Thank you and good afternoon. Today's call will include prepared remarks by Steve Mollenkopf, Derek Aberle and George Davis. In addition, Cristiano Amon and Don Rosenberg will join the question-and-answer session. You can access our earnings release and an executive presentation that accompany this call on our investor relations website. This call is also being webcast on Qualcomm.com and a replay will be available on the website later today.

During this conference call, we will use non-GAAP financial measures as defined in Regulation G and you can find the reconciliations to GAAP on our website. As well, we will make forward-looking statements regarding future events or the future business or results of the Company. Actual events or results could differ materially from those projected in the forward-looking statements. Please refer to our SEC filings, including our most recent 10-Q which contain important factors that could cause actual results to differ materially from the forward-looking statements.

I'd also like to remind you that our Analyst Day will be held on Thursday, February 11 at our headquarters in San Diego. To attend in person, you must be a financial analyst or institutional investor. The analyst meeting will be webcast for those of you unable to attend in person.

And now to comments from Qualcomm's Chief Executive Officer, Steve Mollenkopf.

Steve Mollenkopf

Thank you, Warren and good afternoon, everyone. We delivered a stronger than expected quarter, with earnings per share coming in above the high end of our initial guidance, driven by strong 3G/4G device sales and lower operating expenses in QCT.

QCT chipset shipments were near the high end of expectations, with low tier strength across OEMs particularly in China, offsetting some weakness in thin modem sales at a key customer. QTL revenues were higher than expectations on strong 3G/4G device volumes and ASPs and we continue to make progress in signing up Chinese licensees, although there is still more work to be done on that front.

During the quarter, we also returned approximately $2.8 billion to stockholders through dividends and stock repurchases which included the completion of the incremental $10 billion in stock repurchases we announced last March. This $10 billion is over and above our commitment to return a minimum of 75% of free cash flow to our stockholders.

We're also very pleased to have announced an agreement to form a joint venture with TDK to enable the delivery of RF front-end modules and RF filters into fully integrated systems for mobile devices and other IoT applications. Once closed, we will add TDK's capabilities in micro-acoustic RF filtering, packaging and module integration technologies to our RF 360 portfolio to offer leading-edge RF solutions in fully integrated systems that we believe will provide significant advantages in performance and time to launch across our Snapdragon product tiers.

The deal is expected to close in early 2017 and is forecasted to be accretive to non-GAAP earnings in its first year. We have a strong pipeline of new RF front-end products, including new generations of our envelope tracker, antenna tuner, switches and CMOS and gallium arsenide PAs. Our gas PAs are anticipated to enter production in 2017.

In addition, we continue to deepen our level of cooperation with an investment in China. We just announced a cooperation agreement with the province of Guizhou, including the formation of a joint venture that will design, develop and sell advanced server chipset technology in China. This builds on the announcement we made in October, detailing the availability of our server development platform which is now sampling to tier-one cloud customers and the strategic partnerships we have established with Xilinx and Mellanox. We continue to make good progress on the elements of our strategic realignment plan and are on track to achieve our cost-savings targets.

I would also like to welcome Jeff Henderson to the Board. Jeff brings extensive financial and operational management experience to his position as an Independent Director, including 10 years as CFO of Cardinal Health and past automotive industry experience. Following our annual meeting in March, assuming our slate of directors are elected, our Board size will be reduced to 12 members and the average tenure will be reduced to approximately five years.

I would also like to congratulate Cristiano Amon on his promotion to President of QCT. He provided exceptional leadership over his 18 years at Qualcomm and will play a critical role in expanding QCT's road map, enhancing our customer relationships, structuring our efforts for success in our adjacent opportunities and positioning the business for long term success.

On that note, we continue to be pleased with the performance and design traction of our Snapdragon 820 processor.

The first product announcement based on the 820 occurred at CES and we expect a number of exciting launches in the first half of this calendar year, including many at Mobile World Congress. We now have more than 100 design wins based on the 820 and the product is entering mass production using 14 nanometer LPP technology.

At the Consumer Electronics Show earlier this month, it was clear that many industries are looking to leverage mobile technology into their products and businesses are looking to the leaders in communications and computer systems, such as Qualcomm, to make the world more connected and smarter. Our many announcements at the show reflect our progress extending Qualcomm technology into adjacent and new areas, including automotive, IoT and networking.

In auto, we announced that Qualcomm Snapdragon 602A processors will be commercially available in 2017 Audi vehicles. We also introduced our next-generation Snapdragon 820 automotive processor, as well as several other products, including our wireless charging technology. For IoT, we announced a smart home-reference platform using the Snapdragon 212 processor, the new Qualcomm aptX HD solution for high-resolution audio over Bluetooth, a new Bluetooth smart SOC, the first commercial drone based on the QUALCOMM Snapdragon Flight platform and the Snapdragon X5 9X07 LTE modem which broadens our family of modem solutions for IoT.

In networking, we launched Qualcomm Wi-Fi SON which is a self-organizing network solution, to simplify Wi-Fi networking and optimize user experience. And we showed significant traction in multiband Wi-Fi 802.11 AC and 11 AD, enabling products across multiple segments.

As we did in both 3G and 4G, we're leading the industry in the development of a unified, more capable 5G platform that will take on a much larger role than previous generations and deliver new levels of efficiency. The foundation of this platform is an OFDM-based unified air interface, that will not only enhance mobile broadband services, but also enable connectivity for the Internet of Things and new types of mission-critical services that require lower latency, higher reliability and robust security. 5G will also include native support for advanced technologies, such as the use of unlicensed spectrum, multicast and device-to-device capabilities. We're pioneering these technologies today with our leadership in LTE Advanced and LTE Advanced Pro. These new technologies are paving the way for 5G and accelerating our path to a truly connected future.

Overall, we're pleased with our progress on key initiatives, execution of the strategic realignment plan, design traction for the Snapdragon 820, refreshing the QCT road map across tiers, broadening our presence in adjacent opportunities, progress on new licensing agreements in China, execution of our data center strategy and advancements that will extend our technology leadership position. I want to reiterate that we remain focused on execution to improve our financial trajectory, exiting the fiscal year.

Our industry and Company are undergoing rapid changes and we're enthusiastic about the opportunities ahead. We're extending our leadership in mobile and are driving our mobile technologies and core competencies in communication systems and high-performance low-power computing into significant new areas. We have taken action to enable us to seize these opportunities, while delivering improved performance.

I'm optimistic about the future and have great confidence in our employees to execute on our strategies and drive growth. I look forward to seeing many of you at our upcoming Analyst Day and would now like to turn the call over to Derek Aberle.

Derek Aberle

Thank you, Steve and good afternoon, everyone. QTL had a strong fiscal first quarter, with total reported device sales of $60.6 billion which was above expectations on both higher ASPs and reported units, as well as some catch-up reporting from recently concluded license agreements in China. QTL revenues in the quarter were higher than expectations and would have been even higher if not for a contract dispute with LG that resulted in us deferring revenue of more than $100 million for the quarter.

Although LG continues to report and pay, we're not recognizing revenue while the arbitration regarding the dispute proceeds. We believe LG's claims are without merit. The deferral of this revenue has the effect of depressing the implied royalty rate as you would calculate it, as their shipments are included in total reported device sales without the corresponding revenue. Assuming we conclude this matter successfully, as we have done with others in the past, we would expect to recognize the deferred revenues at that time.

Looking ahead, the outlook for global 3G/4G device shipments continues to be strong. With respect to smartphones in particular, there continues to be a significant opportunity for Qualcomm. LTE penetration is only 14% of cellular connections globally and smartphone unit shipments are forecast to be more than 8.5 billion from 2015 through 2019, according to GSM Intelligence and Gartner.

Calendar 2015 global 3G/4G device shipments are largely in line with our prior expectations, driven primarily by migrations to 4G in China, partially offset by some recent weakness in developed regions. We continue to estimate that calendar 2016 global 3G/4G device shipments will grow approximately 10% at the midpoint, driven primarily by the migration to 3G/4G devices in emerging regions, with particular strength in India.

Our estimate for premium tier shipments is down slightly versus our prior view, driven by slower-than-expected sell-through at a large OEM. But that is offset by a slightly stronger outlook for emerging region shipments. We continue to expect low single-digit growth in global 3G/4G device sales in FY '16, as unit growth more than offsets ASP declines. We will provide further color on our long term outlook for the 3G/4G device opportunity at our upcoming Analyst Day.

Now let me provide an update on our progress with licensing in China. We're continuing to aggressively seek to conclude new license agreements on the NDRC terms with the remaining Chinese OEMs and improve compliance. We're making progress with these negotiations and recently concluded new agreements with Xiaomi, Haier, QiKu and Tianyu. These agreements include royalty-bearing licenses for three-mode devices and contain terms that are consistent with the terms of the rectification plan submitted to the NDRC. Having said that, we still need to conclude agreements with a handful of key Chinese OEMs and those negotiations continue.

Our progress and our ongoing interactions with the NDRC and other parts of the Chinese government continue to give us confidence that we will be able to conclude agreements with the remaining key OEMs. While we're working to conclude new license agreements and improve compliance through commercial negotiations and audits, we're prepared to enforce our agreements and take other actions against certain OEMs that are not negotiating in good faith, underreporting royalties or refusing to conclude agreements in the near term.

Turning to our outlook for FY '16, we continue to expect QTL's revenues to be in the range of $7.3 billion to $8 billion. Although additional risk has been introduced as a result of the new LG dispute, given that it could be resolved outside of FY '16. In conclusion, although we're seeing some near term softness in the premium tier, the sales of smartphones remain healthy and should continue to grow. We remain confident that we will be able to resolve the dispute with LG, conclude new agreements with the remaining key Chinese OEMs and improve compliance over time.

That concludes my comments and I look forward to seeing many of you at our upcoming Analyst Day. I will now turn the call over to George.

George Davis

Thank you, Derek and good afternoon, everyone. Our first quarter results reflect a strong quarter relative to November guidance and are consistent with our update a few weeks ago. Fiscal first quarter revenues were $5.8 billion and non-GAAP earnings per share were $0.97, $0.12 above the midpoint of our original guidance. The outperformance primarily reflected stronger revenues in our licensing business and accelerated cost reductions in QCT.

We also benefited at the end of the quarter from the permanent reinstatement of the R&D tax credit, impacting non-GAAP earnings per share by approximately $0.01 to $0.02. In QTL, higher-than-expected ASPs and shipments led to stronger revenues at $1.6 billion and more than offset the dispute impact in the quarter.

Total reported device sales include some reported devices without the corresponding revenue from the LG dispute that Derek described, as well as some deferred three-mode revenues. QCT shipped 242 million MSMs, with revenues of $4.1 billion and operating margin of 14%, reflecting stronger-than-expected demand in the low tier, particularly in China, partially offset by lower-than- expected shipments of thin modems.

For the Company, non-GAAP combined R&D and SG&A expenses were lower than our expectations, decreasing approximately 2% sequentially, reflecting an acceleration of some of our SRP cost initiatives originally forecasted to be taken later in the fiscal year. Operating cash flow was strong at $2.7 billion or 47% of revenue for the quarter and we returned $2.8 billion to stockholders in the form of dividends and buybacks.

As of the end of the fiscal first quarter, we had approximately $4.9 billion of our stock repurchase authorization remaining. Our non-GAAP tax rate was 17% in the fiscal first quarter and we now estimate that our FY '16 non-GAAP tax rate will be approximately 18%, including the impact of the permanently reinstated R&D tax credit, down from our previous estimate of 19% to 20%.

Now turning to FY '16, for QTL, we're not modifying the prior $7.3 billion to $8 billion revenue range for the year. However, that range did not anticipate deferral of revenues related to the LG dispute. While we're working hard to resolve this dispute and believe their claims are without merit, it is possible that the resolution will not occur in FY '16. In this case, the deferral of the LG revenue outside of the fiscal year could impact the range by several hundred miIlion dollars.

In QCT, we continue to expect improving trends in the second half of the fiscal year on new product traction. We also continued to expect to achieve a QCT operating margin of 16% or better in the fiscal fourth quarter.

We remain on track to meet the spending reduction objectives under the strategic realignment plan and now expect at least $700 million of savings in FY '16 and to exit the year at a savings run rate of $1.1 billion. We expect FY '16 non-GAAP combined R&D and SG&A expenses will be down approximately 2% to 4% year over year, down an additional 1% at the midpoint on earlier capture of cost savings relative to previous estimates.

Turning to our guidance for the second quarter of FY '16, our outlook reflects a seasonally strong December quarter for 3G/4G device shipments for QTL and the seasonally lower first calendar quarter MSM shipments for QCT. Consistent with last quarter, our guidance does not include a forecast of potential revenue from signing new license agreements in China and we have excluded estimated revenue from LG as a result of the dispute.

We estimate revenues to be in the range of approximately $4.9 billion to $5.7 billion and non-GAAP earnings per share to be in the range of approximately $0.90 to $1 per share. We anticipate fiscal second quarter non-GAAP combined R&D and SG&A expenses will be down approximately 2% to 4% sequentially, reflecting continued progress on our SRP initiatives.

In QTL, we estimate total reported device sales of $65 billion to $73 billion will be reported by our licensees in the March quarter for shipments they made in the December quarter, up approximately 14% sequentially at the midpoint, reflecting the seasonal strength of the holiday quarter. If the dispute-related units continue to be reported and the matter is not resolved during the quarter, then we could again see units included in PRDS for which revenue would not be recognized.

Also in QTL, we're expecting a one-time benefit of approximately $250 million in revenue in the fiscal second quarter, based on termination of an infrastructure license agreement that resulted from one of our licensees acquiring another one of our licensees. This was partially offset by the end of a multi-year amortization of approximately $100 million in quarterly license fees. These events were expected and contemplated in our prior guidance.

In QCT, we expect MSM shipments of approximately 175 million to 195 million units, lower sequentially, reflecting seasonal trends, somewhat exaggerated by an above seasonal decline in demand for thin modem products. We also see some modest negative impact from mix shift across OEMs and devices in China.

We expect revenue per MSM to be higher quarter over quarter, reflecting stronger mix, including a lower mix of thin modem shipments. And consistent with our prior guidance, we expect QCT's fiscal second quarter operating margin percentage to be in the low to mid-single digits.

That concludes my comments. I will now turn the call back to Warren.

Warren Kneeshaw

Thank you, George. Operator, we're ready for questions.

Question-and-Answer Session

Operator

[Operator Instructions]. Your first question comes from the line of Mike Walkley with Canaccord Genuity. Please go ahead.

MikeWalkley

George, just following up on the QTL guidance, is that $250 million from the merger of your infrastructure customers, is that included in the guidance? I just wanted to clarify that. And then overall, longer term, as you look at QTL with the royalty rate and more three-mode devices coming in, Derek, can you just help us think about maybe the implied royalty rate going forward? That would be very helpful.

GeorgeDavis

Sure, hi, Mike. This is George. Yes, the $250 million is included in the guidance. And remember, it is netted against the expiration of about $100 million a quarter from a previous multi-year agreement. Mike, this is Derek. On the implied royalty rate question, I think there are so many moving pieces on this, but let me give you a high-level view. I think there's going to be some lumpiness as we go forward just in terms of catch-up units coming in and some of those will be three-mode units for prior periods, as well as then as licensees start reporting more three-mode, that will put some pressure on the rate.

Although, actually what we're seeing in the market in China is more of a shift to five- and six-mode devices and away from three-mode devices. And so a lot of the design traction has moved and I think as you go into the second half of 2016, we will probably start seeing, as a percentage of units in China, a reduction in the amount of three-mode on a go-forward basis.

Operator

Your next question comes from line of Tim Long with BMO Capital Markets. Please go ahead.

TimLong

Just sticking on the royalty rate and the QTL business, Derek. First, I just wanted to make sure I understand. I guess there's the moving parts, but if the LG is a little more than $100 million and that number still seems like the calculated number would be 10 or 15 basis points under 3. So is that -- do we have a new reset to rate there or is there something else that dragged the number in the quarter down? And then, the unit numbers, the paid units were pretty good above what we've seen as normal seasonality. Can you break down for us how much of that was catch-up? Or maybe how much of that was contribution from some of these new deals that have been signed recently? Thank you.

DerekAberle

On the rate, there's a few things affecting it in the quarter. We gave $100 million, we said more than $100 million and so we're not being entirely precise on that number. So I think you need to be a little bit careful about just taking it to the $100 million. But we also had some catch-up units come through in the quarter, for which we didn't have revenue in the quarter, given the structure of the deal in terms of when it's going to get paid out. That revenue we expect will come in in future quarters, so that's also having a drag.

So you have got the disputed TRDS, as well as this three-mode element that is collectively putting some pressure on the rate. There are catch-up units in the quarter. I would say that they are not a huge contributor, but they are probably less than about 20 million units for the quarter.

Operator

Your next question comes from the line of Kulbinder Garcha with Credit Suisse. Please go ahead.

KulbinderGarcha

Can you just maybe talk through the drivers of the QCT modern decline into the next quarter? It seems like quite a severe drop. I know there's seasonality, but we haven't observed it to be that volatile in the past. That's the first question on QCT. And on QTL, Derek, maybe thinking about it another way, it looks like now, if my math is right, you've signed with vendors all -- with the new terms that account for almost 50%, 60% of the Chinese smartphone market.

And I would've thought at some point, the increasing compliance in China will drive an uptick to the QTL revenue profile. It doesn't seem to be doing that, even if I take out the impact of LG this year. So how should we think about the future compliance of more vendors you want to sign up? Should that QTL revenue [indiscernible] reflecting that or are there other factors at work that we should think about this year? Thanks.

GeorgeDavis

So on the margin decline quarter over quarter and again as a reminder, we actually guided this at last quarter's call as well. As you see, the big seasonal pull back in volumes and the mix change that we see, that has both an absorption of OpEx issue and a gross margin reduction element to it. And the combination of those at this level of revenue pulls it down to our forecast. I will say, as we've talked about, we see those dynamics actually reversing themselves and actually providing momentum into the back half of the year in terms of margin improvement. And we still see getting to 16% in Q4 in QCT.

DerekAberle

Again, I think you got to break down the TRDS picture in China. There's really three elements. One is the underreporting which I think is largely referred to as the compliance issue. Then there is three-mode volume that is unlicensed and we're working actively to get companies signed up so that they start paying on three-mode. And then the third thing that we talked about last quarter were actually a small number of companies, but actually meaningful in size that had actually started withholding reports and payment of licensed non-three-mode units. And so as we conclude new agreements with those companies, you'll see a meaningful improvement in the run rate collection because there also tend to be some of the larger three-mode players in China.

So you will capture the three-mode, plus you'll get them back reporting on the non-three-mode which will leave you really with this compliance question which will still be something we need to work through. But those two, I think it's really a relatively small number of companies that need to get signed and you'll see a pretty material improvement in the run rate in QTL.

Operator

Your next question comes from the line of James Faucette with Morgan Stanley. Please go ahead.

JamesFaucette

I just had a couple of questions related to royalty collections. First, in the contract dispute with LG, can you give a little color there as to is this at all connected to the KFTC process within Korea? Or is resolution somehow of one dependent on the other? And then along those same lines, maybe if you could give any update on your engagement and progress with the different governments that are looking at Qualcomm's practices in Korea, Taiwan and the EU? Thank you very much.

DerekAberle

I will take the first part of that. Really the dispute we have with LG is really unrelated to the issues that are before KFTC. We've had this throughout the history of the licensing program. It is just part of the business that will from time to time have disputes with our licensees. This is really a contract dispute under their agreement similar to a number of the ones we've had in the past which we have resolved successfully for the Company. And we feel very firmly that we're going to be able to do that again here. And so there will be a question of timing.

We decided for now not to adjust the QTL revenue guidance for the year, because we still have three quarters left to resolve it. And we think there is a chance that that can happen. If it goes all the way through the arbitration process, that will likely push it outside the fiscal year. But we feel very good in our position and again, we've been through a number of these in the past and they have worked out well.

DonRosenberg

In terms of the more color on some of the regulatory issues that we're dealing with, not much more color we can add other than to say our licensing model, as you know, has been in effect for quite a few decades. It's been modeled after others. Everybody in the industry follows the device-level licensing, for example. And we're very confident in the chances of trying to convince regulators that this model has not only been effective, but has enhanced competition.

We have through our licensing model of sharing our intellectual property, I think we have broadened the field and our immense investment in research and development and the core technologies which we patent and then share I think has contributed to the growth of this industry. And hopefully, we will be able to demonstrate that as we go through these regulatory matters.

Operator

Your next question comes from line of Rod Hall with JPMorgan. Please go ahead.

RodHall

I got a couple. First one I wanted to ask you, you talked about -- you said less than 20 million catch-up units in the quarter. I wonder if you could talk a little bit about the potential timing of catch-up in China and what the outstanding unit number looks like. We have our estimates, but it would be nice to get some indication from you guys. And then I also wanted to talk a little bit about QTC margins again. Two questions within that. One is, can you give us some idea of what the fixed cost level there is? And should we be looking at fiscal Q1, fiscal Q2 and that margin move as some indication of where that number is?

The second question I had is those margins are pretty strong in Q1 and just wondered if you could talk a little bit about what is going on underlying that since the mix was shifted to the low end. I would've thought that would drag margins down, but they were actually quite strong. So could you just comment on that? Thank you.

DerekAberle

On the catch-up units and compliance, we've -- we gave some color on that in-- for the full-year FY '15. And if you looked at the delta between what we gave as the global device sales and the reported device sales, it was about 9% or $25 billion. So that was the range for 2015. For 2016, it's really going to be dependent, I think, highly on the timing of getting these additional agreements signed.

The underlying underreporting by licensees that have agreements, I would say has largely been in line over the last couple of quarters. It's not materially improving or worsening; it's really been more the dynamic of the people that have withheld payment and reporting which will get resolved upon signing the agreement. So I think the rough-sizing that we gave for 2015 with that color hopefully will get you there.

GeorgeDavis

On Q1, I think one of the things that you saw was better performance by QCT, particularly on OpEx pulling in some of the cost savings earlier into the year which actually helped that margin and improved that margin relative to our expectations going into the quarter. I would say that some of that has narrowed. In terms of the OpEx improvement quarter over quarter, you're not getting quite the move.

So on lower revenue, OpEx as a percent of revenue is obviously going to weigh on the margin. And then of course, you just have the natural gross margin impact when you see a big seasonal adjustment in units and that's really what we're seeing. So nothing more than that and again, those things tend to reverse themselves, as I said earlier, in the second half of the year.

Operator

Your next question comes from the line of Simona Jankowski with Goldman Sachs. Please go ahead.

Simona Jankowski

Another question on the royalty rate, I just wanted to clarify again of the 2.65% implied rate in the quarter, if you took out the one-off impacts like the catch-up of the China licensees as well as the LG, what would that number have been? And then once we get past the March quarter and that one-time $250 million benefit from the infrastructure merger, did I understand you correctly that there is going to be a $100-million impact on the royalty rate collection on a go-forward basis past that? So effectively about a 15-basis-point hit to the implied rate? And then I have a follow-up.

Derek Aberle

So I think last quarter, basically what we said about the implied royalty rate for the year, we said, listen it's going to be highly dependent on the timing of signing up some of the new agreements in China and moving people over to the CPLA rates. But on balance, we expected it to be down modestly for the year. So I would say if you adjusted for the impact of the disputed revenue and the reported sales in the quarter that didn't have revenue coming along with it because of the catch-up units, we would be broadly in line with that.

You are correct, that once this amortization of the $100 million expires that will come out. We've talked about the fact that we have license fees and those are amortized over a period of time. So once those go way, that will become a drag. But that was anticipated. And so when we gave the color of what we expected the rate to do for the year with all of the moving pieces in mind, that was factored in.

Simona Jankowski

Okay, so the clean rate for the quarter was something close to 3%. And then looking out a couple of quarters, like for like, it would come down to something like 2.8% once you remove the infrastructure amortization.

Derek Aberle

Yes, that is generally correct. I would say that the second part of your question, it would imply no other changes. But we do think that there is some other things that could potentially play out throughout the year that would be a positive bias on the rate. So I think that's maybe the piece you're missing. But otherwise, I think that's generally right.

Simona Jankowski

Okay, understood. And then just a quick separate question was on the comment about your server chips sampling with the tier-one hyperscale customers. When would you expect to see production volumes? And when would you expect that to be something that can move the needle for QCT?

Derek Aberle

When we first started talking about this, we were pretty clear that we're going to be in investment mode for a period of time here before this becomes a meaningful contributor. We're very positive on the signs we're seeing, both in North America with the large cloud players, as well as in China. And so you'll start seeing some shipments within probably the next year or so. But really, when you think about it as a contributor, it's going to be out a few years.

Operator

Your next question comes from the line of Timothy Arcuri with Cowen and Company. Please go ahead.

Timothy Arcuri

I had two the first one is on M&A. Obviously, you have a lot of offshore cash and I just wanted to get your opinion. I think that the TDK deal was great, but I wanted to get your opinion on maybe something bigger, some sort of transformational deal that maybe you could do in QCT. So, just wanted to get your general thoughts there.

Steve Mollenkopf

Sure Timothy, it's Steve Mollenkopf. The way we think about it is we obviously have the ability to execute on something like that. We don't feel like there's really a gun to our had to be able to have to do it. We feel we have a good growth path. But we're pleased to be able to return the cash that we have and will continue to do and have options to do that. As the industry consolidates, I think we're going to consider ourselves to be getting in a stronger position versus a weaker position to be able to take advantage of that trends that I spoke about it my script. So, we feel like we're in a good spot, but we don't feel like we have to do something in order to grow.

Timothy Arcuri

And then a question for George, on the 185 million MSMs in March, can you give maybe a sense in terms of how many of the new design wins for 820 are included in that number? Or is that more of a June event? Thanks.

George Davis

Yes, I can't give you the specifics too much on that. But what I can tell you is that we really see the 820 as more of a second half. We certainly see that we'll be shipping some devices in the latter part of this quarter, but it's really going to be more evident in the second half of the year. And maybe Cristiano, I'll let you jump in on that. It's -- we're seeing more -- it's more -- I would say Q2 is more of a strong season effect with an exaggerated effect, as I said in my prepared remarks, on thin modem.

Cristiano Amon

Just one comment, I think it's very optimistic about the 820 design traction. Right now, we're supporting key flagship designs through care recertification, then volume ramp will happen the second half of FY '16.

Operator

Your next question comes from line of Tal Liani with Bank of America Merrill Lynch. Please go ahead.

Tal Liani

Just one clarification before my question, you said in response to what Simona asked you, you said that there are positives on the rate that could come through the rest of the year. Outside of LG coming back, is there any other positive on the royalty rate that could -- any other positive that could impact the royalty rate? So that's question number one. Question number two is about the implications of 820 in the second half of the year. Can you discuss the implications on margins and the implications on ASPs? I think the ASPs are quite straightforward. But the question is, when you start ramping 820, does it have positive implications on margins right from the beginning? Or to the contrary, it has negative implications at first until you ramp to a certain level or you expense certain expenses and only then it goes up? Thank you.

Derek Aberle

On your first question, there are couple of things. Really the primary positive driver would be OEM mix. So share gain by companies that are paying a higher running royalty rate than others and we think there is some potential for that as the year progresses.

Cristiano Amon

On the 820, I think as we said is the volume ramp is going to be in the second half of the year, that's where we go into mass production. But I think we feel pretty good about the 820 and the overall economics. I also think we're on, as we said, on a 14 LPP process node. Another thing to think about [indiscernible] the second half is, we're seeing increased design traction across all tiers, not only the 820, in particular in China because of the acceleration of LTE Advanced which is 4G plus and the all mode that was mentioned by Derek earlier.

Operator

Your next question comes from line of Stacy Rasgon with Bernstein Research. Please go ahead.

Stacy Rasgon

I have two, first on the chipset guide, I know you're pointing to a seasonal effect, obviously driven by -- exasperated by thin modems. At the same time, it's a 24% quarter-over quarter decline, 57 million units. I think this is your biggest sequential chipset decline ever. Can you give us or at least help us parse out the impact of the seasonal effect? Is there any inventory flushing going on? Do you think this is a normal run rate exiting the quarter? How should we be thinking about those other seasonal drivers impacting that guide? And for my second question, you have this $100 million license amortization rolling off. Do you have any other licensees with amortization that's rolling off, say within the next three years?

George Davis

Let me just respond to the chipset guide question. So I would say it, we're certainly seeing above normal seasonality in this quarter, in particular on the thin modem side. We have also seen some OEM mix in China having an effect. But I would say that is a deep third effect to what is a seasonal first, above seasonal in modem and then some modest OEM mix where customers of ours are ceding some share to customers that use other devices.

Derek Aberle

On the amortization question, we have over the years done different kinds of deals, some of which have license fees that are amortized over a period of time. And so there are things that come into the amortization and go out. That's just an ongoing basis, but beyond that, you saw an acceleration of $250 million of license fees that would've been amortized over a longer period of time that will come in next quarter. And those are really the two that we're highlighting this time.

Operator

Your next question comes from line of Tavis McCourt with Raymond James. Please go ahead.

Tavis McCourt

George, just to make sure I have -- the $250 million coming in, that is coming in through QTL, correct? And then, I think you mentioned in the prepared comments outside of the thin modem customer, I forget if the verbiage was you're seeing some strength or least stability in emerging markets in your chipset business. That is not completely obvious to me why that should be typically in a strong dollar environment, handset sales can really get hurt in emerging market. So I'm wondering if you're just not seeing that yet? Or is there some channel inventory issues going on? Or perhaps some market share gains as we exited last year and enter this year. And then a final one for you, Steve, on the TDK joint venture. You mentioned gas PAs and wasn't sure if you were referring to having them sampling in FY '17? Or we should see those in commercial products in FY '17? Thank you.

George Davis

So on the $250 million, that will be reported in QTL. In terms of what we're seeing in the channel, I would say we're not seeing an unusual inventory build like we saw a couple of quarters ago, with the exception, like I said, we're probably seeing a stronger-than-normal seasonal pullback in thin modems. But that's really what I would say is more of the outlier for our quarter.

Cristiano Amon

Just to add a comment, I think when you look at the Q2 $185 million midpoint of the guidance, I think what we said is the China was a very minor impact. It's not any unexpected design change. What it is the mix of OEMs in the marketplace. We saw a slight increase of volume for an OEM that is not used in QCT as a vertical OEM in China, but I think it's very minor. The main thing really is seasonality and the thin modem demand adjustment.

Steve Mollenkopf

This is Steve, just one other additional thing. Really what's driving worldwide unit demand for the products is just the transition to 4G. So you're still only seeing what something like 14% of the market is using 4G now and that continues to be a positive trend for us across tiers. With respect to TDK, the TDK commentary and the gallium arsenide PAs, we will be in production in 2017 and I think comfortably so. So we expect to see products in the market using those PAs in that timeframe.

Operator

Your next question comes from line of Srini Pajjuri with CLSA Securities, please go ahead.

Srini Pajjuri

A couple of questions, first a clarification, George, on the annual guidance for licensing, I'm just curious if LG is impacting only $100 million or is it $100 million per quarter? And then a follow-up to Steve's question or answer on the gas PA and TDK deal. Steve, obviously RF market in general has been growing very nicely over the past few years and some would argue that actually that market is slowing down now. It grew very nicely last two years ago and it is beginning to slow down now. I'm just curious as to why the deal now? What do you see out there that gives you that this is the right time to invest more aggressively in this market?

George Davis

So the LG impact that we talked about of over $100 million is a quarterly number, so the annual impact, of course, is going to be dependent on what their royalty obligation would be for the year, relative to the guidance range. It was not anticipated or included in the $7.3 billion to $8 billion range. So it would be an adjustment to that and it really will be a function of when it is resolved as to what the potential impact would be until then.

Steve Mollenkopf

On the RF front-end business, I think it continues to be a very large TAM that for us, we haven't been participating in outside really largely by our envelope tracking business. And like all of our RF businesses or analog businesses, they are actually, that's a good, profitable business. So our ability to grow that, even within that TAM is, I think a good story for us. Our view of the market is that you're going to need to have all the pieces, filter, module, PA, base fans, switches to really be meaningful as a long term player.

And that that capability will continue to be important, not only in the handset market, but also across all of the connectivity markets that open up as everything becomes connected and certainly in 5G. So we think that's a good set of assets. We will be able to grow that moving forward. We've got some execution to do to prove that. But we feel like we're getting the right pieces and we're going to make it happen.

Operator

Your final question comes from line of Edward Snyder with Charter Equity. Please go ahead.

Edward Snyder

On the same theme on the RF, I think you launched RF 360 in early 2013 and now you've got the TDK [ph] relationship which expands upon that. Should we expect revenue from RF material to consolidate results in FY '17? Or is that something more of a 2018 event? And then with respect to the RF products you're selling now, do you anticipate that you'll be selling these RF modules into solutions that don't use your base -- obviously your solutions that do use base benefits, you would be a natural home for those. But do you think you are intending to reach beyond where you are, your baseband sockets wins move out to general markets? And then a follow-up if I could on makeshift in QCT

George Davis

We will consolidate as soon as we close the transaction, because we will have 51% and effective control from a reporting standpoint. In terms of supporting other devices and other customers, we would anticipate continuing to do that just as TDK does today.

Edward Snyder

Would this show up in one of the existing segments once the consolidated [indiscernible] are you considering breaking it out on its own group?

George Davis

It will be reported in QCT.

Edward Snyder

Okay. And finally, was the mix shift away from thin modems in the December period, was that a major component in this sequential increase in QCT margins? Or was it not really material?

Cristiano Amon

I think George answered that earlier. I think one of the things where we're ahead of the plan of delivering some of the cost savings that we had a part of our strategic realignment plan. I think that has been a key contributor of our stronger margin in Q1.

Operator

This is our allotted time for questions and answers. Mr. Mollenkopf, do you have any further to add before adjourning the call?

Steve Mollenkopf

Sure, I just want to thank everyone for attending the call today. We're executing on the plan to get the Company growing again. We're focused on improving licensing in China. I look forward to the second half of the year as our new products ramp. I also want to remind everyone that we will hold our Analyst Day in San Diego in two weeks, where we will go into more detail on our strategy and priorities. I will close by thanking all of the Qualcomm employees on their hard work and for delivering a stronger-than-expected Q1. Thank you.