

**February 27, 2024 1:30PM PST**

**Q4 and fiscal year 2024 (January 31, 2024) earnings call script**

**Louis Gerhardy, VP Corporate Development**

Good afternoon and thank you for joining our fourth quarter and full-year fiscal 2024 financial results conference call. On the call with me today is Dr. Fermi Wang, President and CEO, John Young, CFO.

The primary purpose of today's call is to provide you with information regarding the results for our fourth quarter and full-year fiscal 2024. 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 on currently available information and 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.

Access to our fourth quarter and full-year fiscal 2024, results press release, transcripts, historical results, SEC filings and a replay of today's call can be found on the Investor Relations page of our website. The content of today's call as well as the materials posted on our website are Ambarella's property and cannot be reproduced or transcribed without our prior written consent.

Fermi will now provide a business update for the quarter, John will review the financial results and outlook and then we will be available for your questions.

**Dr. Fermi Wang, President & CEO**

Good afternoon and thank you for joining our call today

In the fourth quarter of fiscal 2024, our revenue increased about 2% sequentially and we slightly exceeded the mid-point of our guidance range. Thanks to the early actions we took to help our customers navigate their excess inventory, our business continues to stabilize and is beginning to recover.

For the full fiscal year 2024, our revenue declined 32.9% year-over-year, as our customers digested excess inventory resulting from the industrywide semiconductor industry cyclical downturn. Looking ahead to fiscal year 2025, we continue to expect both our Automotive and IoT businesses to grow as the cyclical challenges wane and the secular growth of our edge AI strategy emerges.

Our customers currently have a cumulative installed base of more than 20 million AI inference systems-on-a-chip (“SoCs”), all from our 10 nanometer (“nm”) CV2 family and the 5nm CV5. This is based on approximately 280 customer products that have reached production, on a cumulative basis. The CV2 family is expected to continue to be the key driver of our revenue growth in the next year. Our AI inference business, all in edge applications, represented approximately 60% of our total fiscal 2024 revenue and was the key factor in the mid-teens percent year-over-year increase in our blended ASP. This trend to a richer mix of AI revenue and higher average selling prices is expected to continue, in particular as CV3 SoC family enters production. At this time, virtually all of our customer’s new design activity involves our AI inference processors, in fact this was the first year at CES where all of our SoC demos, more than 30, were based on our AI inference products.

Fiscal 2024 was certainly challenging for most of the industry, however there were key industry developments and company specific achievements that we believe leave us very well positioned for growth as the market recovery plays-out.

For the industry, in the past the AI processor opportunity had primarily been represented by training GPUs in servers located in datacenters, and this is a market we do not serve. However in the last year the important role, and opportunity, for inference processors, in particular at the edge, has become better understood. And this is exactly what we have been focused on.

Internally, we achieved four key milestones during the last year.

- First, we have now shipped more than five hundred thousand units of our first 5nm SoC, CV5, and we expect our shipments in fiscal 2025 to approximately double. Most of the CV5 volume is currently in our IoT business, although we expect an automotive OEM to start production in the second half of the year. The fact we have already achieved high volume mass production at 5nm helps pave the way for our other 5nm SoCs, such as the CV3 family.
- Second, for the automotive market we sampled both the high-end production version of our 5nm CV3 as well as a 5nm version for China.
  - At the high-end we sampled CV3-AD685 targeting L3 and above autonomy and this central domain controller is currently in evaluation at multiple OEMs and T1s globally. So far we are finding success in L3 and above commercial vehicles.
  - For the basic highway L2+ opportunity in China, we introduced CV72AQ, and we have numerous Tier 1 design wins and OEM discussions underway.

- Third, we introduced our Generative AI (“GenAI”) strategy for the edge of the network and we are sampling our 5 nm N1 processor targeting edge applications ranging from IoT devices to edge servers.
- Fourth, we continued to build-out the CV3 automotive platform to offer our Tier 1 and OEM customers turnkey options with our SW stack and our centrally processed HD radar algorithms.

We started the new year at the Consumer Electronics Show (“CES”), where we hosted over 200 customer meetings and made a number of significant announcements for automotive, GenAI and our new “Cooper” development platform. We were pleased to receive a CES Innovations Award for the second year in a row, this time for our centralized radar processing architecture.

In December, we unveiled our latest software stack for L2+ and higher autonomous driving applications. This software is optimized and can scale across our entire CV3 processor family, enabling OEMs to get to market faster and reduce development expense. The new software stack, including the perception, fusion and planning layers, is primarily deep learning based, which allows software development to scale more easily, resulting in a more accurate solution. Finally, most important, we rely on high resolution camera and radar perception data to create a real-time map inside the vehicle, and for this reason we eliminate the use of stored HD maps

that may contain stale data, which results in improved results and reduced cost for an OEM. If needed, the software stack is available in modules and can be combined with an OEM's own software intellectual property.

During the CES show we demonstrated the stack running on a single CV3 automotive AI domain processor in our own autonomous vehicle, successfully completing over 150 autonomous rides. The demonstrations integrated our Oculii radar algorithms for the first time.

We also announced the expansion of our CV3 processor family with the addition of our CV3-AD635 and 655 SoCs. The new CV3-AD635 supports a sensing suite that includes multiple cameras and radars to enable mainstream L2+ feature sets, such as highway autopilot and automated parking, in addition to meeting the GSR2 and NCAP standards. Additionally, the CV3-AD655 enables advanced L2+ with urban autopilot, as well as support for additional cameras, radars and other sensors. With the previously announced flagship CV3-AD685 SoC, along with the China-focused CV72AQ SoC, the CV3 family of four processors now covers the full range of AD and ADAS solutions, from mainstream to premium passenger vehicles.

The new CV3-AD SoCs were endorsed by our partner Continental.

Kodiak Robotics, a leading autonomous vehicle company focused on trucking and defense announced that it had selected our CV3-AD685 AI domain controller for its next generation autonomous vehicles.

In IoT markets, during CES we announced we are bringing “GenAI” capabilities to the edge through the introduction of our N1 processor for on-premise applications. This SoC supports up to 34 billion-parameter, multi-modal large language models (“LLMs”) with low power consumption, enabling GenAI for edge applications. We demonstrated multi-modal LLMs running on the new N1 processors at a fraction of the power-per-inference of leading GPU solutions. Ambarella aims to bring GenAI to a wide range of edge applications including video security, robotics and industrial applications.

Quanta Computer announced it was partnering with Ambarella to develop products based on our CV3-AD685, CV72 and new N1 processors to address cutting edge AI devices. These offerings address the growing market demand for a diverse range of neural network and LLMs, and will empower businesses across sectors, including autonomous vehicles, smart surveillance, robotics, and healthcare. Quanta demonstrated PCIe add-in cards based on our N1, as well as showing automotive ECUs based on CV3-AD685.

We also introduced and demonstrated our new Cooper™ Developer Platform. Cooper offers seamless integration of software, hardware, state-of-the-art fine-tuned AI models, and services that provide universal support for Ambarella's entire portfolio of AI SoCs. We have now successfully deployed Cooper to some of our IOT customers worldwide.

I will now highlight some of the customer product announcements made during the last quarter.

In the Chinese automotive market we continue to expand our position in this important market.

During the quarter AION introduced its S MAX passenger car with combination driver monitoring and in-cabin sensing based on our CV25AQ automotive AI vision processor.

Automaker GAC introduced its Trumpchi M8 passenger car with driver monitoring and multi-channel occupancy monitoring also based on our CV25AQ.

And in January Xiaopeng unveiled its X9 minivan including an electronic mirror system based on our A12 automotive SoC.

In the enterprise IoT market Korean market leader Hanwha Vision introduced multiple models based on AI vision SoCs, including 4K and 4-channel multidirectional cameras based on our CV2 SoCs and AI thermal cameras based on our CV22 SoCs. While Korean camera supplier IDIS introduced a 2MP VoIP video intercom based on our CV28M SoC.

Taiwan-based Vivotek also introduced its new 87-V3 family of IP-cameras based on our CV22 AI SoCs and featuring fixed dome and bullet models with advanced AI capabilities.

In the home monitoring market, Canadian service provider Telus announced its Home View doorbell camera based on our CV28M AI SoC and featuring advanced AI-based detection.

In summary, looking forward our key objectives are to restore revenue growth and profitability while continuing to drive our strategic R&D priorities for AI inference processor opportunities at the edge. To achieve this goal, we are highly focused on the commercialization of the technology and products we have developed, and in particular converting the multiple RFIs and RFQs we are currently working on for CV2 and CV3 into awarded business. Furthermore, returning our IoT business to its positive secular growth trajectory is very important, and this includes our early business development for our new GenAI N1 processor.

In conclusion, we have not been distracted by the prolonged industrywide cyclical downturn and we see the secular trends we address; safety, security and automation, remaining very strong. The increased market attention on inference processing, in particular at the edge, is aligned with where we have been investing. In the New Year, we are very excited about the opportunities we are working on, and we look forward to moving more business into the “won” column.

And I am excited about what we will achieve in the years ahead.

John will now discuss the Q4 and full year fiscal 2024 results and the outlook in more detail.

**John Young, CFO**

Thanks Fermi. Before I begin, I would like to say that I’m honored to assume the CFO role. I have been working with the team for 7 years and am very excited to help the company as it pursues growth in its target markets.

I’ll now review the financial highlights for the fourth quarter and full fiscal year 2024 ending January 31, 2024. I will also provide a financial outlook for our first quarter of fiscal year 2025 ending April 30, 2024.

I'll be discussing 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 along with acquisition related and restructuring costs, adjusted for the impact of taxes.

Fiscal year 2024 revenue decreased 32.9% to \$226.5 million. IoT revenue was about two-thirds of total revenue and declined about 40% for the year. Auto revenue represented the balance of revenue and declined about 14% for the year. From a product point of view, a large majority of our fiscal 2024 revenue decline was from our human viewing video processor SoCs.

For fiscal year 2024, non-GAAP gross margin was 63.3%, versus 63.9% in fiscal 2023. Non-GAAP operating expense increased 3.9% for the year versus 17.6% in the prior year. Ending cash and marketable securities totaled \$219.9 million, up from \$206.9 million at the end of the prior year.

For Fiscal Q4, revenue was \$51.6 million, slightly above the mid-point of our prior guidance range, up 2% from the prior quarter and down 38% year-over-year.

Non-GAAP gross margin for Fiscal Q4 was 62.5%, in line with our prior guidance range.

Non-GAAP operating expense was \$44.1 million, approximately flat with the prior quarter and below our prior guidance range of \$45 to \$48 million, driven by continued expense management and the timing of spending between quarters. We remain on track to our internal product development milestones.

Q4 net interest and other income was \$2.1 million

Q4 non-GAAP tax provision was approximately \$119 thousand. In fiscal Q4, we recorded a one-time GAAP non-cash tax charge of \$22.7 million establishing a valuation allowance on certain U.S. deferred tax assets that were deemed more-likely-than-not to be unrealizable in foreseeable future. This valuation allowance was excluded from fiscal Q4 non-GAAP tax provision, consistent with our historical practice for changes to tax valuation allowances. This adjustment is a non-cash tax charge required by GAAP, based on the proportion of taxable income in the United States.

We reported a Non-GAAP net loss of \$9.8 million or a \$0.24 loss per diluted share.

Now I'll turn to our Balance Sheet and Cash Flow.

Fiscal Q4 cash and marketable securities decreased \$2.4 million from the prior quarter to \$219.9 million. Receivables days of sales outstanding increased from 42 days in the prior quarter to 44 days, while days of inventory decreased from 145 to 131 days. Inventory dollars declined 6% sequentially and declined 28% from a year ago. Operating cash outflow was \$4.0 million for the quarter and for the full year we generated operating cash inflow of \$19.0 million. Capital expenditures for tangible and intangible assets were \$1.9 million for the quarter and \$12.0 million for the year.

We had two logistics and ODM companies representing 10% or more of our revenue in Q4. WT Microelectronics, a fulfillment partner in Taiwan that ships to multiple customers in Asia, came in at 55% of revenue for the fourth quarter and 53% for the full fiscal year 2024. Chicony an ODM who manufactures for multiple end-customers was 14% of revenue for both the quarter and the full fiscal year 2024.

I'll now discuss the outlook for the first quarter of Fiscal year 2025. Our early actions during the cyclical downturn in the semiconductor industry have helped our customers navigate their excess inventory and these actions are now enabling our business to stabilize and begin to recover. For Fiscal Q1, we estimate our total revenue will be in the range of \$52 to \$56 million, we expect sequential growth in both IoT and Auto.

We expect Fiscal Q1 Non-GAAP gross margin to be in the range of 61.5% to 63.0%.

We expect non-GAAP OPEX in the first quarter to be in the range of \$46 to \$49 million, with the increase compared to Q4 driven by new product development costs and employee-related expenses which we were able to delay in previous quarters.

We estimate net interest income to be approximately \$1.5 million, our non-GAAP tax expense to be approximately \$500 thousand and our diluted share count to be approximately 40.8 million shares.

Ambarella will be participating in a fireside chat and hosting 1 on 1 and group meetings on February 29<sup>th</sup> in New York City at Susquehanna's Technology Conference. We will also be participating in Morgan Stanley's TMT Conference in San Francisco on Monday, March 4<sup>th</sup>. On March 18<sup>th</sup> we will participate in the ROTH Conference in Southern California. We hope to see you at one of these events, please contact us for more details.

Thank you for joining our call today, and with that, I will turn the call over to the operator for questions.

**Q&A**

**Dr. Fermi Wang, President & CEO**

We appreciate the support and interest from all of our stakeholders. I look forward to seeing you at our CES exhibition or one of our other upcoming events, goodbye.