

PRESS RELEASE

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Vuzix and Fraunhofer IPMS Announce Major Milestone in Custom MicroLED Backplane Development

Vuzix® Corporation (NASDAQ: VUZI), ("Vuzix" or, the "Company"), a leading supplier of Smart Glasses and Augmented Reality (AR) technology and products, and Fraunhofer Institute for Photonic Microsystems IPMS (Fraunhofer IPMS), a globally renowned research institution based in Germany, are excited to announce a major milestone in the development of a custom microLED backplane.

The collaboration has led to the initial sample production of a high-performance microLED backplane, designed to meet the unique requirements of specific Vuzix customers. The first working samples, tested using OLED technology, validate the design's potential for advanced display applications. The CMOS backplane supports 1080P+ resolution, enabling both monochrome and full-color, micron-sized microLED arrays. This development effort was primarily funded by third-party Vuzix customers with targeted applications in mind. As such, this next generation microLED backplane is focused on supporting high-end enterprise and defense markets, where performance and customization are critical.

"The success of these first functional samples is a major step forward," said Adam Bull, Director of Program Management at Vuzix. "Fraunhofer IPMS has been an outstanding partner, and we're excited about the potential applications within our OEM solutions and tailored projects for our customers."

Philipp Wartenberg, Head of department IC and System Design at Fraunhofer IPMS, added, "Collaborating with Vuzix on this pioneering project showcases our commitment to advancing display technology through innovative processes and optimized designs. The project demonstrates for the first time the adaptation of an existing OLED microdisplay backplane to the requirements of a high-current microLED frontplane and enables us to expand our backplane portfolio."

To schedule a meeting during the May 12th SID/Display Week please reach out to ines.schedwill@ipms.fraunhofer.de

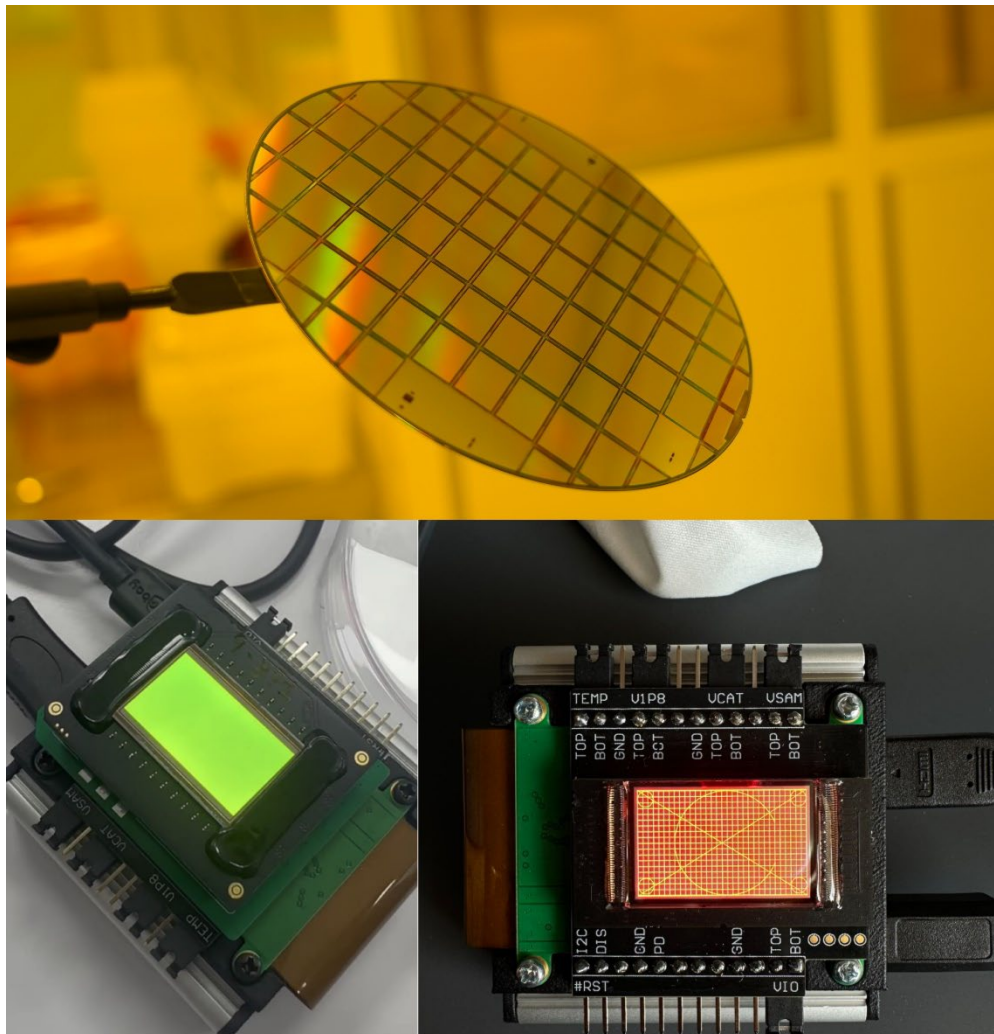
Editor

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Image

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Vuzix and Fraunhofer 1080p+ microLED backplane with green microLEDs and red OLED pixels

The **Fraunhofer-Gesellschaft**, based in Germany, is the world's leading applied research organization. By prioritizing key technologies for the future and commercializing its findings in business and industry, it plays a major role in the innovation process. A trailblazer and trendsetter in innovative developments and research excellence, it is helping shape our society and our future. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 76 institutes and research units throughout Germany. Around 30,800 employees, predominantly scientists and engineers, work with an annual research budget of roughly €3.0 billion, €2.6 billion of which is designated as contract research.

FRAUNHOFER INSTITUTE FOR PHOTONIC MICROSYSTEMS IPMS**Fraunhofer IPMS at SID Display Week:**

Exhibition stand: No. 1135, German Pavilion

Presentation:

Session 100: AR/VR Fabrication and Testing

100.5 (INVITED): Dr. Uwe Vogel "High-Voltage CMOS Backplanes for High-Brightness OLED Microdisplays",
Friday, May 16, 2025, 14:50 - 15:10, Room 220C

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About Fraunhofer Institute for Photonic Microsystems IPMS

The Fraunhofer Institute for Photonic Microsystems IPMS is an internationally leading research and development service provider for electronic and photonic microsystems in the application fields of intelligent industrial solutions, medical technology and health, mobility, and green and sustainable microelectronics. The institute is the only independent research and development center for microdisplays (OLED, LED, LCOS, etc.) in the world. The offering ranges from conception through product development to pilot-manufacturing in its own laboratories and cleanrooms, as well as backplane fabrication collaborations with 8" and 12" commercial silicon foundries. The institute works on electronic, mechanical, and optical components and their integration into miniaturized devices and systems.

About Vuzix Corporation

Vuzix is a leading designer, manufacturer and marketer of AI driven Smart Glasses and Augmented Reality (AR) technologies and products for the enterprise, medical, defense and consumer markets. The Company's products include head-mounted smart personal display and wearable computing devices that offer users a portable high-quality viewing experience, provide solutions for mobility, wearable displays and augmented reality, as well OEM waveguide optical components and display engines. Vuzix holds more than 425 patents and patents pending and numerous IP licenses in the fields of optics, head-mounted displays, and the augmented reality wearables field. The Company has won Consumer Electronics Show (or CES) awards for innovation for the years 2005 to 2024 and several wireless technology innovation awards among others. Founded in 1997, Vuzix is a public company (NASDAQ: VUZI) with offices in: Rochester, NY; and Kyoto and Okayama, Japan. For more information, visit the Vuzix [website](#), [Twitter](#) and [Facebook](#) pages.