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Cirrus Logic, Inc. (CRUS)

Stifel Cross Sector Insight Conference

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Venkatesh R. Nathamuni

Chief Financial Officer, Cirrus Logic, Inc.

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President, Chief Executive Officer & Director, Cirrus Logic, Inc.

OTHER PARTICIPANTS

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

MANAGEMENT DISCUSSION SECTION

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

So welcome to the Cirrus Logic session here at the Stifel 2022 Cross Sector Insight Conference. My name is Tore Svanberg. I'm a senior semiconductor analyst and I cover analog, connectivity and processor semiconductors, and it's my great pleasure to introduce Cirrus Logic.

With us, to my immediate left, we have John Forsyth, who is the company's President and Chief Executive Officer. Right next to him, we have Venk Nathamuni, who's the company's Chief Financial Officer, and at the front, we have Chelsea Heffernan, who is VP of Investor Relations and ESG, and Natasha Asar, who is Manager of IR.

So, the particular format for this session is Q&A. So with that, I'll sit down and get started. I would like this session to be interactive. So if you do have any questions, just raise your hand and then we'll go from there. Thanks.

QUESTION AND ANSWER SECTION

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

So, John and Venk, thank you so much for coming. As we always start up these things, could you just give us a little bit of a general overview and introduction of Cirrus Logic, especially to those investors that may not be as familiar with the company?

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Yes. Yeah. Be happy to. Thanks, Tore, and first of all, thanks for inviting us, and thank you, everybody for coming and joining this this session. It's really nice to see a lot of familiar faces in 3D after all this time. So, for those of you who don't know Cirrus Logic, we're a mixed signal fabless semiconductor vendor headquartered in Austin, Texas. Our — what we're known for is principally audio-focused silicon. So, we've been very successful in the smartphone space, in particular with a fruit themed company based out of California, but also increasingly in the Android space as well. With our audio products, principally, there was a codex and boosted amplifiers. But we have been on a path, a journey from being very focused and concentrated on audio to expanding that into other areas of mixed signal, which we call high performance mixed signal.

And we've been over, over the past few years hitting milestones on that journey of delivering, building on our audio base to deliver haptics, drivers and camera controllers and most recently, power conversion chips. Kind of demonstrating that our mixed signal engineering expertise is very applicable to other fields, and we see that as being an important driver of our long-term growth. In terms of size, we're give or take around 1,600 employees, most of that to R&D and engineering based mainly either here in the US or the UK and our fiscal 2022, close to \$1.78 billion revenue, which was an all-time record for us.

Unverified Participant

And I'll just add just from a financial perspective, just in terms of the model. John just talked about the revenue in terms of profitability, I mean, our gross margin is about 50%. That's a long-term model for gross margins. And then on the operating margin side, we — we're right now in the mid-20s and our long-term goal is to get to about 30% as we increase the revenue scale and get the operating profitability up based on leverage. And finally, on a free cash flow basis, we're now roughly about 20% free cash flow margin.

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

Great. Thank you for that introduction.

QUESTION AND ANSWER SECTION

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

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So maybe on that point, Cirrus recently reported a record Q4 and also record revenues for fiscal 2022 with revenue growth of 30%.

Could you please walk us through the main drivers of this strong growth, especially in light of a weakening consumer spending and, you know, what – especially also when considering the challenging supply environment because that's obviously a topic du jour for semiconductor executives.

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That has been the topic du jour for about a year-and-a-half now. And so, you're absolutely right about that. And, to be clear, we, you know, if you look over that period, fiscal 2022, we were supply-constrained, and that's by no means unique to us. I think, probably, most semis will say something similar.

But, on the demand side, I mean, I think during fiscal 2022, you know, we saw a very strong demand and the consumer products, particularly the ones where we have the most content, were received very well. And so, that drove – that was one of the drivers of our strong revenues. There were some other factors as well and not least in those are the progress we made in the high-performance mixed signal segment. So, that was reflected really in a couple of things.

One is I mentioned the camera controller chips that we make. Those can – they can number more than one per phone because, obviously, phones have a number of cameras. And then, across different price tiers of phones, you get different specs for the camera functionality and so on.

So, we saw the attach rate for camera controllers increase in the back-half of fiscal 22. And then, most significantly, we had a new piece of silicon in a very, very popular smartphone, which we call the power conversion and control chip.

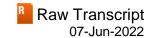
That was really meaningful for us in that that's our first big customer of silicon in the power space. Very close to the battery. It was doing some stuff that was not and we didn't displace anything. That was – there was a new content and a new functionality in the phone, and that represented a significant step-up in content.

In addition to that, in fiscal 2022, we had a couple of other revenue contributors, to a lesser extent than what I've just described, but also meaningful, We have revenue from fast charging, which came through an acquisition we did of a company called Lion Semiconductor during the year. And we had more growth and revenue than we anticipated in the PC, in particular the notebook market as well. And that was based around audio.

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Great. And. I think, John, since you came on board as CEO, you've definitely, you know, implemented strategy of product diversification. You talked about the mixed-signal business, and I believe high-performance mixed-signal now but the third of the revenue, I think you're targeting eventually sort of a 50/50 split between audio and HPMS.

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Could you just talk about the dynamics for each segment over the next few years, how we should think about, you know, growth, you know, where it's going to come from, you know, unit versus, you know, incremental features or content or what have you?

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Right. Yeah. Yeah. Thank you. So, yes, within our strategic planning horizon, we can see HPMS getting to 50% of overall revenue. And just to be clear, that's not by shrinking audio revenue. That's hopefully growing both, but growing HPMS at a higher [ph] clock 00:07:09 rate. And maybe the easiest way to answer the rest of your question is just to think about our kind of three strategic pillars. First of all, it's, you know, the most important thing is kind of look after the business you've got today. So, maintain leadership in smartphone audio. That's where the bulk of our revenue comes from today. So, we've got to invest and make sure we do that. But we are in so many of the key sockets in smartphone audio at this point that that's less about driving growth and more about maintaining really solid business and revenue.

Secondly, is target key profitable segments or segments that we believe can be profitable for audio beyond the smartphone. So, I've mentioned the Notebook segment. For us, not every audio market is going to be a really profitable one. And one of the reasons for that is we're really at the leading edge of mixed signal engineering. It means we're on advanced processes for mixed signal stuff. That comes with a cost. It's — you need really high skilled engineers to do that. Everything to do with wafers and tape-outs becomes more expensive. You need to get paid for that. For people to pay for that, they need to want the benefits like really small packages, very, very high-power efficiency and so on. So, only some markets are really appropriate for that. We believe the laptop market is evolving into one where that can be an additional growth driver going forwards for us in the audio space.

But then the third pillar is driving an expansion of our product portfolio in the high-performance mixed signal space into these adjacent areas around haptics, cameras, power. And we believe that there is more substantial headroom for innovation there and more substantial room for growth in the longer run. And so, if you think about the early years of – and I know you were covering the company back then, Tore, but in the early years of Codex and so on, those were iterating and being updated quite frequently. The rate of innovation was very high. That consumed a lot of R&D resources.

I think that's where we are in the power space, for example. So, the moment we were done with the first power conversion control chip, there was a conversation about what comes next and what's the wish list for the next generation. So, I think the – to summarize, I think we've got great solid revenue in the smartphone audio. We've identified some areas where we can continue to grow in audio beyond the smartphone. And we have these really exciting growth engines, which I think are going to be propelling most of the growth that we believe we can deliver in future years.

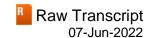
Got it. And as a follow-up to that for you, Venk, I know, I know you don't report financially by the two segments, right? But if we think about, you know, gross margin and operating margin between the two segments, like John just said, I mean, it sounds like you're investing more R&D in HPMS, so theoretically, the operating margin there would be lower. But, you know, any color you could share with us on that?

Venkatesh R. Nathamuni

Chief Financial Officer, Cirrus Logic, Inc.

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Yeah. I think that's exactly right. So the bulk of our investments are happening in the HPMS space because, as John pointed out, we have lots of opportunities, especially to expand content, you know, as you've seen already with what the company has done in predominantly an audio supply for all these years, then for the last two or three years expanded dramatically into power management and haptics and camera controls and so forth. And the line of sight that we see into expanding the HPMS is pretty long and pretty attractive. So that's where we're going to do the bulk of our investments. And, you know, we don't break out, as you pointed out, we don't break out the gross margins by separate segment. But it's fair to say that, you know, our corporate average is about 50% and give or take.

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Got it. Yeah. Okay. And but back to you, John, you know, and like you said, I've been covering the company for a long time and I always got this question, you know, why wouldn't the codec get sucked into the apps processor and, you know, obviously, you know, there's a lot of reasons why. But when we think about high-performance mixed signal, you know, it is more digital in nature than, let's say an audio codec. So as we think about these new products and HPMS that you now have gotten designed in, you know, would there be more risk for potential integration with other components and if not, can you explain why?

John Forsyth

President, Chief Executive Officer & Director, Cirrus Logic, Inc.

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That's a great question. I think the first thing to understand about how we think about this is I think it's really important for us to be very realistic about what might get sucked into the AP. There's no point in kind of telling yourself kind of comforting, but possibly not true stories about that.

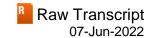
And for us, the Ockham's razor, the dividing line is – does this function really need to be close to the analog digital boundary? And there are various reasons why it might really need to be. One might be because the latency constraints are so extreme. And this is the case, for example, with the camera controller, you're doing thousands and thousands of corrections to the position of elements in a camera and receiving all the sensor data at the same time that there just isn't the opportunity to roundtrip that to the applications processor.

So things like that we think are very defensible, it's utterly compelling logic for keeping that as close to the analog boundary as you possibly can. There are other reasons as well. Another example of a reason is although digital transistors are free on the applications processor compared to on a 55- or 22-nanometer process, they are also, by and large, general purpose. And if, you know – if you're designing an ASIC for a particular function, let's say the control, the digital control stuff around the power space, you can put logic into gate, so may be digital, but it doesn't need to be general purpose, digital architecture. It can be far more efficient than that. And in power, the efficiencies is king and being able to provide really fine grained control at the digital level combined with the analog there in a single chip makes a lot of sense to us and and more importantly, to to ur customer.

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Got it. And, you know, maybe zooming in to some of the specific products. So, you know, the last date, more than a decade, you know, you've been selling the codec amplifier, definitely on the audio domain and, you know, that gave you pretty good sustainable growth over that time period.

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Now, we're looking at four, five different products, so on the HPMS side. So, how should we think about sustainable growth historically with two products versus now versus four, five products? I know you mentioned, hey, like it feels now in HPMS how you were in audio maybe 10 years ago...

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Right.

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

...where you just had more features and more content that you can benefit from. So, if you could...

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And that's certainly part of it. Yeah. I mean, I think it's a great question. And I would say if you look across, okay, so we've got this much broader range of products now, including several new or relatively new areas of high-performance mixed signal. I think the first thing that that has done, which is worth pointing out, is giving us product and socket diversity just from the point of view of the risk attached to any one socket. If you you've got one socket in a big customer, that really looks and feels like a dangerous situation. The more sockets in different areas you have, the less risk attached to any one of them. So, I think that's been very beneficial for Cirrus and our investors.

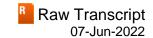
But in terms of the – how I think about the growth opportunities or the opportunity for sustainable growth that we get out of that, I think I've explained what I think about audio. There are possible ways to see incremental growth in audio, but it's closer to the top of the S-curve in terms of its evolution. Within most significant kind of new categories of high-performance mixed signal, we have pretty aggressive road maps. And those are areas where there's a very high cadence in the communication with customers and as I mentioned, a hunger for starting on test silicon for the next version before you're even done with this one.

So, I think there is – there's a lot of reasons for us to feel like that can stock – those dynamics can help stock a pipeline that will deliver potential for value growth over time for multiple years. And certainly, one of the benefits of some of our customer relationships is really good line of sight for several years out. That's how we think about those areas.

But I would say that one of the biggest things that's happened to the company in the past few years is that we have – maybe not in everybody's mind yet but I think in the minds of some of our investors and key customers, we have crossed the Rubicon from being audio-focused and audio company to being a high-performance mixed-signal engineering company, and that opens up a lot of domains. So, I don't and from my perspective, I don't want us to be done yet with those bits of HPMS content. I think there's – I think traditionally, nobody doubted our engineering talent. Nobody doubted our ability to execute. We've got phenomenal track record of execution and not letting our customers down. But now we have credibility in our ability to go and deliver that engineering excellence in an entirely new domain as long as it kind of looks mixed-signal-shaped, has demanding requirements that kind of fit with our expertise, then I think there are more doors which are open to us.

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And kind of just to add to that, somebody who has been relatively new to the company, I see that in terms of just the diversification of the product portfolio and also the engagement on so many different fronts and it's not just with the – with our top customer but we're able to leverage the technology across other markets and other customer opportunities as well. So, I think that's part of the diversification strategy. Clearly, with the top customer, we started out with audio, but now as you can see, it's a multitude of products that we ship and there's several more in the pipeline.

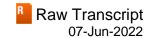
Tore Egil Svanberg Analyst, Stifel Financial Corp.	C
Right. And maybe on that note, so talking about sort of application diversification or look at the two businesses or the products within each business. I mean, how realist obviously, you're, you know, you're targeting a very, very big market, right.	
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Yeah.	
	Q
You have a very, very large top customer. So how realistic it is that for you to see, pyour existing products into things like laptops, wearables, AR, VR, and so on and so	
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Yeah, I mean, I'm excited about that. I think when you when you have a kind of target rich environment in smartphones. I mean, just getting to the point of prioritizing the other stuff is always part of the challenge, right? But having this broader array of IP and technologies that we can – where we can develop products, I think does open up meaningful, additional opportunities for market diversification from the point of view of revenue.

So for example, you mentioned notebooks. We've talked about notebooks mostly from the point of view of audio content. But there is more than that. There's haptic content, there's also we believe in time, power and, charging content. And that was one of the reasons we were very attracted to the Lion team. In fact, it was less about getting more exposure to smartphones and more about where we felt that technology could go.

And we saw and they saw opportunities in laptops and beyond in other markets, which we're not necessarily going to talk to it today, but we do believe are out there. So I think that's true in laptops. We – AR and VR are definitely areas where we want to play. Historically, we've done a lot of audio for AR and VR devices. But when you think about the more broad – the broader range of capabilities we have, well Air and VR are going to be – devices going to be incredibly power sensitive, incredibly sensitive to the physical size. So again, that favors really advanced engineering and mixed-signal space. And they also – you know, they have a lot of optical components and content, for example, there's probably some power considerations in there. So, we'll certainly be looking very closely at how we participate more in those markets leveraging these HPMS technologies.

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Got it. And I know you typically don't want to talk about your largest customer for obvious reasons. We don't want to pre-announce their product roadmap and so on so forth. But I'll try a question anyway and see where we go. But, you know, based on my assessment, your largest customer, at least historically, has always been behind when it comes to things like fast charging, you know, a lot of it with the battery. And my understanding because they've always prioritized the health of the battery as opposed to, you know, offer features like fast charging and things like that. With some of the new battery technology that you're offering them, is that kind of part of the way for them to perhaps be able to deliver both, you know, the life cycle of the battery, but also features like [ph] fast-charging 00:20:56. I have to try, so we'll see where we're going.

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So, you can't not ask and I can't answer it. So, what I will say is this and I'm going to dodge the question, but hopefully in a way that [indiscernible] 00:21:07 because I never want to talk about our customers products before they're around. But what I do think is this, between – the fast-charging acquisition we did at the time when we were bringing to market this power conversion and control chip. And I fully appreciate that power conversion control is not a hugely communicative or specific description. That chip is mostly focused on battery health and managing the battery health over a long period of time. We believe that these things are highly complementary And I'm feeling my way around to an answer here that may give some color, which is that, if you can really do an incredibly good job of, first of all, the metrology, and this requires really good analog design and ADCs and analog mixed signal engineering to detect what's going on in the battery to a high degree of precision. And you can use that to inform how you charge the battery and how you manage its discharge over time. You can optimize for different things. So, you can optimize for the fastest charging. You can optimize for, hey, I want the smallest battery that lasts that gives linear performance for years on end or something in between. And I think that – so from our perspective, it's about building a toolkit where we can help our customers achieve their particular goals.

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All right. That's – I'm satisfied with that answer. That's great. I don't know who wants to address this question, but can you elaborate on the global foundries capacity reservation agreement that you have? I believe it was \$50 million nonrefundable reservation fee, and then you had a prepay of \$175 million for future wafer purchases. And I think we're talking about – was it \$1.6 billion...

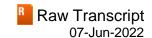
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Total, yes.

...total obligation? And that this is going to be basically staggered from fiscal 2023 to fiscal 2027. So, let me ask you this. Why was the agreement structured this way, and should we assume that the contract can be updated every year?

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Okay. So, first of all – and you may want to speak to this as well, Venk. If you step back from it, we're at a supply crunch. We have a lot of business where we feel – when we win a socket, for example, in our largest selling – our customers' largest selling products, those tend to run for multiple years. So we have actually good line of sight within a range of units. And of course, we want to give our customers confidence about supply and enough confidence that they can look at us and want to give us more business over time.

So, at that point, we also had a very, very strong, arguably too strong cash position at that moment in time. It was a great opportunity to leverage that for, you know, good wafer pricing, security of supply over multiple years and in fact, an increase in supply successively over several years. So that was the big picture.

It, of course, we didn't want to, you know, extend that indefinitely because there are new sockets you got to go and win and you don't want to carry a huge liability before you've won them. But we – you know, we have a long running partnership with Global. We are talking, you know, if not daily, then certainly weekly about what the picture looks like further out, as well as, you know, what the opportunities are for more supply before that – the agreement expires. Because we you know, if we could get more supply, we would certainly do that.

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Yeah. And I think just to add to what John said, I mean, the fact that we're able to sign a five-year agreement with GlobalFoundries it just talks to the visibility that we see in terms of the opportunity for multiple sockets over time. And then, in terms of just the profile of the agreement, the first couple of years, we're at a fairly high level, and then, we want to have the optionality to be able to upgrade the agreement as well as add additional resources as we need. And so just having that flexibility and optionality is very important to us as well.

Great.

So, we're starting to run out of time. I just want to make sure – check to see if you have any questions. No? No questions on the GlobalFoundries agreement. Well, okay. So, let me sneak one in on that same topic. So, I believe there's also an option to reserve a specified portion of the capacity in calendar 2023, but I believe you pulled some of that into fiscal 2022. Maybe I'm incorrect, maybe I'm incorrect. But I just want to make sure that we cover sort of the timing of revenue, meaning if you do pull in stuff right now, does that mean there could be a potential air pocket later on?

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Right. Okay. Let me just maybe untangle, right, quite understand you correctly, untangle a few different threads here. So, first of all, really, truly pulling in a lot of a meaningful number of wafers right now is not possible because every single wafer that comes like that as many as they can make...

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Got it.

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...right? So the big picture, that's what's going on. When we talk about pull-ins, and I think if not on the last earnings call, the one before, I did talk about pull ins which are important for us as a proxy for customer demand. If they're very impatient about it arriving in this week versus the following week, that's a good sense of they probably not sitting on a ton of inventory. But very, very – to the extent that we do that, very, very few pull-ins will actually traverse a quarter boundary. So it doesn't change the big picture of the revenue a great deal.

And then, when you think about the Global agreement, I think really, if I'm thinking of what you're thinking – referring to there in the agreement, really there's – there are various provisions and statements in that agreement which basically say, and if we can get more, We'll take it. And that – that's something that global and Cirrus continue to work on to get the daily and weekly.

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

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Right. And I can see why – why you would be a priority for them given who your largest customer is. So, let me wrap up with this question. And, you know, it tends to be a little bit of the elephant in the room when it comes to Cirrus Logic, which is customer concentration. There's no secret that your largest customer has been roughly 80% to 85% of revenues in any given quarter in a given year. You know, I know you've tried actively to diversified into the Android space, but, you know, just again, just given the analog HPMS part of portfolio, I mean, how realistic is customer diversification at this point?

A

Okay. First of all, our first priority is profitable growth. That's what we — that's what we prioritize and I would not understate the benefits of doing business with our largest customer when it comes to, you know, when they commit to something going into the product that can be years out and the track record on that actually getting there, shipping and delivering for multiple years is incredibly strong.

So, we view that as a as a great asset. What – and then diversification, I think this goes back to my point about there are some opportunities in audio, but kind of, you know, we're shipping audio into everybody in Android or most of the key sockets in Android at this point. The long-term – longer term path for us, I think is to continue to expand this collection of this portfolio of products and technologies we have in HPMS and use those as springboards to address other markets. Because I believe having that really compelling technology and products in power and so on, give us more opportunities for that.

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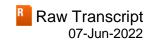
And I'll just add one thing that, I mean, we do have a strong balance sheet with \$450 million of cash. We generate a lot of free cash flow and we will be very prudent about using that for diversification from the standpoint of additional technologies and products as well.

Tore Egil Svanberg

Analyst, Stifel Financial Corp.

Makes sense. All right. So with that, we run out of time...

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