THOMSON REUTERS STREETEVENTS

EDITED TRANSCRIPT

MXIM - Maxim Integrated Products Inc at JPMorgan Technology, Media and Telecom Conference

EVENT DATE/TIME: MAY 24, 2016 / 7:40PM GMT

CORPORATE PARTICIPANTS

Tunc Doluca *Maxim Integrated Products, Inc. - President & CEO*

Bruce Kiddoo *Maxim Integrated Products, Inc. - SVP & CFO*

CONFERENCE CALL PARTICIPANTS

Harlan Sur *JPMorgan - Analyst*

PRESENTATION

Harlan Sur - *JPMorgan - Analyst*

Greetings. My name is Harlan Sur. I'm the semiconductor and semiconductor capital equipment analyst here at JPMorgan. Welcome to the second day of our TMT Conference. I'm pleased to be with the team from Maxim Integrated. Today, we've got Tunc Doluca who is the President and Chief Executive Officer; and Bruce Kiddoo, the Chief Financial Officer.

Before we get started on the Q&A, I've asked Tunc to provide some opening comments and then we'll follow that off with some questions from myself and hope all of you in the audience have questions as well. So, Tunc and Bruce, thanks for joining us this afternoon.

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Great. Thank you, Harlan, for the intro. So, I just kind of want to frame things up before we do the Q&A. So, Maxim is in a transformation that we started, I'm going to say, about a year and a half ago. We -- once we looked at the moderating growth rates for our industry and also how much -- how powerful incumbency was for companies in our business, we decided that we had to make some transformational changes. Those changes really consisted of two parts, one of them was in manufacturing and the other one really was in the OpEx, or mostly R&D spending piece.

So, the manufacturing change really was to lower our cost base and we outlined a plan that would save the Company about $100 million of spending per year and be a great tailwind for us from a gross margin standpoint. That plan, we put in place, had various milestones in it, and I'm happy to say that we've hit every milestone that we put in place. And in this quarter, we were looking to -- we've guided to our gross margins getting to the 63% or so level, and there's still maybe a couple of more points to go on it in the next year and a half. So, that was the manufacturing transformation that we did. I won't bore you with the details.

The second piece of it was looking at the power of incumbency, especially in the analog business, we decided that we want to really put our precious R&D dollars into markets where we either had a significant presence already, we had the brand, the customer knew us, or into markets where we could really make a huge difference in the performance of our customers' parts. So that meant that we could take some of our R&D investments and shift them over to areas that had higher potential, and some of that R&D investment we thought was too high, so we decided to reduce that spending. So that, in total, gives us about annual savings rate of about $80 million. So, we put that in place, divested some businesses, and pretty much stayed on our schedule of doing this operating spending reduction in the Company.

So I kind of call this our self-help program in terms of improving the margins of the Company. The markets that we decided to invest heavily in were automotive, which we've been doing very well in growing over 25%, 30% over the past few years, so that's been very rewarding for the Company. We decided to invest in data center and cloud, which is a huge growth opportunity for our power management and optical products. We decided to invest in industrial, especially in factory automation, again power and communications parts in there. And finally, continue opportunistic deployment of resources for the mobility in consumer market. So, that's kind of the markets that we're going into. The theme that you're going to see, that you've heard in that was pretty much power management was part of every single market I talked about, and that's where we're heavily invested in, it's a brand we're known for. Resources that we can deploy across those markets and, when necessary, shift them from one area to another pretty seamlessly. So, that's all great for us.

So the end result of all this transformation is really improvements in the free cash flow of the Company. And because of those improvements, we obviously are sharing a lot of that with shareholders. We have a return of cash to shareholder of about 80% is what we've committed to the Street and that's what we're doing going forward, and there's still good tailwinds for us. What's important going forward now, now that we've restructured the Company, is to get topline growth and that's what we're focused on over the next couple of years. And with some of these fast-growing businesses we have now becoming pretty large, we see that that's a -- we see the path to get to that and begin to increase free cash flow because of growth in addition to having grown it because of our internal restructuring. So, it's kind of like a very brief history of the last one-and-half years of the Company.

Harlan Sur - *JPMorgan - Analyst*

That's a good overview. Thanks for that, Tunc. And thanks, Bruce, for being with us here as well. You guys guided for a broad-based growth here in the June quarter strongly up in automotive, strongly up in industrial, up in comms, and up in consumer. I think that investors in the market are still a bit concerned around many of the broad-based semiconductor companies and a return to growth and a question as to whether or not is this just inventory replenishment off of inventory correction that may be over-corrected or is it true demand pull from your customers. So, I'd like to get your opinion there, and how broad-based is it. And so the second question would be, how do demand trends look like from a geographic perspective as well?

Bruce Kiddoo - *Maxim Integrated Products, Inc. - SVP & CFO*

Sure. Yes, I'll go on to take that question. So, when we look at the growth and we've seen good growth in both the March quarter and in the June quarter, and when we look at the June quarter guidance, we kind of go through the markets. Automotive, we set up strongly, that clearly has been -- was up about 25%, 26% year-over-year in the March quarter. That continues to be a very good growth business for us. That's not -- that's sustainable, that's a secular growth driver around infotainment. So I think that business does very well for us.

I think, next, if you go to industrial, we did divest the business in the March quarter. And so -- but if you kind of normalize for that, we're up about 4% kind of up in the June quarter. That's normal seasonality. And so I don't think there's anything unusual there and that's probably the good area to kind of talk geographically. When we think about that, US feels kind of normal, nothing great, nothing bad. China was actually -- from a distribution point of view, is actually doing very well. That's probably more in the communication side, and optical is having one of its periods where it's doing well, and I'll comment on that. And then in Europe, I would say Europe was a little bit weak. It had a kind of seasonal March and we did saw the end-market bookings just a little bit below seasonal. But overall from a geographic point of view, nothing unusual, nothing great, but nothing to get concerned about. As you said, our comm business was up strongly in the March quarter. Our optical business was actually up 35% in the March quarter. And I'd kind of divide that into two pieces. I would say, the kind of comm infrastructure side, the PON business, fiber-to-the-home, I would say that was, whether it's an inventory kind of rebound or just kind of bouncing off a very low calendar year 2015, clearly that was more of that and less, I would say, of a true demand statement. And when we look at the June quarter for that, it's still up but not nearly as much. The other half of the comm increase was due to the optical and the data center, and that's where our 100-gig product started ramping in March for the first quarter -- for the first time and this is really within the data center, rack-to-rack communications. We think that's a secular trend. That's brand new, so that's no -- I think that's real demand, and I think that continues to grow in June.

And then finally, the consumer market, it was up strongly in March as expected with kind of the ramp of our largest customer's flagship phone. They ramped it a little bit earlier in the March quarter as expected. When we look out to the June quarter, we actually see the continued ramp of that phone, but the older products are actually kind of offsetting that and so we actually guided our largest customer flat. I think the good news is our diversification efforts started to show some signs of success in both kind of our audio business and tablets, right. The business we have in wearables and these are sort of fitness wearables at a Garmin or a Fitbit, and kind of opportunistically some business in China Mobile. All of those are up, each one not huge by itself, but collectively provided a nice uptick for the overall consumer business. So, in general, I would say everything we're seeing is primarily, I'd say, demand driven with the exception of maybe the comm infrastructure, which was probably more kind of a snap back.

Harlan Sur - *JPMorgan - Analyst*

Got it. Okay. Appreciate the insights there. One of the big changes over the years in addition to the focus on integration, systems-level focus has been very application-specific and market-specific products that's brought Maxim success in the mobile side, on the automotive side, on the common data center side. We just had TI here, not too long ago, and they tend to focus -- want to focus on sort of broad-market catalog. And so, the broader the portfolio, the more generic the portfolio, the better it was kind of their philosophy. And so, Tunc, the question for you is how do you think about the benefits and trade-offs application-specific versus broad catalog focus?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Okay. So, if you kind of look at the market and kind of divide it up into the markets that are more -- are better suited for broad-based, single-function multi-market type products versus more application-specific parts whether they're highly integrated or application-specific, I think there's place for both of them. I think a Company that's really looking at growing itself needs to have its feet on both sides. I don't think a company can just say, I'm just that or just that because, and I am talking about analog companies now. I think in the analog space, you need that broad-based products to sell to many customers, but in some markets there's no way to win unless you have a product that's really application or market specific. And there are many good examples of this. I mean, in the industrial space, it's probably -- a lot of catalog products make sense and we have those, and we have development in those areas.

And in other areas, if you're making a optical module product, it's pretty application-specific, but those provide us good opportunities, and I can give examples of them on both sides. So, our philosophy is in markets where we want to grow, where we need general purpose parts or multi-market products, we do those; and in markets where the way to win and differentiate for your customers is to make more targeted parts, we make those as well. And I want to really -- one more comment I want to make on this is that there is a difference between application-specific and then custom products. I think most of the risky, high-volatility businesses when you make custom products, so I want to make sure everybody or investors understand that our focus is on multi-customer application-specific products. And that's a lower risk profile and we like it that way.

Harlan Sur - *JPMorgan - Analyst*

We'll get into more of the application-specific focus, but sticking with sort of the core catalog business, which -- my understanding is, it's about roughly two-thirds of your industrial business, kind of help us understand what the team is doing to broaden the portfolio of products, success in catalog obviously also entails good distribution, strong field sales, technical support, documentation, web support, what is the Maxim team doing here to improve its catalog segment?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Yes. So, we have -- I mean, in the analog business, the thing we like about it is that many of these products, especially the more general purpose parts, kind of sell almost forever. Bruce always mentions that some of my products, the ones I designed, are still selling. I like the complement. They're low volume now. But that's true. I mean, when you look at our product portfolio and many, many products are greater than 10 years old and they still sell. So, we actually -- we wanted to make sure that we were doing a good job selling these products to more customers, and the way to do that, we thought, was really to collect all these parts and actually put them into one organization, we call that our core products business unit, and that fundamental change was very important for the Company.

Why? Well, this business was all scattered amongst a bunch of different organizations, and I think just like everybody, many of you in the audience, we always get drawn to things that are more exciting and new and trying to deal with old product lines and trying to sell them take second priority. So, now by collecting them into one organization, that becomes their goals, because they don't have a big R&D organization to develop new products with. So, that was kind of a mindset change in the Company that was part of the transformation that I talked about in the beginning. Once that flows, now that group has to find ways to better sell this product line and get -- instead of getting a slow decline over years to turn that slope to be -- even if it's small, a small positive or a growth.

How do we do that? Well, we do it with pricing discipline in the Group, use data analytics to do that, which we've put in place. We provide a lot of tools to the customer, so they can design these in without hand-holding from us and because most of these customers that buy these products are small customers that we do not directly touch. We also provide correct level of incentive for the distributors to go win that business for us, and we provide simulation tools, which many of the companies are now have done and we have a tool that we've been using for a while.

And then you have to, in some cases, refresh the product line, not with a lot of R&D investment, but really small, very targeted, how do we cost reduce something and make it a new version that's kind of looks like the old part, but is a lower cost base, a little bit better performance. So, I think these are all tactics. I think the strategy was really to collect it all into one organization with the goal of grow this business and not be distracted by research and development basically.

Harlan Sur - *JPMorgan - Analyst*

Got it. Let's go on to some of the other segments. So within the industrial segment, strong growth in the March quarter, seasonal growth expected here in the June quarter. You bought it up in the call, you bought it up today. Factory automation seems to be a bright spot. Is that more a pickup in factory automation fundamentals and manufacturing fundamentals or is that product cycles or a combination of both that you guys are driving? What's there in factory automation that Maxim seems to have some sort of leadership position there?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Yes. So, there is a -- and I want to remind everybody in factory automation, everything moves slowly, but there is a basic trend we see of doing more. If you look at the factory, it was very centralized in terms of control loops and process control. There is a trend to go to more distributed computation and decision-making inside the factory. You might want to call it the Internet of Things in the factory, but that trend is happening and what that's leading to is really many of the pieces of factory automation have to shrink in size because they are getting closer to the end process they're trying to control. A really good example was is in robotics. If you've looked at a car factory, it's robots do most of the welding and putting the car together.

Clearly, the more robots you can fit around the car in parallel, the faster the production goes, the cheaper it gets, and that will require smaller solutions. And the benefit that we're seeing from that is the customers now even value more power management products that are more efficient that don't waste heat, they care about communications -- short-range communications that are more robust. So, we've developed a lot of products to serve that trend that we were seeing for smaller size, less heat, so that you can do distributed computations and put these robots or other control elements closer to what you're trying to build. The end result -- and we've been doing this for five years, it's not like last year's product line. So, in the last five years, we've put products out in power management that are much more efficient than previous generations, we put out communications parts that are robust and more efficient, we call them IO-Link parts. All of these products are what kind of we're seeing is great growth opportunities but really benefiting from the trend of this automation or the computation that's getting closer to the fringes and it's -- industry, 4.0 is the term that a lot of people of use but that's what it's all about.

Harlan Sur - *JPMorgan - Analyst*

Great. Turning to the automotive business, you know, clear outperformer. In terms of growth for the Maxim team, it grew 25% year-over-year in the March quarter. Prior to that, it's been on sort of this kind of high 20s, low 30s type of year-over-year growth trajectory. You've talked to us before about the leadership position in infotainment, safety, and other parts in vehicle networking, the high-speed SERDES technology, but very recently, the team has started talking a lot more about battery management systems, BMS, and a tie into electric vehicle and hybrid electric vehicle, especially in China. This is something I think that you guys just have started bringing up the last couple of quarters. Talk to us about, first of all, what is BMS, how did you guys get into this market, and I think the only other guy that we know that has a leadership position here is Linear, which is kind of a good competitor have as well, but give us some background on Maxim's foray into BMS, and how big is the opportunity for you guys on a go-forward basis?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Yes. Short history of time. So, it's -- the origins of Maxim's entry into this is actually our presence in laptop computer, battery management systems that were called fuel gauges, but we kind of knew how to build these products that could deal with lithium-ion batteries and multiple cell stacks back in those days. Now that market kind of became more commoditized, so we saw how do we deploy these resources and we've decided that those characteristics where we could see it and it was pretty similar in automotive batteries. So, this is now 10 years ago. So, these products were developed. Our differentiator in the market was our ability to do the Communications, a lot more efficiently, usually in technologies that are more traditional that use optocouplers and so on to get to the high-voltages on the stack. We found a way to daisy-chain the products where we need all those extra components. And we put these new products out to market. There was interest in design wins, especially in Japan for these parts. But the growth was a lot slower than we thought it would be, frankly. And we kind of took a little pause in investment and kind of wanted to see how it worked out. And then this year, what happened was, there were more incentives, there were incentives provided by the Chinese government to really combat the pollution, air pollution problem, and that spurred a lot of new designs, design opportunities there and that really boosted our revenues. So, we're kind of glad that we have that product line ready, the technology ready, and now we're investing a little bit more to add a few more bells and whistles. But we think that we've got great technology, it provides value to the customer. The growth rate has been good this year. We think it will continue in the long run. It's kind of tied to how much electric vehicle hybrid vehicle penetration there will be, that's somewhat dependent on how much incentives governments give, but I think, to me as an electrical engineer, I think electric cars make a lot of sense. So, I think that it's going to be a good feel for us.

Harlan Sur - *JPMorgan - Analyst*

Great. On the data center side, we held an investor call earlier this month discussing Maxim's data center opportunity, especially in power management 12-volt and 48-volt solution and optical. I think our view is investors still may not appreciate the opportunity that Maxim has in front of it in the data center. Can you just remind us, what segments within the data center, Maxim is targeting to 12-volt to 48-volt solution, the optical products; and when some of these programs really start to fire and become a tangible part of the overall revenue stream?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Okay. So, thanks for giving me the opportunity to kind of explain it to the listeners here. So, if you look at the data center market, first of all, there is -- I think everybody is aware that the conventional enterprise server market is on a downslope, has been for years and it kind of accelerated a little bit last year. And the customers that are really buying and designing their own servers is growing. So, it's -- that customer base is more of cloud customers, Microsofts, and Googles, and Amazons of the world.

So, what we realized was that since this customer base is changing, the benefit for us is that this customer base is designing their own servers are the ones that pay the electricity bill for the life of that product. So, whatever decision they are making in building the server, they actually pay for those decisions for three to five years. So, they are lot more receptive to our ideas and our concepts, and our architectures, whether it's in power supplies or it's in the optical side. So, that's kind of high-level view.

The opportunities for us on the Power side is we have with the acquisition of Volterra, a couple of years ago. We have great -- very high density power management solutions, fully integrated solutions that have got a FET, the driver, the controller all on one chip. We have great couple inductor technology that was invented and IP protected by Volterra when we bought them. So, this is providing some real benefit to the customer, especially in power savings and in space savings. These two are the things they value. Now the way you can build that is with a 12-volt input, which is traditionally the way it's been built by everybody for a long time as long as I can remember. And now, essentially, we said where there is a better way to do this with a single conversion in 48-volt distribution. I think those of us that are familiar with electric power transmission, the higher the voltage, the less losses in getting the energy from 1.2 in others. So that's the whole idea.

And with this technology, you can -- in 12 old systems, almost half the power is lost in copper wires going to server, and in these systems, basically by increasing that voltage by factor Q4, because losses go down by factor of 10 to 16, roughly. So, that's the big savings. We actually developed the architecture, we got the products done, we worked with one customer, which was the leader in this field. They pretty much announced this to the whole world, they want more people to adopt it, which is great and it actually made it easier for us to talk about it to you, because we didn't want to compromise our customers' information, but I think that's going to be a trend that helps us. In terms of your question on revenue, we are winning designs with our 12-volt solution, which will -- this will be a transition. It's not going to be a switch just that goes from one to the other. So, those design wins are beginning -- we're going to start to get revenue in the last half of this year. That 48-volts timing is pretty hard to predict, depends on the customer, how they qualify the rest of the systems. We expect that to be more in 2017, probably in the second half. So, that's when we begin to realize some of these benefits.

Harlan Sur - *JPMorgan - Analyst*

Got it. Any questions from the audience? If you could just hold on, wait for the mike. Thank you.

QUESTIONS AND ANSWERS

Unidentified Audience Member

I can see for your fiscal 2017 year, the Street has revenue up 4% to 5% after being down the last couple of years and your operating margins going up over 30%, is this guidance that you've given or is there a risk here that the Street maybe has got ahead of themself. I appreciate some of the new things and maybe you'll get the revenue growth, but it looks like those are pretty healthy expectations to all of a sudden turnaround in one year.

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

So, we do not give guidance. We only give guidance one quarter at a time. So that's kind of -- the Street is guessing for us, and we're not going to change it and give guidance now either. So, that's the guidance. I mean, we can tell you about the puts and takes. I mean, basically if you look at the high-level strategy, we're trying to do with what Bruce explained earlier is to try to stabilize the business in our consumer space, which is really -- we predict Samsung is going to continue to go down slowly. We're trying to supplement that with other customers and other applications. So, stabilize consumer and then we have growth drivers from automotive, that's going to help out. And I think some people don't realize the arithmetic there, but automotive used to grow in these ranges, high 20s, low 30s, it didn't make a big difference when it was only 7% of our business. Now it's 18% of our business. So, that's a good tailwind for us. And then we do see some of these things kicking in in the data center side although kind of early, I don't think it's going to have that big of an impact. And industrial will be industrial, that's a slow growth business. So, those are kind of the puts and takes and I think that's how people are building their models, but I think we've kind of refrained from giving your guidance, it's very tough in our business, frankly. It's not that we're trying to be secretive, it's very difficult.

Bruce Kiddoo - *Maxim Integrated Products, Inc. - SVP & CFO*

On the margin side, the guidance that we gave for this quarter got to the midpoint with 63% gross margin sort of halfway towards our goal, and if you add up the numbers that we gave, you will meter or beat the 30% margin target in the fourth quarter as well. So, I think from a margin point of view, I think we're on track. I think the goal now is to get that return to grow from the topline.

Unidentified Audience Member

Hi. With EVs, how much content do you have in the battery management system of the EV, and does it sell into the OEM or is it higher up the chain?

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

So, it's -- so it depends on which country. If -- I'm going to answer your second question first. So, the design wins mostly that occur in Japan are mostly driven by the car manufacturers and they kind of tell their Tier 1s which part to use, so those designs are one, basically the car manufacturer;

and what we found in China, it was kind of the other way around, it was the battery manufacturers where given direction or more freedom or some of them were moving into making cars, frankly. So, it's coming more from the battery side in terms of the decisions on which product to use. In terms of content, obviously, it depends on the number of cells used in a system, but it could be anywhere from $20 to $40 depending on the car model. So, that's for a true EV or a hybrid type car. And the content more in just EVs because the battery is bigger typically.

Harlan Sur - *JPMorgan - Analyst*

Any other questions? A question for Bruce, running along the gentlemen's question here, which is you're pretty close, you're pretty -- you're within striking distance of your 65% gross margin target, 35% operating margin target. Can you kind of level set us, help us understand where we are in the restructuring and where do we go and what is it going to take for us to get that additional 200 basis points, 300 basis points of margin expansion from where we are today?

Bruce Kiddoo - *Maxim Integrated Products, Inc. - SVP & CFO*

Sure. We've made most of the decisions and -- or actually we've made all the decisions and executed on all but really one of those. So, we shut down our small developments fab in San Jose, all right. We consolidated our test facilities in the Philippines. We sold our large fab in Texas. And so really the last item is the closure of our small -- we have a small bump fab in Dallas, we've actually sold that facility, that campus, but we're going to rent it back through probably the March quarter of 2017. But, we've executed on all of those items, we just have to finish up the final transfer of products with the bump fab.

So, from a gross margin point of view, we're at -- we've guided to the 63% for June. We think when we shut that bump fab down in the first half of calendar 2017, we'll probably get up to 64%. And then as we start getting the full benefit from the sale of San Antonio, and to be clear, a big part of that benefit is as TowerJazz starts to fill that fab with their own products that allows us to kind of better utilize our remaining internal fab up in Oregon and that will give us the additional benefits such that we exit calendar 2017 at that 65%. I think the good news about the gross margin side is this is really just a factor of time. I mean, at the current revenue levels, we should be able to achieve that. Certainly, if revenue goes down, right, that would be an issue. But it's really just a factor of time and it's really -- the execution risk is -- while there's still work to be done, I think it's very manageable.

I think, on the operating margin side, from an operating expense point of view, we've made the decisions that we've made, we've sold the businesses, those will kind of complete the divestitures this quarter. We'll probably be about $185 million in the June quarter [at may]. And I think as we kind of go forward, we'll probably stay in that range. We may dip down depending on the quarter or go up a little bit depending on profitability. And so from that point of view, to get those final two points to the 35% op margin, there is some revenue growth that's required. And then it's just you can do the math as far as 65% op margin, $185 million plus or minus OpEx, and you get into the low 600s as far as what's required to get to the 35%.

Harlan Sur - *JPMorgan - Analyst*

Great. We're out of time. Thank you for the insights, Tunc and Bruce, appreciate it.

Tunc Doluca - *Maxim Integrated Products, Inc. - President & CEO*

Thank you.

Harlan Sur - *JPMorgan - Analyst*

Thank you.

Bruce Kiddoo - *Maxim Integrated Products, Inc. - SVP & CFO*

Thank you.

Harlan Sur - *JPMorgan - Analyst*

Thanks, Bruce.