

# Everlasting Evolution of Display with AI

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The era of Artificial Intelligence (AI) has now arrived, accompanying with Industrial Revolution 4.0, which is characterized by hyper-connectivity, hyper-convergence, and hyper-intelligence. AI will be the core technology to encompass these trends and poise our society for a quantum leap forward. With the emergence of generative-AI, the competition among Big Tech companies has been intensifying and it will be further accelerated with the release of various AI services and devices.

AI is already permeating various aspects of our daily lives and is going to completely transform human life through the convenience and efficiency of its services. To achieve this, the importance of display will be emphasized even more, as humans rely on visual input for more than 80% of information processing. Therefore, the displays employed in AI devices are expected to be elevated to the next level. For example, images and videos generated by generative-AI will require high-definition implementations that can naturally express details and subtle color/gray differences that cameras in the real world cannot capture, while also being thin, light-weight, and versatile in shape for easy mobility and storage. Additionally, various functional features such as low-power consumption, will be required to make AI service even more effective.

OLED, as a self-emissive display technology, can achieve vivid and rich color reproduction with high image quality compared to other display technologies, which grants hyper-reality to AI-generated pictures and movies. It also excels in differentiated designs (such as foldable) and low-power consumption from a functional perspective. Additionally, Silicon-based OLED, known as OLEDoS, is gaining attention as the next-generation technology that can maximize the realistic and immersive expressions. Therefore, OLED is the most suitable display technology for the AI era.

As the top OLED company in the world, Samsung Display is getting ready to take the lead in the display industry even in the AI era. Samsung Display continues to invest in R&D and production capacity for the key devices, such as Foldable, IT, Automotive and Microdisplay. Samsung Display is ready for opening a new horizon for displays through opportunities created by AI, and we invite you to Samsung Display's new leap in the future.