

# **AIXTRON SE**

## **Analyst Earnings Conference Call**

**Q3/2017**

**9M/2017**

**Results**

**October 2017**

Prepared Remarks

**Executive Board**

**Dr. Felix Grawert, Dr. Bernd Schulte**

**VP of Finance & Administration**

**Charles Russell**

The spoken word applies

## **Slide 1, 2 – Operator & Forward-Looking Statements**

### **Operator**

Good morning, ladies and gentlemen, and welcome to AIXTRON's Q3/2017 results conference call. Please note that today's call is being recorded. Let me now hand you over to Mr. Guido Pickert, VP of Investor Relations & Corporate Communications at AIXTRON, for opening remarks and introductions.

### **Guido Pickert**

*Investor Relations & Corporate Communications*

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Thank you, operator. Let me start by welcoming you all to AIXTRON's Q3/2017 results conference call.

I'd like to welcome our Executive Board Dr. Felix Grawert and Dr. Bernd Schulte, as well as our VP of Finance and Administration Charles Russell.

As the operator indicated, this call is being recorded by AIXTRON and is considered copyright material. As such, it cannot be recorded or re-broadcast without express permission. Your participation in this call implies your consent to this recording.

As with previous results conference calls, I trust that all participants have our results presentation slides, page 2 of which contains the usual Safe Harbor statement. I will therefore not read it out loud, but would like to point out that it applies throughout this conference call.

You may also wish to have a look at our latest IR presentation, which includes additional information on AIXTRON's markets and its technologies, and is available on our website.

This call is not being immediately presented via webcast or any other medium. However, we will place an audio file of the recording or a transcript on our website at some point after the call. I would now like to hand you over to Dr. Bernd Schulte for opening remarks **on Slide 3.**

## **Slide 3, 4 – Q3 Important Events, Guidance**

### **Dr. Bernd Schulte**

*Executive Board*

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Thanks a lot Guido, and a welcome to the presentation of AIXTRON's Q3/2017 results.

I'd like to start with an overview of the major developments in Q3 before handing over to Felix Grawert, my new colleague on the AIXTRON management board, who will introduce himself and give you more insights around our priorities in the coming quarters. This will be followed by Charles Russell, our VP of Finance and Administration, who will guide you through our 9 Months financials. I will then come back to you with a summary of our general business prospects.

We delivered a solid Q3 with revenues of over 62 million Euros and an order intake in excess of 69 million Euros. Both were stronger than the previous quarter which reflects the demand for our MOCVD solutions in particular for the production of Lasers, for 3D Sensing and Datacom as well as Red-Orange-Yellow and specialty LEDs.

We have announced recently that we have received a significant order from IQE – one of the key suppliers in the field of VCSELs – underlining the dynamics in this market.

We are also becoming excited about our opportunities in the power electronics area which Felix will go into more detail later.

### **Now to Slide 4 – Our guidance**

Given the increased demand across most of our markets for the second time this year we are able to raise our guidance. Now we have refined our guidance for 2017 revenues to the upper end to be in between 220m and 230 million Euros and we have raised our order intake guidance to a range of 240 and 260 million Euros.

We announced in the previous quarter that we had entered into an agreement with Eugene Technology in South Korea, for the sale of our ALD and CVD memory product line. We received the approval for that transaction by CFIUS early this week.

With this we believe that the transaction will be closed this year and this puts us in a position to forecast a breakeven on EBIT level for 2017.

Regarding our OLED activities, we have established APEVA – our OLED subsidiary, where we are seeking a joint venture partner to share both the risks and rewards of what we believe is a very big market opportunity.

Now, I am very happy to introduce you to Dr Felix Grawert, who joined me on the AIXTRON Executive Board in August. I am very much enjoying working with him and we are both convinced that we have a team in place which can deliver substantial shareholder value in the coming years.

Felix?

## Slide 5 – Technologies

### Dr. Felix Grawert,

*Executive Board*

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Many thanks Bernd, and a welcome from my side as well. Since this is the first time that I am talking to you, I would like to share with you my initial impressions on AIXTRON and on our strategic priorities are in the coming quarters.

In terms of my background, I spent the last four years at Infineon where I headed the business of High Voltage Power Transistors. Prior to that I worked as a consultant at McKinsey, in the areas of semiconductors and industrial High Tech. Through my work in both these companies I got to know AIXTRON, and having been a customer of AIXTRON for a number of years I am deeply convinced of the technology and the market potential of the company in the years to come.

In the last years AIXTRON has successfully made the move beyond the commodity LED business and now addresses a number of markets of higher value that play to the strength of the company: in VCSELs, in laser diodes and in the emerging market for power semiconductors, our customers ask for deposition technology of highest performance. Here, AIXTRON has a lot of differentiation potential and the excellent performance of its products creates value for its customers. We believe that our addressed markets will grow over the coming years into a sizable business opportunity for AIXTRON.

Let me take power semiconductors as an example **on Slide 5**. Today, this market relies on silicon as a material. The wide bandgap materials GaN and SiC offer a higher energy efficiency and allow for smaller form factors of the power converters. For example, industry experts estimate that a SiC-based main inverter in an electric vehicle allows for a driving range that is up to 10% more than a silicon-based solution. Alternatively the cost of the vehicle battery can be reduced by up to 10%. We see the first EV manufacturers adopting SiC based power electronics in their products today and we expect others to follow in the future. None of us know how fast EVs will grow and the adoption of compound based power electronics in them. We believe that electrification of transportation is providing us with growth opportunities over a multi-year period.

Having worked in the power electronics industry, I believe that we are at the beginning of a transition towards wide band gap materials and I am convinced that AIXTRON has a sizable market opportunity in this area going forward. AIXTRON is the technology leader

in this segment today and together with our customers, we want to shape market adoption of wide bandgap semiconductors.

As announced earlier, AIXTRON is committed to return to sustainable profitability in the coming quarters which is the number one priority for both myself and Bernd. We want to achieve this goal by maintaining or gaining segment leadership in the above mentioned growing high value markets. In order to achieve this, we will focus on customer value in our core segments, and we will make targeted investments in R&D to strengthen our offering, but only where the markets allow for a well-defined ROI.

Our OLED business – now in APEVA – is approaching major milestones in terms of customer qualification. Our Gen2 Pilot manufacturing tool is in final assembly and will be ready for testing by the customer this year. We are in discussions with potential Joint Venture partners in Asia for this business.

With that I thank you for your attention. Let me hand you back to Charles who will go through our Q3 numbers in detail.

## Slides 6, 7, 8, 9 – Key Financials Q3/2017, P&L, Cash Flow, Balance Sheet

### Charles Russell

*Finance and Administration*

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Thanks Felix and hello to everyone.

**Turning to slide 6, our Key Financials**, let me first explain the adjustments we have made.

These remove two effects which do not relate to our continuing business activities:

Firstly, in the quarter we received payment for a shipment made in prior years which has had a positive effect of 4.9 million Euros on order intake and 4.6 million Euros on both revenues and margins.

Secondly we have 1.4m in restructuring costs mainly related to the sale of the ALD and CVD product line.

Turning now to the adjusted values.

Orders received in Q3 of 64.5 million Euros continued the strong trend we have seen on order intake in recent quarters. On a year to date basis, we generated 193 million Euros in orders, giving a good indication of the positive progress we are making in our core markets. The strong order intake means that we ended the third quarter with an order backlog for equipment of 99 million Euros, 6% higher than the Q2/2017 backlog.

Revenues during the third quarter of 2017 were 58 million Euros compared with 61 million Euros in the second quarter, the change reflecting exchange rate movements. The comparable for Q3/2016 was 51 million Euros.

**Moving to page 7** you will see that our gross margin improved from 26% in Q2 to 35% in the third quarter.

The improved gross margin is a due to a better product mix and the absence of the low margin sales which affected the first half year.

Operating expenses of just under 19 million Euros still include the costs of the ALD/CVD business, the sale of which we expect to close in Q4/2017.

In the quarter we achieved an EBIT profit of 1.4 million Euros and a Net Profit of 1.1 million Euros.

**Moving to page 8**, which shows our cash flow statement for the first 9 months of 2017 as well as the third quarter.

On both a quarterly and 9 months basis we generated a positive cash flow from operating activities. 56 million Euros year to date compared with minus 35 million Euros in the year ago period, and in the quarter 13 million Euros compared with 9m Euros in Q2. The quarterly positive cash flow is largely due to the profit and advance payments received from customers.

**Turning to the next slide – our Balance Sheet.**

Inventories have been cleared of slow moving items and at 40 million Euros represent over 4 inventory turns.

Receivables at 21 million Euros remain at a very good level and are the equivalent of 31 days sales outstanding.

You will also see the continuing growth in advance payments from customers which now total 42 million Euros.

And our positive cash flow explains the growth in cash from 197 million Euros last quarter to 204 million this quarter.

With that let me hand you back to Bernd.



## **Slide 10 – Summary and wrap-up**

### **Dr. Bernd Schulte**

*Executive Board*

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Thank you Charles.

Going forward, the major short-term growth driver will be around our MOCVD technology across specialty LEDs and Laser applications.

In the mid-term, the emergence of wide bandgap semiconductor power electronics applications represents a growing opportunity for us.

With the approval from CFIUS and the anticipation that the sale of our memory business will be closed in 2017, we expect to achieve EBIT break-even for 2017 and continue to expect to generate a positive free cash flow for the year.

We are in discussions with potential partners for APEVA.

In addition, we are well on track to improve our margins and to optimize OPEX and align them with the revenues we generate.

We are clearly focused on returning to profitability next year! This requires us to remain disciplined about costs and cash flows.

Finally, we are very confident in our strategy in focusing on our core technologies and we believe that we are well positioned to take advantage of the opportunities we are seeing in front of us in compound semiconductors, Carbon Nanomaterials and OLEDs.

I would like to thank you for your attention, and with that, I'll pass you back to Guido before we take some questions.

**Guido Pickert**

*Investor Relations & Corporate Communications*

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Thank you, Bernd, Felix and Charles.

Operator, we'll now take the questions.

**Q- Janardan Menon – Liberum Capital**

Hi. Good afternoon. Thanks for taking my questions. I have a couple. One is that you said you've taken some orders for VCSEL and you have talked, publically about the IQE orders. But the general view on the industry is that the large North American smartphone maker, who is currently using 3D sensing, will spread this across the entire model range by the second half of next year, which would in most cases require a doubling of volume or perhaps even higher than that for all 3D sensing components including VCSEL arrays. I was just wondering is that a view that you share; and if so, should we not expect orders for that additional capacity to come on board sooner rather than later? Or is there any reason why such orders may not come in any such magnitude over this period of time?

And also, while on the order side, in your presentation, you talked about things like micro-LEDs as well as silicon carbide (SiC), gallium nitride (GaN) which is perhaps slightly more longer term. But, once again, do you think these are opportunities which could convert into orders in 2018 in any significant way? Or is it more sort of beyond that?

**A- Bernd Schulte**

Thank you for the question. This is Bernd. Certainly, we are positive about the laser applications, particularly the VCSEL opportunities. I can share with you that about 60% of our order intake in this quarter was for laser applications, including VCSELS. So, this is a very positive momentum right now and we also believe this is going to continue into next year.

The detail, of course, you know that we cannot share the exact numbers. Nevertheless, we are positive about VCSEL. And as I mentioned in my speech, we are very excited about this. This is certainly one of the driver of our current business and the business in the coming quarters.

**Q- Janardan Menon – Liberum Capital**

Will you think that your order levels at some point can rise from current levels? Or is that too difficult to predict at this point in time?

**A- Bernd Schulte**

It's quite difficult to predict. And as I told you, the current order level already include quite some impact from that demand growth.

**Q- Janardan Menon – Liberum Capital**

Understood. And on the other applications like micro-LEDs, gallium nitride (GaN), et cetera.

**A- Bernd Schulte**

Let me speak quickly about micro-LED, and then Felix will come back on the power electronics area. Micro-LED is for the mid to longer term. Certainly, we're selling few tools here and there; more or less for qualification purposes. But the major technical challenge here is in the mass transfer of the LED structure from the wafers, which is not related to our part of the business, namely the epi growth. What I'm hearing, and I'm probably hearing the same thing as you are, there is quite some technical challenge (about the mass transfer). And I do not expect a volume ramp from micro-LEDs within the short-term.

Nevertheless, there is sometimes some confusion. There is the business of the so-called fine-pitch display, which you have to differentiate from micro-LED. These are very small LEDs, but significantly bigger than micro-LEDs. They are used for 150-inch diameter displays mainly in commercial applications and still use traditional transfer. And that is a driver of the business today, and mainly for red LED but also for green.

**A- Felix Grawert**

Let me add from my side on the power electronics. We currently see a lot of very strong momentum for the market of silicon carbide (SiC) MOSFETs. This is the range of 600 volt, 1200 volt, 1700 volt and 3300 volt products. A key application beyond industrial usage is in automotive. It is being used for the automotive main inverter, the on-board charger and electric vehicle charging. And in the industrial segment it is used in photovoltaic, for example. We see that the whole industry is moving in that direction and thus we are expecting strong momentum going forward in the next few years.

Customers are currently in the development phase of products using SiC MOSFETs. We see market adoption ongoing and continuing in 2018. We all know the power electronics industry and the automotive industry as a relatively slow moving industry if we compare this with a consumer electronics industry. We are now positioning ourselves getting ready

for all the different applications, making sure that, in the year 2019, 2020, 2021, when the real volume orders come, we are well positioned. In summary, there is currently very strong momentum for silicon carbide (SiC).

The other market in the power arena is gallium nitride (GaN). Here, we have to differentiate between the gallium nitride (GaN) RF market, which is used, for example, for radio base stations, a market already very strong and continuing to grow. AIXTRON is very well positioned with a number of customers. Whereas the market for gallium nitride (GaN) power devices, 100 to 600 volts, it's moving a little farther out. This segment is seeing a little softer start than the industry overall was expecting. But still in the next couple of years, it is expected to be strong.

### **Q- Janardan Menon – Liberum Capital**

I understood. But just a quick follow-up, some companies in silicon carbide (SiC) like Wolfspeed have publically said that they will double capacity by the end of next year; II-VI has also said that they're committing a lot of CapEx to increasing capacity. So, are you beginning to see the effects of that on your order book already, or is that something yet to come?

### **A- Felix Grawert**

Yes. We definitely see that.

### **Q- Janardan Menon – Liberum Capital**

I understood. Thanks very much.

### **Q- Veysel Taze – ODDO BHF**

Just a follow-up on the power semiconductors. I understand that on the silicon carbide (SiC) and on gallium nitride (GaN), you have probably a better position on gallium nitride (GaN). But in silicon carbide (SiC), who are the main competitors? And what is your share in this business? I guess Tokyo Electronics is in this market as well?

### **A- Felix Grawert**

So, the key competitors in the silicon carbide (SiC) tool market as TEL, LPE, and NuFlare, just to name three of them. As of today, AIXTRON holds a moderate market share in SiC.

We have made significant advances in the performance of our tools over the summer of 2017. Based on this, it's our plan going forward to capture a leadership position in SiC.

### **Q- Veysel Taze – ODDO BHF**

In the orders you mentioned, the 60% related to laser. The 40% – were there already orders in power semiconductors? Or can you give a rough indication where this 40% were mainly related to?

**A- Bernd Schulte**

The other 40% has been mainly related to LED applications and power electronics – and don't forget we still have, in Q3, our silicon business where we deliver tools for memory applications to memory makers.

**Q- Veysel Taze – ODDO BHF**

And then looking at your order guidance, I mean that implies roughly €50 million plus in Q4. Is that a clean number without the memory business?

**A- Bernd Schulte**

It is.

**Q- Veysel Taze – ODDO BHF**

Great. And then on the financials, the OpEx run rate, it was roughly €18 million in Q3. And if I get that correct, you mentioned around €1 million restructuring expenses. So let's say €17 million, is that a realistic run rate going into Q4 and into next year? Or are still cost savings kicking in?

**A- Charles Russell**

It's Charles. The OpEx in Q3 and in the beginning of Q4 will still continue to contain the ALD/CVD OpEx, which stops at the point of close – sometime during Q4. In 2018, OPEX related to ALD/CVD, we expect it to be zero. But there is lumpiness in the OLED activity which may or may not change quarter-on-quarter. But overall, we expect it to be reduced by the ALD/CVD activity.

**Q- Veysel Taze – ODDO BHF**

So what would be good proxy quarterly run rate going really into next year? So what should be modeling with in terms of OpEx?

**A- Charles Russell**

I don't think we've given any guidance on that at all ever. So, I think it's just wait and see at the moment. We don't really want to give any guidance on the 2018 numbers at the moment, except the profitability of it.

**Q- Veysel Taze – ODDO BHF**

It's not really a guidance but given that a lot of moving parts also there. So just really to get feeling for the underlying OpEx run rate.

**A- Bernd Schulte**

I think it's a little bit too early to give this information. Keep in mind that we still are in discussion here with regard to APEVA. The timing has quite some influence on that. Please understand that we need some time to clarify, and then we will answer this question.

**Q- Veysel Taze – ODDO BHF**

No problem. And one final question, the one-off gain with the customer now paying for delivery in the past, a little bit color on that – who was the customer? What was the background on that?

**A- Bernd Schulte**

Certainly we cannot name the customer. You would understand that. But I tell you the story. These were tools we have shipped in 2013. We had, over the time, some concerns about the ability to collect the payments. As a consequence, we have not booked order intake. And now, having received all outstanding payments, we were able to book full revenue and had also the order intake accordingly.

**A- Charles Russell**

We didn't actually book the order intake before, which is why we booked it now. The revenue was deferred because we're not allowed to take revenue, if we do not expect to receive the payment.

**Q- Veysel Taze – ODDO BHF**

Great. Thank you.

**Q- Guenther Hollfelder – Baader-Helvia**

Question on the silicon business. I think it was like €11 million sales in the third quarter. Was this basically also in line with the order intake what you have with silicon?

**A- Bernd Schulte**

No. The order intake was a bit lower.

**Q- Guenther Hollfelder – Baader-Helvia**

And in terms of the gross margin, was there any negative impact from the silicon business in Q3? Is it below your average gross margin?

## **A- Bernd Schulte**

Overall, the silicon business gross margin is somewhat lower than our overall gross margin.

## **A- Charles Russell**

But in Q3, it was more or less the same as the rest of the business. So, it was not a drag on the Q3 margin.

## **Q- Guenther Hollfelder – Baader-Helvea**

Okay. Thanks. And last question, for Dr. Grawert. He already talked about the competitiveness in the power semiconductor segment regarding silicon carbide (SiC). I was just wondering on the gallium nitride (GaN) side, where you already have relatively strong position. How do you see the risks in single wafer penetration on the gallium nitride (GaN) side at power semiconductor makers over the next year? Based on what you saw at AIXTRON or seeing at AIXTRON right now, and also, of course, competition maybe also based on your experience at Infineon, do you believe that batch systems will continue to dominate this market segment? Or do you think there's a risk that single wafer that might move in?

## **A- Felix Grawert**

On the gallium nitride (GaN) power, in the gallium nitride (GaN) RF, I see AIXTRON in a strong position today. And furthermore, I do see batch tools also going forward in a strong position. The reason is that in the area of GaN RF and GaN power devices you have relatively long process time, due to slow growth rates and thick epi layers. Under these circumstances the underlying physical principles provide benefits to batch-wafer tools over single-wafer tools. We therefore see ourselves in a leadership position for these market segments. Furthermore, we have good developments in the R&D pipeline which will further support AIXTRON's leadership position in GaN power semiconductors.

## **Q- Guenther Hollfelder – Baader-Helvea**

And, let's say, not only RF, then on the power side.

## **A- Felix Grawert**

This holds for both GaN RF and GaN power devices as it has the same underlying device physics.

## **Q- Guenther Hollfelder – Baader-Helvea**

Both ends. Okay. Thank you.

## **Q- Harald Schnitzer – DZ Bank**

I've got a question on, the restructuring. Where do we see the breakeven provided when you find a partner for OLED? And where would be the breakeven if you would fail to find a partner? Thank you.

**A- Bernd Schulte**

I have to give you the same answer as before. We are still in the phase of structuring the APEVA business. As such, we are not ready at this point to give that information. We stick to the plan that we will be profitable for next year. But to what the exact extent of the profitability means, we are not ready to comment.

**Q- Harald Schnitzer – DZ Bank**

Does that mean in your guidance, you assume that the OLED businesses have found a partner?

**A- Bernd Schulte**

We assume that we will find a partner in 2018.

**Q- Harald Schnitzer – DZ Bank**

Thank you.

**Q- Craig Irwin – ROTH Capital**

This is Craig Irwin from ROTH. The question that all of my clients have been asking me about silicon carbide (SiC) is – how do we quantify the market? Everybody wants to know – is this a thousand reactor opportunity or maybe something in the low hundreds? What would you point to for investors to dissect this market and understand the potential for AIXTRON?

**A- Felix Grawert**

The silicon carbide market, we have sort of differentiate in two segments. There is an industrial segment and there is an automotive segment. The automotive segment has the potential to outnumber the industrial in the future by a factor of 2 to 5.

Thus, in the end, it will depend on the penetration rate of silicon carbide in the automotive domain. First of all, we need to consider the adoption of electric vehicle as a total percentage of cars being sold; and then the adoption of silicon carbide (SiC) within electric vehicles. We all know that there are big uncertainties in both areas.

So, in the end, I would assume that we talk here about several hundred but not about several thousands of reactors, but just in the order of magnitude here.



**Q- Craig Irwin – ROTH Capital**

And just to clarify. For several hundred reactors, is that consistent with some of these third party analysts estimates on the market?

**A- Felix Grawert**

We have compared with those and it matches.

**Q- Craig Irwin – ROTH Capital**

So if we look at those estimates and had a different view; you would say we would need to move the numbers consistent with that view?

**A- Felix Grawert**

Once again, as stated, there is very large error bar because it's really about predicting the adoption rate of electric vehicles of percentage of total cars and the adoption of silicon carbide (SiC) in this. I would not want to give you a guidance on these two big numbers.

**Q- Craig Irwin – ROTH Capital**

And then just another quick question if I can. The G5 unit that you've been selling predominantly into this market. Can you maybe talk about the relative pricing versus similar units that you offer? Are these premium unit? Do you expect the new technology that you're introducing in this market to receive a premium?

**A- Bernd Schulte**

I wouldn't call it a premium because these tools are typically fully automated and that additional automation certainly comes with a higher price tag. So, the range can be anywhere between \$2.5 million and \$3.5 million.

**Q- Craig Irwin – ROTH Capital**

That's great. Thanks again. We look forward to the customer feedback on your technology. Thanks.

**A- Bernd Schulte**

Thank you.

**Guido Pickert**

With that, we would like to close today's call. Thank you for your interest and your questions. You know where to find us, should you have any additional or follow-up questions. Have a good day and bye-bye.