more diversified, I think you're going to have probably less correlation between the two.

**Timothy Arcuri**

*Analyst, UBS Securities LLC*



Thanks. Thanks for that. And I guess my last question is on millimeter wave. So I guess the first 100 megahertz of C band is going to clear at the end of this year. It seems like the big US carrier that was kind of driving that is going to maybe shift some of their CapEx over to build out C-band over the next two years. I know some of the other of US carriers are talking about building out millimeter wave in 2023 and beyond. Can you just talk about the pace of adoption for millimeter wave? Obviously you have had a lot of leverage there. Do you think it's going to be lumpy or do you see it growing from here? Thanks.

**Cristiano R. Amon**

*President and Chief Executive Officer-Elect, QUALCOMM, Inc.*



Hi. This is Cristiano. Look, we are very pleased with what we're seeing in millimeter wave. As we restate what we said, I think you need millimeter wave for the full potential of 5G and especially as we look at some of the more advanced applications beyond smartphones. Millimeter wave continue to be a requirement for the premium devices in the United States. We're very pleased to see that one of our large customer had brought millimeter wave across all price points of their devices. In this quarter we saw Germany with the auction rules starting for millimeter wave at 26 gigahertz and we continue to see activity indicating that China is likely to have millimeter wave for 2022.

So we're happy with what we see. It's progressing as we planned and as you said it correctly, millimeter wave is probably an accelerator of our 1.5 multiplier in QCT.

**Operator:** Thank you. That concludes today's question-and-answer session. Mr. Mollenkopf, do you have anything further to add before adjourning the call?

**Steven M. Mollenkopf**

*Chief Executive Officer & Director, QUALCOMM, Inc.*

Yes. Thank you. First of all, I want to thank the folks who gave the kind words on the call. I know Cristiano feels the same way. This is actually, if I count correctly, my 50th earnings call, so I appreciate the hard work from the QUALCOMM team making it a record. I look forward to seeing where the company goes. It's exceedingly well-positioned, and thank you all for joining us today. Thank you.

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

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