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<<Matthew Ramsay, Analyst, Cowen & Company>>

Good afternoon, everybody. This is Matt Ramsay, again from the semi's research team at Cowen. And this is another of our sessions in our 48th Annual TMT Conference. The first one we've done virtually and other than a couple of tiny bumps, it's been a really good experience. So I hope all the investors on the line have enjoyed this forum and have gotten some useful information out of it. We're really happy to be joined by John Forsyth and Thurman Case, the leadership team from Cirrus Logic from Austin, Texas. And John warns me that there's some weather coming through there. So we'll see how that treats us as we go through the session.

But I'm really happy for the guys to join us. It's a company that I've worked with for a really long time and one that I really respect what they're doing from an R&D and organic investment point of view. So yes, well John, if you might want to say a couple of words, just to sort of introduce or reintroduce, what for the current condition of the company and what's going on and I've got a bunch of questions as well that will get through.

<<John Forsyth, President>>

Yes, of course. Thanks a lot, Matt. I'm delighted to be a part of this and look forward to the Q&A. Before we get into that, I'll just say a few brief words about Cirrus Logic, what we're known for, where our expertise lies and the kind of big picture pieces of our strategy. So our focus in R&D and the majority of our revenue has traditionally been focused on audio and most specifically audio around mobile devices. So our expertise in the audio space is really about driving very high performance from very power constrained, space constraint environments.

Our technologies encompass the majority of the audio signal chain. So if you think about a signal coming in from the outside world, when somebody speaks, or there's some acoustic information of some kind that needs to be converted from analog to digital. Then you're often doing a bunch of digital signal processing on the back of that, whether you are identifying words or who's speaking or you're doing noise cancellation. There's a whole variety of signal processing technologies that we leverage there.

And then conversely on the – in the reverse direction on the outbound path or playback path stuff is getting converted from the digital domain, whether that's music or voice or audio of some kind into – back into the analog domain and being driven out through some kind of transducer loudspeaker, for example. And what we're responsible for there is driving that – being able to drive high-quality and really high volumes in mobile devices where the thermal and power constraints are really extreme.

That expertise around advanced mixed signal focused on audio has taken us progressively into other areas where the core competencies we have around leading edge signal processing, deep

sub-micron mixed signal devices is also highly relevant. So one example of that we've seen a significant growth in the past few years is the haptic touch. So the replacement of traditional mechanical controls on mobile devices with a virtual – what we call virtual buttons and the 3D touch – force touch sort of experience that's becoming increasingly common and popular on smartphones.

And in a sense, that it's worth understanding how that relates to Cirrus, because it kind of unlocks, I think a lot of the broader elements of our strategy. It is fundamentally an analog signal, in this case it's touch rather than a sound signal, but it's fundamentally kind of similar. It needs to be converted into digital, some kind of signal processing done on the back of that to determine, okay, was that a touch check, click and how do I respond to that while I drive a transducer in this case, not the loudspeaker, but something called an LRA to simulate the effect of a button click.

And so there's a lot about that, which when you just zoom out at a couple of steps, looks very similar to our core audio technologies. And that has been a driver for our growth, leveraging that expertise into adjacencies like haptics. Increasingly we've been doing that in both the business around our largest customer and in the Android smartphone space. So at this point, a lot of our business is based around audio and haptics in both iOS and Android smartphones. But increasingly over the past year or two, we've talked and I'm sure we'll get into this. Matt, we've talked about the opportunities that we see and some of the milestones that we've started to see in public the sign posts, growth opportunities for Cirrus beyond the handset and beyond audio and haptics in terms of product. So I'm sure we'll get into some of that stuff as we get into the Q&A. But that gives you – hopefully that gives you an overall flavor about where our expertise lies and where we see that we can bring value to our customers.

<<Matthew Ramsay, Analyst, Cowen & Company>>

No. Thanks, John, for the re-introduction and setting the stage for the conversation. For a long time, there's a couple of companies and Cirrus, I think, near the top of that list. And there's no hiding the Apple concentration in the revenue, and sometimes the valuation has reflected that in the stock. But I've always gotten the question of what companies do you think that you sort of admire most of the organic R&D efforts and where maybe the value that the company adds is most? I don't know, disagrees with the stock price the most and your company has come up in that a lot. So I think it's nice to see some of the milestones that guys have outlined to the guideposts going forward, maybe unlocking a little bit more of that value for the stock basically.

So I think you've been a little bit more prescriptive, the company has over the last, I would say, 12, 15 months about what those forward guideposts are in terms of potential content. I know there's a closed-loop controller piece of business that it supposed to come in the back half of this year. And you've also talked about revenue growth potential in terms of content in 2021 and 2022. If you could walk through those again and particularly I think they're interesting because they're in new domains that maybe you've not gotten into in the past.

<<John Forsyth, President>>

Right. Yes. So let me just approach that through thinking about the kind of three biggest growth drivers for us and what we're excited about. One of them has been driving especially boosted amplifiers and haptics into more and more Android devices. One of them has been driving our audio technologies into more categories of devices. So there's only so much audio winning the smartphones themselves, but increasingly in wearables, hearables tablets and so on. We have been pursuing landing our technologies in those devices. We're a little less focused on devices – on other audio devices, which are maybe plugged into a main supply. It's not that we're not relevant there. And we have a number of products deployed in devices and correspond to that. But a big part of our expertise is being able to do what we do running off a battery with an extremely constraint power budget.

So to deliver the best of that value, we were kind of zeroing on devices with really constrained power envelopes. And then the third big growth driver for us has been like, where can we go beyond audio? And how can we deliver benefits of what we're good at to serve our customers in other areas beyond where we have been today? And we've talked specifically about the closed-loop controller, which honestly was never really intended to be a proper noun like that. It was kind of an architectural description of this – of what this thing does. And obviously we're kind of frustratingly vague about exactly what it does and where it sits in the system. And we understand that to some of the investment community and so on, of course there's intense interest.

They'd like to know more about it then I think we can disclose, but we don't go down that route. However, as we said, we wanted to make it clear that we're excited about landing opportunities in new areas that represent we think significant content gains and beachheads for the company to build on as we go forward. So the closed-loop controller that you mentioned Matt, we expect to come in the back end of this year. It's again, it's not in the audio space nor is it in the haptic space, but it takes a lot of that pattern that I described earlier of responding with very, very low latency in a really, really time constraint environment to an external stimulus and then driving something in the real world on the back of that.

And so when you view the world through that lens is like that's a thing you're really good at. It turns out there's a bunch of them around and obviously, your customer has to want to engage with you outside of your core areas. But historically our approach to our biggest customers is to being – to be selective about which customers we engage, where to start with and then make serious deep R&D investments to keep bringing them innovations, to be really responsive to what they tell us they need.

And over time, I think that that has brought us the credibility and the reputation. That means, that our biggest customers are really interested in exploring how we apply that expertise to other new problems. And so, hence this closed-loop controller represents us a new part of the phone system that we haven't historically been in tone, so new subsystem for us. So we're very excited about not just having that, but becoming a supplier in a new space where we can hopefully not only execute really, really well, but continue to grow and evolve that as our customer needs develop in that subsystem over time.

<<Matthew Ramsay, Analyst, Cowen & Company>>

Got it. No, I think, as you say, it's one of those delicate rebate conversations that we kind of have to get our way through. And just to follow up there a bit, I think Jason and yourself have talked about in a couple of forums over the last maybe three or four months, potential for an even larger step up in content that you're following that and probably a bit more vague even in the closed-loop controller as to what that might be. But is that the right – have I characterize that right with the potential for an even bigger jump up in content for the following year?

<<John Forsyth, President>>

Yes, I think so. I mean, we put a few caveats around that. Not just on the business front, but just also when we're talking about anything that's the back end of 2021 or 2022. There's a lot of time between now and then, and there are so many – even in completely normal circumstances, that's a lot of water that needs to get under the bridge before you're actually – before it's actually game day. And in the current circumstances, there's a lot more uncertainty. But yes, the plan today is for a further content gain in that 2021 – calendar 2021 timeframe.

That again, we think represents something that could be more significant than the closed-controller we have coming this year. Again, in another new era area for us, which is just extremely exciting to be a part of is, provides huge motivation for the team to kind of continue serving and supporting our customer during a really weird time to be doing that. But it certainly lays out part of a multiyear roadmap for growth and product diversification at Cirrus, which we're really excited about.

<<Matthew Ramsay, Analyst, Cowen & Company>>

I think that brings up an interesting distinction that I sometimes feel like some investors don't make as much as they should. And Thurman I'll pull you into the conversation here as well, which is the difference between customer concentration in terms of revenue and socket concentration or single socket risk. Maybe you guys could talk each of you from your perspectives on that. And how over the last, I don't know, four, five, six years, whatever it's been, the revenue concentration with your largest customer might not have changed upon. But I think the composition of that revenue and the risk profile of that revenue is dramatically different than it might've been a number of years ago.

<<John Forsyth, President>>

Yes, I think so. I'll let Thurman chime in, in a second, but just to provide a bit of color on that. Yes, I do think so. I appreciate that there are different perspectives on this. I totally get it both from management teams and in other companies and from investors. If you have to be have the level of concentration we have with one customer, I think I would choose the customer that we have 100x out of 100, especially during the time of kind of disruption in the market as well. I think their record of taking stuff to market, once they've started it, started going down a road is just like nothing else I've ever worked with. So there's a lot to be said for that. But yes, we have made a concerted effort to pursue growth without first of all, worrying about what it means for customer concentration.

Because we think that the bottom line that keep the company growing, in a company that's growing well, you can continue to hire great people. You can continue to invest in R&D, you can continue to return good results and all the challenges to grow and diversify your business beyond one customer and one product category arguably easier to take on from that position in any case. But really for us, yes, I think the story has been one where we've gone from being, a codec supplier to a codec haptic supplier, to a codec haptic drivers, accessory products. And then, as we've said now, more products in other devices and more content in other categories and technology is coming down the road.

So the risk associated with any one socket, because there are always architectural shifts and things going on with content puts and takes. But the risk associated with any one content, socket, sorry, is gets relatively smaller over time. And the portfolio of products and technology areas where we're serving our customers just got broader and broader, which we're really happy about it. Thurman, I'll let you chime in if you have anything to add on that topic.

<<Thurman K. Case, Chief Financial Officer and Vice President, Finance>>

Yes. I think a lot of the input we get is how difficult it is to have that concentration with the customer and how hard they are at work with. But actually when you look at our relationship with them and the fact that I think you pointed it out a little bit, was that, their brand new devices turn into their mid-tier devices, which turned into their lower-tier devices and it makes – it's actually a simple model and a lot of ways for us to manage inventory and for us to be able to have some consistency in terms of what is going to happen. I mean, we're very much involved on the Android side and we think that's an important part of our business, but there are many, many skews and many models and different carriers and all of those things. So in a lot of ways, although, we have that concentration and there is that risk, it's also a lot of risk is taken away in terms of consistency, inventory and other things because of just the business model that they use versus some others.

And as you noted – as John noted, years ago, when I started there was a ton of risk because if a codec went away, the entire business went away and to even compare to five or six years ago to today, it's just much different given the relationships that we have, the products that we're working on. And Jason says this and I would agree with him, we have more opportunities with them now than we've ever had historically. And our biggest challenge is to be able to fund and resource those opportunities. So we can apologize for the ability that we've had and the success that we've had with that concentration.

<<Matthew Ramsay, Analyst, Cowen & Company>>

Got it. I think that's some helpful perspective. Thurman, just a follow-up quick on the – you talk about more opportunities then maybe you can fund. I think there was an interesting set of exchanges on your last earnings call. And I think all of us have spoken about this in different forums privately as well about you guys continuing to hire and being aggressive in that hiring and recruitment of talents. And this there's not much good that comes out of COVID-19 all the way around, but obviously it's tough situation. But it seems like there may be some opportunities for you guys to lean in, take some talent. I'm not that dissimilar to what happened in 2008, that

was sort of a similar moment for things that went on at the company, if you have any thoughts there would be appreciable.

<<Thurman K. Case, Chief Financial Officer and Vice President, Finance>>

Yes. Well, our viewpoint of that is, we're certainly going to leverage our balance sheet and leverage our solid financial situation to be able to invest in the business, and a big piece of investing in business is investing in people. The difference between 2008 and now there were a lot of people were looking for work. It was a much different situation. So our ability, there is challenges to doing interviews and some of the things in terms of social distancing, but it doesn't change our resolve to go out, find good people. If there are opportunities out there, we'll be hiring when others aren't. And as you see some business units and some companies and other things like that shutting down or slowing down it does provide a larger pool for us in terms of possible talents to recruit.

So we're totally committed to investing in R&D and we would prefer to see some growth in R&D year-over-year this year, and have that be because that were – we have been able to – one of our strengths is focus and we can only find – we have to have engineers who are focused on the projects that we're working on and we don't want to spread them too thin. So the situation is get more people in, so that we can go after more of these projects that we think will drive some revenue for us.

<<Matthew Ramsay, Analyst, Cowen & Company>>

Got it. That makes sense. So John, a couple of follow-ups to the conversation around the relationship and diversity at your largest customer, I know there's two sides of the coin as we talked about. I think one that – there's been a few investors that have pinged me today on a particular topic that we'll have to get into, and you can probably guess which one that is. There is some report out that Apple may not be putting headsets in boxes for the upcoming iPhone. And I wouldn't dare ask you to comment on future product from that customer for fear of us all getting squashed. But I have just thoughts around what content exposure that is if it indeed did come to pass. And is that a piece of business that if anything happened there you would think is strategic, or do you have visibility into that room or not being through any comments there? I appreciate like I said, don't shoot the messenger. This is just something that I kind of have to ask in terms of sensitivity.

<<John Forsyth, President>>

No, no. And then thanks for the sensitivity to the fact that, yes, we don't comment on rumors. And the last thing we would ever want to do is, be in the position of announcing our customer's product plan is whatever they were. That said, I think, within any given year, there are always – I think it's important for people generally to understand, there are always factors which represent downward pressures on content. Alongside, what we're striving to do, which is content gain. And those include typical ASP erosion, which is like a law of nature in semiconductors. And obviously, we try to offset that working with our supply chain, but you can see that pattern in our business which we can and yet you have. There's optimization of content. So it's often the case

that, one, a given generation of a product is not every feature in it is used, so which opens the door to an optimization, which represents a lower ASP. But that's part of doing business with any customer that from time-to-time, you're engaged in almost investing to deliver something that's better for them.

So those represent downward pressure, and then, of course, there periodically there's content that disappears either for some – because of some kind of architectural or product-related shift. So we've seen that in the case of the dongle, the lightning to 3.5-mill connected dongle is in the box and then it wasn't in the box. So that was a product-related decision. On the more architectural side, more recently, and we mentioned this in the last shareholder letter. We've seen in Android smartphones, the smart codec has kind of been in decline and in some cases it's disappeared now. And that represents an architectural shift. That was kind of – it was kind of going on for a while, from the shift to digital microphones in a lot of Android smartphone devices and the disappearance of the 3.5-mill connector. You could see who was less for rational for the smartphone codec and to the smart codec.

So from time-to-time, there are these things where you're eight different bits of your content. So it goes away and speaking, having seen the excitement around truly wireless devices. We know that consumers are eagerly transitioning themselves to truly wireless earbuds, for sure. So we – our goal there is to have a range of products that serve the needs across our customer's portfolio, whatever they want to do in responding to their customers in the earbuds and earphones space. And that range is actually, I'm going to recommend, so if you look based on or if anybody on the call wants to look at our investor presentation, it gives a kind of range of ASPs for that category of product that we have that which we bracket on the digital accessories. There's somewhere in the range, I think that the region is like \$0.60 to \$1.50 depending on what the product from us is doing. So that would range from \$0.60 – in the \$0.60s for something that's really a simple device. That's going into a basic set of airwired earbuds to anything up to advanced noise cancellation, fully adaptive noise cancellation, that's going in, really premium pair of cans.

So our goal is have a portfolio of products that serve those needs and our customers will make decisions that, where to put their emphasis with their products. It's certainly the case that we have seen a lot of excitement from our customers around the opportunities in truly wireless earbuds, both obviously with our largest customer, but also with our largest customer and the Android side of our business as well in the last year. And I think what we see that is particularly exciting to us is – and this is fundamentally, I think, very different from the kind of wired inbox headset is that, it really is a platform that has a lot of headroom for innovation. I think you can see today in the case of the biggest selling truly wireless earbuds that go with Android devices where you ship a smart codec into each ear that provides a DSP platform for all kinds of smart features. And I would expect that to continue to grow and be a really exciting kind of platform for computing as we go forward.

<<Matthew Ramsay, Analyst, Cowen & Company>>

Got it, I appreciate the thought there, given that the sensitivity. I guess the – or I mean, there's so much stuff to talk about, but I think we're going to bump up against time here pretty quickly. But I think one other conversations, John, that you and I have had a number of times that I think is

informative. You talked about moving into different application domains with your customers instead of new non-voice and audio and non-haptic domains. I just wonder culturally, how the company has been able to do that at some really large customers, including your largest one. Is this are you getting pulled into these new applications by the engineering teams or your customers? How may – I think that's a useful conversation to highlight it, just culturally, how you work with your large customers particularly that one and what the impetus is for you to win sockets and other areas and how that comes about, because you guys seem to manage that relationship very differently and more successfully than many of your peers do.

<<John Forsyth, President>>

Yes. Well, I think we do for us. Yes, I wouldn't that many of our peers maybe put place more of an emphasis on having different level of customer concentration and so on. So that would maybe reflect it in how they interact with any given customer. I mean, for us, as I said, we try to be some sense probably, but we selective about the customers that we engaged with because we invest heavily in them and put a lot of time and resources into trying to figure out exactly what it is they need. And so I think all level of engagement with our largest customer is extremely good because we just – we're very, very focused on finding ways to serve them across their products, as well as we can and we kind of trust in the fact that is generally turned out really well for us.

And even just through the craziness of the last few months, you can see it in how culturally, how deep it runs in the Cirrus team. Given that lens that people have gone too, to kind of continue to honor that determination to serve the customer. We've had people practically building labs in their homes probably to the cost of some domestic relationships at times. But just in order to keep the projects trucking long, because they know how important they are to the customer. But I think what – we understood that in order to grow our business we needed to invest more, not just in continuing to execute really, really well and serving the customer as well as we can around the audio and Haptic, but to grow and diversify that [indiscernible] (0:30:55) our audio technology.

So a lot of that has come through, the painstaking billing and reputation, and just focusing on flawless execution on everything we committed with the customer and real transparency about anything that isn't tracking with plan. You can never get your reputation back if you don't use to that. And in time, what happens is the teams who have worked with us through many generations of products will introduce to other teams within that organization. They will share information about their track record. And we tend to – when we talk about ourselves and the way we think about ourselves and suddenly we tend to believe that once we get in the door and once we get in the socket, we're really, really hard to dislodge because what we do is we show up, we under promise, try to do a really good job of executing the plan.

And then we listen and iterate from there. I mentioned that because obviously, we've talked a bit about having content gains in new areas that we're excited about. But when we start with gen-one of a product, we generally believe that's just the platform for a lot of conversations and understanding if the customer's challenges and problems in that area that are going to fuel a whole roadmap of innovation down – for the down the line, which will help to grow our business in this.

<<Matthew Ramsay, Analyst, Cowen & Company>>

I think we look forward to seeing the fruits of those engagements over time. I think we're getting the virtual hook if that's the thing, given we're running up against time. But thank you so much, the whole Cirrus team and for both of you for being on the call, we account value the partnership and look forward to chatting again soon. Anybody that's on the line investor zone, if you have follow-up questions, obviously I'm not hard to find, and we'll get you in touch with the right folks of the company as well. So thank you everybody and everybody be safe out there.

<<John Forsyth, President>>

Thank you, Matt.