

Q3 2020 Earnings Call

Company Participants

- Akash Palkhiwala, Executive Vice President and Chief Financial Officer
- Alex Rogers, Executive Vice President and President
- Cristiano Renno Amon, President
- Mauricio Lopez-Hodoyan, Vice President, Investor Relations
- Steve Mollenkopf, Chief Executive Officer

Other Participants

- Ashwin Gupta, Analyst
- Brett Simpson, Analyst
- Chris Caso, Analyst
- Matt Ramsay, Analyst
- Mike Walkley, Analyst
- Pradeep Ramani, Analyst
- Ross Seymore, Analyst
- Samik Chatterjee, Analyst
- Srini Pajjuri, Analyst
- Stacy Rasgon, Analyst
- Tal Liani, Analyst

Presentation

Operator

Ladies and gentlemen, thank you for standing by. Welcome to the Qualcomm Third Quarter Fiscal 2020 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) As a reminder, this conference is being recorded July 29th, 2020. The playback number for today's call is 877-660-6853, International callers please dial 201-612-7415. The playback reservation number is 13706353.

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 {BIO 20932685 <GO>}

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 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 Chief Executive Officer, Steve Mollenkopf.

Steve Mollenkopf {BIO 16172191 <GO>}

Thank you, Mauricio and good afternoon, everyone. Our fiscal third quarter non-GAAP earnings of \$0.86 per share was above the high end of guidance, driven by strong licensing revenue and solid performance in our chipset division. We recently signed a new long-term global patent license agreement with Huawei, including across license granting back rights to certain of Huawei's patents. We also entered into an agreement settling amounts due under the prior license agreement. We were pleased to have successfully reached resolution with Huawei. As Akash will explain later, royalty revenue from Huawei begins in fiscal Q4 and is not included in our fiscal Q3 results. Alex and the QTL team have done an outstanding job in executing over 100 agreements covering 5G and building by a wide margin, the most extensive licensing program in mobile.

This is a tribute to our track record of driving important and fundamental innovation. With the signing of the Huawei agreement, we are now entering a period in which we have multi-year license agreements with every major handset OEM. Our entire company has executed very well despite the ongoing impact of COVID-19, while maintaining the safety of our employees as our highest priority. We continue to advance our product and technology roadmaps, support our customers and meet a very complex set of R&D and supply chain requirements. And the current environment has not impeded the pace of our innovation. In the last four months of work-from-home, invention disclosures are up over 30%, with 5G related invention disclosures up even more.

Turning to the handset market, fiscal Q3 was better than the expectations we shared with you last quarter. In China, just midway through the calendar year and despite the impact of COVID-19, 5G now represents the majority of domestic mobile phone shipments. According to the China Academy of Telecommunication Research, June domestic 5G smartphone shipments represented 63% of total smartphone shipments, more than double the penetration in the month of March.

Given the strength of June 5G handset data in China along with flagship 5G device launches in the second half of the calendar year, our calendar year 2020, 5G forecast of

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175 million to 225 million handsets remains unchanged, with our bias now towards the upper end of that range. As Akash will explain shortly, we are anticipating the next inflection point in our 5G ramp to start in fiscal Q4, with strong year-over-year growth in revenue and earnings per share, leaving us well positioned for continued growth in fiscal year '21.

Turning to QCT, design win momentum remained strong. There are now over 660 designs announced or in development based on our broad portfolio of 5G solutions using Snapdragon 8, 7 and 6 series platforms, or using our X55 modem, with a strong pipeline headed into next year. In the premium tier, we now have over 165 designs announced or in development from our Snapdragon 865 5G mobile platform. We recently announced our 6-series Snapdragon 5G mobile platform, which has the potential to make 5G accessible to more than 2 billion smartphone users around the world.

Our systems approach to 5G RF front-end has been extremely well received. Virtually all of our 5G design wins continue to be powered by our RF front-end solutions, whether they support 5G in sub-6 millimeter wave or both. And as a consequence of our RF front-end strategy, we expect to emerge in fiscal '21 as one of the largest global RF front-end vendors by revenue.

We remain focused on executing on the significant growth opportunities that we have in place today in the handset space. As you would expect, we are also working in parallel to position Qualcomm for similar success as 5G moves beyond smartphones. We see a significant market transition occurring as the cloud converges with 5G and AI, positioning 5G as the next evolution of the Internet.

This new architecture at the edge plays directly to our strengths in low-power, high-performance computing and connectivity, where Qualcomm's wireless innovation leadership can drive new opportunities for growth, as we have in 5G enabled smartphones. Qualcomm's leadership in global standards bodies is an early indicator of how we are working with the mobile ecosystem to meet the high technical requirements to drive adoption of 5G to new industries.

Just this month, 3GPP completed 5G New Radio Release 16, the second 5G standard that will greatly expand the reach of 5G to new services spectrum and deployments. It delivers key technologies spearheaded by Qualcomm for transforming industry such as enhanced ultra reliable low latency, advanced power saving and high-precision positioning needed for mission-critical applications like industrial IoT.

While Release 16 is now complete, our work driving 5G technology evolution to fully realize the potential of this latest release continues. In addition, we are already working with the mobile ecosystem on Release 17 projects and are researching advanced technologies for Release 18 and beyond. We are very excited about our 5G future and our ability to commercialize the breakthrough technologies that will drive differentiation for Qualcomm over many years.

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

Akash Palkhiwala {BIO 19085180 <GO>}

Thank you, Steve and good afternoon, everyone. We're extremely pleased to report strong third fiscal quarter results, demonstrating the resilience of our business in a challenging economic environment. We delivered total revenues of \$4.9 billion and non-GAAP earnings per share of \$0.86, which was above the high end of our guidance range, primarily driven by stronger results in QTL.

In the third quarter, we saw an approximately 20% year-over-year reduction in 3G, 4G, 5G handset shipments due to the impact of COVID-19 relative to our prior planning assumption of a 30% reduction. In addition, we saw a stronger mix with higher shipments in China in developed regions offset by weakness in emerging regions. In QTL, we delivered revenues of \$1 billion and EBT margin of 62%, both above the high end of our guidance range due to higher units and stronger regional mix.

Please note our third quarter QTL results do not include any revenues from Huawei settlement or global patent license agreement. In QCT, we delivered MSM shipments of 130 million units, revenues of \$3.8 billion and EBT margin of 16%, which was at the high end of our guidance range. The impact of COVID-19 on emerging regions resulted in fewer, low tier MSM units, offset by improved gross margin as a result of favorable mix.

QCT revenues and EBT increased 7% and 20% respectively on a year-over-year basis. This performance reflects 5G design traction RF front end growth and strength in certain adjacent platforms, that benefited from the work-from-home environment. Our non-GAAP combined R&D and SG&A expenses of \$1.68 billion were slightly below our guidance. During the third quarter, we paid 733 million in dividends, refinanced 2 billion in debt and temporarily suspended stock buybacks. I will now provide a financial overview of the resolution with Huawei.

We expect to record approximately \$1.8 billion of revenue in our fourth fiscal quarter for amounts due under the settlement agreement relating to the prior license period and the new license agreement for the first half of calendar 2020. This amount will be excluded from our non-GAAP results. Please note that this amount is consistent with the framework of our licensing program and incremental to the partial payments received from Huawei under the interim agreement in prior years.

In addition, our fourth quarter non-GAAP financial guidance includes estimated QTL revenue from Huawei sales in the September quarter. With the completion of this agreement, we have now licensed all significant handset OEMs worldwide.

Turning to the global 3G, 4G, 5G device forecast. Given the ongoing uncertainty around the timing of economic recovery, our fourth fiscal quarter forecast is based on a planning assumption of approximately 15% year-over-year reduction in handset shipments. This planning assumption reflects a gradual recovery in September quarter based on the regional trends we saw in the June quarter.

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Consistent with our prior expectations, our forecast for the first three quarters of 2020 implies a year-over-year reduction of approximately 10% to the calendar year, total device forecast. However, total units in the fourth quarter will depend on the speed of the economic recovery. Lastly, we are maintaining our forecast of 175 million to 225 million units for calendar 2020 5G devices. In the June quarter, we estimate that the sell-in of 5G devices increase to greater than 50 million units. This data point is a strong leading indicator of our confidence in the 5G handset forecast for the year and our bias towards the high end of this range.

Turning to our fourth fiscal quarter financial guidance. We estimate fourth quarter GAAP revenues to be in the range of \$7.3 billion to \$8.1 billion and GAAP EPS of \$2.12 to \$2.32, which includes the revenue related to the settlement with Huawei. We expect fourth quarter non-GAAP revenues of \$5.5 billion to \$6.3 billion and EPS of \$1.05 to \$1.25. This guidance includes an impact of greater than \$0.25 due to the reduction in handset shipments due to COVID-19, including a partial impact from the delay of our 5G flagship phone launch.

In QTL, we estimate fourth quarter revenues of \$1.2 billion to \$1.4 billion and EBT margins of 67% to 71%. At the midpoint, this guidance implies year-over-year revenue growth of 12% driven by the addition of royalty revenues from Huawei, partially offset by our planning assumption of a 15% reduction in handset shipments.

In QCT, we expect MSM shipments of 145 million to 165 million units, revenues of \$4.3 billion to \$4.9 billion and EBT margins of 17% to 19%. These guidance midpoints imply year-over-year growth of 27% in revenue and 66% in EBT, reflecting the strong execution of our strategy in a challenging economic environment.

As we have previously outlined, RF front end is one of the key drivers of our revenue growth. Our fourth quarter forecast includes revenues of approximately \$750 million for 4G, 5G sub-6 and 5G millimeter wave content. We anticipate fourth quarter non-GAAP combined R&D and SG&A expenses to be up approximately 5% sequentially reflecting normal seasonality in 5G investments. In closing, I want to thank our employees, customers and suppliers for their commitment and partnership during this extraordinary circumstances. Looking forward, we are excited to have a strong foundation of growth across our product and licensing businesses.

Thank you and I'll now turn the call back to Mauricio.

Mauricio Lopez-Hodoyan {BIO 20932685 <GO>}

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

Questions And Answers

Operator

Thank you. (Operator Instructions) Thank you. Our first question comes from the line of Mike Walkley with Canaccord Genuity. Please proceed with your question.

Q - Mike Walkley {BIO 21508060 <GO>}

Great, thanks for taking my question and congrats on the strong results in a tough environment and the Huawei settlement. My question is just helping us understand revenue per MSM trends going forward. You highlighted in '21 you expect to be the revenue leader in RF, obviously, it could take up the revenue per MSM and then you should have a much greater mix of 5G phones over time. So as we look out in the future quarters, how should we think about the pluses and minuses on a revenue per MSM calculation? Thank you very much.

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah, hi Mike, this is Akash. If you look at our trend over the last couple of quarters on a revenue per MSM perspective, we were just over \$31 in the second fiscal quarter. And then we reported a little over \$28 in the June quarter and we're guiding -- guiding a similar number over \$29 in the upcoming September quarter. The premise behind the growth in the revenue per MSM is still consistent with what we had said before, which is as we transition from 4G to 5G, we expect our revenue opportunity to grow by 1.5x. And so as we look forward, we still think that's kind of a reasonable way of thinking about the trend on revenue per MSM long-term. And I think these quarters where we have delivered the results with higher numbers kind of bear out the -- bear out the math behind it.

Q - Mike Walkley {BIO 21508060 <GO>}

Right. And maybe just a quick follow-up, is there any seasonality to those type numbers based on mix of premier smartphones that we should think about in modeling kind of those trend lines?

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah, sure. There will be a little bit of seasonality based on when our premium tier chipset launches and which is typically we go heavy on volume on the premium tier in the March quarter. So there will always be some seasonality, but I think overall the trend that the last few quarters suggest is a reasonable way of thinking about it.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Hey, Mike, this is Cristiano, I just want to add one thing maybe to help you understand it. We may have seen over the short period of time as we look at where the market is given the pandemic, we feel good about 5G units. But when you think about trends, thinking about the 1.5 metric, the more the 5G penetrates into the handset base I think more that helps our trend of increasing the revenue per MSM and I think we still have a lot of 4G units out there. We like that accelerated transition to 5G.

Operator

Thank you. Our next question comes from Samik Chatterjee with JP Morgan. Please proceed with your question.

Q - Samik Chatterjee {BIO 15496543 <GO>}

Hi, thanks for taking my question. I guess just maybe first off if I could try and understand the MSM unit guidance here and the improvement. It would help if you can kind of unpack it for me a bit in terms of what's the normal kind of market recovery in terms of the sequential improvement that you're thinking off. And then what's -- I know you mentioned the delay in the product launch, but what you are assuming in terms of the product launch in that sequential improvement that you have of roughly kind of 15 million at the low end and 35 at the high end. So how much of that is a market recovery and how much of that is the product launch?

A - Akash Palkhiwala {BIO 19085180 <GO>}

Sure, Samik, this is Akash. So the midpoint that we're guiding is 155 million units relative to June quarter actuals of 130 million. So I'll try to address it around the midpoint. There are really two drivers for the increase. The first one is, we saw some weakness in the low-tier units in the June quarter because of the impact of COVID on emerging markets. So we are seeing that come back in as we look at the forward demand that we're seeing from our customers, so that drives growth on a quarter-over-quarter basis.

And then second, we talked about partial impact from a delay of our 5G flagship phone launch. If you think about a large flagship phone launch, typically for a QCT perspective, our customers end up buying chipsets that facilitate the launch in the couple of months before the launch. So what we're really seeing here is because of the delay, a portion of those purchases are happening in the September quarter and they're factored into our guidance and another portion would get pushed out to the December quarter. So it's a combination of those things.

And so going back to answering your direct question, the increase from 130 to 155 is really two drivers, increase in units especially at a low-tier and then benefit from the new launch.

Q - Samik Chatterjee {BIO 15496543 <GO>}

Okay, got it. And then if I can just follow-up on the restrictions in place here [ph] to Huawei or right now is there impact on the MSM unit guidance from that. And then with the licensing agreement that you now have, does this potentially open up an opportunity to even kind of ramp up your chip shipments to them in the future if in the absence of high silicon being able to kind of provide them the chipsets that are required for their 5G handsets?

A - Akash Palkhiwala {BIO 19085180 <GO>}

So, Samik, I'll address the first part of the question. At this point, we really don't have any material business with Huawei. So when you think about our MSM unit guidance, there really isn't Huawei volume around it, it's really the other OEMs that we would be shipping to.

A - Steve Mollenkopf {BIO 16172191 <GO>}

Yeah, this is Steve. On the second part of the question, I think the way to think about it is, we're working hard to figure out how to sell to every OEM including Huawei, but really nothing to report as of yet.

Operator

Thank you. Our next question comes from Chris Caso with Raymond James. Please proceed with your question.

Q - Chris Caso {BIO 4815032 <GO>}

Yes, thank you. First question is on QTL and there's a lot of moving parts as we go into September with Huawei coming in the global handset decline, excuse me and the timing of the flagship. In the past you've given us some metrics about what the normalized QTL revenue run rate would be, is that something you could provide us now if I normalize for all of those exceptional events that are happening now once I put Huawei in. And maybe you can give us some indication because of those changes this quarter, how much Huawei contributes to QTL in the September quarter?

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah. Hi, Chris. This is Akash. Let me try to give you a few data points that I think will help with your triangulation. Historically, as we've guided our revenue range for QTL, we've said for the first three calendar quarters, a number of 1.1 billion is a reasonable range. And then for the December quarter somewhere in the 1.4 billion range, that's kind of our run rate before two key factors. First factor is really the impact of COVID on our guidance. So in the June quarter, we came in a little over \$1 billion in revenue in QTL, with a market that was 20% lower on the handset side from a year-over-year perspective. So 20% reduction year-over-year. And we came in a little lower billion dollars against a normalized run rate of \$1.1 billion.

When you look forward what we're guiding is a midpoint of 1.3 billion and really there are two factors, right, Huawei coming in and increasing that number and a little bit of a decline based on a 15% market weakness that we're assuming. So I think between those numbers, you should be able to triangulate what a normalized run rate is. The key thing for us is just not having insight into COVID going forward and how the recovery happens. So for now we're guiding the September quarter, but as we proceed, we'll look to give guidance into the normalized run rate.

Q - Chris Caso {BIO 4815032 <GO>}

Well, that's very helpful. Thank you. As a follow-up to that, with regard to QTL margins, you've given guidance for this quarter also. So what should we expect going forward on that? I'm assuming that the new Huawei revenue was all incremental, there's no cost associated with that. So is this a reasonable margin run rate at least for the first three quarters a year I suppose that we go higher as we went through the seasonally stronger December quarter.

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A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah, Chris, you're correct on the revenue really falling down to the bottom line from a Huawei perspective, so that's an accurate assumption. I think at the Analyst Day last year, we provided our view on kind of longer-term sustainable margins for QTL, where we said a midpoint of 70% and with Huawei it would be slightly higher than that. So I don't believe there is any change to that point of view. I think we still think those are good reasonable numbers to use to model our business going forward.

Q - Chris Caso {BIO 4815032 <GO>}

Very helpful, thank you.

Operator

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

Q - Ross Seymore {BIO 20902787 <GO>}

Hi, guys, thank you so much. So let me ask the question and congrats on the Huawei settlement. Akash, you mentioned earlier in the call about the gross margin within QCT performing well. Can you go in a little bit deeper into that and really what I want to get into is, it doesn't seem like there is a great correlation between the revenue per MSM and the gross margin in the QCT side of things. And given that that revenue per MSM line could be moving all over the place in the next couple of quarters, given some of these flagship launches, I want to understand the relationship between those two dynamics better.

A - Akash Palkhiwala {BIO 19085180 <GO>}

Sure, Ross. So let me -- let me kind of maybe quickly talk through what happened in the June quarter. What we saw was versus our guidance of mid-point of 135 million units for the MSM, we saw some weakness at the low-tier. And what I referred to in my script was because of the fewer low tier units that was driven by COVID impact on emerging markets, we saw higher revenue per MSM and a higher gross margin as a result of it. So they both moved in concert at the same time and in same direction. As we look forward to the September quarter, what we are implying in terms of guidance for our gross margin is more in line with what we had guided for the June quarter, because we expect the lower-end units to come back into our mix and really from a margin perspective, it's very consistent with what we've outlined, pretty strong margin profile going forward.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Yeah and Ross, I think it's -- this is Cristiano, consistent with I think the conversation we had before about revenue per MSM, as some of those low 4G units starts to get replace by 5G units and we go into the future quarters, continue to see accelerated 5G penetration, that's going to be also a good driver for gross margin improvement in QCT.

Operator

Thank you. Our next question comes from Matt Ramsay with Cowen. Please proceed with your question.

Q - Matt Ramsay {BIO 17978411 <GO>}

Thank you very much guys and congrats on the Huawei deal from myself as well. A couple of questions, Akash. The first one is on OpEx, you talked about it being up with 5G investments and other things. Maybe you could give us a little bit of context as to whether the September quarter number is a realistic run rate going forward as I know OpEx had -- cost controls have been top of mind given COVID and given some of the QTL things that have happened in the last few years, so that's one. And then the second one is on the settlement -- the back payments from the settlement, there is a big sort of cash payment coming in to you guys from Huawei, any thoughts of use of that cash. Thank you.

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah. Hi, Matt. So on your first question, really what we're guiding is a 5% increase in OpEx quarter-over-quarter. If you look at our historical trend what we've seen between these two quarters, as an example last year, we saw an increase of 4% when you adjust the June quarter for the variable compensation related to the Apple deal. So what we're guiding is really consistent with our historical trend. There is a little bit of an increase and extra 1% increase just because of timing of 5G investments. When you pull back and kind of look at the whole year, we will end up total OpEx of \$6.8 billion, very consistent with what we told you at the Analyst Day and our forecast for the year.

So we really think of OpEx as consistent with our previous commitments and it's super important for us to continue to manage OpEx well and deliver operating leverage as we grow revenues. And then on the second question, on the \$1.8 billion, what we have is Huawei is going to pay us \$1.8 billion for historical periods and it's a combination of two things, really it's the settlement agreement, which goes through the end of 2019 and add to it the first six months of 2020 through June. The combined total of that is \$1.8 billion. And so that some -- that's an amount that they're going to pay over a one year period with the first payment due in the September quarter.

Q - Matt Ramsay {BIO 17978411 <GO>}

Got it. Thank you. Just a quick follow-up for Cristiano or I guess for Steve as well. You guys talked about being the view of 2020 5G units now being maybe at the upper end of the range. And if you put that against a major global launch that might be pushed slightly, was all of that maybe incremental confidence and upside in 5G units in China or are there other markets that we should be thinking about that are now ramping 5G units with some -- with some visibility. Thank you.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Hi, Matt, this is Cristiano. Well, look, there is an overall I think confidence in 5G. If you look at the comment made by Akash in the quarter, I think we saw a better mix than we originally expected, which is offsetting weakness in the emerging markets and mostly 4G low tier units. What we saw is better units on developed markets, which is just a result of 5G. Traction 5G continues to be high. We now have over 80 commercial networks in 35

countries. We have a large number of operators now 380, 120 of which are working on millimeter wave and our design, the traction jumped to 660 designs now on 5G. So 5G momentum has not slowed down and it's giving us confidence on the estimate we made for the year.

Operator

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

Q - Tal Liani {BIO 1643846 <GO>}

Great, thank you. It's actually a follow-up on the previous answer. When you look at the US and Europe and other places, can you give us a sense of how much of the launches are planned to be with millimeter wave. And then, when it -- do you have an estimate of your market share within millimeter wave, kind of, if you look at the global -- at the Globe, how much do you think you're capturing of this market initially. Thanks.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

All right, Tal, this is Cristiano. Thanks for the question. So let me just start talking about millimeter wave, I know that's a big component of the question. So it's traction of millimeter wave technology is moving kind of as we expected. I think the current scorecard I can give it to you, United States continue to ramp, Japan recently launched, we still forecast Korea to launch within the year. Europe and Russia are targeting commercial launches before the end of the year with millimeter wave. And then spectrum auctions had occurred in Hong Kong, Taiwan, Thailand, Singapore and Finland for commercialization 2021.

I think worth noting is there is still expectation that China will have also millimeter wave by 2021. There is a total 120 operators. So it's really -- continue to gain traction. We don't disclose specific share, but we do have significant technology leadership in millimeter wave and have been showing into some of the expansion of our designs. And I think specifically within the United States, which is the largest millimeter wave market, we have now for example Verizon with 35 cities now live with ultra-wideband. AT&T continue to expand, as well as T-Mobile and remains a requirement for all of the flagship devices across the three operators.

Q - Tal Liani {BIO 1643846 <GO>}

Got it. So that means all devices in the US will have millimeter wave, all devices that are being launched in the US will have millimeter wave to support it?

A - Cristiano Renno Amon {BIO 3259554 <GO>}

No, you have a combination of millimeter wave in sub-6 and I think as you get some of the reform spectrum with DSS, you're going to have the combination of both. Millimeter wave today is a requirement for all flagship devices and we expect that technology to penetrate down the lower tiers as well over time.

Q - Tal Liani {BIO 1643846 <GO>}

Thank you.

Operator

Thank you. Our next question comes from the line of Stacy Rasgon with Bernstein Research. Please proceed with your question.

Q - Stacy Rasgon {BIO 16423886 <GO>}

Hi, guys, thanks for taking my questions. For the first one, I wanted to see if you could give us some feeling for how that 1.8 billion splits up. I know you gave a little bit of color on your kind of 2019 and before and then the first half of 2020. But do we think about that 1.8 billion broadly applying to like every phone over that period that Huawei didn't pay you for since Q3 '17 on top of the 450 million that they paid you already. And I guess for my follow-up, you've talked about revenue per MSM obviously up 50%. If I look where that revenue per MSM number ran especially when you add Apple in the mix back to the date what was about 20 bucks, so 1.5 on that would be 30, is that kind of like the new sort of normal ones everything kind of gets into play, that's where we should be thinking about revenue per MSM?

A - Akash Palkhiwala {BIO 19085180 <GO>}

Hi, Stacy, it's Akash. Yeah, so on the 1.8 billion that there again there are two components to that -- to that amount, one is the settlement of our previous agreement and it really captures the period since the entire dispute period that we had with them. And second component is the first six months of calendar 2020. So that total adds up to the 1.8 billion.

It is additive to the two previous shorter-term agreements that we had with them. The total amount of those agreements was approximately \$1.2 billion. So it's really 1.2 and 1.8 as a total additive number for the historical. And then going forward, we'll -- you see it in our forecast for the September quarter. And really, as I said in my prepared remarks, we -- these terms are very consistent with the overall framework of our licensing program. So, it's what you would expect given other OEMs and overall licensing program terms.

And then revenue per MSM, I think your math is a reasonable way of thinking about it, it's really the 1.5x, which is what you are using is the framework we use to think about it as well. The one thing I would maybe caveat is your calculation assumes a 100% 5G. So obviously it's going to take some time to get there and so there will be a curve into it.

Operator

Thank you. The next question comes from the line of Rod Hall with Goldman Sachs. Please proceed with your question.

Q - Ashwin Gupta {BIO 19894720 <GO>}

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Hi, thanks for taking my question. This is Ashwin on behalf of Rod. Akash maybe this for you, you mentioned about 5G flagship phone delay and its impact on your QCT, but I was wondering if you could help us understand how you thought about it, it's backed on QTL. And in the past like with Samsung got delayed, it had an impact not just on Samsung, but overall handset market. So just wondering, if you could give us some color there. And sort of related, well, not exactly related, but my second question is on the June quarter units for better and a QTL units for better and you sort of site that to the improvement in China, but I was wondering if you could talk about trends outside China and where you potentially saw some strength in the overall market?

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah, so, I'll maybe start with your second question. In the June quarter what we saw is strength across China and developed markets, it was kind of broad-based across the developed market landscape in addition to China. China, obviously, as I'm sure you're aware, extremely strong numbers. And what it was offset by weakness in certain emerging markets. So that's kind on the trade-off -- trade-off that we saw between between the various markets.

On your first question on 5G flagship phone launch delay and how that impacts QTL, the - the specific scenario that we are talking about the launch is typically pretty late in the quarter. So it's a much smaller factor for QTL within the September quarter guidance. And we think of it as captured in our total market weakness guidance as a part of COVID. But again, I think it's a much bigger factor for QCT than it is for QTL because the chipset purchases typically happen in large quantities in advance of a launch.

Operator

Thank you. Our next question comes from the line of Timothy Arcuri with UBS. Please proceed with your question.

Q - Pradeep Ramani {BIO 19683324 <GO>}

This is Pradeep Ramani standing in for Tim. I guess my first question was around your the QCT adjacencies, autos, IoT and so on. Did they do better than last quarter and are they sort of approaching now roughly \$1 billion in the quarterly run rate. Can you just provide some color on that. And then I have a follow-up.

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah. So overall the way our adjacencies have been performing we've been pretty happy with it actually. There are certain markets that we are in that definitely benefit from COVID and the work from home environment. We have the mobile broadband market, the 5G and 4G CPE and Dongles market, all of those have done extremely well. WiFi, we're very large player in WiFi and clearly with demand for improved connectivity within the home as people work from home that has been pretty strong spot for us as well.

And then overall IoT is also continuing to see strong traction. So when you look at all those markets which make up kind of the broader IoT category for us, a lot of strength

across the board. Auto obviously got impacted as a part of just what the industry is going through. But really within auto, a lot of our products are forward leaning which is focusing on new launches and the demand for connectivity and infotainment really hasn't changed fundamentally. So while we are seeing an impact, it's probably a smaller impact than a lot of other peers are seeing in the industry as well. So those -- that's kind of the landscape of our adjacencies.

Q - Pradeep Ramani {BIO 19683324 <GO>}

Okay. And as my follow-up, when we think about your 5G opportunity especially on the RF front, are you sort of gaining share, is your share gain largely driven by millimeter wave or -- or are you sort of gaining share across the board. And can you maybe sort of speak to just your broad 5G share versus 4G share I mean beyond just the 50% driven ASP.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Hi. This is Cristian Amon, yes we, on the RF front end especially as this is a growth market for us, is a new entrant. We are seeing share gains and we have been very clear our strategy to really scale in RF front end. We'll be using 5G as entry point. And as we continue to gain traction for 5G, we're getting designs across sub-6, across millimeter wave and started to get some traction within 4G RF front end content as well. And we expect that to continue to be a positive trend of attached to our baseband because of our modem to antenna differentiation at the system level.

A - Akash Palkhiwala {BIO 19085180 <GO>}

And this is Akash, just to add a couple of quick points. As I said in my prepared remarks for the September quarter, we are expecting RF front end revenue of approximately \$750 million. So very happy about getting to that milestone. And really as we outlined previously, our target is to grow to approximately 20% share of the RF front end market. And so between that data point and really the forward traction that Cristiano talked about, we feel very comfortable in being able to hit that target.

Operator

Thank you. Our next question comes from Brett Simpson with Arete Research. Please proceed with your question.

Q - Brett Simpson {BIO 3279126 <GO>}

Yeah, thanks very much. Two questions, let me just first on Huawei -- the settlement. Can you talk about how much of the 1.8 billion is going to be cash in the September quarter. And then, if I look at the licensing with Huawei before the dispute, I think with the SAP licensee, maybe you can confirm that. And I'm just wondering with the settlement, are they still a SAP licensee or have they taken a full clap on license and what sort of licensing PD the agreement is going to cover.

And then second question maybe for Cristiano, on automotive. I think it was a year ago when you last spoke about your backlog at about \$5.5 billion. Can you give us an update on the backlog for QCT and how we should think about the ramp up here with 5G and

what's a content per car is QCT now able to address. And maybe also for QTL, how do we think about automotive, clearly there's going to be a big push with BTEX and 5G is going to be a big licensing opportunity for Qualcomm, we haven't seen any license deals from automakers on 5G specifically. So how should we think about that going forward. Thank you.

A - Alex Rogers {BIO 19966795 <GO>}

This is Alex. In terms of the Huawei, obviously the terms are confidential and Akash has already talked about the financials to the extent that we can. As we've mentioned in the disclosures, we have an agreed-upon payment schedule with respect to amounts that relate to the prior license period. This is a long-term deal, a broad agreement with the license back to certain Huawei patents. And so we're very happy with the deal. Your question on automotive, we've actually had quite a long-standing automotive licensing business in the 3G, 4G space for a decade or so. And so we're transitioning into licensing for 5G, but essentially we've been licensing in automotive for quite some time. And so that's also reflected in our revenue.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Hi, so Brett -- this Cristiano, let me answer your question on automotive business. So why we're not providing an update right now on the backlog for the design wins, I will talk about some of those trends. I think we continue to see that increasing for us, especially as the automotive industry, it's impacted by the current pandemic. I think more and more we're starting to see even higher interest in moving the programs of bringing more electronics and a digital cockpit transformation within the car. So we continue to gain traction, continue to get incremental design awards and we're very happy about how that automotive business is growing for us.

So we think in regards to the content, we have been now really focused on the telematics unit for the connected car, the digital cockpit transformation that includes content for the infotainment, the rear seat entertainment, dashboard and smart mirrors and connectivity across our WiFi and Bluetooth, we're just in the beginning of ECU for ADAS, but most of the silicon content is really within the digital cockpit transformation.

A - Akash Palkhiwala {BIO 19085180 <GO>}

And Brett on your question on the design win pipeline, we're not providing an update at this point. But the last number we have disclosed is greater than \$7 billion design win pipeline.

Operator

Thank you. Our next question comes from the line of Srini Pajjuri with SMBC Nikko Securities. Please proceed with your question.

Q - Srini Pajjuri {BIO 5862807 <GO>}

Thank you. I have a couple of questions, first on the ASP, obviously, nice improvement last few quarters. I'm just curious Akash as we go into the next couple of quarters, obviously,

your modem mix will increase. I'm just trying to understand how that might impact your ASPs, as well as margins. And then I have a follow-up.

A - Akash Palkhiwala {BIO 19085180 <GO>}

Yeah, so I mean at this point we're not really kind of guiding specific ASPs and margins through fund specific product. So I think it's probably best to go back to the broader framework and broader discussion we had on the ASP trend, I think that still holds true even with your question. And then -- and I think margin trends also the same applies. So I think it's rather than talk about a specific socket at the broader -- broader trend is still accurate and that's probably the best way of thinking about in.

Q - Srini Pajjuri {BIO 5862807 <GO>}

Okay, fair enough. And then maybe for Cristiano, just trying to get a better handle on the competitive landscape, Cristiano. So, obviously, with the situation with high silicon, I'm guessing, you have one less competitor going forward. Just curious, if you could look -- if you could kind of talk about the modem competition between you and MediaTek and others, kind of compare that and contrast with at this stage in 4G cycle, what are some of the similarities and differences you're seeing and what do you expect going forward.

And then that also relates to my margin question longer-term and this is a business you're running it like close to 5 billion run rate. And I'm not aware of any other semi company at this scale running at below 20% margin. So I'm just trying to understand what the potential margin longer-term margin potential for this business is and how the competitive landscape is shaping up in 5G. Thank you.

A - Cristiano Renno Amon {BIO 3259554 <GO>}

Hi. This is Cristiano, thank you for your question. All right, let me just start with the competitive landscape. We always said in the smartphone mobile space a lot of competition has been probably one of the most competitive segments within semi. And we feel very good right now especially given the complexity on 5G, given the opportunity for us to move faster to different releases of this technology as it go beyond smartphones into other industrial use cases and the ability to have RF front end differentiation.

And I think it's showing now when we think about our design traction. We started being first to market with 5G of our 660 designs right now, 570 of those designs are based on our second-generation. And then our third generation I think prevents your product we kind of indicated over 165 design. So we're seeing our leadership propagate from one design to the other including with the attach of RF front-end.

So we're very happy about that. We expect that more as -- as many of our customers especially in China Companies like Vivo, Oppo and Xiaomi continue to grow outside China, I think more demand for global solution like Qualcomm will increase our differentiation abilities and that's also true as 5G goes to other industry. So we feel much better about the differentiation of our 5G solution, compared to 4G. And as far as margins, I think we have been consistent, 5G provides significant growth for us in

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expansion of earnings and we are approaching our long-term operating margin target for QCT and we're on track to get that.

Operator

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

A - Steve Mollenkopf {BIO 16172191 <GO>}

Yeah, just, thank you for the -- to the employees for their hard work and obviously that's been unusual circumstances. And so I appreciate very much the hard work has been happening. It's great to see the strategy we laid out result in such a positive traction for the business. Thank you to all of them who worked on the Huawei deal, it's great to get that behind us and look forward to giving an update in the quarter. Thank you, everybody.

Operator

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

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