Himax and Seeed Studio Unite to Redefine IoT with Physical AI Agent SenseCAP Watcher Powered by WiseEye2 AI Processor at CES 2025

A Revolutionary Leap in Real Time Fusion of Edge AI and Cloud-Powered Insights Empowering Smarter, Faster, and More Efficient IoT Solutions

Tainan, Taiwan – December 18, 2024 - Himax Technologies, Inc. ("Himax") (Nasdaq: HIMX) and Seeed Studio ("Seeed"), an innovative Internet of Things (IoT) technology company specializing in hardware research, production and sales for edge computing, network communication, and smart sensing applications, today announced their collaboration at CES 2025 to showcase Seeed's SenseCAP Watcher, a groundbreaking real-time, ultralow power monitoring IoT device.

Powered by Himax's ultralow power WiseEye2 HX6538 AI processor, the SenseCAP Watcher's comprehensive vision and sound sensors and speaker can detect, understand, and respond to complex scenarios. SenseCAP Watcher's precision and efficiency is enabled by integrating ultralow power edge AI inferencing, along with the power of large language models (LLMs) in the cloud. By combining the power of edge computing with cloud capabilities, the collaboration between Himax and Seeed marks a significant advancement in complex scene monitoring. This hybrid approach enables high-performance processing while minimizing energy consumption, paving the way for smarter, more efficient IoT solutions.

The SenseCAP Watcher is meticulously designed to address the growing demands of IoT for real-time data processing. By processing data locally through WiseEye™ on-device AI, SenseCAP Watcher ensures immediate and accurate responses to user commands and event detections, which is critical in applications requiring quick decision-making. For instance, a user can speak out a command to monitor a space, and SenseCAP will promptly notify the users when an event occurs there. The device can also detect objects such as people, pets, or items using WiseEye technology and utilize cloud-based LLMs to capture precise user-specified events, behaviors and the status of these objects. Additionally, once the SenseCAP detects specified events, it can interact with the user through voice responses, ensuring that users are kept informed of any specific changes or events in their environment. A real-world application of this could be in a department store, where, when a

customer picks up a product, the SenseCAP responds with "Good choice! "and immediately notify the salesperson with a message saying, "Someone is interested in the latest product! Please check the shelf ASAP." By combining real-time monitoring with intelligent interaction, the SenseCAP Watcher serves as an essential tool for IoT applications that require immediate action, such as security monitoring, automation, and critical decision-making.

The SenseCAP Watcher leverages a collection of innovative technologies that deliver intelligent, efficient, and adaptable IoT solutions:

- **Advanced Hardware Integration:** Built on the Seeed's ESP32S3 platform and integrated with Himax's WiseEye2 HX6538 AI processor, the world's first solution featuring Arm Cortex-M55 CPU and Ethos-U55 NPU. The integration excels in image and vector data processing and comes equipped with camera, microphone, and speaker, enabling it to see, hear, and speak
- **On-Device AI + LLM for Cost-Effective Scene Understanding**: Powered by Himax's WiseEye2 HX6538 AI processor, the on-device AI runs Yolo v8n object detection models, enabling precise real-time image and vector data processing. It can detect and classify over 80 object categories, including people, vehicles, license plates, animals, household items, and parcels. When combined with cloud-based LLMs, it further delivers accurate, actionable insights through advanced scenario analysis while minimizing LLM API calls and reducing operational costs
- **No-Code Model Training and Deployment:** Seamlessly integrates with Seeed's SenseCraft AI platform, enabling no-code model training and deployment. Users can deploy pre-trained models from the SenseCraft AI Model Zoo with ease. Leveraging Himax's comprehensive SDK, the SenseCraft AI toolchain optimizes machine learning frameworks and AI algorithms for image processing

"At Seeed Studio, we're passionate about making advanced technology accessible to everyone. We're thrilled to continue our partnership with Himax by integrating their cutting-edge WiseEye2 into our AI agent SenseCAP Watcher. This collaboration brings powerful LLMs to the physical world, enabling data to be processed locally on-device for quick, responsive actions. The exceptional AI inference performance of WiseEye2 is crucial to advancing intelligence across a wide range of IoT applications, including smart buildings and homes," said Joey Jiang, GM of Industry and Application Group at Seeed Studio.

"Himax is delighted to partner with Seeed Studio again to showcase the power of our WiseEye2 AI processor in the SenseCAP Watcher. This ultralow power edge AI solution redefines IoT innovation by enabling real-time, precise detection and analysis directly on the device, while seamlessly integrating cloud-based LLM intelligence when needed. By tackling challenges such as latency, bandwidth, and power efficiency, we are empowering smarter, more responsive IoT applications that cater to the dynamic and diverse demands of IoT users across various applications," said Mark Chen, Vice President of Smart Sensing Business at Himax.

Himax and Seeed Studio invite all interested parties to stop by our exhibition booth The Venetian Las Vegas Hotel (3355 Las Vegas Boulevard S, Las Vegas, Nevada, U.S.A.) Venetian Tower Suite 34-208 to experience firsthand cutting-edge developing technology of Himax and Seeed Studio in

SenseCAP Watcher and endpoint AI device applications. To schedule a meeting or booth tour, please contact Himax at: Himax_CES2025@himax.com.tw or Seeed Studio at lily.li@seeed.cc.

About Seeed Studio

Seeed Studio is the IoT hardware partner for digital innovators. Since 2008, they have been working closely with global technology ecosystems to provide hardware modules, devices, and related services. They integrate the latest technology into thousands of open-source hardware modules so that millions of developers, makers, and innovators coming from different backgrounds can innovate interdependently. With professional and industrial expertise in Embedded Machine Learning, Edge Computing, smart sensors, and networks, their ready-to-deploy products are increasingly accelerating myriads of emerging digital solutions in the real world. On this backdrop, their work has been well recognized by both technology and mainstream media, thanks to their avid services for smart energy, digital factory, smart retail, precise agriculture, and scientific research, to mention a few.

https://seeedstudio.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 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 2,683 patents granted and 390 patents pending approval worldwide as of September 30, 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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