



Himax and Calumino Collaborate to Unveil Next Generation CMOS Imager-Based Optical Thermal Sensor

Unlocking the Future of Thermal Imaging with Superior Sensitivity, AI Power,
Privacy Protection, and Affordable Pricing

Tainan, Taiwan and Sydney, Australia, January 3, 2025 – Himax Technologies, Inc. ("Himax" or "Company") (Nasdaq: HIMX), an industry leader in fabless display driver ICs and other semiconductors, and Calumino Pty. Ltd. ("Calumino"), a leader in intelligent thermal imaging solutions, today announced their strategic partnership and the unveiling of their innovative, CMOS imager-based optical thermal sensor, marking a significant step forward in AI thermal sensing and imaging across industries.

At CES 2025, Himax and Calumino join forces to showcase a joint-collaborated optical thermal sensor, leveraging Himax's extensive expertise in ultralow power WiseEyeTM AI processor, WiseEye2, and low power HM0360 CMOS image sensor, alongside Calumino's proprietary CMOS and MOMS (Micro-Opto-Mechanical System) technologies. This industry-leading CMOS imager-based optical thermal sensor, featuring on-device edge AI, offers cutting-edge price-performance, intelligent feature detection and commercial scalability to accelerate the development and commercialization of advanced thermal sensing solutions.

"We're thrilled to partner with Himax to bring our vision of accessible and intelligent thermal sensing to life," said Dr. Marek Steffanson, CEO of Calumino. "This collaboration allows us to push the boundaries of what's possible in thermal technology and lay the groundwork for a transformative product launch later this year."

Key Features and Benefits of the Calumino Thermal Sensor Products:

- High Sensitivity and Accuracy: Superior thermal detection even in challenging environmental conditions with 10x better sensitivity / performance than conventional thermopiles
- Ultralow Power Al Integration: Calumino's Al algorithms, leveraging ultralow power Himax WiseEye2 Al processor and low power HM0360 CMOS image sensor, enable advanced functionalities, such as accurate people detection and count, assisted living, predictive maintenance, health monitoring, and enhanced security, all with minimal power consumption
- **Privacy Protection:** Calumino's thermal sensor offers an optimised resolution to detect human presence, count and activity in indoor use cases, while incapable of recognizing human features or identifying humans, ensuring robust privacy protection

- Compact Design: Facilitating seamless integration across various industries including commercial real estate, aged care, security, industrial monitoring, IoT systems, consumer devices and more
- Low Power and Battery Operated: Offering industry-leading energy efficiency, powered by the ultralow power feature of Himax WiseEye2 Al processor and CMOS image sensor, enabling battery operation with simple plug-and-play deployment
- Affordable Pricing: Aiming to democratize access to thermal imaging, making it viable for consumer, commercial and industrial markets

"At Himax, our focus is on enabling next-generation solutions through our advanced, versatile technologies, including across WiseEye AI, CMOS image sensors, optics and a wide range of semiconductor expertise and solutions," said Jordan Wu, President and CEO of Himax. "Our collaboration with Calumino underscores our commitment to driving innovation and delivering value to our customers. The CES product samples provide a glimpse into what the future holds for this exciting technology."

Thermal sensing technologies are increasingly critical in modern applications, enabling advanced functionalities such as energy efficiency, enhanced safety measures, and automation across various sectors. Calumino's proprietary technology stands out for its ability to deliver a unique blend of high performance, low cost, privacy protection, low power consumption, coupled with sophisticated on-device edge AI. These features position Calumino's solutions as a game-changer in the sensing space, addressing key challenges in industries ranging from smart infrastructure to next-generation consumer devices.

The strategic partnership between Himax and Calumino will also prioritize innovative CMOS imager-based optical thermal sensor advancement and scalable manufacturing process development to deliver high-quality solutions at competitive costs, thereby driving broader adoption. By focusing on streamlined production techniques and leveraging Himax's extensive expertise in semiconductor design, ultralow power WiseEyeTM AI sensing technology, diverse CMOS image sensors, and innovative optical solutions and manufacturing capabilities, the partnership aims to ensure that the thermal imaging technology is accessible to a wide range of markets, enhancing both cost-efficiency and scalability.

The final product, launching in late 2025, highlights the companies' shared vision of leveraging advanced technology to solve real-world challenges. One of the latest examples includes a case study which has shown that Calumino Thermal Sensors with Himax WiseEye AI processor and CMOS image sensor can save up to 40% of energy in commercial real estate, compared to traditional sensors. This partnership with Himax is expected to accelerate the deployment of these technologies, bringing tangible benefits to consumers and industries worldwide.

Himax and Calumino invite all interested parties to stop by our exhibition booth at The Venetian Las Vegas Hotel (3355 Las Vegas Boulevard S, Las Vegas, Nevada, U.S.A.) Venetian Tower Suite 34-208 to experience our cutting-edge intelligent thermal imaging solutions. To

schedule a meeting or booth tour, please contact Himax at <u>Himax CES2025@himax.com.tw</u> or Calumino at info@calumino.com.

About Calumino Pty. Ltd.

Calumino pioneers transformative thermal sensing technology, redefining industries with insights and control. As creators of the world's first high-performance yet affordable thermal sensor, we bring intelligent sensing to diverse markets, globally. By combining thermal imaging sensors with cuttingedge AI, we revolutionize how technology creators reimagine our living and working spaces for the future. Our world-class team brings decades of expertise in micro- and nano-fabrication, optical assembly, AI software, and IoT platforms.

http://calumino.com

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™ 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 AloT 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; changes in export license regulated by Export Administration Regulations (EAR); exchange rate fluctuations; 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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