



Blaine Curtis: All right, welcome back. I'm Blaine Curtis [inaudible 00:00:02] analyst at Barclays. For the day two of the global virtual TMT conference. Very happy to start off the day from my company, is with Cirrus Logic from the company of John Forsyth, he's president, and soon to be CEO in January. John, I was thinking, maybe a good way to start... Obviously you've been at the company since the Wolfson acquisition, been very instrumental in a lot of the progress. I've been covering the company since I was doing video and losing money, so a very long time, it's come a long way. Obviously, Jason deserves a lot of credit. And it may be too early to ask you this, but I'm kind of curious. You've been involved in the strategy and I'm kind of curious if you had some thoughts as to where you want to take this company with your new role starting in January.

John Forsyth: Right. Yeah. Thank you. Thank you, Blaine. And yeah, I agree. I mean, Jason and the many other people who are still on the leadership staff at Cirrus, I think there's a tremendous credit for what they've accomplished over the past 13 years of Jason being CEO. From my part, I think the first thing I'd say is, that I've been collaborating closely with Cirrus leadership, obviously over the past years, developing the strategy that we're currently executing. So I'm a very big believer in that, to be clear, that's really kind of a threefold story of how we take the company forward and how we drive growth. First of all, expand our content in audio in smartphones, so continue to do that. Secondly, expand our audio content in other devices, especially battery centric, power sensitive devices, device categories. And thirdly, broaden our reach to other mixed signal domains, with an initial focus on smartphones.

But the third in particular, I think is key in the... I think Cirrus is a great company with extraordinary qualities, both from the point of view of the standard of engineering and just the commitment and focus to our customers. And so it's always been my view that, we can make an impact in many areas beyond audio. And that's really been the vision as well, that's why even our vision being first choice in signal processing, doesn't specifically talk about audio. Audio just happened to be a really, really successful driver of the business over the past decade or so. So I think we're in the early innings of that expansion into other mixed signal domains, where we can leverage our expertise and kind of specialize in some key areas. And I'm very excited about where that can take us. And I think that's the next phase of evolution for Cirrus.

Blaine Curtis: That's a great, great lead in. I mean, this year, you ran for this closed loop controller in the cameras in Apples, it's been torn open, and you're talking about

a power conversion control chip for next year. So I really want to talk about that core IP that the company has. Obviously audio started as kind of a converter, obviously you've added a lot of kind of digital on top of it, and then you moved into amps, smart amps. Kind of just, maybe you can just give us [inaudible 00:03:13] what are the core competency of Cirrus and how does that apply to these new products that you're bringing forward this year and next?

John Forsyth:

Yeah. Yeah, of course. I mean, you touched on a couple of the key things there, actually. That ability to pack a lot of digital close to the analog digital boundary, is really key. So when you look at opportunities that are kind of Cirrus shape, they tend to be ones where, as was the case in the closed loop controller, where really low latency signal processing matters a lot. The kind where you're doing some stuff in the digital domain, you're processing stuff that's being converted into digital, but you don't have time to offload it to the AP and we're doing it faster in terms of the number of times you can modulate some kind of output per second. It makes a real difference to the user experience, as is the case in cameras obviously. And that's really kind of underlying, or one of the key underlying competencies.

It's partly, our particular engineering focus is partly also investment in deep sub-micron nodes for mixed signal IP, where we're able to combine a lot of digital processing with high precision analog and mixed signal, in high precision analog and mixed signal devices, so that's a part of it. And then I think also, the power element, a lot of that has come out of our investment around boosted amplifiers and haptics, where just over time, a lot of the investment is in doing high voltage stuff at, again, kind of in advanced processes where we are both... With a boosted amplifier, we're not just taking a signal and boosting it and sending it down to a transducer and forgetting about it, we're monitoring very closely what's happening in that transducer all the time, in terms of the coil temperature, the excursion, so that you've got that feedback loop.

But one of the things that we discovered as we've continued to ramp the voltage of our boosted amplifiers and the constraints have become kind of tighter and tighter about what we can do there, is that way we have to look upstream as well, at the impact we're having on power in the battery at the system level. Because when you're driving one of the peak current events in the device's life cycle, you could burn out of the rest of the system. So we're leveraging a lot of investment in power that we've done for the boosted amplifiers, but that's also taken us into this domain where we needed to think much more about power in that upstream system level sense, and that's given us a foundation. It's not that there isn't a lot of new IP to develop, because there is, but it's given us a really good foundation for expanding into this new adjacency.

Blaine Curtis:

That's a good lead in. When you think of power, you think of the bigger analog names, like ADI Linear or Texas Instruments. And when you see Cirrus moving into the power world, you kind of... I think people are confused initially with power management, maybe you can just distinguish between power conversion

and power management, and why is Cirrus going to be the solution that wins in this market?

John Forsyth: Yeah. I would say, I mean, one thing, obviously what we're talking about here is, [inaudible 00:06:48] it's a custom product. So we're kind of sketchy and vague on certain details about it. And to be clear, some of the names that you mentioned, I fully expect them to be... They're people that we lose sleep over. I fully expect them to be interested in what we're doing there. I'm under no illusions about that, but we're not getting into the kind of general purpose, power management space at all.

We're not interested in kind of managing the various power domains across the device. We have a very specific kind of profile. I think the most I can say about it is, if you think about what I said in relation to boosted amplifiers, our particular angle of expertise is around this kind of peak current event. And where you have these kinds of extreme events in the life cycle of a product, that's where we felt, okay, we've got something that's valuable and is... We've got credible track record in addressing and thinking about those problems that differentiate us from the other guys who have abundant expertise in kind of general purpose power.

Blaine Curtis: Do want to ask you, just the expansion from that lead customer. Obviously you came from Wolfson. I think in audio, it seems like Apple's the one who pays for premium audio, and the rest of Android, it's not always a big number that pays for premium audio. I'm kind of curious, as you move into these other new areas, something like a camera, do you think you can actually expand the business beyond Apple and get a bigger Android piece that is paying for the premium tier?

John Forsyth: I'd maybe debate you a little, we might get into Android. I'd maybe debate you a little on some of your comments there, because I think in the flagship space, in Android, people pay for good audio, without question. Regarding our other new product areas. Over time, it's possible that we leverage those into other smartphone customers or things in that space, but that's not our focus right now. We don't have a plan for that. I think, I appreciate that it's possibly frustrating on the outside at times, that we as Cirrus, don't talk more expansively about some of what we're planning to do. But one of the things I think is really great, going back to your first question, that Jason has cultivated in the company, is a very strong sense of focus. Yeah. We try not to do too many things. We just try to absolutely nail what we are doing and then... Take care of what's in front of you and then build beyond that. So right now, we're very focused on executing for our kind of primary customers in those new spaces.

Blaine Curtis: I do want to ask, it's always tricky to ask your leading customer, but you have made some public comments, so I want to ask you. In terms of the closed loop controller, that's out, it's shipping. In terms of your content next year, is there any way you can dial us in? You guys have always done a good job of kind of giving us the bread crumbs and say, this content is kind of similar to this

component. Power conversion control, I have no idea where to kind of put that in a range. Have you guys kind of quantified that, or can you dial this in any bit as to how to think about the tailwind into next year?

John Forsyth:

Yeah. I don't know. I mean, sometimes I think, when we give a range, it's not that helpful, to be honest. I think the initial comment we gave on the closed loop controller was, hey, it's between an amp and a codec, which is a very big range. And so more helpfully, it was amp-like. I think in the... And to be clear, while we're in the new stuff, the power conversion stuff, I mean, we know where we stand regarding the product, right? We know how much silicon there is there, and obviously we've discussed the cost of that, the pricing of that, with our customer. During the year running up to the launch of products though, I mean, I'm going to hedge because we have seen variables around attach rates and skews in the past, which affect the outlook.

So I think we know what it's like on an individual device basis. As yet, we don't have a clear enough picture, I would say, to make a public comment about what we think the expectations are. Obviously, we'll breadcrumb that as we get more of a picture. I would though, emphasize, I think for us, we think this is a bigger opportunity than the closed loop controller. It's a fairly significantly larger opportunity over time for us, and that's also at the individual level, the individual device level, it's a kind of meaningfully higher ASP piece of content.

Blaine Curtis:

I appreciate that. And I did buy the one, the pro max. Well, you can't see it, it goes blank to the background.

John Forsyth:

Thank you.

Blaine Curtis:

But I did buy the one with the higher content. I'm helping you out. Going back to Android. I gave you a hard time about the trajectory of Android since the Wolfson deal. It actually saw a nice pickup, obviously there were some things like Samsung that was kind of out of your control. Can you just talk about the pickup in Android? I think the market's actually quite hot, we had RF companies yesterday, all sound quite good. So can you just talk about the trajectory of your Android business you're seeing into the end of the year?

John Forsyth:

Yeah. Yeah, absolutely. I mean, I don't want to take too much of a victory lap on the pickup because that's a pickup relative to a pretty atrocious quarter, earlier in the year. I think things were pretty turbulent in the Android space. That said, as we talked at the last earnings, we saw Android kind of start to come back on stream in the last quarter. We're expecting that to continue through our Q3 and Q4, that kind of continued strength there. It's certainly been very, very conspicuous on our supply chain side, that the Android guys have come on very strong in terms of their plans for calendar 21. I think that that bodes well. There is some sense that people think a certain amount of market share is up for grabs depending on what happens to Huawei's business.

So everybody is planning to take a big slice of that, it probably all adds up to more than 100% of that share. But we've certainly seen a really solid recovery, and as we indicated on the call, I think we've seen some of our... I mean, both in the... Our largest Android customers is kind of going back online, but also a lot of demand from, for example [inaudible 00:13:56] who are very, very aggressive and very enthusiastic about audio in their next round of products.

Blaine Curtis: Gotcha. Because you've talked about amps and haptics, I think you said eight to 10 OEMs. You have wins and then you look at the absolute number per quarter and it's fairly small. You back out Samsung, it's even smaller. So I guess my comment on premium audio, maybe they do care, but maybe those skews aren't the mega skews, right? But I guess with haptics, maybe it's a little broader. I mean, can you walk us through where you think Android could be over the next three to five years? Are things like haptics going to actually drive a bigger revenue number? Because I feel like audio, the premium audio has been kind of hits and misses with certain skews. And outside of Samsung and that, it's never really amounted to that much.

John Forsyth: Right. Well, I mean, there's some truth in that. It's not everyone's focus. I think we've seen growing interest in higher excursion speakers, which are going to require higher voltage amplifiers, and that speaks... That's where our kind of leading edge is focused, in our amplifier roadmap. So at this point, we feel we've probably got... We've for sure got the best boosted amplifier you can get for an Android device, but I feel pretty confident we've got the second best as well and probably the third best beyond that. And we've got a few price points covered, which give us, I think, good coverage across flagship and some of the mid tier of Android, in terms of what we can address and what's relevant to our customers, at a range of price points.

And if you think about that in terms of volume, for us, I think it's in the region of 150 million flagship category, Android devices, all of which are going to be stereo. So call it, ballpark, 300 million amplifiers there. And then, we think there's probably in the region of a couple of hundred million more amplifiers in the mid tier space, that we can address with our portfolio. So not all of those are stereo, some of them are. That's more of a mix, but in total, there's a market where our products are highly relevant and well positioned for somewhere in the kind of 450 to 500 million unit boosted amplifier range.

Blaine Curtis: That's helpful. I wanted to ask you about Anc. You guys brought out products, I guess a couple of years ago. I'm losing track of time. As always, very high end, elegant solution. I would say, some success, but it hasn't been a big business. I think you're in Anc devices with maybe some amps, if you look at your largest customer. But in terms of Anc, where you're doing the codec with the algorithms, I haven't seen as much. I'm kind of curious your perspective on the Anc opportunity. You saw Apple launched some very high end, over the year, headsets. Can you just talk about Anc as an opportunity, and if you had anything to comment on the one that Apple launched as well?

John Forsyth: Yeah. I think generally, we got that partly wrong, in that I think we built fabulous Anc technology, but with a strong emphasis on wired devices and a power profile that wasn't going to be ready for the kind of truly wireless, with a really, really, really technical string, power envelope. And there's always going to be... I think as long as I can remember, there's always been a big chunk of the Anc market, where it's just about having letters on the box. We're not going to address that. We are always going to be focused on the segment that cares about performance. Where we've been focusing our energies, is on transitioning our technology from what we have, into something that can be delivered in a truly wireless kind of package.

And we announced a codec... We mentioned in the last earnings call, that we're shipping the first codec that does that, to some of our customers, for expected product launch in the first half of next year. But yeah, I mean, it's an area that continues to be, I think very, very good for us, in terms of our technology portfolio. When I think about the big growth markets for us, I think long-term, a lot of the wireless ear buds stuff will be integrated with radios. So there's a sudden... There's a big chunk of that market, which based on what we have today, is not going to be for us. But in the places where performance is really, really key, I think we've got great products.

Blaine Curtis: I did want to ask you that. So the opportunity, you've actually gained amp content at your largest customer. It seems like their SOC kind of spit out the analog and you were able to get a discreet amplifier. So in that situation, if the codec is getting integrated, with an SOC with the radio, does that make the amp market, not only with the leading customer, but in other OEMs, does that create a market over time for you?

John Forsyth: I think there were varying architectures there, actually a lot like our other business. The architectures between what our largest customer does and other people, they can be quite different. So if you look at the products that we're selling into wireless headsets, in the general market and the Android space and so on, those tend to be based around something that is a relatively standalone radio chip combined with a smart codec. And we're providing the smart codec, it's doing the analog mixed signal and providing a DSP for a whole bunch of additional smart features. Some of our other devices, as you said, are focused on providing a discreet amplifier, and we're obviously delighted to be doing that. I think it's a great product. We'd like to find ways of growing value of that, if we can. Some architectures are kind of favorable to that, some less so.

Blaine Curtis: I do want to ask you. On competition, I would say for the most part, for all the fears that people have had, and haven't lost much at all, Maxim gained some share and then kind of gave it away and not really pursuing anymore. And I have ADI later today, I don't think they're going to change that direction. NXP, I think has been kind of in and out, and I'm not sure that's a focus either. So just competitive landscape, obviously the codec, there's platform sales. But in terms of merchant competition in codecs and amps, can you just give us a perspective of, do you see anybody as a concern?

John Forsyth: Are you asking specifically around our largest customer or across-

Blaine Curtis: I think just broadly, I guess.

John Forsyth: Yeah. I mean, I think the experience with our largest customer by and large... And of course, some of the names that you mentioned, they maybe even just seem like they blow hot and cold a bit on that. The truth is, with our largest customer, when there are big customer opportunities, those can be of such significant standalone value, that everybody pays attention. And perhaps more than their strategy of record might always indicate. More broadly, I think in the rest of the market, the codec market in smartphones is largely... Has been in decline for a while, it's not news now. We had our own headwind in Android content, with a smart codec going away.

I think that's not really a territory which anybody is fighting over. But boosted amplifiers, for sure. We see continued competition there. I think there's no doubt, if you really care about the audio, you want to pick Cirrus, but as soon as you get into that kind of mid tier space that I talked about, even the upper end of the mid tier, there were for sure offerings from people like TI and then [inaudible 00:22:30] and so on, which get plenty of attention. So that's an area which is for sure, still highly competitive.

Blaine Curtis: [inaudible 00:22:40] you have time for one more question. It's really on the R&D side, the decision to pursue this opportunity for next year. I think you kind of walked away from... Took the men's team and kind of moved them. It seemed pretty obvious, at least the way Jason described it, as like, hey, there's a known opportunity, all we got to do is execute. So can you just talk about the decision. I mean, I think that decision kind of... It's probably already made, right? I mean, I'm assuming that design is well, maybe not done, but well underway. And then kind of how you think about kind of prioritizing opportunities for next year.

John Forsyth: Yeah. That particular product is, if not completely done, is close to. I think we mentioned in the last shareholder letter, that we have the first silicon back from that, which we were pretty happy with. So yeah, that is well progressed. But when we look beyond that, I mean, one of the things that Cirrus is very good at, I think, is getting into a socket and then growing the value. And so, one of the things that we do in the strategy cycle, that we've kind of just been through for this calendar year, it culminates in December, is we look at what we believe the headroom for value growth is in each of our key areas. And then you have to go and investigate a whole bunch of things, within any one of those areas, but it was pretty clear for us, for example, that in the power space, that's very much version one that we're doing right now. And there is a laundry list of stuff that we have.

Our customer is very much the same. They've got a laundry list of things they want to see us exploring. And so a big priority for us is, okay, so over invest in that area. Stack more chips on there, get a lot of A list talent on that stuff, because we can already see a bit of a roadmap there and there's going to be a

lot of opportunity to develop innovative IP that grows the value of that socket over time. So even though we're getting there with the first product, that's a big priority for us, in R&D terms.

Blaine Curtis: Well, good. With that, we're out of time. I really appreciate you joining and supporting the conference, and take care to all.

John Forsyth: Thanks a lot for having us. Yeah. Appreciate it, Blaine.

Blaine Curtis: Bye.