

# Himax to Unveil Innovative WiseEye<sup>™</sup> AloT Solutions and Revolutionary Liqxtal<sup>®</sup> LC Optical Applications at embedded world 2025

Ultralow Power Smart Sensing, Biometric Authentication, Thermal Imaging Sensing, and Tunable Liquid Crystal Optics Driving Innovations in AloT, Smart Displays, and Diverse Embedded Applications

Tainan, Taiwan, March 3, 2025 - Himax Technologies, Inc. ("Himax" or "Company") (Nasdaq: HIMX), an industry leader in fabless display driver ICs and semiconductors, today announced participation in embedded world 2025, a world-leading trade show for embedded electronics and industrial computing, taking place in Nürnberg, Germany, from March 10-12, 2025. At the event, Himax will showcase its innovative WiseEye<sup>™</sup> AI technology, featuring a range of AIoT solutions focused on ultralow power AI sensing, biometric authentication, and thermal imaging sensing applications. Additionally, in collaboration with its subsidiary Liqxtal Technology Inc. ("Liqxtal"), Himax will present revolutionary liquid crystal ("LC") optical applications, advancing industrial embedded displays, vision-assisted systems, and smart wearables.

# Ultralow Power WiseEye AI Driving Next Era of AloT, Smart Sensing, and Thermal Imaging Sensing

Himax WiseEye Ultralow Power AI Smart Sensing is a cutting-edge, integrated endpoint AI solution, comprising Himax's proprietary ultralow power WiseEye AI processors, always-on CMOS image sensors, and CNN-based AI algorithms, ideal for AIoT applications. It has gained widespread acclaim and adoption across biometric authentication, occupancy detection, people flow management, smart home, smart office, and more. Notably, the latest WiseEye2 AI processor is PSA (Platform Security Architecture) certified, featuring a security-by-design approach to provide a secure and reliable foundation for AIoT applications.

Among the featured showcases, the WiseEye PalmVein Module integrates palm vein and facial recognition, leveraging bimodal authentication technology to meet market demands for flexible access control, ensuring reliable operation across diverse use environments. Traditional fingerprint and facial recognition methods are susceptible to age, fingerprint quality, height, and lighting conditions, leading to identification errors. In contrast, the WiseEye PalmVein solution overcomes these challenges with advanced liveness detection to deliver high-precision authentication. It achieves an exceptionally low False Acceptance Rate (FAR) of one in a million and a False Rejection Rate (FRR) below 1%, significantly reducing the risks of fake attack and unauthorized access.

At embedded world 2025, Himax, in collaboration with ecosystem partner Calumino, will showcase industry-leading thermal imaging sensing solutions. The solution combines Himax's ultralow power WiseEye AI processor, WiseEye2, and low-power HM0360 CMOS image sensor with Calumino's proprietary CMOS and MOMS (Micro-Opto-Mechanical System) technologies and AI algorithms. The integration enables advanced use cases, including people flow detection, people counting, assisted living, predictive maintenance, health monitoring, and security enhancement, all with ultralow power consumption. This advancement brings unprecedented innovation to thermal imaging sensing, unlocking expanded possibilities.

# Innovative Ligxtal LC-based Optical Technology Enhancing Smart Displays and Wearables

Liqxtal specializes in LC-based optical technology, expanding its expertise to display and optical components. At the event, Himax and Liqxtal will jointly unveil a series of cutting-edge, patented products, namely Liqxtal<sup>®</sup> Graph, Liqxtal<sup>®</sup> Dim, and Liqxtal<sup>®</sup> Pro-Eye.

Liqxtal<sup>®</sup> Pro-Eye is an innovative eye-protective display technology that made its debut at CES 2025, receiving widespread acknowledgment among industry leaders and accelerating industry adoption. The next-generation Liqxtal<sup>®</sup> Pro-Eye display, which will be showcased at embedded world 2025, delivers a 125-inch virtual screen experience at close range or within confined spaces. In vision care, Liqxtal<sup>®</sup> Pro-Eye helps alleviate digital eye fatigue by reducing ciliary muscle strain, benefiting professionals exposed to prolonged screen use, as well as individuals with presbyopia and myopia. In industrial display solutions, it is redefining personal HMI in embedded applications, making it ideal for manufacturing, aerospace, and defense sectors that require long hours of focused monitoring and operation.

Liqxtal will also showcase its one-of-a-kind professional smart eyewear collection, featuring the award-winning Liqxtal<sup>®</sup> Graph and innovative Liqxtal<sup>®</sup> Dim. The latest Liqxtal<sup>®</sup> Graph, built on Liqxtal's patented reflective TFT liquid crystal architecture, supports Bluetooth connectivity and mobile app integration, enabling dynamic digital content display on the outer lens surface of smart glasses without obstructing the user's vision, while maintaining the same comfort as traditional eyewear. It is ideal for IoT remote monitoring, smart assisted display, and identification management, further enhancing the value of smart wearables. Liqxtal<sup>®</sup> Dim integrates Liqxtal's proprietary pixelated light valve control technology powered by WiseEye AI. This advanced system detects the position of incident light sources in real time to achieve adaptive light dimming functionality for smart sunglasses with a response time of under 8 milliseconds. Additionally, it supports programmable light attenuation modes, making it suitable for vision training assistive devices and seamless integration into smart safety eyewear and industrial-grade programmable light regulation systems, enhancing visual safety and assistance.

Himax and Liqxtal invite all interested parties to visit our embedded world 2025 exhibition booth at Hall 4, Stand 4-503, located at NürnbergMesse, Messezentrum 1, 90471 Nürnberg, Germany. Experience our groundbreaking WiseEye AI technology and Liqxtal optical solutions firsthand. To schedule a meeting or booth tour, please contact Himax at <u>HX\_WISEEYE@himax.com.tw</u> or Liqxtal at <u>info@liqxtal.com.tw</u>.

# About Liqxtal Technology Inc.

Liqxtal Technology Inc. is a Taiwan based company that has been focused on exploring opportunities with liquid crystal ("LC") beyond just displays since the company's inception. With a distinguished track record in liquid crystal optics, Liqxtal has developed liquid crystal based optical components such as LC lens for ophthalmic application, LC diffuser for 3D sensing and LC retarder for light sensing. Additionally, Liqxtal designed and released LQ001, a high voltage & tunable frequency LC driver with a 1mm x 2mm footprint, which is particularly ideal for portable products. As a subsidiary of Himax Technologies, Liqxtal also integrates novel display solutions such as tunable backlight with local dimming capability powered by FPGA for niche applications. Lastly, Liqxtal is dedicated to novel vision eyewear technology and strives to innovate and advance useful optical solutions to the world.

## About Himax Technologies, Inc.

Himax Technologies, Inc. (NASDAQ: HIMX) is a leading global fabless semiconductor solution provider dedicated to display imaging processing technologies. The Company's display driver ICs and timing controllers have been adopted at scale across multiple industries worldwide including TVs, PC monitors, laptops, mobile phones, tablets, automotive, ePaper devices, industrial displays, among others. As the global market share leader in automotive display technology, the Company offers innovative and comprehensive automotive IC solutions, including traditional driver ICs, advanced in-cell Touch and Display Driver Integration (TDDI), local dimming timing controllers (Local Dimming Tcon), Large Touch and Display Driver Integration (LTDI) and OLED display technologies. Himax is also a pioneer in tinyML visual-AI and optical technology related fields. The Company's industry-leading WiseEye<sup>™</sup> Ultralow Power AI Sensing technology which incorporates Himax proprietary ultralow power AI processor, always-on CMOS image sensor, and CNN-based AI algorithm has been widely deployed in consumer electronics and AIoT related applications. Himax optics technologies, such as diffractive wafer level optics, LCoS microdisplays and 3D sensing solutions, are critical for facilitating emerging AR/VR/metaverse technologies. Additionally, Himax designs and provides touch controllers, OLED ICs, LED ICs, EPD ICs, power management ICs, and CMOS image sensors for diverse display application coverage. Founded in 2001 and headquartered in Tainan, Taiwan, Himax currently employs around 2,200 people from three Taiwan-based offices in Tainan, Hsinchu and Taipei and country offices in China, Korea, Japan, Germany, and the US. Himax has 2,649 patents granted and 402 patents pending approval worldwide as of December 31,

2024.

## http://www.himax.com.tw

#### **Forward Looking Statements**

Factors that could cause actual events or results to differ materially from those described in this conference call include, but are not limited to, the effect of the Covid-19 pandemic on the Company's business; general business and economic conditions and the state of the semiconductor industry; market acceptance and competitiveness of the driver and non-driver products developed by the Company; demand for end-use applications products; reliance on a small group of principal customers; the uncertainty of continued success in technological innovations; our ability to develop and protect our intellectual property; pricing pressures including declines in average selling prices; changes in customer order patterns; changes in estimated full-year effective tax rate; shortage in supply of key components; changes in environmental laws and regulations; regulatory approvals for further investments in our subsidiaries; our ability to collect accounts receivable and manage inventory and other risks described from time to time in the Company's SEC filings, including those risks identified in the section entitled "Risk Factors" in its Form 20-F for the year ended December 31, 2023 filed with the SEC, as may be amended.

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