



DSP Group, Emza and Himax Announce Industry's First AI based Human Presence IoT Visual Sensor for Consumer Appliances and Industrial Applications

WiseEye features minimal form factor, ultra-low power, always-on, easy-to-integrate and cost-effective advantages; Solution demonstration available at CES 2018

Milpitas, CALIF., U.S.A., GIV'ATAYIM, ISRAEL AND TAINAN TAIWAN, January 2, 2018 – [DSP Group[®], Inc.](#) (NASDAQ:DSPG), a leading global provider of wireless chipset solutions for converged communications, [Emza Visual Sense](#), pioneer of ultra-low power computer vision, and [Himax Technologies](#) (NASDAQ:HIMX) a leading supplier and fabless manufacturer of display drivers and other semiconductor products, today announced the launch of the WiseEye IoT. This is the industry's first ultra-low power, always-on, intelligent visual sensor adding human presence awareness for consumer appliances and industrial IoT applications. Emza Visual Sense and DSP Group will display the WiseEye IoT sensor at the upcoming largest consumer electronics show in US, CES 2018, January 9-12, in Las Vegas.

DSP Group's ULE and SmartVoice solutions, Emza's unique machine vision algorithms, and Himax's innovative low power CMOS Image Sensor yield a commercially available sensor capable of detecting, localizing, counting and profiling people. When integrated into consumer appliances such as home assistants, TV sets, heating and cooling systems or security systems, WiseEye IoT enables battery-powered human awareness in the vicinity of the appliance in an extremely efficient and cost-efficient manner. It adds an important new information layer to currently marketed voice activation systems, providing the appliance with reliable information on the profile, number and location of people nearby to enhance user experience. Moreover, the sensor is designed to avoid storage or transmission of images to protect customers' privacy.

When it comes to industrial applications, WiseEye provides intelligent occupancy detection and people counting in a battery powered sensor, so it is perfect for managing HVAC, factory floors, and other areas where motion detection is required. The actual sensor has a minimal form factor, allowing seamless integration with any design and industrial ecosystem when compared to traditional motion detectors. It can be easily integrated into third parties' IoT management systems as well as the existing Building Management Systems' backend for smooth deployment, analytics and management. WiseEye IoT can provide the intelligence required for smart buildings to optimize HVAC, and improve control of safety and security at only a few milliwatts of power and extremely competitive cost. SmartVoice SoC enables WiseEye IoT to operate in extremely low power consumption that is essential to such devices. Integration with ULE

technology, offers WiseEye IoT an interference-free spectrum band and superb range, enhancing WiseEye's value proposition by allowing transparent connectivity to existing ULE-IoT based systems.

"ULE was the natural choice for Emza as they were looking for a solution to power their WiseEye due to its many benefits, including superior range, lack of interference, low cost and extremely long battery life," said Tali Chen, CVP Corporate Development & Chief Evangelist of DSP Group. "We are thrilled to have worked with Emza and Himax on the first wireless deployment on an always-on visual sensor with the ability to detect human presence as it is a game changer for everything from climate control to security."

"Machine learning-based sensors enhance the intelligence and functionality of any device, and our trainable WiseEye IoT solution aims at bringing these capabilities to the vast and largely untapped IoT space in both consumer and industrial domains," said Yoram Zylberberg, CEO of Emza Visual Sense. "In DSP Group, we found a unique combination of offering that fits any IoT supplier – a low power SoC that can serve as a computing platform for our advanced algorithm and ULE modules for easy integration with IoT systems."

"Himax CMOS Image Sensor, HM01B0, is the first to be specially designed to benefit the computer vision algorithm and we are excited to be a part of this sophisticated new joint offering from Emza and DSP Group," commented Amit Mittra, CTO of Himax Imaging. "Low power and high performance are critical to the success of this application. Using our CMOS Image Sensor gives WiseEye the ability to bring computer vision to new applications that have been hard to reach before due to cost, performance, and power constraints."

Emza Visual Sense will showcase the WiseEye IoT visual sensor solution at DSP Group's suite at the upcoming CES, January 9-12, 2018 in Las Vegas. To schedule a meeting, contact info@dspg.com or info@emza-vs.com

About DSP Group

DSP Group®, Inc. (NASDAQ: DSPG) is a leading global provider of wireless chipset solutions for converged communications. Delivering semiconductor system solutions with software and hardware reference designs, DSP Group enables OEMs/ODMs, consumer electronics (CE) manufacturers and service providers to cost-effectively develop new revenue-generating products with fast time to market. At the forefront of semiconductor innovation and operational excellence for over two decades, DSP Group provides a broad portfolio of wireless chipsets integrating DECT/CAT-iq, ULE, Wi-Fi, PSTN, HDClear™, video and VoIP technologies. DSP Group enables converged voice, audio, video and data connectivity across diverse mobile, consumer and enterprise products – from mobile devices, connected multimedia screens, and home automation & security to cordless phones, VoIP systems, and home gateways. Leveraging industry-leading experience and expertise, DSP Group partners with CE manufacturers and service providers to shape the future of converged communications at home, office and on the go. For more information, visit www.dspg.com.

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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

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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 head-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 and Internet of Things. Founded in 2001 and headquartered in Tainan, Taiwan, Himax currently employs around 2,150 people from three Taiwan-based offices in Tainan, Hsinchu and Taipei and country offices in China, Korea, Japan and the US. Himax has 3,011 patents granted and 441 patents pending approval worldwide as of September 30th, 2017. 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, 2016 filed with the SEC, as may be amended.

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