



Himax Technologies, Inc. Q4 and Full Year 2022 Unaudited Financials and Investor Update Call

Conference Details: Conference Topic: Himax Technologies, Inc. Fourth Quarter and Full Year 2022 Earnings Conference Call Date of call: 2/9/2023 Time of call: 08:00 a.m. EST Pre-Record Message: No Moderator: Mark Schwalenberg	Participant Conference Call link (for Dial-In or Call Back): https://register.vevent.com/register/Blcfaa1824de1d44e9a188f089fb44b7ea
Himax Speakers: Jordan Wu, President & Chief Executive Officer Eric Li, Chief IR/PR Officer Direct URL to Webcast Registration: https://edge.media-server.com/mmc/p/959exv4h	Replay Links: Webcast: https://edge.media-server.com/mmc/p/959exv4h From: 2/9/2023 at 11:30 a.m. EST To: 2/9/2024 at 11:30 a.m. EST

Operator: Opening and standard introduction.

Mark Schwalenberg: Welcome everyone to the Himax fourth Quarter and full year 2022 Earnings Call. Joining us from the Company are Mr. Jordan Wu, President and Chief Executive Officer, Ms. Jessica Pan, Chief Financial Officer and Mr. Eric Li, Chief IR/PR Officer. After the Company's prepared comments, we have allocated time for questions in a Q&A session. If you have not yet received a copy of today's results release, please email HIMX@mzgroup.us, access the press release on financial portals or download a copy from Himax's website at www.himax.com.tw.

Before we begin the formal remarks, I'd like to remind everyone that some of the statements in this conference call, including statements regarding expected future financial results and industry growth, are forward-looking statements that involve a number of risks and uncertainties that could cause actual events or results to differ materially from those described in this conference call. A list of risk factors can be found in the Company's SEC filings, form 20-F for the year ended December 31, 2021 in the section entitled "Risk Factors", as may be amended.

Except for the Company's full year of 2021 financials, which were provided in the Company's 20-F and filed with the SEC on March 23, 2022, the financial information included in this conference call is unaudited and consolidated and prepared in accordance with IFRS accounting. Such financial information is generated internally and has not been subjected to the same review and scrutiny, including internal auditing procedures and external audits by an independent auditor, to which we subject our annual consolidated financial statements, and may vary materially from the audited consolidated financial information for the same period. The Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. I will now turn the call over to Mr. Eric Li. The floor is yours.

Q4 Results

Mr. Eric Li: Thank you Mark and thank you everyone for joining us. My name is Eric Li, Chief IR/PR Officer at Himax. On today's call, I will first review the Himax consolidated financial performance for the fourth quarter and full year 2022, followed by our first quarter 2023 outlook. Jordan will then give an update on the status of our business, after which we will take questions. We will review our financials on both IFRS and non-IFRS basis. The non-IFRS financials exclude share-based compensation, acquisition-related charges and cash award.

We pre-announced preliminary key financial results for the fourth quarter 2022 on January 12, 2023, where revenues and EPS both exceeded guidance, while gross margin came in moderately below the guidance range issued on November 10, 2022. Today, our reported results for revenues, gross margin and EPS are all in line with the pre-announced results.

Fourth quarter net revenues of \$262.3 million increased 22.8% sequentially, substantially exceeding our guidance of an increase of around 4.0% to 8.0% sequentially despite the macro headwinds continuing to challenge our business. The increased sales momentum was attributed to our continuous efforts to deplete inventory, particularly in the smartphone and tablet TDDI segments. IFRS and non-IFRS gross margin both came in at 30.5%, a decrease from 36.0% and 36.3% respectively last quarter, and lower than the guidance range of 31.5% to 33.5%. Price erosion from offloading excess inventory was the predominant factor that adversely impacted our margin profile. Also contributing to margin contraction was higher cost of the inventory sourced primarily during 2021 and early 2022 when foundry and back-end pricings were higher due to capacity constraints. Yet, IFRS profit per diluted ADS was 24.1 cents, exceeding our guidance of 17.8 cents to 20.8 cents. Non-IFRS profit per diluted ADS was 27.3 cents, beating our guidance of 21.0 cents to 24.0 cents.

Revenue from large display drivers was \$43.5 million in Q4, an increase of 5.3% sequentially, exceeding our prior guidance of flat from last quarter. TV sales grew nicely as expected, increasing single digit quarter over quarter and appear to have bottomed following several quarters of sharp correction, while both monitor and notebook sales were better than guided. Large panel driver IC sales accounted for 16.6% of total revenues for this quarter, compared to 19.3% last quarter and 27.7% a year ago.

Moving on to our small and medium-sized display driver segment, revenue was \$177.4 million, an increase of 25.5% sequentially, and ahead of our guidance of a single digit increase, primarily a result of increasing shipment of TDDI in all three sectors, namely smartphone, tablet and automotive. Despite the challenging macro environment, our fourth quarter revenue for tablet was up more than 100% sequentially thanks to the strong shipment in higher-end TDDI products, an illustration of our leading solutions being adopted by more customers for their next generation products supporting larger sized, high frame rate displays and high precision active stylus features. Meanwhile, the AMOLED total solution sales, including TCON and DDIC, increased mid-teens quarter over quarter and accounted for more than 8% of total sales, mainly attributable to our tablet AMOLED total solution supporting the mass production of premium tablet models for a global leading customer.

Q4 automotive driver sales increased single digit quarter over quarter, better than guided as customers restocked, especially for TDDI. Automotive driver business once again represented the largest revenue contributor with over 30% of total sales in the fourth quarter, a result of our comprehensive product coverage and increasing automotive TDDI design-wins across panel houses, Tier 1s and auto brands. It's worth noting that our automotive TDDI sales surged by more than 170% on a year-over-year basis, boosted by the robust adoption of the technology for customers' new generation car models. Small and medium-sized driver IC segment accounted for 67.6% of total sales for the quarter, compared to 66.2% in the previous quarter and 61.2% a year ago.

Fourth quarter non-driver sales also beat guidance with revenue of \$41.4 million, up 33.8% from a quarter ago. Our Tcon business was up a solid double digit sequentially, bolstered by higher shipment of large sized display drivers, automotive drivers as well as tablet drivers for AMOLED. For automotive Tcon, we anticipate business momentum to accelerate in the coming quarters, backed by a strong order pipeline and rapidly expanding design-wins across different continents. Tcon business

represented over 8% of our total sales in the fourth quarter. Non-driver products in Q4 accounted for 15.8% of total revenues, as compared to 14.5% in the previous quarter and 11.1% a year ago.

Our IFRS operating expenses for the fourth quarter were \$52.5 million, a decline of 27.9% from the previous quarter and down 6.2% from a year ago. The sequential decrease was caused mainly by decreased annual bonus and salary expenses, partially offset by an increase in R&D expenses. As previously mentioned, we typically grant annual bonuses, including cash and RSUs, to our staff at the end of September each year, which can lead to higher IFRS operating expenses in the third quarter compared to the other quarters of the year. The year-over-year expense decrease was primarily related to the special bonus we awarded our employees at the end of Q4 2021. Excluding the special bonus paid in Q4 last year, the IFRS operating expenses would have increased 2.0% year over year during the fourth quarter. Non-IFRS operating expenses were \$45.6 million for the fourth quarter, down 2.2% from the preceding quarter and down 6.0% from a year ago.

Fourth quarter IFRS operating income was \$27.5 million, or 10.5% of sales, versus 1.8% of sales in the last quarter and 39.4% of sales from a year ago. Non-IFRS operating income was \$34.5 million, or 13.1% of sales, compared to 14.5% last quarter and 41.1% same quarter last year. IFRS after-tax profit was \$42.2 million, or 24.1 cents per diluted ADS, compared to \$8.3 million, or 4.8 cents per diluted ADS last quarter. We made a divestiture of long-term assets during Q4 2022, which resulted in a non-operating income of around \$11 million on an after-tax basis. Fourth quarter non-IFRS after-tax profit was \$47.7 million, or 27.3 cents per diluted ADS, compared to \$29.8 million, or 17.0 cents in the previous quarter.

2022 Full Year Summary

Now let's have a quick review on the 2022 full year financial performance. Revenues totaled \$1.2 billion in 2022, representing a 22.3% decline compared to 2021. Unexpected lockdowns in China, geopolitical tensions and macroeconomic related factors created a challenging operating environment and impaired our business performance for the year. The halt in consumer demand and significantly reduced visibility at panel houses and OEMs towards the end of first quarter adversely impacted IC demand and consequently our sales. Given the nature of wafer production, which usually starts months in advance, the abrupt drop in demand resulted in a rapid increase in our inventory.

Revenue from large panel display drivers totaled \$264.0 million in 2022, a decrease of 33.7% year-over-year, representing 22.0% of total sales, as compared to 25.7% in 2021. Small and medium-sized driver sales totaled \$778.9 million, a decrease of 19.2% year-over-year, representing 64.8% of our total revenues, as compared to 62.3% in 2021. Non-driver products sales totaled \$158.4 million, a decrease of 14.7% year-over-year, representing 13.2% of our total sales, as compared to 12.0% a year ago.

Our automotive segment continued to see extraordinary business momentum in 2022. Automotive sales enjoyed the highest growth among all product lines, up more than 50% on top of the remarkable strength in 2021 when sales grew more than 110%. For the year, sales of traditional DDIC for automotive were up over 30%, while auto TDDI sales surged by more than 300%. As we mentioned repeatedly, automotive displays continue to be adopted at a rapid rate in number, size and technological sophistication, implying higher content value of display ICs per vehicle. As the market share leader in automotive display ICs, we continued to gain ground not only in DDIC but also in TDDI, supported by over 200 design-wins with the number still increasing as we speak.

While our overall annual sales declined due to the unusual and abrupt demand halt, several new sales streams have started to contribute during 2022, including ICs for AMOLED and the ultralow power WiseEye smart sensing. Both product lines enjoyed higher than corporate average gross margin in 2022. On AMOLED, we provide both AMOLED DDIC and Tcon for automotive and tablet displays. In addition, we are making good progress with leading panel houses for the development of AMOLED display drivers for smartphone, TV and notebook applications. We anticipate the shipment of smartphone AMOLED driver to start in the second half of 2023 for key customers in China and Korea. On the WiseEye product line, we continue to support Dell for its production ramp up in a range of newest models using our first generation WE1 solution. In addition, a host of leading laptop vendors and CPU platform players have shown strong interest in broadening AI use cases of future generation smart notebooks by adopting our next generation WE2 AI processor. Jordan will elaborate on this in a few minutes. Backed by a strong business pipeline and robust design-in activities in numerous AIoT applications with customers from all over the world, we expect strong sales momentum for WiseEye in 2023.

IFRS gross margin in 2022 was 40.5%, decreased from 48.4% in 2021. The decline was largely attributable to pricing pressure resulting from excess inventory levels following the sudden halt in demand beginning in the second quarter. In addition, charges related to unmet minimum purchase orders from contracts with foundries and backend suppliers entered during the unprecedented shortage in 2021 also led to the eroding margin. Non-IFRS gross margin was 40.6% in 2022, decreased from 48.5% in 2021.

IFRS operating expenses in 2022 were \$229.5 million, up 12.8% from 2021. The increase was primarily a result of the vested portion of the annual bonus compensation awarded to employees in

2022 as well as previous years, along with increased salaries and R&D expenses. Non-IFRS operating expenses were \$181.3 million, up 5.7% compared to 2021.

2022 IFRS operating income was \$257.6 million, or 21.4% of sales, a decrease from \$545.0 million, or 35.2% of sales, in 2021. Non-IFRS operating income was \$306.8 million, in contrast to \$578.3 million in 2021. Our IFRS net profit for 2022 was \$237.0 million, or \$1.36 per diluted ADS, as compared to \$436.9 million, or \$2.50 per diluted ADS in 2021. Non-IFRS net profit for 2022 was \$276.1 million, or \$1.58 per diluted ADS, as compared to \$463.6 million, or \$2.65 per diluted ADS in 2021.

Turning to the balance sheet, we had \$229.9 million of cash, cash equivalents and other financial assets as of December 31, 2022, compared to \$364.4 million at the same time last year and \$227.9 million a quarter ago. The substantial decrease in cash was a result of annual cash dividend payout of \$217.9 million, partially offset by \$82.9 million of operating cash inflow in 2022. We had \$46.5 million of long-term unsecured loans as of the end of fourth quarter, of which \$6.0 million was current portion.

Our year-end inventories were \$370.9 million, down from \$410.1 million last quarter and up from \$198.6 million a year ago. Accounts receivable at the end of December 2022 was \$261.1 million, up from \$253.3 million last quarter and from \$410.2 million a year ago. DSO was 79 days at the quarter end, as compared to 97 days a year ago and 74 days last quarter. Fourth quarter capital expenditures were \$2.3 million, versus \$3.4 million last quarter and \$2.0 million a year ago. The fourth quarter capex was mainly for R&D related equipment and in-house tester of our IC design business. Total capital expenditures for 2022 were \$11.8 million, mainly for design tools, R&D related equipment as well as in-house tester of our IC design business as compared to \$7.6 million in 2021.

As of December 31, 2022, Himax had 174.4 million ADS outstanding, unchanged from last quarter. On a fully diluted basis, total number of ADS outstanding for the fourth quarter was 175.0 million.

Q1 2023 Guidance

Now, turning to our first quarter 2023 guidance. We expect first quarter revenue to decrease 12.0% to 17.0% sequentially. IFRS gross margin is expected to be around 28% to 30%, depending on the final product mix. The first quarter IFRS profit attributable to shareholders is estimated to be in the range of 3.5 to 7.0 cents per fully diluted ADS. Non-IFRS profit attributable to shareholders is expected to be in the range of 6.5 to 10.0 cents per fully diluted ADS. To note, the EPS guidance already accounts for certain foreign exchange loss attributable to NT Dollar appreciation against the U.S. Dollar based on the prevailing exchange rate. As a reminder, much of our locally incurred expenses, including the bulk of employee salaries, as well as the outstanding income tax payables are NT Dollar based. I will now turn the call over to Jordan to discuss our Q1 2023 outlook. Jordan, the floor is yours.

Q1 2023 Outlook

Thank you, Eric. Historically, the first quarter has seasonally been the slowest of the year due to the Lunar New Year holidays. On the backdrop of sluggish global demand and a surge of Covid-19 cases in China despite their government lifting Covid restrictions, many Chinese factories extended their shutdown period through the Lunar New Year. This added uncertainty to an already stagnant business environment causing our customers to hesitate to place new orders, while cautiously managing their inventory levels and further clouding our business visibility. As uncertainty persists, our objective first and foremost is to strictly manage our inventory level, and we have been aggressive in doing so by sacrificing short term gross margin to offload excess stock. We also continue to curtail our wafer starts while striving to win more projects from customers specifically for the purpose of digesting our excess inventory. Our inventory position has much improved since its peak during the

third quarter last year and we anticipate it will continue to decrease to near our historical average no later than the third quarter of 2023.

With that said, our Q1 gross margin remains under pressure. As Eric mentioned earlier, the cost of our excess inventory is high from being sourced during tight capacity constraint in 2021 when foundry and backend prices were at peak levels. Another contributing factor to Q1 margin contraction stems from market price decline of certain unsold inventories which will necessitate write-downs. However, we believe this effect will gradually diminish throughout the year as the market has shown signs of recovery across many business areas. Notwithstanding the pressure from the destocking process, we continue to work diligently towards improving our gross margin as a primary objective. Despite the expected short-term margin compression, we remain confident in our gross margin prospects, backed particularly by several high visibility product areas, most notably the higher margin automotive and WiseEye smart image sensing businesses which look set to outgrow other businesses.

Looking ahead, the semiconductor industry appears to be trending toward a post-pandemic era. While the supply chain gradually stabilizes and channel inventory reverts to healthier levels, we believe a decent recovery is forthcoming. On the revenue front, we expect the first quarter to be the trough of the year with sales rebounding in the second quarter and business momentum continuing to improve into the second half of 2023.

Display Driver IC Businesses

LDDIC

With that, I'll begin with an update on the large panel driver IC business. Our first quarter 2023 large display driver IC revenue is projected to be up high single digit sequentially. We expect monitor IC business to be on a recovery trajectory as customers have started to replenish chips due to reduced channel inventory after multiple quarters of destocking. Monitor IC sales in the first quarter are set to grow by a decent double digit. TV panel prices also show signs of stabilization from restocking demand, particularly for mainstream models, and will likely strengthen in Q1, bucking the seasonal factor. We anticipate our sales for TV segment to increase single digit sequentially in Q1. Conversely on notebook segment, the highly publicized downward trend lingers on with further declines from enterprise IT budget cuts in tandem with customers' continuous stringent inventory control measures.

SMDDIC

Turning to the small and medium-sized display driver IC business. We expect Q1 revenue for this segment to decrease by double digit sequentially. Q1 automotive IC sales are anticipated to be down mid-teens as our customers continue to reduce inventory for traditional DDICs. However, we see strong momentum for our automotive TDDI sales which are poised to grow by single digit, backed by our solid new design-in pipeline which has been rapidly expanding for many quarters. Additionally, we anticipate customers' inventory adjustment in DDIC will find equilibrium, leading to a strong recovery in the second quarter. Both smartphone and tablet IC sales are set to decline double digit quarter over quarter due to seasonality and customers' continuous destocking measures.

Now for a more detailed update on the automotive segment. The trend for the automobile interior continues to be in favor of more stylish and diverse designs, made possible with increasing quantity and size of panels inside the vehicle equipped with advanced interactive display technologies as we

have previously discussed. As the leader in the automotive display IC market, we provide a one-stop-shop offering of the most comprehensive product portfolio for automotive display in the industry, ranging from traditional DDIC to new technologies such as TDDI, local dimming Tcon, LTDI and AMOLED. Our business visibility for automotive segment for 2023 remains much better than those of consumer centric products. In addition, we see a favorable trajectory in our automotive TDDI business, backed by prompt expansion of TDDI adoption and our fast-growing new project-wins as TDDI technology is essential for large sized, interactive, stylish, curved and free-formed automotive displays required of future generation vehicles. We believe our automotive TDDI sales will be one of the primary driving forces for our long-term business growth. Moreover, we anticipate the market share of our automotive TDDI will surpass that of DDIC which has already reached 40% globally.

Furthermore, Himax is also the first in the industry to launch the LTDI (Large Touch and Display Driver Integration) automotive display solution, catering to the need for ever larger screens inside vehicles. LTDI solution requires even higher levels of integration of display and touch technologies for the next generation, typically larger than 30-inch automotive displays, where the solution can cascade up to 30 chips in support of ultrahigh-resolution displays, usually more than 7Kx1K, and high-precision touch sensitivity. United with a top-Tier automotive digital platform provider, our cutting edge LTDI technology was showcased at CES 2023 by one of our leading panel customers for a 55-inch pillar-to-pillar, in-cell touch display that provides seamless, intuitive and advanced tactile experience for future generation smart cabins. Our LTDI is scheduled to start mass production in the second quarter this year, substantially ahead of competition. More design collaborations in some of the most modish automotive vehicles are underway.

Next for an update on AMOLED. We continue to gear up for AMOLED driver IC development jointly with major Korean and Chinese panel makers in various applications. For tablet, we are seeing

shipments on the rise for premium models that adopt advanced AMOLED display, of which Himax offers both DDIC and Tcon and has commenced production to certain leading brands. For automotive AMOLED display, we continue to win project awards for our flexible AMOLED driver and Tcon with both conventional car makers and NEV vendors. Finally, we are making good progress with leading panel houses for the development of AMOLED display drivers for smartphone, TV and notebook applications. We expect to commence smartphone AMOLED driver production from the second half of 2023. Our AMOLED business, including display driver and Tcon, is slated for strong growth in the next few years. As a reminder, for smartphone AMOLED display driver, we already have secured meaningful capacity.

Non-Driver Product Categories

Now let me share some of the progress we made on the non-driver IC businesses.

Tcon

Starting with an update on timing controller. We anticipate Q1 Tcon sales to decrease by mid-teens sequentially, hampered by decreased shipment of tablet product for AMOLED displays. On a positive note, our position remains unchallenged in automotive Tcon for local dimming technology, which not only improves display contrast ratio, but also drastically reduces display power consumption, which is critical for larger displays and EV models. With years of strenuous work on this high entry barrier technology, we have developed comprehensive local dimming Tcon product offerings that can support a wide range of design covering super high frame rate of 240 Hz and resolutions of up to 8K. We have won numerous project awards from various named panel makers, Tier 1s and car makers for premium new car models with a small number of which already commenced mass production recently. Local dimming Tcon is set for robust growth starting 2023. We anticipate Q1 automotive Tcon sales to increase more than 150% year-over-year and represent over 2% of total sales.

WiseEye Smart Image Sensing

Switching gears to the WiseEye AI total solution, which incorporates Himax proprietary ultralow power AI processor, always-on CMOS image sensor, and CNN-based AI algorithm. We continue to support the mass production of Dell's notebook and other end-point AI applications, such as automatic meter reading (AMR), shared bike parking, video conference device, door lock and medical capsule endoscope. We are more committed than ever to strengthening our WiseEye product roadmap and retaining our leadership position in ultralow power AI processor and image sensor for end-point AI applications.

At this year's CES, we teamed up with several industry-leading ecosystem partners and customers to jointly introduce our neomodern ultralow power tinyML solutions in various real end-point AI applications, including surveillance camera with Novatek, a leader in surveillance system SOC, and smart home with Useful Sensors, a start-up founded by Pete Warden, the former Google TensorFlow tech leader. We also joined forces with Seeed Studio in smart agriculture and Wentai Technology in smart office, both leading players in their respective areas. These are just a few examples of real adoption of our ultralow power WiseEye solution in the emerging end-point ultralow power image AI era. We continue to see increasing deployment of our WiseEye solution in diverse applications driven by the mega trend of AIoT and growing demand to add image AI capability to everyday objects.

To highlight our surveillance camera demonstration, Himax and Novatek jointly showcased a leading ultralow power pre-roll AI solution, enabling battery-operated surveillance camera with comprehensive event recording capability through "negative time" recording. The pre-roll function, powered by our WE1 processor, features an always-on video recording operation at a slow frame

rate, using only single digit milliwatts power consumption. Meanwhile, the WE1 AI processor intelligently senses specific motion events, such as certain human behavior or suspicious activities. All these are taking place while the core vision processor remains powered off. Once a classified event is identified, the WE1 processor activates the core processor which then initiates a high-resolution recording of the event while stitching the pre-roll video clips of the WE1 processor thereto. This is a substantial improvement compared to what existing surveillance solutions offer in terms of security as users receive a thorough video stream complete with pre-roll video clips of what preceded the motion events. It also significantly reduces the overall power consumption, made possible for battery-powered surveillance system. With these significant features in pre-roll and ultralow power, WiseEye is gaining traction in various surveillance fields, covering doorbell, door lock and dashcam. Numerous engagements and design projects have been in progress with surveillance customers across different domains after CES.

Also during this year's CES, we debuted our next generation WE2 AI processor that offers 40% peak power saving and 30-fold inference speed, implying over 50 times power efficiency on a per inference basis compared to the first generation WE1 processor which is already leading the industry among AI processors aiming for similar target markets. With the exceptional local inferencing capability, the new WE2 AI processor performs face landmark detection to identify facial regions, including eyes, mouth, nose, and jaw to enable advanced, accurate and precise facial expression recognition, such as head pose estimation, gaze direction, fatigue detection, etc. These new features provide additional vital intelligence to a broad array of applications on top of the success of our leading WE1 AI processor that provides contextual awareness with the ability to visually detect user engagement levels based on presence, movements, and facial direction. Several leading laptop names have shown strong interest in our WE2 processor after witnessing our live demonstration at CES, leading to many follow-

up engineering activities. Additionally, we continue to partner with leading notebook CPU and AP SOC players, with the aim of expanding our engagements with leading global laptop names and IoT players working on the enrichment of various new AI features and use cases for next generation smart notebook and IoT applications.

Given a consistent product roadmap, improving product performance and broader customer traction from various domains, we believe that WiseEye will emerge as a multi-year structural growth driver for Himax.

Optical Related Product Lines / Metaverse

Lastly, for an update on our optical related product lines including WLO, LCoS and 3D Sensing. Himax is one of the few companies in the technology industry with a wide array of optical related product lines that are critical for the realization of metaverse. Our technology leadership and manufacturing expertise are evidenced by the growing list of AR/VR goggle device customers and ongoing engineering projects. We continue to work on strengthening our optical-related technology suite, while collaborating with some of the world's largest technology companies that remain deeply committed to investing in its development. Now to quickly review some of our recent progress.

First on 3D sensing. We see increasing adoption of our optical components and/or 3D sensing technologies that enable new ways people interact with AR and VR applications. At CES 2023, we introduced a series of next generation 3D vision processors to support a variety of state-of-the-art 3D sensing technologies in Time of Flight ("ToF") and structured light. Our structured light AI processor can provide 3D eye tracking functionality to report the exact eye positions with the industry's highest

response rate and low-friction to enable high precision and dizzy-free spatial reality applications. We featured a live demonstration of a 3D naked-eye display at CES with our eye tracking technologies becoming a hot focus point. Viewers experienced a 3D holographic view from all angles without needing additional wearables to enjoy immersive and advanced visual experience without the side effect of feeling nausea or dizziness.

Moving on to WLO. On 3D gesture control, our WLO technology is deployed to empower 3D perception sensing for precise controller-free gesture recognition in VR devices. Our collaboration with a leading VR player is going smoothly and we expect volume production starting middle of this year. On 3D scanning for object reconstruction, our 3D sensing technology, which incorporates both our 3D projector and 3D decoder, is being deployed by a leading customer's 3D scanning device for the purpose of generating real time digital twins, avatars and 3D environment surroundings that ultimately help users transit and connect seamlessly between physical and digital worlds. The collaboration is ongoing with promising progress, and we expect it to hit the market next year.

As I mentioned before, metaverse related development are early in the lifecycle but overall remains an attractive opportunity for us potentially. Himax is well positioned with years of research and development, a unique product portfolio, production history and key partnerships to capitalize on its growth as the industry continues to emerge and mature.

For non-driver IC business, we expect revenue to decrease mid-teens sequentially in the first quarter.

That concludes my report for this quarter. Thank you for your interest in Himax. We appreciate you joining today's call and are now ready to take questions.

OPERATOR TO QUEUE QUESTIONS

Jordan's closing remarks

As a final note, Eric Li, our Chief IR/PR Officer, will maintain investor marketing activities and continue to attend investor conferences. We will announce the details as they come about. Thank you and have a nice day!