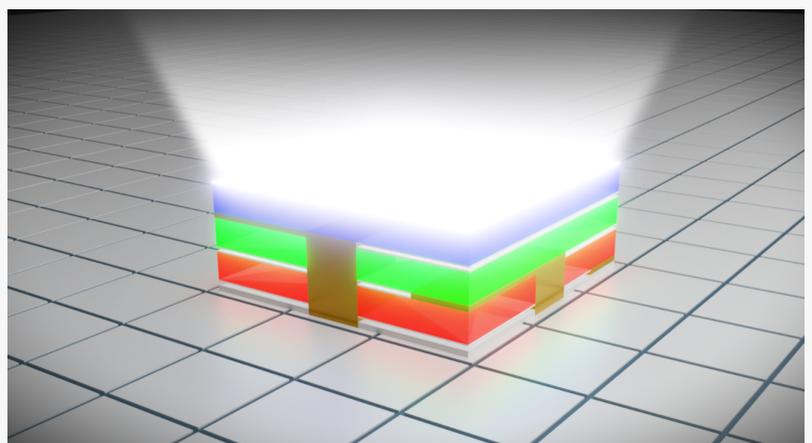


# Micro-LED Displays: A Revolution in Immersive Visual Experience by Rayleigh Vision

*The recent launch of Apple's mixed reality (MR) glasses has spotlighted the significance of microdisplay technologies.*

HONG KONG, HONG KONG, HONG KONG, October 13, 2023

/EINPresswire.com/ -- The recent launch of Apple's mixed reality (MR) glasses has spotlighted the significance of microdisplay technologies, an essential but expensive component of virtual, augmented, and mixed reality applications. However, Apple's current reliance on Micro-OLED displays raises concerns regarding cost, brightness, and longevity.



Illustrative graphic of Rayleigh Vision's developing 3-layer stacked Micro-LED chip

Enter [Rayleigh Vision](#), the startup out of Hong Kong.

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Rayleigh Vision's groundbreaking dual-layer Micro-LED display technology is poised to revolutionize industries with unparalleled pixel density, setting a new standard in visual innovation”

*Rayleigh Vision*

Founded in 2023 and now renowned for its cutting-edge Micro-LED innovations, Rayleigh Vision, backed by the expertise of Professor Jr-Hau HE and Dr. Eddy Hsu, promises to redefine the display landscape. Their breakthrough dual-layer Micro-LED featuring an advanced stacking technology, is capable of modulating colors independently on each layer. This means potentially doubling the pixel density of existing devices. Add high contrast, unmatched brightness, and a wide color gamut to the mix, and you have a display solution poised to revolutionize sectors from entertainment to consumer electronics.

The Rayleigh Vision team is making waves globally, with operational hubs in California, Hong Kong, and Taiwan. They've unveiled products like a 0.55" full-color Micro-LED microdisplay and a 0.38" version with an astounding pixel density of 3780 ppi. But it's their success with 2.5  $\mu\text{m}$

Micro-LED pixels, which features a pixel density exceeding a whopping 10,000 ppi, that solidifies their position as tech trailblazers.

Dr. He points out that while stacked Micro-LED technology is promising, it's not without its challenges, such as heat dissipation, precise alignment, and the innovations required in stacked structures. Yet, Rayleigh Vision has been relentless in its research and innovations. With their patented technologies, they're addressing challenges in mass production, from repairing pixel defects to reducing costs. Their dedication to innovation is clear: Rayleigh Vision can feasibly mass-produce stacked Micro-LED technology on large wafers, a feat that has captivated leading electronics and industry players worldwide.

There's also buzz around Apple's future adoption of Micro-LED technology. Dr. Hao-Chung Kuo from Hon Hai Research Institute suggests Apple's iconic watch might feature a Micro-LED display by 2026, followed by its mixed-reality glasses. The rationale behind Micro-LED lies in its unparalleled detail and realism, surpassing even LED, Mini-LED, and Micro-OLED.

The [Micro-LED market](#) is booming, with forecasts predicting growth from \$500 million in 2022 to an eye-watering \$20 billion by 2027. Over the past year, major players like Google have invested heavily, acknowledging the technology's potential.

Micro-LED's evolution has depended on comprehensive expertise spanning chip design, wafer fabrication, and CMOS manufacturing. And as investment pours into research and development, technological breakthroughs are likely to accelerate.

Dr. [Zhaojun Liu](#), a leading figure in the Micro-LED space, weighed in on the discussion. Traditionally, full-color Micro-LED displays used either RGB Micro-LED chips or blue Micro-LEDs combined with a color conversion layer. The recent stacking technology by Rayleigh Vision, however, is carving a new path, hinting at vast potential.

A brief look at Rayleigh Vision's background reveals its dominance. Built on a foundation of Micro-LED veterans averaging 15 years of diverse expertise, the company boasts over 300 patents and continues to innovate. Their stacking Micro-LED technology, in particular, stands out as a game-changer for a plethora of devices.

Having already filed for 15 proprietary patents, Rayleigh Vision's commitment is crystal clear. As the global tech scene evolves, this company is set to redefine the gold standard in the Micro-LED arena.

### About Rayleigh Visions

2023 marked the inception of Rayleigh Vision, an avant-garde in the Micro-LED sector. The company is built upon a robust foundation of seasoned Micro-LED connoisseurs, with each member having an average of 15 years of working experience across a spectrum of domains—ranging from materials and circuits to applications, systems, and strategic marketing.

This technological powerhouse has not only amassed an impressive portfolio of over 300 patents through its founders but is also trailblazing the path to innovation. One of Rayleigh Vision's most notable advancements is its pioneering stacking Micro-LED technology. This innovation is a game-changer, offering enhanced pixel density, augmented energy efficiency, and a cost-effective solution, shaping the future of AR/VR/MR, smartwatches, mobile devices, and even the automotive display sector.

<https://rayleighvision.com/>

Stella Richards  
Index of Sciences Ltd  
[email us here](#)

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