



Himax and Emza Unveil WiseEye 2.0 IoT Intelligent Vision Solution at ISC West 2019

Second Generation WiseEye solution features battery-powered human detection sensor, AI-based machine learning at the edge and always-on visual sensor for security, smart Home, and consumer IoT applications

TAINAN, TAIWAN AND GIV'ATAYIM, ISRAEL, April 02, 2019 – Himax Technologies, Inc. (NASDAQ:HIMX) a leading supplier and fabless manufacturer of display drivers and other semiconductor products, and its [wholly-owned subsidiary](#), Emza Visual Sense, a pioneer specializing in AI-based algorithms for intelligent ultra-low power image sensing, announced today the release of their second generation “WiseEye IoT” intelligent vision solution. The advanced features and attractive price point enable inclusion of intelligent optical recognition in smart homes, smart buildings, security cameras, smart cars and consumer IoT devices. WiseEye 2.0 is one of the most efficient sensors on the market, using less power and computing resources than previously available solutions. Emza and Himax will showcase the WiseEye 2.0 IoT sensor at the ISC West 2019 industry trade event, April 10-12, in Las Vegas.

Compared to first generation solutions, WiseEye 2.0 is “IoT Ready” adding a proprietary processor to Emza’s unique AI-based machine learning computer vision algorithms and Himax’s low-power CMOS image sensor - that together with a newly designed and improved camera enable intelligent optical recognition never available before. For instance, the WiseEye 2.0 IoT intelligent visual sensor has a tiny form factor using less power and computing resources than existing solutions at an attractive price point. In addition, the new camera provides higher resolution and better efficiency with less power consumption. These new developments enable cost effective addition of human presence detection and identification to next generation consumer IoT devices in security systems, smart homes and buildings.

The key features of the WiseEye 2.0 IoT solution include:

- **Battery-powered human detection sensor:** Designed with the combination of an ultra-low-power image sensor and energy efficient CV image processing algorithm, the battery-powered IoT visual sensor enables the always-on camera to wake up devices based on specific patterns or movements.
- **AI-based machine learning at the edge:** Unique combination of ultra-low power consumption combined with AI-based machine learning, enables battery operated devices with advanced intelligence that were never previously available for smart home, security and consumer IoT applications.
- **No passive infrared (PIR) sensors required:** Current PIR-based sensors used for low power motion detection have no intelligence and as a result deliver a costly level of false-positives. WiseEye 2.0 provides low power with high intelligence to significantly increase accuracy and decrease false alarms.
- **Pre-roll feature:** The always-on camera stores all frames related to an alarm including footage from before the event occurred.
- **High accuracy human classification:** With human recognition from up to 10 meters away, WiseEye 2.0 is significantly more accurate than first generation solutions.

“WiseEye 2.0 brings an enhanced user experience and better-informed decision-making based on minimal power and cost requirements. We plan to release the reference design in Q3 2019 including all components and functions for OEMs and ODMs to simplify integration of advanced vision functionality into their current and next generation IoT devices,” said Yoram Zylberberg, CEO of Emza Visual Sense.

"We are excited about WiseEye 2.0 and the level of integration we have achieved between the new HM0360 camera, algorithm and processor," said Amit Mittra, CTO of Himax Imaging. "The result is sub 1 mW always-on functionality, faster response times and power requirements 1-2 orders of magnitude lower than previous solutions. This is what our customers are specifying for their smart home/building, security, automotive, and consumer IoT applications."

Emza and Himax will showcase the WiseEye 2.0 IoT visual sensor solution, April 10-12, at the Venetian Resort hotel just near the convention center at the upcoming ISC West 2019 industry trade event in Las Vegas. To schedule a meeting, contact info@emza-vs.com.

About Emza Visual Sense

Emza Visual Sense develops sub-milliwatt, trainable, low-cost, autonomous, tiny computer-vision IoT sensors for automatic scene interpretation of the visual world around us. The low cost, ultra-low power consumption and high intelligence make our visual sensors applicable and affordable to a wide range of markets and applications – from accurate counting and tracking of people in smart buildings and connected homes to people awareness for home appliances. Emza's visual sensors are smaller than a coin, consume less than 1mW and reduce cost by an order of magnitude. Our proprietary algorithms are embedded at the edge and are specially designed for extremely thin computing cores and a unique ultra-low power CMOS image sensor. Emza explores the limits of what can be achieved with minimal resolution, frame rate, processing power, memory size, power consumption - and cost. Visit us at www.emza-vs.com

About Himax Technologies, Inc.

Himax Technologies, Inc. (NASDAQ: HIMX) is a fabless semiconductor solution provider dedicated to display imaging processing technologies. Himax is a worldwide market leader in display driver ICs and timing controllers used in TVs, laptops, monitors, mobile phones, tablets, digital cameras, car navigation, virtual reality (VR) devices and many other consumer electronics devices. Additionally, Himax designs and provides controllers for touch sensor displays, in-cell Touch and Display Driver Integration (TDDI) single-chip solutions, LED driver ICs, power management ICs, scaler products for monitors and projectors, tailor-made video processing IC solutions, silicon IPs and LCOS micro-displays for augmented reality (AR) devices and heads-up displays (HUD) for automotive. The Company also offers digital camera solutions, including CMOS image sensors and wafer level optics for AR devices, 3D sensing and machine vision, which are used in a wide variety of applications such as mobile phone, tablet, laptop, TV, PC camera, automobile, security, medical devices, home appliance and Internet of Things. 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, Israel, and the US. Himax has 2,992 patents granted and 508 patents pending approval worldwide as of February 28th, 2019. Himax has retained its position as the leading display imaging processing semiconductor solution provider to consumer electronics brands worldwide.

<http://www.himax.com.tw>

Forward Looking Statements

Factors that could cause actual events or results to differ materially include, but not limited to 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; shortages in supply of key components; changes in environmental laws and regulations; 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, 2018 filed with the SEC, as may be amended.

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