

Advanced Semiconductor Engineering, Inc.  
2<sup>nd</sup> Quarter 2015 Earnings Conference & Conference Call  
July 30, 2015  
3:00p.m. Taiwan Time

Ken Hsiang: Welcome to the ASE Group Second Quarter Earnings Release. All participants consent to having their voice and questions broadcast via participation of this event. If you do not consent, please exit the room or disconnect from the line.

Please refer to page one of our presentation which contains our Safe Harbor Notice. I would like to remind everyone on this call that the presentation that follows may contain forward looking statements. These forward looking statements are subject to a high degree of risk and/or actual results may differ materially from those forward looking statements.

Our COO, Dr. Tien Wu will be going over a brief mid-year update and our CFO Mr. Joseph Tung will be going over the financial results, followed by a Q & A session. Following the event, our VP in charge of Public Relations Eddie Chang will be addressing the media in Chinese after the (release). Tien?

Tien Wu: Good afternoon. Welcome to ASE's Q2 2015 Earning Release. There seems to be a lot of concern, question regarding the state of the industry as for us - for ASE in terms of performance for the first half, as for as our second half outlook. I will be going through three key elements in this brief presentation. First, I will give you a first half business recap. Then I will talk about the SiP update. Then the last portion will be the second half outlook.

Let me try to cover the first half business recap. I think all of you are already aware of the environment that we're in is certainly challenging, low visibility, and mixed message. There is a lot of discussion about the iOS versus Android share exchange. PC is slowing down. We have seen very visible signs. However, if you look at the auto and the industry we have seen some growth in the second quarter. And by and large the volume has been steady.

So the market environment at best is mixed. There seems to be a very aggressive inventory control which started in Q1 of this year. Typically the inventory control should not last more than two quarters. The way we would like to quantify this is we believe the inventory control is slightly ahead of the market sell through and pricing stability.

By saying that, what we meant is the market sells through actually is in range. The pricing by and large has been stable. So I think inventory control has been aggressive. Of course, it's very difficult to predict when will the inventory

control be ending. Also, how it will end. However, we are monitoring this situation very closely and hopefully by the end of this quarter we'll see some good signs.

There's always a lot of discussion about consolidation and how does the consolidation on the customer end as for as on our competitor's end. How would that affect our business short term and long term? Our view is all consolidations are positive, specific for OSAT that our customer's consolidation or our competitor's consolidation will effectively eliminating old assets. And -- because of consolidation, because of search for new efficiencies -- there will be higher and more demand for new capacities typically more advanced that requires investment.

Let me talk about the ASE first half achievements. Our total consolidated revenue of the group base is up 15% year on year. Consolidated SiP revenue tripled year on year. As a percentage of total revenue, it has moved from 7% of last year first half to 19% of this year. We do believe this trend will continue into the second half of this year. Flip Chip, bumping, wafer level packaging revenue, the so called advanced packaging revenue, is up 11% year on year. We do have share gain against our competitor, as well as we are seeing package migration into advanced technology as well as SiP.

All of you know that ASE has been driving the SiP conversion for the last few years. I think it's good, as we are learning this new platform through customer's collaboration ask for feedback we become more evolved and more sophisticated in articulating what is the SiP characteristics as with value.

Here I would like to give you our current view about the SiP paradigm. SiP is to integrate heterogeneous components and functionality into the most efficient form factor and cost ownership. To do this we must collaborate with system house, IC, sensor, MEMS, optical, memory, substrate, materials, and equipment suppliers from design to manufacturing. As we are repeating this process, one product, second product, third product our knowledge base will expand accordingly.

Create a standard platform with established capacity, process flow, and -- more importantly -- the business ownership; in other words, how do we divide the total SiP liability, the revenue stream into different participants that are joining SiP platform. We do believe this will help us for the grand SiP migration, which we have just begun.

It's a truly global, it's a truly collaborative, it's a truly vertical. Embedded in three statements, it's the competitive advantage of ASE group. We would like to claim that, not only just with the first one, to repeat the SiP IP as well as partnership it does take a lot of years of effort. We do believe ASE has a leading competitive advantage versus our competitors.

You have seen this chart for many times. I would like to give you periodic updates on this chat. What I am showing here is the SiP -- what I call -- toolbox. In this toolbox we're adding two new elements. For example, on the top end of the chart it's a 2.5D Interpose. We have announced the collaboration with Inotera in April of last year. On the bottom, this is the embedded organic substrate which we have also announced a joint venture with TDK.

I'm happy to report the first product on 2.5D -- which I will show you on the next page -- has been starting volume production and shipment. That is the AMD Fiji program. On the bottom -- that is the embedded substrate -- we have many products in the design pipeline. We will give you updates as time matures.

This is an example of what we call the alternative to Moore's Law. This is the first high volume -- 2.5D -- production that we have shipped in July. It has 20 times more IO count comparing to the most advanced flip chip BGA package today. If you look at some of the detail, the package size is 15 millimeter by 15 millimeter. The interposer chip size is 24 by 36. You have one large chip in the center that's a graphic chip on AMD which is 22.2 by 22.2 millimeter. We also have four highly condensed stacked memory as well as many other passive components.

The whole concept about the SiP is we would like to open the freedom for the designer such that they can design more functionality into a better form factor as well as possible ownership. This is only an example of that.

So lastly I would like to give you an outlook for the second half of 2015. Even though the visibility is very poor, we remain to be cautiously optimistic for the second half. We do expect on the ASE end we will see sequential growth in second half for both ICATM as well as EMS. Our CFO will give you more specific numbers in his presentation.

We continue to build SiP momentum based on existing projects as well as new projects. CAPEX stays at current pace. In the first half for reference we spent U.S. dollars - 353 million U.S. dollars. Thank you very much.

Ken Hsiang: Joseph?

Joseph Tung: Thank you. Good afternoon. Let me quickly go through the second quarter results and give you a bit of color of how Q3 is shaping up. Let me start with Safe Harbor Notice, of course. Okay, you have another three seconds to read this through; one, two, three.

We're done. Alright. Second quarter is a bit disappointing. We were expecting a bit of more growth in the second quarter, but - however we ended the quarter with only about 9% growth on a consolidated revenue basis.

And of which packaging revenue is actually - came down about 2% while in direct materials sales came down about 3% while the test business actually went up by 1% and EMS has most of the - starting most of the growth in the quarter in terms of revenue. It went up 22%, largely because of the ramp up of a new EMS SiP product.

With the most sluggish ICATM revenue and also the new EMS SiP product running at below breakeven loading, the gross profit margin came down as expected from 19% to 16.5%, a 2.5% drop.

Operating expenses was kept in check. Pretty much stay flat from previous quarter. In terms of percentage it came down from 9.3% to 8.8% of sales. With that operating margin came down -- the drop was less than the drop at the gross level -- came down from 9.7% to 7.7%.

In the quarter, the non-operating losses was practically down to zero. Compared to last quarter we had about over \$750 million loss at non-operating levels, largely because of the ECB mark to market loss, which didn't happen in this quarter.

So the pre-tax income stayed pretty much flat from 5.4 billion, but this quarter we have much higher tax - income tax, largely because of the tax that we need to pay on our retained earnings, which amounted to be over \$550 million. And also there is a write-off of DTA -- which is a deferred tax assets -- resulting in a much higher tax to this quarter's, grossing around 1.6 billion.

Now, letting the tax and also the non-controlling interest, our total net income this quarter came down a bit to about 3.6 - close to 3.7 billion, down from 4.5 a quarter ago. And the EPS for the quarter - basic EPS is 48 cents. In terms of first half, our total EPS is basically 1.06 NT dollar a share. EBITDA we're at very close to previous quarter's level at \$13.4 billion, a 19% net EBITDA margin.

Comparing to previous years -- same period last year -- the overall revenue had a 20% growth, again it's all coming from EMS growth, which grew about 68% where packaging and test and direct sales on materials all came down about 7%, at 6%, 4% respectively. Now, with the smaller revenue, the margin came down gross level from 21.5 to 16.5 and operating from 11.3 to 7.7.

Looking at ICATM, here I want to quantify by saying that here the packaging revenue includes the SiP revenue we do for EMS, which was eliminated at the consolidated level. So here we're seeing the overall ICATM revenue reach 37.7 billion, which is slightly down from previous quarter - a 2% drop.

That drop largely came from assembly as a result of mostly the smaller advanced packaging revenue for the seasonal down of the SiP revenue. With the smaller revenue, the gross profit margin came down a little bit from 25.9 to 25.2. Operating came down from 14.4 to 13.5.

Taking a look at the packaging operations - revenue came down sequentially from 31.5 to 30.5 - or 30.6; came down about 3% where margin because of the smaller revenue consequently came down from 23.7 to 22.7. Largely the margins impact was mostly impacted by the higher percentage of depreciation attributed to capex throughout the year.

And some - packaging revenue, for example - you can see that the advanced packaging percentage came down with 33 to 31%, largely because of the high end flip chip and bumping revenue came down. And also more - more so on the SiP revenue came down in this quarter, which is normal seasonal pattern.

Wire bound being - also came down a little bit from 58% to 57%, whereas we see discrete and others actually came up 9 to 12% because we are gaining shares in discrete and also we are - the - some of the RF sensor business has gone up and we are also seeing some automotive chips volume increase.

In the quarter, the overall utilization rate was capped as followed, mid 70%. And ASP was relatively stable. In the quarter we didn't buy any bonder. We actually retired 110 bonders in the quarter. So making our total bonder count at 15,662. Capx for the quarter for packaging - it's about 86 million - I'm sorry, \$140 million. Of which about 56 million is for flip chip bumping and the rest for common usage as well as for projects.

Test operations in the quarter actually came up 1%. As a result, margin also improved from 30.3 to 35.2%. In the quarter -- again -- the ASP was quite stable. Utilization actually came up a little bit from mid-70 to high 70s. In the quarter, we spend \$43 million capx for tests. We added 95 testers and retired 64, with a total tester count at 3,370.

Material operation actually came up a little bit, but in terms of direct sales it actually stayed pretty flat. The internal supply rate actually came up from 28% to 33%, but because of the less favorable product mix shift, the gross profit margin of material operation came down from 17.1 to 16.2. In the quarter we spent about \$5 million capex for materials.

Looking at the revenue breakdown by application, in the quarter actually communications stayed pretty flat at 55%. And - but we're seeing the PC sector to come down from 11 to 10%. And as I mentioned, in auto and industrial and consumer actually came up a little bit. We're seeing that percentage coming

up from 34 to 35% in the quarter. Going forward, I think in the third quarter we're seeing relatively flat composition from this quarter.

EMS operations the revenue came up 22%, but margin came down because -- as I mentioned earlier on -- the - most of the revenue growth is driven by the new EMS SiP products. Unfortunately loading is still being run at the below breakeven level and therefore it had a negative impact on the gross profit margin for EMS business. In terms of revenue breakdown, you can see that the consumer sector, the percentage actually went up from 18 to 28% as a result of the new - the wearable product that we're shipping now.

Okay, on the balance sheet our cash and cash equivalent actually came up to about 59 billion NTD dollars today where our interest bearing debt came down from 90 - close to 92 billion to - from 94 billion a quarter ago. And also in the quarter we've recognized our dividends from equities was shifting our dividend payout from equities to liabilities. And as a result we're seeing the smaller equity number in the quarter and also lower current ratio. So with these judgments, we're seeing current ratio came down from 1.48 a quarter ago to 1.34, whereas net debt to equity actually came down to 0.22.

In the quarter we continued to have positive cash flow where our EBITDA was \$434 million and capx is 215. Out of this 215 -- as I mentioned earlier on -- \$140 million for packaging, 43 for test, 27 for EMS and 5 for material. With that, I conclude the second quarter results and bring you a little bit of color on the third quarter.

In terms of ICATM, the - projecting the production capacity should be flat and balanced - blended IC ATM utilization should go up from - anywhere from 1 to 5% in the quarter. For ICATM's gross margin should resemble what happened in Q1. EMS revenue number should approach fourth quarter 2014 level because of the continuous ramp up of the new EMS SiP product. They will continue to have some pressure on the gross profit margin for EMS business. Now with that I conclude the presentation.

Ken Hsiang: No questions?

Randy Abrams: Thank you. I'll start with the first question on the third quarter outlook. Could you talk a little more - a bit about some of your peers in the industry? With utilization up one to five and you get currency; you should be seeing some decent growth in ATM. Could you talk about how much has been driven by the SiP business, which flows into the ATM division and how the rest of the - kind of what you're seeing trends of the other parts of the business?

Tien Wu: The 3<sup>rd</sup> quarter we will have the SiP growth, we won't give you the specific percentage, but right now, we do expect to see utilization to go between 1%

to 5%. I think has a lot to do with the product mix. I think the - each competitor of ours is serving different clientele and they will go through different product cycle. I think in the second half it is well known that the iOS product is probably ramp up a bit more than Android product.

We are seeing the overall stability in the consumer slightly up. We are also seeing the automotive slightly up. The wireless for ASE we will also see slightly up and PC flattish. I'm not sure that answered your question, but...

Randy Abrams: No, no, that's fair. I guess for the SiP - if you could give an update on contribution; how much is in percent of ATM, percent of consolidated and then how you can see SiP growth for this year.

Joseph Tung: In terms of ICATM and in second quarter as we have about - a percentage SiP revenue represents about 5% above all ICATM and came down from about 6% a quarter ago because of the seasonality pattern. Of course that ratio will go up in third and even fourth quarter as we continue to ramp up the next generation product.

In terms of overall, the SiP revenue accounted for about 22% in the second quarter, up from 15 a quarter ago because of the EMS SiP product ramp up. And for the whole year I think we were expecting by fourth quarter SiP revenue on a group basis to be closing in on 30%. I think that percentage will be just down by the way the industry's going. So I think the percentage fourth quarter will be over 25 but it will be below our original expectations.

Randy Abrams: The follow on question I'll ask on the SiP - or sorry, the EMS gross margin is coming down a little bit more in third quarter. Could you talk - is it that the volumes - like maybe how far you are from breakeven? Because it sounds like it just - loading more like the project is below expectation on volume or is it a yield issue? Or is it also from new projects starting up that lower the margin. And the second part is if you think medium term, where do you think the margin for EMS business should be looking out 6 to 12 months?

Joseph Tung: That will be a million dollar question, yeah. I think the - right now the situation is we - for the new products we are still running at below breakeven in terms of loading. And, you know, this is a new product in a new business for not only us but for our customers. So both of us need to go through the learning curve. And I think we are - as we gather more experience and gather more data points we will be making the necessary adjustments, including, you know, bringing down our costs, including making some adjustments on the - how we do business, actually on this particular type.

But one thing I do want to stress is that this is really a new business and it's a really a strategic investment. There's going to be a learning curve that we need to go through. So, you know, it really depends on how the whole product

shipment will shape up and also what kind of impact we will have after all the adjustments that we make running the business.

I can't tell you that exactly when and how much - what kind of margin we're going to eventually achieve. I think as time goes on, I think we will mature on this. I think eventually we will be reaching our profitability and making the necessary return on this.

Randy Abrams: Thanks.

A final question just on visibility into additional projects where you've been ramping up several these past couple of years. How do you feel - a kind of initial snapshot if you look into next year if you see additional projects layering on at your first major customer and then also diversifying traditional customers?

Tien Wu: I think to answer that, both questions are yes. We do have additional projects with particular customers. We're also landing the new projects, even though the revenues are too small. However, we have great numbers of them, and hopefully they'll start contributing.

One more clarification on the answer - on the question you just asked about the particular wearable project. We are going through a very dramatic learning process. One of the things - it's like everything. There is a good side. There is a bad side. There is a bad side. There is a good side.

What we have found is as we're going through this learning, we have a tremendous amount of achievement on the yield. The yield has met all of the internal objectives. The yield is not an issue right now. In terms of the volume, because the initial volume projection versus the capacity preparation versus the break-even point, that puts a tremendous amount of pressure on the EMS side of this.

On the flip side of it, it does open up the flexibility to look at it. Under the current capacity and the resources that we have allocated over the last two years all the knowledge we have collected, are we in a better position to look at how do we give, divide it up on the existing products as far as the next generation? In other words, there is a matter of the volume not meeting the break-even point in the current generation.

But there is another question: Are we in the better competitive position because we are already having these (soft) resources as for capacity with some modification? How do we trim, optimize the cost structure? We're much better equipped for the next generation. But this question is what we're going through in the new product category.



Randy Abrams: I just have one quick - is it a way to judge how far from break-even? Like how much you're falling below to get a sense how much of a drag on possibility are being below break-even on this?

Tien Wu: I'm afraid I cannot give you specific detail on that one.

Randy Abrams: Okay. Thank you.

Tien Wu: Of course, from an operational perspective, we're trying to manage that as close as we can.

Randy Abrams: Thank you.

Ken Hsiang: The question was from Randy Abrams, from Credit Suisse.

Ken Hsiang: Oh, please introduce yourself.

Eric Chen: Okay. Okay. UBS Eric Chen. I just tried to - I just followed a question. You just mentioned about a new business and the loading – below a break-even level. I would like to get the idea about a break-even utilization rate. What kind of utilization rate we're talking about for the break-even?

Joseph Tung: Well, there are a lot of adjustments. So this is just really a moving target. I can't give you any specifics now.

Eric Chen: Okay. How about a capacity for the current new business for the wearable device? Will that be the same, the similar equipment for the next generation?

Tien Wu: I think this is the collaboration that we're going through. I will not be able to give you a specific number. However, we're trying to manage the total installed capacity. We're trying to go through all of the options, right, as we speak. Okay?

Eric Chen: Can I say this is probably too early to judge? That really depends on how the client to define their new generation spec, right?

Tien Wu: You said better than I did.

Eric Chen: Thanks, I try my best.

On the other hand, once we look at the utilization rate in the first half, and probably not so good as our expectation. Given the sell-through and people talking about the market, still not good. Can we image all the gross margins for the EMS probably in the second half? Would it be the similar level as the first half? General speaking.

- Joseph Tung: It will be similar, yes.
- Eric Chen: Okay. So that means like a 7 to 8% over the gross margin, right?
- Joseph Tung: No. I'd say in this quarter we're about 6.4. As for the Q1, actually in last meeting in Q1 - I already mentioned that Q1 it was 8%. It was not a normalized margin. The normalized should be around 6.9 because in the first quarter we have a reversal of inventory...
- Eric Chen: Okay.
- Joseph Tung: ...that boosted the first quarter's gross margin.
- Eric Chen: Okay. So more like close to 7%?
- Joseph Tung: Yes. It will be a normalized margin repeating in the second half.
- Eric Chen: Okay. In that case, is it fair if I said all operating margin for the whole year, that would be lower than last year and probably 100 basis points to 200 basis points at this point from last year's level?
- Tien Wu: I'm sure you have your own model, but I can only tell you for the gross level, it would be similar.
- Eric Chen: Okay. I think that answered my question. I appreciate it.
- Roland Shu: Hi Tien and Joseph. I think we still follow the SiP questions. So in second quarter, all the SiP projects under break-even level? Or this is just for the new project?
- Joseph Tung: Thank God it is. It's only this particular project that is running below break-even. Other things are moving very nicely.
- Roland Shu: So how many was that? How many projects are you - on the break-even level?
- Joseph Tung: How many projects? One.
- Roland Shu: Also by the end of this year, SiP probably around 25 to 30% of total revenue. So can we assume all of these projects, the utilization rate are above break-even level?
- Joseph Tung: Everything else is above break-even level, yes.
- Roland Shu: We can assume the growth margin probably would up significantly in 4Q?

- Joseph Tung: Are you referring to this particular project, or you referring to SiP as a whole?
- Roland Shu: Overall, for 25 to 30% of the total revenue from SiP by the end of this year.
- Tien Wu: Okay. As we stated, we do expect to see sequential volume growth or revenue growth applied to the IC ATM and EMS in the fixed capacity we already put in place. As the volume goes up, I think it's natural to expect that. In gross margin level or the operating margin level, we will see quarter-to-quarter improvement.
- I'm not sure if I answered your question, but, you know - and I try not to answer the specific project but it seems to be everybody is very interested on that. Even for that, I think I already hinted there is a lot of optimization that we will go through between now to the foreseeable future. So I'm pretty sure on the cost side we'll also manage that. Of course, this is a very strategic project it's very, very difficult and very, very challenging so far even though we have not reached the financial expectations.
- (unintelligible), we have surpassed our initial target, especially on the resources, on IT portfolio on the collaboration on the logistics. Let's not forget SiP is a new campaign, is a brand new platform. We're doing the path setting. We're doing the path finding. Initially we do expect on the investment side there will be some uncertainty, and we're going through that right now.
- We're feeling very, very optimistic as we go through this challenging project, the trust between the partnership, the collaborative spirit, I believe we will yield to make the long-term benefit for the group.
- Roland Shu: Okay. Thanks. I have another question for you. Since you said that ASE is building momentum under existing and the new SiP projects. So can you give us more color on the new SiP project you are doing in the near-term or long-term? What kind of application and what kind of customers you are working with for the new SiP projects?
- Tien Wu: I don't think I'd comment specifically but I'm pretty sure you will find some new products that have come out pretty soon. Sorry.
- Roland Shu: Okay (unintelligible)..the product other than smartphone, they also have the SiP projects from ASE?
- Tien Wu: We promise each other will never come out specific customers. So I will give you a non-qualifying, non-specific answer. We are expanding the SiP coverage to the cellphone, to the tablet in that particular arena. Hopefully, we can report more revenue, more penetration.

At the same time, we're also expanding the wearable as well as the IOT products. I believe in the foreseeable future, hopefully the beginning of next year, I will be able to showcase some of the IOT products; that are being market the United States and worldwide basis in volumes.

Again, as promised before, SiP is not a single customer specific or single application or segment. SiP is a new platform. We would like to demonstrate over the next few years how pervasive SiP can be applied in volume and how this new product can change our lifestyle. So I'm pretty optimistic about this.

Roland Shu: Thank you. I think last question from the 2.5D project. For this 2.5D project, you're competing with the foundry? or are you collaborating with foundry? How do you differentiate your 2.5D project from foundry? Thank you.

Tien Wu: All right. I think the answer is - well, 1% in competition and 99% collaboration. On the specifics Fiji projects and we have full authorization from AMD to release the information.

In the first launch volume, we're collaborating with UMC, on the interposer. The UMC provides interposer with over 200,000 of microbump. This is 20 times greater than any technology on the packaging end of it.

In the next generation, we will continue to evolve. Either the foundry models or our joint venture partner in Inotera. So I think this is only one (unintelligible).

Now, specifically if 2.5D be in competition with 3D or TSV or any other foundry, the answer is no. I believe the market is big enough. By the way, the whole concept of SiP is the higher the value from the chip residing on all kinds of substrate, the higher the value the better it is for ASE to put on the SiP.

In other words, whether it's from foundry number one, foundry number two, whichever IC supplier, whichever memory supplier, whichever substrate or interposer supplier, our concept is to have a higher value mix of functionality. We can integrate them in a better form factor, better efficiency under the SiP.

So in this way, the better the IC, the foundry guys can advance, the better it is for everybody including ASE.

I hope it answers your question.

Ken Hsiang: The next question will be coming from Dan Heyler. Dan, are you on line?

Dan Heyler: Yes, I am. Thanks for that. I'll move over to the core business, the semiconductor ATM. I wanted to ask you guys - I mean, Tien, you've been through many cycles here. I'm wondering what you're feeling is and how

things have been kind of playing out here relative to, say, other cycles? Some tend to be demand driven. Some are kind of inventory driven.

Have there been kind of dramatic, you know, types of revisions to customer forecast the last couple of months? Just give us a sense of how things are playing out relative to previous corrections.

Tien Wu: It's a very hairy question because one can never play the - we don't have a very crystal ball on this one. But if you ask my personal opinion, I will give you a few facts. In 2010, the industry has gone through 26% of growth. In 2011, '12, '13, '14, we have gone through anywhere between 0 to 5. Last year was 7.9, 8%.

This year, we tend to pay the penalty for the Q4 inventory that we have overbuilt. If you look at the demand side, the demand side is actually keep pretty much in check, there is a lot of pessimism because of the financial world, because of the political arena. Therefore, everybody is taking a very, very cautious step. Everybody hit the break. That's why I believe we have such an aggressive inventory control because of the sentiment.

Now, let's look around. The pricing is very stable. That means the industry does not have an overbuilt capacity from wafer, OSAT, all the way down. Now if you believe this are the truth, that means that I think in Q3 and Q4 we should see some slight improvement.

Now, every comment depending on the financial because if you have another 2008/2009 repeat, then everything is out of the door. But today when we look at the overall customer forecast, the sentiment is very low. On the other hand, no one is adding capacity into the supply chain. So this is all we have.

When the demand is going through the shopping season in the year end, we will see how that plays out.

I hope that answers your question.

Dan Heyler: That's wonderful. Thank you.

And then maybe moving on a little bit to advanced packaging. TCB bonders so far have been adopted at the very high end, IBM, really. And I'm wondering whether or not you think that's a technology that would be applied more to the OSATs. I think the issue there has been (unintelligible).

Sorry, a fairly specific question. I'm just wondering about high-end packaging, high-end bonders: At what point do you think that's going to be mature?

Joseph Tung: Are you asking about 2.5D or are you asking about...

Dan Heyler: Thermal compression bondings. Kind of the TCB that are being used in memory cubes and servers chips and others. There is a (unintelligible) for this to move into application processors as a differentiator and also potential competitor with InFO, so that's kind of what I'm...

Joseph Tung: I'm sorry. I do understand the question. We do have a different opinion in the industry about the thermal compression bonding. So I won't be able to give you specific comment because different vendor, different customer; they do have different preference.

But as you said that - that is a very, very niche application, only applicable to specific product which tends to be very, very small in volume and revenue impact.

Dan Heyler: Okay. Great. Just to squeeze in one more if I may and then get back in the queue. I'm sorry to jump back to this question.

So you have very advanced SiP capabilities for wearables, you know, really high end. I'm wondering to what extent you can think there are opportunities to drive down this type of platform into a more affordable kind of segment (unintelligible) ...

Tien Wu: I am not sure if you are on line. I pretty much got the question. The question is the 1<sup>st</sup> SiP, wearable project that ASE engaged tend to be very high-end, it's very very complicated self-contained system. So the question now is when do we see more pervasive, lower cost volume product that can penetrate into other market, like the generic, the IoT?

Tien Wu: OK, I am going to wait for him to get back on line.

Ken Hsiang: Do we have more local questions for now?

State your name and company.

Andrew Chen: Hi, this is Andrew Chen from Yuanta.

I have a pretty simple question. This year for 3Q it is pretty obvious that the growth is definitely sub-seasonal. I think probably I understand we can't comment on the current quarter.

But you'd just share your view into 4Q and 1Q. You know, our competitors are guessing the 4Q could potentially see inventory restocking. Well, on the wafer side, they put a view it would be more on 1Q. I am wondering for ASE, based on your customer base, are you more (unintelligible) for 4Q or 1Q? And if you

do see inventory kind of restocking happening that time, which product, application category you think it would pick up first? Thanks a lot.

Tien Wu: We can only give you a biased view based on ASE's own visibility.

We are pretty confident that our Q4 will be seeing growth quarter-on-quarter mainly because our customer and some of the projects that we're ramping up. However, ASE could be more exposed to a biased product side versus a generic market demand. Since communication is an overwhelming percentage, our product portfolio like 55 to 58% where we'll see a good jump on that side. We'll differentiate a product that will lead us to believe that we're optimistic, right.

In terms of the industry, I would not be able to give you any better guessing than the many other distinguished people that already made the comment. However, excluding a total collapse on the financial system or something very, very strange, the inventory control cycle normally does not last more three quarters if this doesn't.

Andrew Chen: If I may just be a little bit more specific. If we're to exclude EMS business to focus strictly on the backend, so would you be implying that the 4Q on the back-end side should be better 3Q?

Tien Wu: Correct.

Andrew Chen: Thanks a lot.

Ken Hsiang: Are we on line? Can we go to Szeho?

Szeho Ng: Based on your backend guidance (unintelligible), is it fair to assume that you are expecting (unintelligible) to show revenue for everyone being Q3?

Tien Wu: I'm sorry. Can you repeat the question because there is some echo...

Szeho Ng: Sure. No problem. Based on your back-end revenue guidance, is it fair to assume that you're expecting kind of flattish monthly revenue for every month in Q3?

Tien Wu: Are we expecting the backend, the IC ATM sluggish monthly revenue flattish?

Szeho Ng: Right.

Tien Wu: Yes. I guess the answer is yes. Overall, we do believe the utilization will improve anywhere between 1 to 5%. If you want to break down to a monthly, I have to assume yes, it will be flattish. Yes.

Szeho Ng: So basically you are not assuming any rush order at the end of the quarter to come in?

Tien Wu: I wish we had but right now we're not planning on that.

Szeho Ng: Sure. Yes. And the second question: On the capex, you're basically tipping your full year cap half unchanged. So in what areas are you going to fill your capacity in second half?

Tien Wu: In the second half, it would be two areas -- the advanced packaging and also specific SiP products.

Szeho Ng: Okay. All right. I see. The last question from my side: On bumping, could you talk about capacity expansion plan rest of the year and also the utilization for both 12" and 8"?

Tien Wu: Are you referring to 8" and 12" bumping?

Szeho Ng: Right.

Tien Wu: Okay. There will be expansion on the 12" bumping. There will be no expansion on the 8" bumping. And I will not be able to give to you specific detail in terms of number of wafers out, or the type of (indiscernible), or the form factor, sorry.

Szeho Ng: Oh, all right. All right. Thank you very much.

Ken Hsiang: Going back to Dan Heyler. Dan? Sorry about the disconnection.

Dan Heyler: Yes, thanks, there. I got cut off. Can you hear me okay?

Ken Hsiang: Okay.

Dan Heyler: Can you hear me okay?

((Crosstalk))

Dan Heyler: Great, okay. So I want to jump onto the IOT discussion. I think there's a view from, you know, investors and then some people that IOT is a very low margin and low price and commoditized business, and you talked about initiatives there.

Maybe you could elaborate a bit on the value-add here to your platform as you look at, I guess, the ability to put multiple dies on packages and sensors and controllers, and when we would see this be a material contribution to your business. Thanks.



Tien Wu: I think this question is somewhat related to your first question before we got cut off. The idea of IOT is the - it is a native, standalone intelligence system that has different functionality such as sensor, memory, CPU, that will last for a long time, and very cheap.

We are not seeing the IOT - in any kind of meaningful way - because industry has not progressed and learned how to produce those complications at low cost. So the concept is, if you look around, in industry, the biggest player is the cell phone. That is 2 billion units. Followed by PC, tablet, pad, everything about 550 million to 600 million.

Followed by everything else, which is much smaller. If we can (latch upon) the major cell phone suppliers to create - the SiP platform with its capacity with understanding - then I believe there is a possibility we can work our way down to use the capacity that we have created, and knowledge we have gained, and start planning - designing - a much, much lower cost, simpler function for the IOT world.

You can also do the other way around. That means you have to collect about 2000 customers. Each one goes through about 10 million, and start building up your volume.

Or you can do the other way around. We chose to do the cell phone guys, create the platform, create the IP, create a capacity, create the building block - as far as the hurdle rate and differentiation - and work our way down.

Well, let me comment on the IOT. I will give you one simple example. Look at the Wi-Fi. The Wi-Fi is going crazy. It is going pervasive. Everything that you are looking at in the future will have Wi-Fi. Think about the Wi-Fi. Think about Wi-Fi adding other things. You have the initial form of the IOT.

So the IOT volume is real. What is not real is the industry supply chain has not figured out a way to do IOT with everybody. And we are in the campaign. How do we start and create the standardization? Eventually we can move on to aggregate it to a very high volume - pervasive IOT at low cost. I hope I've answered your question.

Dan Heyler: In terms of timing, I guess wearables next year. But are we years away, or are we, you know, quarters away, before you'll really start to see some key high-volume customers come in and drive certain platforms?

Because we certainly see a lot of activity, if it's a bubble. And even at the platform level, right, companies that does media tech are putting platforms up for customers.

- Tien Wu: I think it's the kind of answer I hate to give, because in any new kind of product category, we kind of - new platform campaign takes years.
- Joseph Tung: So unfortunately we'll not be able to give to the financial community, and you will see, you know, in 12 months' - 24 months' time we will see this. No. It might take 10 - 20 years.
- So the question now is, which customer are you engaging with? Which project are you collaborating? And in terms of the design freedom, in terms of the technology toolbox, how wide can you open up for the future generations, and what kind of costs can you bring down?
- The costs needs to be brought under ten times. Somebody has to get startup for somewhere, and this is really the campaign that we're going through. That's all.
- Dan Heyler: Thank you.
- Joseph Tung: I believe that it's a very, very meaningful campaign. However, it's not an easy thing to do.
- Ken Hsiang: Dan, anymore?
- Dan Heyler: Thank you very much. Yes. Thank you.
- Ken Hsiang: Next we have Gokul Hariharan from JPMorgan.
- Gokul Hariharan: Yes, hi. Thank you for taking my questions. My first question is on the SiP side. I think in one of the previous conferences, you had mentioned that optical products would be one of the focus areas for SiP going forward. Could we have some color in terms of whether that is materializing in the next 12-to-18 months? Or is still in development phase? And I have a follow-up question on the OSAT business. Thanks.
- Tien Wu: So, I think you were referring to the optical?
- Gokul Hariharan: Yes. The optical camera kind of product. Is that something that this - something already kind of tangible and visible far as the next 12-to-18 months?
- Tien Wu: The answer is yes. In the optical, we're dealing with three type of product categories. The first one is camera module. Obviously it's a very, very high volume. I believe the ASE the SiP arena would have a lot of - we have competitive advantage going forward when the opt - with the camera because more complicated.

The second one is really the silicon photonics. There hasn't been a lot of engagement because the server market - in terms of the power consumption and the copper, the heat generated – as well as the cost ownership becomes the prohibitant.

We also have a lot of effort - hopefully in the next 12-to-18 months - we will see some progress in the silicon photonics. I think that's another breakthrough.

The third one in the optical is really the sensor. For example, the sensor for the pulse, the sensor for the pressure, for the blood sugar. There has been a lot of biomedical applications that is focusing access to the big data within the human body.

I believe that is another area where you'll see a tremendous amount of progress. So I'm happy to see that. Hopefully in the next 12-to-18 months we can report volume product in all three the arena. I'm not sure that's your question, but that's the answer.

Gokul Hariharan: Okay. That's very helpful. Just another question on the IC ATM side. It looks like this industry has seen downturns and we have seen some of your competitors to be a lot more cautious on capex. Some of them are almost close to break-even level.

Historically you've talked about consolidation - or active consolidation - in the OSAT space. Do you feel that we are getting close to a level, especially (indiscernible) - and mobile also starting to become a bit slower. Are we getting close to a level where we could see more industry consolidation happening in the OSAT space? Any thoughts you have on that front?

Tien Wu: I have a very simple theory on the consolidation - because consolidation will never stop. Consolidation is driven by the finance side. It's not driven by technology.

If you look closely, the - I do not have the detailed number, but I believe in the 2014 and 2013 - I think ASE generated about 50% of the overall back-end industry profits.

Gokul Hariharan: Yes.

Tien Wu: If we keep going this rate, that means investing going forward, ASE should be entitled to 50% of the incremental market share. And it just – (indiscernible). It seemed to work for the last 15 years for me.

Gokul Hariharan: Okay.

Joseph Tung: Now, if we continue to improve the margin structure and also the economy scale, as the total control of the dollar by any entity going forward. Assuming all of the operating cash flow can be invested with the right partner in the right segment, I believe this is the ultimate driver for a healthy consolidation.

Now, there could be other consolidations where you're buying volume. When you're buying volume, if you are not buying IP, you're not buying differentiation. You are not buying the dollar that can bring investors into the industry building towards the future. So I think when you talk about consolidation, a different kind of consolidation.

And what we're looking for is consolidation where you have better differentiation so you can drive a better margin structure, and you have better skills - investing the dollar with the right partner on the global basis in the right segment. So going forward, this will be a sustainable campaign.

Buying revenue, building up scales. We have seen many many examples. As a matter of fact, I have not seen any successful examples. Eventually it all fail. So everything goes back to the most simple fundamental dollar sign.

Gokul Hariharan: Okay. Got it. That's very clear. Thank you.

Ken Hsiang: Do we have any other questions? No? Rick? Rick works at Daiwa.

Rick Hsu: Yes, thank you. Yes, Rick from Daiwa.

So, some follow up on this market share question. If I look at the guidance on your competitor, such as Amkor, SPIL. I think your guidance, you know, better than your peers. So can I fairly assume that even in Q3, you guys have gaining market share, and if that's the case, in which areas, are you guys gaining market share - apart from this non-organic new projects?

Tien Wu: I think the market share gain has to come from quite a few arenas. For example, a lot of IDM consolidations going on into play in Europe, and in the United States.

As the IDM going through the consolidation – there would be elimination of business units when they're looking for new efficiency. And the new team they put together inevitably starts looking for new efficiency and new design, and that also share gains, not from our competitors, but from our customers.

Okay, there's something going on there. Therefore, we are better wired on the global basis to (indiscernible) IDM, and you tend to have a better access through the customer side of consolidation.

So let's talk about the competitor's side. And the - everybody's concerned about our competitor - buying competitor - all over the place. Some customers don't like that. And therefore, quite a few customers actually are running away from that. So we also gain some short-term market share gain because people just concerned about the safety, the execution or whatever reasons they have.

But even though there is no guarantee. The customers - they are coming to us to stay with us forever, but at least short-term, we're seeing that. And of course, I do believe that because of the earning power and also because the ASE investment, I believe we are gaining share against our competitor too.

But again, honestly, we're talking about a very, very small advantage. I mean the percent you are talking about is almost the same. Now, I will not say that we're better. We're mathematically better, but I don't think we're much better than our competitors, just to be fair. All right? It's a long game.

Rick Hsu: Thank you. My second question is regarding your SiP - let me think if I can get this right. I think you guys are - you guys start to ramp up this wearable project from 2<sup>nd</sup> quarter, and Q3 is still margin dilutive, and if I am correct, I think I suppose you guys is going to ramp up another IOS-related SiP in this quarter.

So, would that new project also start with below break-even operation? If that's the case. I think will that prolong your margin dilutive for several quarters, you know? Down the road?

Tien Wu: Oh, I do understand your question. I certainly hope not. Right now, I do not have the information to confirm what you are concerned about, okay? And so in other words, I believe we should be okay. We should be able to on the other multiple projects.

Rick Hsu: Thank you.

One last question. More like a housekeeping question. Can you talk about your depreciation cost for Q2 and Q3? And also your bumping utilization rate for Q2 and Q3 as well?

Joseph Tung: Depreciation?

Rick Hsu: Yes.

Joseph Tung: For IC ATM, the depreciation is about \$6.5 billion NT a quarter. And it would be similar to Q3.

Rick Hsu: And your bumping utilization rate?

Joseph Tung: About 80%.

Rick Hsu: Thank you.

Randy Abrams: Thank you. I am Randy Abrams from Credit Suisse.  
Just a couple follow up questions. The Capex, the run rate 350, was actually a little bit lower, I think, before it was in line with depreciation, which would have been 800. So could you confirm it's down more...

Joseph Tung: I think it's in line with depreciation.

Randy Abrams: Is it still going to be about 800 for the year, then?

Joseph Tung: I can't say that, but it's in line with the depreciation.

Randy Abrams: Okay, which is...okay. All right.

And the second point I wanted to clarify - because you mentioned earlier your scale would go up with the SiP in second half, so margins improved? Could you then clarify for a third quarter why you're guiding the EMS gross margin down slightly for Q3? Because you should have better scale growing - scale to getting back to Q4 level.

Joseph Tung: I think the drag from the new product is still going on in the quarter, and it will still have some impact on the EMS business specifically. But all in all, I think with the volume coming up, particularly on the IC ATM inside.

And the SiP product that we're running at the IC ATM part of the business. The overall margin does have room for improvement in the quarter. And hopefully we will see that continuously improve - improvement into the fourth quarter as well.

I think I want to put SiP into the perspective. First of all, you know, it is really a new...the word that we were using here in the platform, toolbox, and so on and so forth, all that - tells you we're building a new business model, and we'll enter into new markets.

When it comes to a farther sense of market share gains, that is another way of gaining market share. And also, if you look at this business inside, it's not at the component level anymore. It's really a system or products.

And therefore there is another set of risk that we need to go through, and in terms of a business model. We also need to go through the learning curve along with our customers - not just ourselves.

So when we look at a SiP project, you got to give it a longer time on the horizon. It's not going to be, you know, a particular package or particular customer of components that you put on your generic machinery and start making money, there is an investment period they need to go through.

And I think that we were doing - we will be entering multiple projects now, and as I mentioned earlier on, this particular one is really the only one that is still running at the low break-even.

And I think that's a very good statement already. A very successful accomplishment for us, if we're entering into a new territory. So I think people need to realize that, you know, this is a new business. It takes time to build it. What we've been proving here is the platform. The capability to enable the market going into new solutions.

Tien Wu:

And I really appreciate that Joseph brought this out, because - you have to look at growth is not only coming from the component side, okay? It's from a new market, as well as from the overall EMS industry, as well as from all the PCB suppliers.

I'll give you an example of the - and this is well known, wearable product - you go to the web, you will know that they have 43 active dies, plus I cannot be specific, but you can check on the web. Hundreds of components.

When you put the known-good-die, with this kind of numbers on a package, how you manage yield, this has been a killer for the industry. Nobody can manage a product with sufficient yield at a low cost. And the business ownership. You have a hundred people sending you stuff. And anything goes wrong, who takes the ownership?

So in designing the platform, you've got to go through not only the assembly protocol. You've got to go through the test protocol. How do you differentiate on which combination die - how? They have good or bad. This is really the biggest cost of ownership issue that plagues everybody, industry has no solution out there.

Now if ASE can manage this kind of broader scope that was pushed to hundreds of combination die platforms, we go figure out a way how do we manage very, very high yields. Imagine you go down the numbers ten times. What kind of optimization efficiency does ASE have?

This is by far much more complicated – involves the tester, the test protocol, flow, lay out - how do you control ins and outs combinations, active, passive, embedded, power consumption, and eventually the low voltage/high voltage, the RF, all the wireless combinations. How do you simulate tests and guarantee - as we ship all the SiPS - they're 100% good?

Think about the total dollar that the industry can save. Think about how many people downstream, but does not have to build any intelligence, just to buy the SIP, - plug-in, and you have this system. This is what the IOT, we are seeing in the beginning of that.

So you guys asked a lot of questions. But I would like to say that we have been in a SiP campaign for many years. One of the reasons many customer from-Germany, from Switzerland, from Japan, from the United States - and our customer are willing to engage with ASE, and fund us to build up this platform because the industry has got a big issue.

And no one has been able to figure out a way to lead the way to address the (indiscernible). And we are doing that. And as time goes on, we will become more sophisticated. We can explain to you more, but to do this - think about it - I already made that statement. And go think about what that means.

You got to be truly global. You got to be truly collaborative. You got to be truly vertical in all three dimensions. And go by all the vendors, competitors, and you do your metrics. And you have your solution already.

Ken Hsiang: Okay. Thank you very much. Thanks for attending. Please come next time.

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