

Realfiction will demonstrate LCD, OLED and microLED based 3D display technology at CES 2024

Realfiction Holding AB (“Realfiction” or “the Company”) announces that it will demonstrate four versions of its groundbreaking Directional Pixel Technology™ (“Directional Pixel Technology” or “DPT”, formerly known as Project ECHO), enabling home cinema-sized glasses-free 3D displays for up to 5 persons (10 views) at the same time with 4K resolution, during the Consumer Electronics Show (CES) in Las Vegas in January 2024. While impressive single user 3D displays for tablets and notebooks have been shown before, the world is still waiting for the first large, multiuser, high quality naked-eye 3D display. Realfiction believes its novel time-multiplexing holds the key to achieving this, and the Company is proud to unveil a range of DPT display demonstrations based on LCD, OLED and MicroLED during the CES week.

The four DPT demos to be demonstrated during CES include a 17-inch Multiview LCD display and a 17-inch 3D Multiuser LCD display (both scalable to large TV sizes), a small segment of a 65-inch OLED 3D Multiuser display (scalable to large TV sizes/home cinema), and a 2-inch HybridScan MicroLED proof-of-concept (scalable to large TV sizes/home cinema when large-size microLED displays become commercially viable). All technologies are ready for licensing, and Realfiction is currently pursuing commercial licensing deals and/or collaborations to enable mass manufacturing.

“We are proud and excited to unveil a complete range of 2D Multiview and 3D Multiuser demonstrations of our Directional Pixel Technology during CES 2024, covering all relevant present and near-future display technologies. Since our first invite-only demonstrations of DPT in early 2023, we have seen display industry executives smiling and raising their eyebrows in excitement, indicating that we hold the key to unlock the holy grail of 3D: social experiences with look-around capability without the need for headsets, glasses, or any other accessories between your eyes and the display. We are now in the market with DPT, and we are ready to license the technology and help our future customers in implementing it into commercial grade display products. We are inviting many companies to meet us and see our technology firsthand, and we expect a lot from CES and 2024 overall,” says Realfiction’s CEO and co-founder Clas Dyrholm.

“As a cinema display industry veteran with decades of international experience, I was delighted to move back to Denmark and join Realfiction in 2019 after becoming convinced that Directional Pixel Technology was the key to future displays. It has all the characteristics that I want to see in a future standard for home cinema 3D display technology, without the various limitations plaguing previous attempt to create a viable technology platform at a price level suitable for mass-market adoption. There is so much potential to create amazing DPT display products, and these CES presentations will surely convince many more people in the home cinema as well as other relevant industries that we can make it happen,” says Steen Iversen, Realfiction’s Director of Advanced Display Technology.

Short description of the four ECHO display versions to be demonstrated during CES 2024:

- A 17-inch multiview demo where users can see different content on the same display - in full resolution. The multiview feature comes as a natural part of any 3D DPT display but can also be made simpler for 2D only. This can be relevant to increase safety and entertainment in automotive, and for applications where privacy or differentiated view is either a need or a benefit.
- A 17-inch 3D multiuser demo showing that the DPT technology is unique in its capacity to show 3D content to more than one user at a time, even without lowering the screen resolution to half or less, which is the normal approach with glasses-free 3D display technology. While shown on a 17-inch display, the technology can be scaled up to large TV sizes.
- An OLED DPT backplane proof-of-concept with 600 active matrix TFT subpixels per pixel, with less than 50% increase in number of addressing electrodes. This OLED version demonstrates a segment of a 65-inch 4K display suitable for home cinema use, and scalable to even larger sizes. The OLED version is capable of showing different content for 5 3D viewers or 10 2D viewers at the same time with no loss of resolution.
- A 2-inch MicroLED proof-of-concept that effectively demonstrates how the DPT time-multiplexing driving system is capable of showing different content for 5 3D viewers or 10 2D viewers at the same time on a MicroLED display, with a refresh rate of 130 frames per second for each view and no loss of resolution.

Realfiction will not be on the show floor of CES, as the Company focuses on providing personal presentations for a selected group of business-to-business companies and stakeholders, rather than addressing the much larger business-to-consumer audience present at the show floor. The Company will therefore welcome CES visitors by invitation only to meet the Realfiction team and watch the demonstrations at the Las Vegas ARIA Tower Suites from January 9 to 12, 2024 (the days of the CES show). The demonstrations will be held in collaboration with AmTRAN, a large LCD manufacturer and Realfiction's collaboration partner for selected LCD versions of DPT.

The Company has developed and filed patent applications for technologies that enable production of multi-user and glasses-free 3D displays. Some of Realfiction's patent applications have received "patented" status, and more are expected to follow. Furthermore, the Company has the exclusive license to use HKUST's FLCED technologies as previously communicated. In total, Realfiction's patent portfolio for its Directional Pixel Technology (including licensed and not yet granted applications) currently consists of 15 patent families with applications filed in multiple countries.

A broad spectrum of DPT licensing opportunities

Realfiction is currently seeking additional licensing and/or collaboration partners to manufacture and sell DPT enabled display products as Realfiction has no current plans to manufacture DPT displays under its own brand. The Company believes this to be the best route going forward considering the huge global market potential of the technology in a wide variety of market segments, from specific use cases to global consumer mass market segments.

The Company believes that interested parties could include large display manufacturers and industry verticals with specific use cases such as automotive, life science, advertising, numerous creative and collaborative segments, entertainment, and education, as well as consumer mass markets for TV sets, products related to gaming, and home cinema. Furthermore, the Company's technology is relevant for other companies in the 3D display field, IP technology providers to semiconductor and display industries, as well as AR/VR and cloud industries exploring ways to expand the user base of existing AR/VR headset-based content platforms.

If you want to attend one of our DPT demonstrations during CES 2024 in Las Vegas at the ARIA Tower Suites, January 9-12, please reserve your spot by writing an e-mail to clas@realfiction.com and inform us your name and date desired.

The Directional Pixel Technology is supported by Innovation Fund Denmark.

For more information about Realfiction Holding AB, please contact:

Clas Dyrholm, founder and CEO

Telephone: +45 25 22 32 81

Email: clas@realfiction.com

www.realfiction.com

Certified Adviser

Mangold Fondkommission AB is the company's Certified Adviser and can be contacted via ca@mangold.se or +46 8 503 015 50.

About Realfiction Holding AB

Founded in Denmark in 2008, Realfiction is a leading innovator and provider of Mixed Reality solutions and services, a market estimated to reach USD 80 billion by 2025. Realfiction continues to invent technologies within Mixed Reality, with an intention to disrupt the industry by pursuing the vision of converting science fiction into real fiction. Realfiction Holding AB's share is publicly traded on Nasdaq Stockholm First North under the symbol "REALFI". The share's ISIN code is SE0009920994.

About CES

CES® is the most influential tech event in the world – the proving ground for breakthrough technologies and global innovators. This is where the world's biggest brands do business and meet new partners, and the sharpest innovators hit the stage. Owned and produced by the Consumer Technology Association (CTA)®, CES features every aspect of the tech sector. CES 2024 will take place Jan. 9-12, 2024, in Las Vegas. Learn more at [CES.tech](https://ces.tech).

About Innovation Fund Denmark

Innovation Fund Denmark invests in entrepreneurs, researchers and businesses that create value for Denmark and new solutions to our society's biggest challenges - and supports the development of new knowledge and technology creating growth and employment in Denmark. Please refer to www.innovationsfonden.dk for more information.

Attachments

[Realfiction will demonstrate LCD, OLED and microLED based 3D display technology at CES 2024](#)