

THOMSON REUTERS

# EDITED TRANSCRIPT

Q2 2019 Atomera Inc Earnings Call

EVENT DATE/TIME: AUGUST 07, 2019 / 9:00PM GMT



## CORPORATE PARTICIPANTS

**Francis Laurencio** *Atomera Incorporated - Chief Financial & Accounting Officer*

**Mike Bishop**

**Scott A. Bibaud** *Atomera Incorporated - President, CEO & Director*

## PRESENTATION

### Operator

Good afternoon and welcome to the Atomera Second Quarter 2019 Earnings Call. (Operator Instructions). This event is being recorded and will be available for replay for approximately one week.

I would now like to turn the conference over to Mike Bishop. Please go ahead.

---

### Mike Bishop

Thank you and good afternoon. I'm Mike Bishop with the Company's Investor Relations. Joining me on today's call is Scott Bibaud, Atomera's President and CEO; and Frank Laurencio, Atomera's CFO.

If you are joining by telephone, please go to the Events section of our Investor Relations page on our website to follow a slide presentation that accompanies our remarks. That presentation will remain available on our website after the call. After prepared comments by Scott and Frank, we will open up the call for your questions.

Before we begin, I would like to remind everyone that during today's call, we will make forward-looking statements. These forward-looking statements, whether in prepared remarks or during the Q&A session are subject to inherent risks and uncertainties. These risks and uncertainties are detailed in the Risk Factors section of our filings with the Securities and Exchange Commission, specifically in the Company's prospective supplement filed with the SEC on May 30, 2019.

Except as otherwise required by federal securities laws, Atomera disclaims any obligation to update or make revisions to such forward-looking statements contained herein or elsewhere to reflect changes in expectations with regards to those events, conditions and circumstances.

Also please note that during this call, we will be discussing non-GAAP financial measures as defined by SEC Regulation G. Reconciliations of these non-GAAP financial measures to the most directly comparable GAAP measures are included in today's press release, which is posted on our website.

Now I would like to turn the call over to our President and CEO, Scott Bibaud. Please go ahead, Scott.

---

### Scott A. Bibaud *Atomera Incorporated - President, CEO & Director*

Thanks, Mike. Good afternoon, everyone and welcome to this review of our second quarter results. It's been a very busy quarter and we have a lot to talk about. After my remarks, I will turn the call over to Frank, so he can go over our financial results and we will open it up to questions.

Atomera is a materials and intellectual property licensing Company with a proprietary transistor enhancement film called Mears Silicon Technology or MST. Our Company develop new material designed to improve the performance of semiconductors and helps our customers integrate them into the manufacturing flow of both existing and new fabs. Our technology can address the slowdown in Moore's Law by providing new materials and integration techniques to the industry, which will improve performance, cut power consumption and decreased product costs.

Atomera is not a manufacturer, we are an IP provide granting customers the right to manufacture using our technology in exchange for a license fee and royalty payments upon shipment of the products. Last quarter, I was able to share with you three technical breakthroughs achieved through work with our customers and our internal R&D efforts. These past few months have been a demanding period with many trips to share our results with both new and existing customers and with further efforts to react to their feedback. The customer



interest has been gratifying and the resulting development work looks very promising.

I will share with you some of the more compelling technical results later, but first let me cover our customer activity. In Q2, after publicly announcing our breakthrough results, we were able to meet with most of our existing customers and to discuss the data and the plan for future work together. In addition, we were able to meet with several new customers who are now either in the early stages of discussion or have already started planning to work with us. As a way of illustrating our progress, Atomera represents customer activity with the phases of engagement shown here.

Phase 1 includes customers under NDA who are planning an evaluation of our technology. In Phase 2, we deposit MST film on customers' wafers and conduct physical characterization. Phase 3 is where customers incorporate MST on their wafers during an R&D run in their fab and use the test results to justify licensing our technology. It is generally in Phase 3, that we are most likely to sign license agreements with customers. Phases 4 and 5, our customers install our technology in their fab, execute manufacturing and distribution licenses and transition to production.

Atomera gets revenue from three sources. Engineering services revenue, which will grow as more customers pay us to conduct MST deposition runs; license fee revenue, which has up to now has been limited to payments from our first two licensees, STMicro and AKM, but will increase as we sign more license deals. And finally royalties generated by the sale of licensed MST wafers and chips.

During the last three months, the interest from our customer base has been outstanding. We have had two new customers start planning wafer evaluations with us. Two customers move on to Phase 2 and one customer move into Phase 3. Each of these moves was a direct result of the technical results we spoke about in our last call. In the world of process technology where decisions and progress can take some time, this is all happening very fast. As a result, I'm pleased to report that we now have 24 customer engagements underway with 19 different customers, which is a larger number of customers engagements than ever before.

Two other interesting trends are emerging as well. First, the publicity around our breakthrough results has generated inbound interest from customers we've never approached before and should help us to grow the total number of customers and engagements in the coming quarters. Second, we are starting to do work with a number of fabless semiconductor players, who hearing about these break results have begun to ask their fabs to implement the technology for them to use. This could be a very important development. You can imagine that if an important customer requests their foundry to implement MST, we may immediately get higher priority when we are trying to convince that fab on our own.

Let me expand on the (inaudible) opportunity a little. Typically, a fabless semiconductor company adopts the standard design rules offered by a foundry to make the majority of their products. So if the foundry has released a product design kit or PDK, incorporating MST technology, the fabless company would design using that PDK and would purchase MST license wafers directly from the foundry. The fabless company would not be an Atomera licensee, but could be an important influence or of the foundry and would generate demand for license wafers. In some cases, however, large fabless companies may design their own custom manufacturing process, to establish a differentiated competitive advantage and work with the foundry to manufacturer to their specifications.

This is a proprietary process owned by the fabless company, but executed by the foundry when building their wafers. In this case, the fabless company becomes both an influencer as well as the licensee to Atomera. So working with fabless customers is important to grow our license base as well as to influence our traditional foundry customers. Both types of engagements with fabless companies are an excellent development for Atomera's future business.

Now let me give a few technical updates to build on the news from last quarter. Last quarter, we revealed three major breakthroughs in the areas of 5-volt analog, FinFET devices and RF SOI for 5G applications. One of them very most exciting results we spoke about was the ability to achieve a 50% on resistance improvement in 5-volt analog devices, which was achieved through the use of our MST SP technology. At this point, we have shared those results with a large number of customers and their feedback was both helpful and exciting. It is typical, when sharing new and extremely positive results, for customers to be skeptical at first, to try and figure out what may go wrong and finally, to start getting excited about how it could be used.



We experienced those responses from virtually all our customers. Several of them gave us good information on what other factors must be tested to ensure that this improvement can be achieved without disrupting other specifications. This feedback is very helpful and will assist us in productizing the technology. We have already run subsequent wafers and have not found any results up to now that would call into question the manufacturability of our results.

Other customers pointed out that the use of the SP technology may allow us to achieve improvements in areas which we haven't yet tested. If we can hit certain specified performance results in those areas, we could achieve a combination of advantages that may cause them to accelerate their plans to bring the technology to market, meaning that, if we can deliver the opportunity will be huge. We have run simulations, which indicate it is possible. So now, we are designing some new R&D lots to show those results and to take them back to our customers. Overall, we continue to be very excited about the promise of MST SP and we'll continue to build on this customer activity.

Next, I want to share with you some updates on the FinFET breakthrough. Remember that we referenced some compelling customer data, but we're restricted from sharing it on the last call. Well, since then, we've been able to complete some of our own testing which demonstrates one of MSTs most fundamental capabilities and a very important feature for developers of three dimensional transistors, Dopant blocking. A snapshot of our recent test results is given here. Although somewhat difficult to read, these plots show the success MST has in blocking phosphorus diffusion during high heat cycle. Key to each plot is the far left hand side, representing dopants near the surface of the transistor.

As the temperature increases, you can see that phosphorus concentrations near the surface increase in the normal baseline silicon represented by the red lines. But using MST, as shown with a blue lines phosphorus is blocked from migrating to the surface. This is exactly the functionality needed to prevent dopant up diffusion in FinFET devices.

Last year, we presented similar result for boron diffusion, which shows how useful MST is for both N and P-type transistors. This ability to block dopant diffusion is one of the most compelling characteristics of our MST technology. Basically MST can be used to help dopant stay put, which is beneficial in many areas of device design from analog to leading edge. We will put out some more detailed technical information on our blog and then papers discussing this phenomenon. But I wanted to give you a quick snapshot to understand this fast developing space. As designers labor to bring to market the most advanced transistors in the world like FinFETs, nano sheets and gate all around, the ability to block dopant diffusion is very important and difficult to do. MST provides a critical tool to make it possible.

Finally, let's talk about the MST breakthrough we've had that is most closely aligned with the 5G cellular space. The unique high bandwidth requirements of 5G cellular have driven the semiconductor design community to seek advanced materials to make the high speed switches, [LNAs] and RF devices needed in this space. One of the key technologies being adopted to meet their requirements is silicon-on-insulator or SOI technology. Last quarter, I spoke about how testing MST on customer silicon has validated performance benefits, we had previously published in a paper. Unfortunately, we could not share that data since it was under NDA with the customer, but recently they've given us permission to share their results publicly.

Slide 7, gives a summary of those results. Fundamental to achieving improved results in this space is the ability to get a lower channel resistance when the transistor is on, resulting in improved electron flow. Some of the key characteristics for RF switches are the insertion loss per switch and the power handling at the required frequency. The insertion loss is a function of on resistance  $R_{on}$  and the power handling is related to the breakdown voltage, BV. The two parameters have to be traded off against each other in a given switch design. So if you want, lower insertion loss, generally the breakdown voltage degrades.

Atomera's MST technology has been shown to put this trade off on a significantly better trajectory with up to 50% higher breakdown voltage or 15% to 20% reduced  $R_{on}$ . RF testing has shown these improvements lead to superior RF efficiency and performance. MST on SOI can be used to improve the design of many RF devices, but shown here are two measured examples, improved results for low-noise amplifiers and RF switches. In our experience, every customer who has seen these results so far has been interested in follow-up meetings with Atomera.

We continue to believe that RF SOI material will be an important technology for the 5G cellular rollout. And the data on this slide shows



that MST can be a key contributor to making higher performance RF SOI based products. Already, we are working with multiple customers in this space. We will be providing more information on this breakthrough technology through our blog in white papers and with deeper analysis from industry reporters over the next few months.

Let me just touch on a the few last items before moving over to our financials. First, we continue to work closely with our two licensees. Second, our IP and patent work continues unabated with Atomera adding patents at a record pace over the last 12 months. And third, we still see no impact on Atomera from the industry slow down or trade tensions in the world. Indeed with our recent results, customers have been very anxious to start additional wafers to test Atomera films with their silicon. Although summer for many companies can be vacation and a slowdown in work, Atomera has continued to run full tilt to respond to our customer interests. Our customers are very enthusiastic about the ability of MST to solve some of their most difficult problems and the test results we can show to validate those claims.

Our employees, likewise are energized by the potential of MST and believe they will lead to more licenses with a broader set of customers, spanning a wide range of process technologies. Atomera's management believes our recent results will translate into accelerated revenue, but we still have to prove that to our investors and are working hard to do so. Achieving breakthrough results in three different technology areas, our customers enthusiastic response and our understanding of the potential ahead makes us very optimistic about the future of Atomera.

We believe we are in a better position to make our Company successful than at any time in our history. In the near future, I expect to start to see a flow of new customers and faster time to license and production with existing customers. Why, because MST bring solutions to some of the biggest problems facing the semiconductor industry with technology that is available today.

Let me now turn the call over to our CFO to discuss our financial results. Frank.

---

**Francis Laurencio Atomera Incorporated - Chief Financial & Accounting Officer**

Thank you, Scott. At the close of the market today we issued a press release announcing our operating and financial results for the second quarter 2019. Our summary financial results are shown here, and I will now review them in more detail. Our GAAP net loss for the three months ended June 30, 2019 was \$3.6 million compared to a net loss of \$3.2 million in the second quarter of 2018.

Our higher net loss was primarily due to increased operating expenses, which were \$3.7 million in the first quarter of this year as compared to \$3.2 million in the second quarter of 2018, offset in part by an increase in gross margin. GAAP net loss on a per share basis declined to \$0.24 per share in the second quarter of 2019 from \$0.26 per share in Q2, 2018, primarily due to an increase in weighted average shares outstanding to \$15.4 million in Q2, 2019 as compared to \$12.1 million shares in the same quarter a year earlier. This more than offset the higher net loss.

The increased share count was mainly due to our equity financings in October 2018 and in May of this year. Our outstanding share count as of June 30, 2019 was approximately \$17.1 million shares. Non-GAAP adjusted EBITDA in the second quarter was a loss of \$2.9 million compared to a loss of \$2.6 million in Q2, 2018. Reflecting the same factors that affected our GAAP results and I will go into more details on those factors shortly. Our press release in this slide contain a reconciliation between our GAAP and non-GAAP results. As you can see the major difference between our GAAP and non-GAAP results is stock-based compensation expense, which is a non-cash item. Our stock compensation expense in Q2 was \$788,000 as compared to \$621,000 in Q2 of 2018.

Turning to the details of operating expense, our R&D expense in Q2, 2019 was \$2.1 million, an increase of approximately \$320,000 from \$1.7 million in Q2, 2018. The largest component of this increase was approximately \$188,000 higher spending on outsourced fabrication and test in Q2, 2019, as compared to the same period last year. Scott discussed several recent technical breakthroughs. One of these was in 5-volt analog devices, enabled by our MST SP integration scheme. Developing MST SP required a substantial increase in the number of internal R&D wafers and metrology and those higher expenses hit in both Q1 and Q2 of 2019. The rest of the increase in R&D expense was due to higher payroll expenses, which increased by approximately \$144,000 over Q2, 2018, resulting from additional headcount and higher stock-based compensation.



Our general and administrative expense in Q2, 2019 was \$1.5 million, which was an increase of \$239,000 from \$1.3 million in Q2 of 2018. The increase in G&A expense reflected a \$115,000 increase in payroll and related expense, primarily reflecting higher stock-based compensation. The rest of the increase in G&A was the result of higher legal fees for filing new patents and maintaining our patent portfolio. These legal fees increased by approximately \$114,000.

Looking at our results on a sequential quarterly basis, second quarter of 2019 GAAP net loss was \$3.6 million compared to a GAAP net loss of \$3.5 million in the first quarter. GAAP net loss per share stayed flat at \$0.24 per share in Q1 and Q2. Non-GAAP adjusted EBITDA loss was \$2.9 million in Q2 and Q1, as our operating expenses were basically flat quarter-over-quarter.

Turning to the balance sheet, our cash at June 30, 2019 was \$19.1 million compared to cash of \$15.1 million at the end of Q1, representing cash consumption of \$2.4 million during the quarter, excluding net proceeds of \$6.4 million from our registered direct offering in May. Q2 cash consumption of \$2.4 million was down from \$3.8 million in Q1. As I discussed in our last earnings call, Q1, 2019 will be our highest quarterly cash burn of this year. Following the same seasonal pattern, we have had since our IPO due to the timing of annual payments in Q1 that are expensed ratably over the year in our income statement.

On our May update call, I gave guidance that 2019 non-GAAP operating expense would be in the range of \$12 million to \$13 million. We continue to anticipate that we will lease an additional EPI deposition tool, but we also expect that outsourcing and metrology expenses will return to more normal levels in the second half of this year compared to the first half.

Accordingly, we expect full year non-GAAP operating expense will be in the range of \$11.5 million to \$12.5 million and our cash consumption excluding proceeds of our May equity financing will be in the same range. Although we're not providing revenue guidance for the full year, we're happy to share our outlook for next quarter. Atomera expects to see a record level of paid customer engagements with a larger set of customers than ever before. We expect that revenue in Q3, 2019 will be in the range of \$200,000 to \$250,000, primarily from engineering services.

We believe that our improved pipeline is a direct result of the breakthroughs we announced in May and the pipeline includes engagements in all three areas, namely 5-volt analog, RF SOI and FinFET. While we are pleased to have more paid engagements, I caution that we have not announced new licensees and therefore our visibility to revenue in future quarters remains limited. Engineering services revenue in the past has been very lumpy, and we expect that will continue to be the case going forward.

With that I will turn the call back over to Scott for a few summary remarks, before we open the call up to questions. Scott.

---

**Scott A. Bibaud *Atomera Incorporated - President, CEO & Director***

Thanks, Frank. In Q2, Atomera has been able to successfully build on the momentum we generated with our breakthrough results. Our customer acquisition is going extremely well and we hope to report a record quarter both in terms of revenue and customer participation in Q3. Customers are actively assisting us with feedback that is driving our R&D pipeline with ideas that will make us more successful, more quickly. Atomera is delivering compelling solutions to some of the most difficult problems in the semiconductor industry and unlike other exotic options, the technology is available now. It is very clear that the Atomera of today is far more valuable than at any point in the life of the Company. We look forward to sharing more of our successes with you as we continue to build Atomera into an important and successful technology provider to the semiconductor industry.

Operator, we will now take questions.

---

**QUESTIONS AND ANSWERS**

**Operator**

(Operator Instructions) Our first question will come from the line of Cody Acree with Loop Capital. (Operator Instructions) I'm showing no questions at this time. The conference has now concluded. I will now turn the call over to Mr. Bibaud for closing remarks.

---

**Scott A. Bibaud *Atomera Incorporated - President, CEO & Director***

Well, thank you all for attending today's presentation. Atomera had a very successful quarter and we believe we will continue to carry this momentum into Q3. Please continue to look for our news, articles and blog posts to keep you up to date on the Company's progress. You can sign up for them, along with investor alerts on our website [atomera.com](http://atomera.com). Should you have additional questions, please call Mike Bishop and we'll be happy to follow up. We look forward to seeing you during some of our scheduled marketing activities, which we'll be announcing soon. We thank you again for your support and look forward to our next update call in November. Thank you.

---

**Operator**

Ladies and gentlemen, thank you for your participation on today's conference. This does conclude our program and we may all disconnect. Everybody have a wonderful day.

---

**DISCLAIMER**

Thomson Reuters reserves the right to make changes to documents, content, or other information on this web site without obligation to notify any person of such changes.

In the conference calls upon which Event Briefs are based, companies may make projections or other forward-looking statements regarding a variety of items. Such forward-looking statements are based upon current expectations and involve risks and uncertainties. Actual results may differ materially from those stated in any forward-looking statement based on a number of important factors and risks, which are more specifically identified in the companies' most recent SEC filings. Although the companies may indicate and believe that the assumptions underlying the forward-looking statements are reasonable, any of the assumptions could prove inaccurate or incorrect and, therefore, there can be no assurance that the results contemplated in the forward-looking statements will be realized.

THE INFORMATION CONTAINED IN EVENT BRIEFS REFLECTS THOMSON REUTERS'S SUBJECTIVE CONDENSED PARAPHRASE OF THE APPLICABLE COMPANY'S CONFERENCE CALL AND THERE MAY BE MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORTING OF THE SUBSTANCE OF THE CONFERENCE CALLS. IN NO WAY DOES THOMSON REUTERS OR THE APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED UPON THE INFORMATION PROVIDED ON THIS WEB SITE OR IN ANY EVENT BRIEF. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S CONFERENCE CALL ITSELF AND THE APPLICABLE COMPANY'S SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.

©2019 Thomson Reuters. All Rights Reserved.

