



**Akoustis Technologies, Inc.**

**Third Quarter Fiscal 2021 Business Update Conference Call**

**May 3, 2021**

## C O R P O R A T E P A R T I C I P A N T S

**Tom Sepenzis**, *Director Investor Relations*

**Jeff Shealy**, *Founder & Chief Executive Officer*

**Ken Boller**, *Interim Chief Financial Officer*

**Dave Aichele**, *Executive Vice President of Business Development*

## C O N F E R E N C E C A L L P A R T I C I P A N T S

**Rick Schafer**, *Oppenheimer*

**Anthony Stoss**, *Craig-Hallum*

## P R E S E N T A T I O N

### **Operator**

Good day, ladies and gentlemen, and welcome to the Akoustis Technologies Business Update Conference Call.

As a reminder, this conference call is being recorded. At the conclusion of the Company presentation, Akoustis management will take questions. A replay of the call will be available on the investor relations section of the Akoustis website.

It is now my pleasure to introduce Tom Sepenzis, Director of Investor Relations. Thank you. You may begin.

### **Tom Sepenzis**

Thank you Operator. Good morning to everyone on the call. Welcome to Akoustis' Third Quarter Fiscal 2021 Business Update Conference Call.

We are joined today by our Founder and CEO, Jeff Shealy, Interim CFO, Ken Boller, and EVP of Business Development, Dave Aichele.

Before we begin, please note that today's presentation includes forward-looking statements about our business outlook. All statements, other than statements of historical facts, included during this conference call, such as expectations regarding our strategies, operations, costs, plans, and objectives, including the timing and prospect of product development, customer orders. Our expectations regarding achieving design wins from current and future customers, the possibility of entering into collaborative or partnering

relationships, potential impacts of the COVID-19 pandemic, and guidance regarding expected revenue, product orders, and milestones for the current and future fiscal quarters, are forward-looking statements.

Such forward-looking statements are predictions based on the Company's expectations as of today and are subject to numerous risks and uncertainties. The Company and our Management team assume no obligations to update any forward-looking statements made on today's call. Our SEC filings mention important factors that could cause actual results to differ materially. Please refer to our latest Form 10-K and Form 10-Q filed with the SEC to get a better understanding of those risks and uncertainties.

In addition, our presentation today will also refer to certain non-GAAP financial measures. A reconciliation of these measures to the most directly comparable GAAP measure is presented in our earnings call highlight release, available in the Investors section of akoustis.com.

I would now like to turn over the call to Jeff Shealy, Founder and CEO of Akoustis.

### **Jeff Shealy**

Thank you, Tom, and welcome everyone to our 2021 third fiscal quarter business update call.

The March quarter was our strongest in history as we reported record quarterly revenue of \$2.5 million, which was 11% above analysts' consensus of \$2.25 million and at the high end of our previously guided range of \$2 million to \$2.5 million. Quarterly revenue increased over \$1 million sequentially, an increase of 92% from December. The performance was driven by strength in our WiFi and 5G Mobile businesses as well as revenue from our DARPA contract and 5G infrastructure customers.

We achieved record quarterly XBAW filter revenue and unit shipments as RF filter sales were up more than 100% over the prior quarter. Given our robust sales pipeline, we expect quarterly filter shipments to continue to increase. We currently have 15 qualified commercial XBAW filters in our product catalog, and recently introduced two new WiFi 6E filters, which when qualified, will bring the number of catalog products to 17.

As announced last week, Akoustis has recently been awarded nine new patents already in this calendar year, significantly expanding our IP portfolio. The patents together cover certain BAW filter methods and devices for 5G, WiFi 6, WiFi 6E and C-V2X automotive applications. The new issuances bring the total number of Akoustis patents to 47, with 78 additional patents pending, not to mention the numerous, unpublished trade secrets contained within the Company.

In the March quarter, the entire \$25 million of convertible debt was retired, resulting in a largely debt free balance sheet as we exited the quarter. We further strengthened the balance sheet in the March quarter by raising an additional \$52.3 million in cash through a combination of a \$21.5 million non-brokered registered direct offering at \$14.36 per share as well as \$30.7 million through additional equity financing at an average price of \$14.99 per share.

As a result, we ended the March quarter with over \$90 million in cash. The strength of our balance sheet enables us to expand wafer fab capital equipment to drive new capacity and build tool redundancy to support equipment uptime that ultimately supports the needs of our growing customer base. With challenging lead times to acquire new silicon fab equipment coupled with further constraints expected in the future driven by current chip shortages, we are focused on ensuring that we have the fab equipment to grow with anticipated customer ramps.

Leveraging our strong balance sheet, we have begun hiring to support a 24-hour, 7 day-per week or 24/7 shift operation to dramatically reduce wafer fab cycle time and increase wafer capacity. Ultimately, the

number of wafers we manufacture and sell is the key to driving our Company to profitability. We believe the combination of our XBAW technology, RF filter product leadership, high volume wafer manufacturing capacity and strong balance sheet leads to greater customer confidence to use Akoustis for their commercial wireless products.

In summary, we are in the best position in our history to deliver on significant opportunities across multiple BAW filter markets and to deliver substantial revenue and earnings growth for years to come. However, in the short term, we see supply chain headwinds impacting several ramp schedules from our customers due to shortage of key semiconductor components, as we will discuss later in this call.

I would now like to provide a quick update on the impact of COVID-19 on our business and markets. While we continue to employ precautionary steps including select remote work authorization and work site isolation from outside visitors, I am pleased to report our on-site workforce attendance in-office is approaching pre-pandemic levels. Throughout these challenging times, the incredible flexibility afforded by our IDM manufacturing model has allowed us to continue to develop our products with minimal impact.

Akoustis continues to operate with all key personnel as an essential business in both New York and North Carolina and we continue to accelerate product development consistent with our strategic roadmap. We greatly appreciate our employees and value their flexibility and discipline staying safe during this challenging time.

I would now like to address our business performance by market segment, beginning with WiFi. It is increasingly apparent that WiFi 6E is one of the most compelling near-to-intermediate term market opportunities for Akoustis as enormous momentum for the planned adoption of the new WiFi 6E spectrum continues to build both in the U.S. and worldwide as other countries are making room for extended WiFi capabilities above 5.9 Gigahertz. We believe the WiFi 6E filter market will expand significantly in Calendar 2022 and beyond driven by the rapid release and adoption of WiFi 6E CPE and strong indications that handset OEMs are planning to incorporate the new WiFi 6E standard in 5G smartphones, tablets, laptops, and other devices, likely making the WiFi 6E market significantly larger than the current WiFi 6 market by both volume and revenue.

As our new and growing product portfolio of 6E filters is now able to target routers, cable set top boxes and other CPE markets as well as the future 5G-enabled mobile device market, the demand for our WiFi 6E XBAW filters is robust given our superior selectivity performance and smaller form-factor as an early entrant in this rapidly-developing market for high frequency BAW micro filters.

On the WiFi product front, we announced in January the successful design-lock of our tandem 5.5 Gigahertz and 6.5 Gigahertz BAW micro filters for WiFi 6E, both of which are currently in the production qualification process. We recently added two new standard WiFi 6E products, our 5.6 Gigahertz and 6.6 Gigahertz XBAW filters, which enable greater use of the 5 Gigahertz portion of the WiFi 6E specification. Furthermore, we also received our first order for these new filter solutions from an existing Tier-1 customer. Both the 5.5/6.5 Gigahertz and 5.6/6.6 Gigahertz WiFi 6E coexistence solutions are breakthroughs given their incredibly challenging wide bandwidth requirements, which are 5 times wider than our first 5.2 Gigahertz product for the WiFi-6 market.

Over the past month, we announced two new WiFi 6E SoC reference design partners that are incorporating Akoustis XBAW filters in multiple current and future designs. As we have previously stated, the reference design model enables a one-customer to many-customer or one-to-many sales opportunity as we benefit from inclusion on the bill-of-materials of leading baseband chipset suppliers. We now have multiple active engagements with OEMs, ODMs, SoC makers and channel partners for both WiFi 6 and WiFi 6E. We are in the advanced stages of the sales cycle with several customers for WiFi-6E and expect additional design win announcements in the coming months.

In January, we announced a volume order for our 5.5/6.5 Gigahertz tandem WiFi 6E solutions from a new Tier-1 customer. The order is for a multi-user, multiple-in-multiple-out, or MU-MIMO, consumer-focused router using multiple 5.5 and 6.5 Gigahertz XBAW filters. The customer expects to ramp this platform in the second half of calendar 2021.

During the March quarter, we revised and improved our custom WiFi 6E filters for one of our two previously announced Tier-1 enterprise-class customers and delivered additional prototypes for their engineering builds. Both of our announced enterprise-class WiFi 6E customers intend to use our standard 5.5 and 6.5 Gigahertz XBAW filters, which we expect to be qualified by early July. We remain on track with both customers and expect to enter production once the respective product qualifications are complete.

Our WiFi 6 XBAW filter solutions entered the commercial router market in the December quarter as our high-profile, Tier-1 retail consumer focused customer began shipping finished product. We have successfully delivered millions of units manufactured in our New York Fab to our customer for a tri-band MU-MIMO mesh router, with multiple XBAW filters per device. Feedback from this customer continues to be extremely positive, and our current sales forecast supports strong unit demand throughout calendar 2021. In addition, we have provided this customer samples and received an initial order of our standard WiFi 6E 5.6, 6.6 Gigahertz filters for potential use in their future WiFi 6E platforms.

To summarize our WiFi activity, we were awarded three new patents covering certain BAW devices for WiFi 6 and WiFi 6E during the quarter. We have six XBAW WiFi filters, four for WiFi 6E and two for WiFi 6. We have announced three design wins in WiFi 6, one of which is in a commercially available tri-band mesh router. We announced two new WiFi 6E SoC reference design partners in the March quarter. We've announced three WiFi 6E customers that are planning to use our standard 5.5/6.5 Gigahertz XBAW filters and one planning to use our 5.6/6.6 Gigahertz solution. We have signed a strategic purchase agreement and are building multiple custom 6E filters for a third, enterprise-class customer. Finally, we have over 15 customer engagements in WiFi 6E, 10 of which have already placed prototype purchase orders.

Next, I will move onto 5G Mobile. The mobile handset BAW filter market is our largest potential intermediate-to-long term market opportunity by both unit volume and revenue. We continue to see broad increased interest and activity for our XBAW filters for the 5G mobile market. In fact, our XBAW filters have already been evaluated by several leading Tier-1 and Tier-2 mobile handset OEMs.

In the December quarter, we added two new 5G Mobile RF customers which plan to incorporate our XBAW filters in upcoming products targeting 5G handsets. The two new customers are in addition to the existing Tier-1 RF module maker that we have been engaged with for over a year, and we were actively engaged with all three of our mobile customers during the March quarter.

As we have previously mentioned, entering the Tier-1 handset market in the near-term would require a partner. However, we believe with our previously announced capacity expansion of our New York fab, which is expected to complete by this June, and the plan to double that capacity once again by the end of Calendar 2021, that we will have the wherewithal to enter the mobile handset market servicing our recently announced new RF customers and/or several Tier-2 handset OEMs without a partner.

With respect to our first Tier-1 mobile customer, we have remained actively engaged and delivered new 5G XBAW filters for testing and approval in the March quarter, in-line with our stated objectives.

Our second RF module customer, which we announced in early November, is moving quickly to develop a module for mobile applications using our XBAW filters. The customer's product is expected to be available for sale by the end of Calendar 2021. I am happy to report today that we have successfully

completed the first filter engineering prototypes for this customer in the March quarter, which was one of our stated milestones, and expect to continue working with this customer to deliver a qualifiable product. Finally, in mid-December, we announced our third Tier-1 RF solutions customer. We are currently developing two 5G mobile XBAW filters for this customer with the goal of entering commercial production in Calendar 2022. I am also pleased to share today that we have released the first XBAW filter design to the fab, and plan to release the second design to the fab by end of the June quarter. Given early discussions with this customer, we believe our engagement may expand to include multiple filters for multiple bands in both 5G and WiFi modules. As this customer sells into multiple handset OEMs, we expect that it could be a significant contributor to both filter volume and revenue in Calendar 2022 and beyond.

As we have previously discussed, we have dedicated engineering resources to the development of advanced chip-scale-packaging, or CSP, and wafer-level-chip-scale-packaging, or WLCSP, to address the next generation 5G Mobile market. In the beginning of the March quarter, we announced that we had design and process locked our first WLCSP product and we continue to work towards the qualification of this new packaging technology.

This morning, we announced the introduction of our second chip scale package, one which is suitable across multiple XBAW devices and end markets and is slated for inclusion in an upcoming WiFi 6E CPE with a Tier-1 enterprise-class customer. We have recently taken significant steps to strengthen our supply chain during the March quarter, and, once qualified and released, both new packages will be able to address the mobile device market across our entire product line, given the significantly smaller footprint of our new packaging solutions, delivering a one-to-one ratio to the size of the die.

To summarize our 5G mobile activity, we have multiple customer funded XBAW filters in design. We have announced three customer engagements, two Tier-1 RF component companies and one leading RF front-end module maker, and all three customer engagements are actively engaged with either our design or manufacturing teams. Finally, we have just completed the development of our second chip-scale package and are working towards creating a more robust supply chain for wafer level packages in the second half of Calendar 2021.

Next, I would like to discuss our opportunities in 5G Network Infrastructure. Wide bandwidth, high power handling, low insertion loss and high out-of-band rejection are the core filter performance requirements for 5G network infrastructure. Akoustis is ideally positioned to grow its market share in this segment given our small form factor filter solutions and our growing portfolio of RF filters above 3 Gigahertz, where 5G is being deployed worldwide.

We are currently designing and/or shipping filters in three main segments of the 5G infrastructure market including small cell base stations, massive MIMO base stations and Citizen's Broadband Radio Service, or CBRS equipment. The FCC C-Band Auction for 3.7 Gigahertz to 3.98 Gigahertz spectrum began in December and raised over \$80 billion on a new sub-6 Gigahertz 5G spectrum in the United States. This has created yet another 5G network infrastructure opportunity for Akoustis and we expect to demonstrate XBAW filters addressing this new 3.8 Gigahertz spectrum in the June quarter.

We have several active engagements from OEMs that are targeting roll-outs in Calendar 2022 and beyond. We continue to ship XBAW filters to our Tier-1 5G small cell network infrastructure customer in support of its initial ramp. We have shipped a total of four filter products to this customer and have thus far received three design wins. The production ramp with this customer is presently slower than previously expected given operator driven network deployment priorities and timing changes, but we will continue to expect to ramp production with multiple filters with this customer in the current calendar year. The ramp timing of our second small cell 5G network infrastructure customer has similarly been affected

by operator driven network deployment priorities and timing changes, but we expect volume shipments to begin in the second half of Calendar 2021.

The Citizen's Broadband Radio Service, or CBRS, has emerged as a new market for Akoustis after the spectrum auctions that occurred last summer. We continue to believe that the successful utilization of the CBRS bands within the 5G network will require a significant amount of high frequency filters, and recent customer design activity continues to support this thesis. We design locked our first 3.6 Gigahertz CBRS XBAW filter in March of 2020 and announced our first order from a distributor in the September quarter to support promotion and customer engagements. In the December quarter, we received our first volume order from a leading wide-area network equipment provider for both CBRS infrastructure and customer premise equipment. We understand that this customer remains on track to begin commercial ramp in the second half of Calendar 2021.

During the March quarter, we announced our first design win in CBRS with a leading infrastructure maker. The customer intends to use our 3.6 Gigahertz CBRS filter modules for fixed wireless infrastructure equipment and is expected to ramp in the second half of Calendar 2021. Furthermore, we are currently engaged with over 10 SoC, OEM and ODM makers for the development of CBRS networks using 5G and expect to have additional design wins in Calendar 2021 and beyond.

To summarize our 5G network infrastructure activity, Akoustis was awarded a new patent in the March quarter covering certain BAW devices for 5G band n79. Further, we have five completed 5G network infrastructure filters; four for small cell base stations and one for CBRS. In addition, we have also announced three design wins in small cell with our Tier-1 customer. We expect volume shipments to our second Tier customer in the second half of 2021. In addition, we have received our first design win for CBRS from a leading network infrastructure OEM. We also have announced a CBRS order from a leading wide area network customer for infrastructure and CPE. Finally, we have over 10 customer engagements, five of which that have already placed purchase orders.

Next, I would now like to discuss our progress in our Other markets segments. During the March quarter, we continued to develop our technology involving the multi-year R&D contract from the Defense Advanced Research Projects Agency, or DARPA, through the development of a piezo MEMS process design kit, or PDK, for the Company's proprietary and patented XBAW process. The direct to Phase 2, or DP2, contract is dedicated to developing a general purpose PDK that will enable BAW and other similar MEMS structures to be designed and fabricated using the Company's state-of-the-art, patented XBAW process. We expect this will expand the opportunities for XBAW moving forward as other designers will be able to develop new products utilizing our novel piezo electric materials and substrates outside of the current devices, which could lead to new opportunities in adjacent vertical markets.

To summarize our Other markets segment activity, we have seven completed XBAW filter solutions for the civilian and defense markets. We have one design win in phased array radars and continue to ship production filters to our customer. We continue to refine and improve our XBAW PDK driven by the DP2 contract with DARPA. We were awarded a new patent covering certain BAW devices for 5.9 Gigahertz C-V2X automotive applications during the March quarter, and finally, we have a total of three customer engagements, two of which that have already placed purchase orders or provided NRE revenue

Now, I would like to turn the call over to Ken to go through select financial highlights.

**Ken Boller**

Thank you, Jeff.

For the third quarter ended March 31, the Company reported record revenue of \$2.5 million, which was a sequential increase of 92% over the December quarter, and at the high end of our previous guided range. This revenue growth was driven by a 125% increase in our core filter related revenue.

On a GAAP basis, operating loss was \$9.1 million for the March quarter, mainly driven by revenue of \$2.5 million offset by labor costs of \$6.8 million, depreciation of \$1.2 million, and other operational costs totaling \$3.6 million. As a result, GAAP net loss per share was \$0.22.

On a non-GAAP basis, operating loss was \$7.1 million, and non-GAAP net loss per share was \$0.15. Reconciliation of these amounts to the corresponding GAAP measures is available in the press release issued this morning, available on the Investors section of the corporate website.

Capex spend for Q3 was \$5.4 million compared to \$2.1 million in the prior quarter, mostly related to the capacity expansion in the Company's New York fab. Cash used in operating activities in Q3 was \$5.9 million, down from \$8.3 million in the prior quarter. The Company exited the March quarter with \$90.4 million of cash and cash equivalents, versus \$47.8 million at the end of the previous quarter. As Jeff previously stated, during the March quarter, the Company raised \$52.3 million in cash through a combination of a \$21.5 million non-brokered registered direct offering at \$14.36 per share, as well as \$30.7 million through additional equity financing at an average price of \$14.99 per share. The Company also took action to bolster our balance sheet by calling for the redemption of the entire \$25 million principal amount of our May and November 2018 6.5% convertible notes which were converted into shares of common stock. As of today, our Company has zero debt on the balance sheet.

Given the current challenges in the semiconductor supply chain and how that may impact our customers, as well as small timing shifts involving 5G small cell network infrastructure, we expect revenue for the June quarter to be in the range of \$2.25 million to \$2.75 million, or flat at the mid-point as we align to the ramp of new customer production programs. However, XBAW filter unit shipments during the June quarter are expected to increase over 75% sequentially as the mix shifts away from non-recurring engineering, or NRE revenue.

It is important to note that whereas we believe the revenue opportunity for the Company is both quite substantial and sustainable over an intermediate-to-long term horizon, our near-term quarter-to-quarter revenue is being negatively impacted by the timing of customers' design schedules and production ramps. These timing shifts are largely driven by semiconductor shortages which are impacting the global electronics industry, as well as carrier deployment priority shifts, primarily in Asia, that have impacted customer ramp timing. We expect sequential growth returning later in Calendar 2021 as the shortages and timing shifts are expected to impact us in the short-term.

Finally, I would like to add, that with over \$90 million in cash on the balance sheet and no debt, we should have ample cash on hand to advance our business plan to reach cash flow breakeven, which we expect to be achieved in the next 12 to 24 months.

I would now like turn the call back over to Jeff to discuss our future milestones.

### **Jeff Shealy**

Thank you, Ken. Our filter backlog and sales funnel continue to grow as we enter commercial production across multiple markets and layer in new customers across each of our major segments. As we are still in the early phase of filter commercialization and revenue ramp, and still have a relatively small number of customers, our quarterly performance can, at times, be lumpy, largely driven by factors largely outside of our control.



In the June quarter, we expect to generate revenue from each of our business segments including 5G mobile, WiFi, 5G network infrastructure and other markets including Defense. While we are experiencing unanticipated weakness in our 5G small cell business driven by changing carrier ramp priorities, as well as an expected reduction in NRE payments in the June quarter, we are targeting significant sequential filter unit shipment growth driven primarily by WiFi and 5G infrastructure products. More specifically, we expect filter unit shipments to increase over 75% sequentially in the June quarter, a key indicator of the momentum in our commercial XBAW RF filter business. We continue to strive towards executing on our targeted milestones and will continue to keep you informed of our progress.

Our anticipated June 2021 milestones include; first, we expect to receive at least one new WiFi 6E design win; in addition, we plan to announce a third WiFi 6E SoC partner; we expect to ship a wafer-level-packaging design to our second 5G mobile RF front-end customer; next, we plan to demonstrate our first C-Band 5G XBAW filter in the 3.7-3.98 Gigahertz spectrum to small cell network infrastructure customers. Further, we expect a second design win in CBRS, and finally, we expect to receive an order for the development of a new S-Band defense filter.

Looking further out, our anticipated Calendar 2021 milestones include; the design-lock and commencement of production with our second RF mobile module maker, plus, the delivery of XBAW filters meeting our customer's spec to our third Tier-1 RF mobile customer. In addition, we plan to ramp production with multiple WiFi 6 and WiFi 6E customers including three announced Tier-1 WiFi 6E customers. We also expect to design-lock our massive-MIMO filter for our Tier-1 network infrastructure by the end of the calendar year. Further, we expect the product qualification of CSP XBAW packaged filters for 5G mobile, 5G infrastructure and WiFi, and finally we expect to ramp production with multiple 5G and CBRS infrastructure customers.

In conclusion, we believe the market opportunity for our patented high frequency XBAW filters is substantial and we are well positioned to capitalize on that opportunity. We continue to work diligently to achieve each of our stated objectives, and we will continue to update you on our execution against these objectives going forward. To support our current engagements and emerging sales opportunities, we have been working diligently to expand our manufacturing capacity by 500% to be able to produce hundreds of millions of XBAW filters per year by the end of the June quarter.

As we announced earlier in the March quarter, given our rapidly growing sales funnel activity as well as ongoing interaction with our customers regarding expected ramps in both 5G mobile and WiFi 6E in Calendar 2022, we plan to double this output once again by the end of Calendar 2021 to approximately one-half a billion filters per year.

We continue to add key hires across our sales, design, and manufacturing teams. Beyond our previously announced expansion plans, the Company is positioned to further scale as our New York fab can ultimately be equipped to produce up to 5 billion XBAW filters per year.

I would like to thank those who have joined us today on this call. We continue to build our Company around our core belief in strong management and technical staff, strong intellectual property which currently includes 47 issued and licensed patents and 78 patents-pending, large and growing markets with limited historical competition in the high band and ultra-high band spectrum, and our qualified wafer manufacturing operation which is now proven to deliver volume quantities of XBAW filters and is expanding to address high growth opportunities in our target end markets.

Finally, I would like to congratulate our employees for their hard work, passion, and dedication throughout 2020 and early 2021, particularly during this ongoing pandemic as our team has kept the momentum going on our R&D which has led to multiple design wins across the WiFi, 5G network infrastructure and defense markets. We have also experienced exceptional momentum in the 5G mobile market driven by

our leadership in filters that operate above 3 Gigahertz and our new and expanding wafer-level-packaging capabilities. I also wish to thank our shareholders who continue to support the Company.

With that I would like to open the call for questions from the investment community. Operator, please go ahead with the first question.

**Operator**

Thank you. We will now be conducting a question- and-answer session.

Our first question is coming from the line of Rick Schafer with Oppenheimer. Please proceed with your questions.

**Rick Schafer**

Yes. Thanks guys. Good morning. I guess maybe just a quick question if I could Jeff on balance sheet, it's in great shape now. I was just curious if you could comment on what cash burn is going to look like this year. You got a quality problem with all these orders stacking up obviously trying to add capacities as these can but I just was curious if you give us a sense of what that cash burn might look like this year for the rest of the year which you're planning. Also maybe give us some more color on how much capacity additions are tied to labor. I know you're hiring people pretty quickly here but adding more shifts and things like that versus equipment, and I'm curious on equipment lead times, I guess maybe you should give us a sense of your level of confidence that you're going to be able to get the tools you need by the end of this year to add all that incremental capacity.

**Jeff Shealy**

Hey. Good morning Rick. Thanks for the comment. We'll start with balance sheet question with Ken and then when it comes back to capacity, he can jump on capacity, but I'll also follow up with some comments.

**Ken Boller**

Good morning, Rick. I expect our operating cash burn to be better than what our year-to-date averages per quarter in the next quarter, and obviously as we bring on our 24/7 heads, that will erode a little bit into that until we see the revenue match those. But, we do not expect it to be less than what we experienced year-to-date so far per average quarter. With the strength of our balance sheet at a 90 million of cash and no debt, I do believe we have a very strong balance sheet, and I do believe we can reach operating cash flow breakeven in the next 12 to 24 months. As previously has been stated, the revenue that will take to get there is about \$12 million to \$15 million in revenue per quarter. I do feel we're in a good place and moving on to get that with our existing balance sheet.

**Jeff Shealy**

Rick, I'll add to that on the capacity front. We have taken a step as we said in the prepared comments on adding the shift labor for 24/7. That also comes in play with also the equipment, the lead time on that equipment. It takes us one to two quarters to bring on the required labor to support the 24/7 with regards to the equipment. Getting equipment and qualified, depending on the piece of equipment is 9 to 12 months. We previously took steps to bring that equipment in to support the capacity targets that we shared. Equipment since you mentioned it in terms of lead times, we have seen those lead times creeping up. It's something that we monitor very closely. We're watching that for any additional bottlenecks that we have to address. But, with the anticipated infusion by the U.S. government and other

countries into silicon capacity, we expect challenges to continue in terms of lead times for silicon manufacturing equipment to increase. So, that's something we're watching very closely.

Then one final comment from me is regarding balance sheet. It is important for us as we engage with our customer base, that we have a strong balance sheet. We're engaging with Tier-1 customers which I think are large customers that have a lot of unit shipments, and so they need a partner that has the wherewithal to grow with them, and so the balance sheet as—we also touched on this in the prepared comments, but the balance sheet is one of those elements, that's important in addition to the ownership of the technology and the product leadership and the manufacturing capacity that we have to have in place to maintain our confidence. I think that's the key facet of the strength of the balance sheet. I just wanted to follow up on that.

**Rick Schafer**

Thanks, Jeff. Maybe for a quick follow-up, what have you seen change since this event auction a couple of months ago? What impact I guess have you seen on design or overall velocity? Customer engagement, things like that that it's a little harder for us maybe to see? I'm just curious for your perspective there. Thanks.

**Jeff Shealy**

Rick, I'm going to bring Dave in to comment on C-Bands and what we're saying.

**Dave Aichele**

Good morning, Rick. The auction with the C-Band is something that I think with the investment that the U.S. government is putting into and the FCC auction off that spectrum has put the U.S. in a good position from enabling the capabilities to sort of the 5G market. I think the providers would struggle if they did not have the spectrum. There's already a lot of activity, both at the system level from a design, architecture wise, as well with the service providers, the operators utilizing that 370 to 398. We have a unique position here that we've been developing the technology to service the spectrum in that 3 to 6 gigahertz. Some of the work that we've done for the China market is in a very similar spectrum range, and also the fractional bandwidth. We're working to develop some unique filters that we're going to demonstrate this quarter, and look to obviously see that start deploying and really see mass production in 2022.

**Rick Schafer**

Thanks you guys, congrats.

**Jeff Shealy**

Thanks, Rick.

**Operator**

Thanks you. Our next questions come from the line of Anthony Stoss with Craig-Hallum. Please proceed with your question.

**Anthony Stoss**

Good morning, guys. My congrats as well on literally strong design momentum here. I wanted to focus on first-off Jeff on the WiFi side, you talked about 15 customer engagement 10, I have already placed

sample orders. With one current WiFi customer and volume production, maybe you can lay out how many more you expect to come online in Q3 and Q4. I know things can change a little and wiggle a little bit, I'm just curious if you can lay out how many more in Q3? How many more in Q4?

Then on the mobile side and the Chip-Scale production being locked down, how vital is that, and have you seen an uptake and are you sampling yet to the mobile customers for this? Thanks.

**Jeff Shealy**

Okay. Good morning, Rick. Thanks for the comments. I'm sorry, Tony, may I apologize. With regard to just the WiFi commentary Tony, I'm going to pull Dave in here. He can touch on the mobile customer as well, but I'll bring my comments in after him.

**Dave Aichele**

Tony, on the Wi-Fi 6, as we've talked about a key customer that we're in production with and ramping, we have a couple of smaller customers that we've announced that are scaling as well. The activity actually in Wi-Fi 6 is still robust. A lot of it has shifted over to the Asian market, which is deploying that spectrum and the 5 gigahertz. We've got two new products that we've been sampling that are extensions of the existing family there.

The activity on Wi-Fi 60 there is very robust, and as we've talked about that, we plan to announce a design win this quarter. But there is activity that's very deep in the funnel and it is a significant amount of market pull, primarily that we're one of the few technologies out there that enabled full use of the spectrum. The activity is going to continue to pick up and obviously as we get closer to securing the design wins, we'll announce those. What I can say is that we're also seeing demand from the customers, that they will start placing orders based on concerns of securities supply. Jeff commented earlier that we have to really show robust balance sheet and also capacity to services this market because we are getting engagements with these tier ones and becoming a primary source. They really want to look under the hood and make sure that we're in a good position, but they're also aware of what's going on in semiconductor industry. I expect that business will start picking up into Q3 and Q4. We will make announcements accordingly.

Regarding mobile, just touching on that, the activity that we have with three mobile customers is good, we'll continue to push a strategy is supporting the foundry, which is enabling access to the XBAW technology, and again, these are customers that do not have access to BAW technology that they're concerned about the 5G coexist requirements and also with the new Wi-Fi spectrum. But also, we're engaging on the modular to discrete filter side as well and there's activity that we're seeing, particularly with Wi-Fi 60, that utilization of the high-Q technology is very important. Both of these areas—stay tuned, more information to come.

**Jeff Shealy**

Tony, Jeff here again, just wanted to describe, just reiterate our sales funnel. It's just we start with samples of these filter chips for the Wi-Fi. What we have ongoing now is product qualification. That includes—what we do there is we built multiple lots with our chips and then we make those with the packages and those go through a fairly rigorous qualification. For the new product set for 60, that's the phase that we're in, and then aligning that to the customer ramps. We have base catalog chips as well as some custom designs that are going through that process. We're managing that and making sure that we get the data behind that to support it. We do compete in that market. Our performance in size, I think Dave touched on that, but we have a much smaller solution, as well as enabling the channels that Dave talked about.

My final comment on the Mobile is we did ship in the March quarter the RF filter designs to customer. Then what's next on top is shipping those solutions with our WLP Packaged solution. We've been working very hard on that. We made commentary strengthening that supply chain. I think putting a lot of extra emphasis on being able to do rapid prototyping. That's feedback we've gotten from a couple of key customers is that we need to move faster with WLP being able to supply the filter designs in WLP in a very quick turnaround fashion and several weeks. We've taken some steps to improve that and that's just going to make us a better partner going forward.

**Anthony Stoss**

Thanks for that color. Just as a follow-up, either for you, Jeff or Dave, you talked about a lot of additional bands and multiple filters going into devices. Can you characterize maybe what you're seeing on the amount of content? Is it jumping faster than you were expecting and where do you think it ends up? I know your customers are getting used to you being able to ship in volume now, but I'm just curious what you're seeing on the content side, or the number of filters per device from Akoustis?

**Jeff Shealy**

Yes. I think I'll let Dave jump in here on the MIMO type complexity factor, which is a big driver of that.

**Dave Aichele**

The MIMO factor has increased in MIMO's multiple in, multiple out—some multi-user MIMO, and the number of filters per system has increased. If we take a traditional Wi-Fi 6, it's typically a two-by-two MIMO, and then when you look at the Wi-Fi 6E is now scaling to more four-by-four, at least in the higher-end systems. When you get to mid-tier and low-tier, usually is a lower-cost system that they may only go to a two-by-two MIMO's. So, we haven't seen increase in the number of filters and that kind of architecture.

The interesting thing that we're also seeing though is utilization of the Wi-Fi 6E spectrum. Traditionally it's a dual-band system or a tri-band and a tri-band in the Wi-Fi 6E would be 2.4 gigahertz, the 5.5 gigahertz and the 6.5 gigahertz. We're now seeing quad band architectures where they're dividing up the 5 gigahertz and we're actually seeing interest in a penta, which is utilizing 5, where they split the 6 gigahertz, and then you multiply the number of filters and the number of radios and all these are architected so they can do simultaneous operations. The coexist filtering is critical and enabling that full spectrum is also critical, particularly being driven from the service providers. We are talking to the carriers and to the operators and working the funnel down into the OEMs and ODMs and understanding how important it is to them.

**Jeff Shealy**

Tony, let me comment just on Dave, I think he hit all the key points on the content. I just want to talk about how we're managing the manufacturing of those. We started out in the early stages of this, as we started ramping. We've been producing these on a first shift, and from a manufacturing standpoint, all of our products use the same XBAW manufacturing flow process. Obviously there's customizations based upon the different bands. But, our end goal is to get these designs on a 24/7 rotation to where they can all be manufactured with the shortest possible cycle time to where we can service a wide spectrum.

Dave talked about what was going on, tri-band, quad-band, and penta. But, we also think about it in terms of how we manufacture, making sure we have the inventory to make sure we address the demands from a customer.

**Anthony Stoss**

Thanks for the details. Best of luck, guys.

**Jeff Shealy**

Thank you, Tony.

**Operator**

Thank you. We have reached the end of our question-and-answer session. I would like to turn the call back over to management for any closing remarks.

**Jeff Shealy**

Okay. I wanted to reiterate and add my thanks for all the time today from everyone. We look forward to speaking with you during our next step day call to discuss the current quarter's execution, as well as the milestones and future expectations that we laid out, and I wish everybody a pleasant, happy day and goodbye.

**Operator**

Thank you for your participation. This does conclude today's teleconference. You may disconnect your lines at this time. Have a great day.