

## **Q3 FY2021 (October 31, 2020) earnings call script for November 23, 2020**

### **Louis Gerhardy, Corporate Development & IR**

Good afternoon and thank you for joining our third quarter fiscal year 2021 financial results conference call. Calling in, today from different locations will be Dr. Fermi Wang, President and CEO and Casey Eichler, CFO.

The primary purpose of today's call is to provide you with information regarding the results for the third quarter of our fiscal 2021. The discussion today and the responses to your questions will contain forward-looking statements regarding our projected financial results, financial prospects, market growth and demand for our solutions, among other things. These statements are based upon information available today and are subject to risks, uncertainties and assumptions. Should any of these risks or uncertainties materialize or should our assumptions prove to be incorrect, our actual results could differ materially from these forward-looking statements. We are under no obligation to update these statements.

These risks, uncertainties and assumptions, as well as other information on potential risk factors that could affect our financial results, are more fully described in the documents that we file with the SEC, including the Annual Report on Form 10-K filed on March 27, 2020 for fiscal year 2020 ending January 31, 2020 and the form 10-Q filed on September 9, 2020 for the second quarter ending July

31, 2020 and form 10-Q filed on June 8, 2020 for the first quarter of the fiscal year ending April 30, 2020.

Access to our third quarter fiscal 2021 results press release, historical results, SEC filings, and a replay and prepared transcripts of today's call can be found on the Investor Relations portion of our website. With that, I'll turn the call over to Dr. Fermi Wang...

**Dr. Fermi Wang, CEO**

Good afternoon, everyone and thank you for joining us this holiday shortened week.

We are pleased to see our multi-year visual AI investment as the major force driving our accelerated business momentum which is apparent in our Q3 results and outlook.

Q3 revenue of \$56.1 million was above the high-end of our original guidance range. CV led the way but we also faced stronger than expected demand for video processors, despite the persistent geopolitical and public health risks. Gross margin of 62.7% was above the high end of our long-term model for the 2<sup>nd</sup> consecutive quarter, reflecting a favorable customer mix and continued operational execution.

CV revenue was slightly more than 10% of total revenue in Q3 and we continue to expect it to be 10% for the full year. With an ASP about 2x our non-CV ASP, CV units were <4% of our total units shipped, and an even smaller portion of the installed base, highlighting the very early stage of this opportunity and the significant multi-year headroom for growth. We anticipate CV revenue will represent about 25% of our total revenue in F2022 and we have a flattish outlook for video processors.

The megatrends for security, safety and automation are very favorable, and the pandemic appears to be accelerating this digital transformation. To support this anticipated growth, we continue to build our team globally and we intend to further expand our presence around the world to support the rising interest in our CV SoCs from both existing and new markets.

I will now talk about our markets and customers

As we have previously mentioned, Chinese IP security camera makers have become concerned about the continuity of supply from existing Chinese suppliers and have been evaluating alternative camera designs on other solutions.

Ambarella's CVflow AI SoCs have won a number of design wins based on their AI performance, high quality imaging and low power. We have now received orders

for shipment beginning in the fourth quarter of this year, including orders for our CVflow SoCs from Dahua, China's second largest security camera company.

Outside of China, we are continuing to see customers introduce new IP security cameras based on our solutions including our CVflow AI SoCs.

During the quarter, Johnson Controls launched its new Tyco Illustra Flex Multisensor Camera. Based on Ambarella's S2E SoC, the camera is equipped with four separate image sensors to provide up to 360° coverage via four separate non-stitched video streams. Each of the four sensors are able to capture 4MP images, enabling the camera to cover an area which might normally require four separate high definition video surveillance cameras.

Honeywell introduced its 60 Series IP cameras including 5MP indoor and outdoor dome, bullet and outdoor speed dome models and a 2MP outdoor speed dome model. Based on Ambarella's S5L SoC, the 60 Series offers increased resolution and provide fast notification and verification of potential threats and responses.

FLIR introduced its Elara thermal camera for accurately measuring skin temperature at medium- to high-throughput entry control points. Based on Ambarella's CV22 AI SoC, it is equipped with on-edge, intelligent face detection, and issues on-screen prompts to individuals when they need to remove glasses, while also guiding them to the correct position for best measurement.

Panasonic iPro continued to expand its portfolio of Ambarella-based models with the introduction of its Vehicle Capture Camera, the WV-X5550. Based on

Ambarella's CV22 the camera can capture clear images of vehicle occupants on one channel and license plates on another, even in challenging lighting environments, including night time.

In the body worn camera market, Panasonic iPro introduced its BWC4000 camera. Based on Ambarella's CV25 SoC, the BWC4000 records 1080P video and has 12 hour battery life.

Also during the quarter, Motorola introduced its VB400 body-worn camera aimed at security professionals and based on Ambarella's low power SoC. Integrated with Avigilon's Control Center the VB400 can augment fixed video deployments by displaying first-person perspective video from the body-worn camera alongside fixed cameras for superior situational awareness.

During the quarter, Comcast announced a new Xfinity Home offering called Self Protection designed for consumers who want high-quality security cameras, but who may not need a professionally installed and monitored whole-home security system. The new Xfinity's HD home security camera is powered by Ambarella's S3LM SoC and is built for both indoor and outdoor use.

This month, we introduced our CV28M camera SoC, the latest in our CVflow® family, supporting the introduction of advanced AI features targeting a variety of cameras in new high volume markets. Its highly efficient AI processing and low power will enable a new class of smart IoT devices for applications including smart home security, retail monitoring, home robotics, and occupancy monitoring.

For new AI sensing applications, like retail monitoring or occupancy monitoring, the SoC provides the AI performance to make all decisions in the camera, preserving privacy and avoiding heavy video processing running on back-end servers. In home robotics applications, the CV28M can be connected to a wide range of sensors such as visible, structured light, and time-of-flight, to capture, and then process, the data required for navigation.

We are currently sampling CV28M to our customers. The CV28M's software compatibility with existing CVflow families is allowing customers to enter production very quickly, and we have already received mass production orders for shipment beginning in Q1 next year.

In the automotive market we are continuing to make great progress as we promote our AI solutions for a variety of automotive applications including ADAS and AD applications to customers worldwide. Today we are announcing our total automotive revenue funnel for the 1<sup>st</sup> time, and we intend to update it at least once every year. Based on our best judgement, we currently estimate our automotive revenue funnel model is about \$600 million with a majority represented by CV for a variety of ADAS and AD applications. The auto funnel revenue runs through FY27 with some of the more significant programs commencing production in CY22 or CY23. This funnel covers business we have won as well as a pipeline of business we are currently competing for.

We are seeing shipments of our CVflow-based ADAS solutions for commercial vehicles in China continuing to ramp with customers including Yutong buses, Shanqi trucks and Dongfeng trucks.

We are currently the market leader in the OEM car recorder category with customers including Nissan, Honda and Toyota in Japan, and Great Wall, Geely and BYD in China. We are now seeing a recovery in orders for OEM car recorders in both regions, as car manufacturers begin to ramp production back up following the impact of the pandemic.

We are pleased to announce that we have our first design wins for our CV2FS automotive functional safety SoCs, which we introduced during CES at the beginning of this year. These SoCs include the AI processing and ASIL features required for safety critical ADAS applications.

During the quarter we signed a development agreement to supply our CV2FS SoCs for level 2+ ADAS systems with an OEM manufacturer of electric vehicles. In this application, the CV2FS provides the AI processing performance and flexibility to support a wide array of driver assistance capabilities to improve safety and convenience.

Also during the quarter, we signed a new development agreement with a tier 1 supplier of electronic mirrors for the European commercial vehicle market based

on our CV2FS functional safety AI SoCs. The CV2FS was chosen for its ability to process video from multiple cameras and perform advanced AI processing to support features such as vulnerable road user detection and prediction.

We are continuing to win new designs for fleet management solutions for commercial vehicles as well as ride sharing and taxi service. With 140 million commercial vehicles in the US and hundreds of millions worldwide, the ability to retrofit existing commercial vehicles with cutting-edge driver monitoring capabilities represents a major opportunity for Ambarella. Our CVflow AI SoCs have the required performance to support front ADAS applications, active driver monitoring and video recording.

In November, Ambarella announced a joint reference design for automotive camera applications that simultaneously monitors drivers while capturing vehicle occupants for one-way videoconferencing. The reference design uses software from Smart Eye, a world leader in developing AI-powered eye, mouth and head tracking technology and image sensors from OmniVision Technologies.

Ambarella's CV22AQ SoC simultaneously processes both RGB color image and IR and runs Smart Eye's algorithms to analyze the driver's state and alert the vehicle to any unsafe indicators, such as drowsiness.

With the holiday season approaching, there have been a number of new consumer product introductions featuring Ambarella SoCs.

During the quarter, DJI introduced its Pocket 2 hand held camera, equipped with a 3-axis motorized gymbal to stabilize movement. The Pocket 2 is based on Ambarella's H22 SoC and shoots 4Kp60 video, takes 64 Mpixel photos and includes 8x zoom capability.

On November 4<sup>th</sup>, DJI introduced its Mini2 drone, the replacement for the popular Mavic Mini model. Featuring Ambarella's H22 SoC, the Mini 2 increases its maximum video resolution up to 4K at 30 frames per second while also shooting 1080p video at up to 60fps.

Also during the quarter Insta360 introduced its OneX2 pocket camera. Based on Ambarella's H22 SoC, the One X2 includes dual lens 5.7K capture for high resolution 360-degree images, H.265 encoding, AI-based editing and advanced image stabilization.

**In summary,** you have heard today more evidence on the broad and expanding adoption of our SoCs in automotive and security markets..

In the professional security camera market our CV momentum, already strong, should build as we have added new CV customers in Asia, and we expect to see CV become material in the home security camera market over the next year. In

auto, our CV traction is strong and a significant part of our expanding funnel. In addition, we continue to develop other IoT markets including enterprise access control, smart locks and counting/occupancy sensors, and we look forward to providing you with updates on our progress.

We are making significant progress in our multi-year transformation to a visual AI company, and the return on the investment is ramping. I'm very proud and would like to thank and acknowledge all of our employees worldwide for their contribution to our leadership position in the market, and for their execution in the face of the turbulent environment. I am also thankful for the support of our customers, vendors and shareholders during these times.

I will now turn the call over to Casey who will give you more details about what we are seeing and expect for the business.

**Casey Eichler, CFO**

Thank you Fermi and good afternoon everyone.

Today I will review the financial highlights for the third quarter of fiscal year 2021 ending October 31st and provide a financial outlook for our fourth quarter ending January 31, 2021.

During the call, I'll discuss non-GAAP results and ask that you refer to today's press release for a detailed reconciliation of GAAP to non-GAAP results. For non-GAAP reporting, we have eliminated stock-based compensation expense adjusted for the impact of taxes.

Our revenue of \$56.1 million was above the high-end of our original guidance. This represents an increase of 12% from Q2 and a decrease of 17% when compared to the same quarter of the prior year. In Q3 on a sequential basis, Automotive revenue and Other increased while Security decreased.

Non-GAAP gross margin for Q3 was 62.7% compared to 62.4% in the preceding quarter and remained above the high-end of our guidance primarily due to customer mix as revenue from the two largest professional security companies in China remained at low levels. Margins were also supported by continued operational execution in a challenging environment.

Non-GAAP operating expense for the third quarter was \$32.4 million, compared to \$30.2 million for the previous quarter. OPEX was slightly above the mid-point of our guidance range and the sequential increase was primarily due to additional chip development costs and higher employee related costs outside the US as normal activity resumed.

Other income of \$673,000 was due primarily to lower interest income as rates continue to remain low.

Non-GAAP net income for Q3 was \$3.3 million, or \$0.09 per share compared with non-GAAP net income of \$2.1 million, or \$0.06 per share in the second quarter. In the third quarter the non-GAAP earnings per share were based on 35.8 million diluted shares as compared to 35.4 million diluted shares in the prior quarter.

Total headcount at the end of the third quarter was 766 with about 81% of employees in engineering. Approximately 69% of our total headcount is located in Asia.

Cash and marketable securities were \$423.6 million up from \$410.7 million at the end of the second quarter. In Q3 we had positive operating cash flow of \$13.1 million.

Total accounts receivable at the end of Q3 were \$24.1 million or 39 days sales outstanding. This compares to accounts receivable of \$23.3 million or 42 days sales outstanding at the end of the prior quarter. Net inventory at the end of the third quarter was \$23.7 million compared to \$23.9 million at the end of the previous quarter. Days of inventory decreased to 102 days in Q3 from 109 days in Q2.

We did not purchase any shares of common stock in Q3. In May, Ambarella's Board of Directors approved an extension of the current \$50.0 million repurchase program for an additional twelve months ending June 30, 2021. As of today, there remained \$49.0 million available from the \$50 million repurchase agreement authorized through June 30, 2021.

We had two 10% plus revenue customers in Q3. WT Microelectronics, a fulfillment partner serving multiple customers, came in at 62% of revenue and Chicony, a Taiwanese ODM who manufactures for multiple customers, came in at 18%.

**I will now discuss the outlook for the fourth quarter of FY21:**

Our visibility has improved but we remain on guard for risks related to the pandemic and geopolitical factors. Furthermore, as the semiconductor industry supply chain tightens, our operations team remains vigilant in their efforts to manage manufacturing lead-times and on-time deliveries.

We have seen some customer requests for order pull-ins and orders placed inside our lead-times. Design activity is at record levels.

In our prior earnings calls we estimated two professional security camera customers in China, had pulled-in roughly \$10 million of revenue from FY21 to

FY20. As they continue their video processor inventory reduction we expect their orders will remain weak, offset to some degree by a ramp of computer vision SoC orders. During Q3, these two customers combined remained in the mid-single digit percent of our total revenue, which will likely be the trough for the foreseeable future.

Based on these factors and our best judgement at the current time, we expect total revenue for the fourth quarter ending January 31, 2021 to be in the range of \$56 million to \$60 million. Automotive revenue is benefiting from an early CV ramp and a post pandemic rebound, and we expect auto will be up at least 20% on both a sequential and year-over-year basis. We anticipate security camera revenue will be up in the low double digits sequentially. Following a normal seasonal pattern, "Other" revenue is expected to decline sequentially.

We estimate Q4 non-GAAP gross margin to be between 59% and 61% compared to 62.7% in the third quarter, with product and customer mix the primary driver of this change.

We expect non-GAAP OPEX in the fourth quarter to be relatively flat in a range between \$31.0 and \$33.0 million.

Q4 Other income should be modeled around \$500,000.

The Q4 non-GAAP tax rate should be modeled at approximately 10%.

We estimate our diluted share count for Q4 to be approximately 36.3 million shares.

Ambarella is registered to participate in virtual conferences in Q4 held by Wells Fargo, Imperial Capital, UBS, Barclays, MKM and Needham. Ambarella will also be hosting virtual CES meetings between January 11<sup>th</sup> and January 22<sup>nd</sup>. Please contact Louis for more details on these events.

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