

Samsung introduces first mirror and transparent OLED display panels

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Samsung Display 55-inch Transparent OLED display. Credit: Business Wire

Samsung Display unveiled the industry's first Mirror and Transparent OLED display panels in a dazzling state-of-the-art showcase for personalized shopping and informational browsing, held this week at the

Hong Kong Convention and Exhibition Centre. The exhibit features the first retail use of advanced commercial OLED panels – a "virtual necklace" display for the world renowned Chow Sang Sang jewelry company.

The new Samsung Display OLED panel technology provides a digital viewing platform for making the consumer purchasing experience more visually engaging. When Samsung's OLED display technology is integrated with Intel Real Sense technology, a visually compelling, interactive closet or "self-modeling" wardrobe is created that can enable consumers to virtually "see" clothes or other retail items from an extremely realistic, customized perspective.

Together, the two technologies create a "virtual fitting room" that will be used to help consumers vividly see themselves wearing clothing apparel, shoes or jewelry that they might wish to buy. Once retailers like Chow Sang Sang adopt the combined Samsung-Intel "personalization" virtual imaging solution, consumers will be able to go to leading stores around the world to see retail items in ways that will greatly enhance point-of-purchase shopping as we know it today.

The Intel technology takes human-computer interaction to the next level of visualization, which combines consumer-grade 3D cameras with an easy-to-use, automated library of stored "perceptions" to simplify camera enhancement efforts of software developers.



Samsung Display 55-inch Mirror OLED display. Credit: Business Wire

The Samsung Mirror Display may also replace home mirrors in the future, providing digital information services to sophisticated consumers in the same space where they now just have a traditional mirror.

Samsung Display's Mirror OLED display panel, with its more than 75 percent reflectance level, delivers at least 50 percent higher reflectance than competitive Mirror LCDs now in limited availability and a much improved color gamut (over 100 percent vs. around 70 percent of NTSC), as well as an exceptionally high contrast ratio (over 100,000:1 vs. 4,000:1) and a much faster response time (under 1ms vs. 8ms) than LCD transparent panels. In addition, the new mirror display technology does not need the ambient backlight for displaying on-screen images that

LCD technology requires.

Like the Samsung Mirror Display, the new Samsung Transparent Display will visually accentuate the gesture and voice control of Real Sense 3D-rotatable viewing systems, with OLED's vibrant Full HD video playback. Collectively, these features will enhance consumer-facing displays in car dealerships, and other innovative signage applications in public information and transportation environments, as well as at retail and hospitality/hotel locations.

Compared to conventional LCD alternatives for today's digital signage market, Samsung Display's Full HD Transparent OLED display panel has a substantially higher color gamut (100 percent vs. around 70 percent of NTSC), sharply increased transmittance (45 percent vs. around 10 percent), and better clarity through a wider range of viewing angles. It features a transparency level of over 40 percent, much higher than the 10 percent level of today's transparent LCD displays.

"Samsung has a long legacy of leadership in technology innovation for digital signage, as well as for other applications, and we are now leading the next wave of digital signage advancement with our Mirror and Transparent OLED display solutions," said Oseung Yang, vice president, Samsung Display Company. "We are very excited to help bring a new interactive dimension to the world of multi-channel shopping through the integration of our newest OLED displays with Intel RealSense technology," he added.

Samsung Display's advanced OLED display panels will open up new possibilities for optimizing the potential for visually interactive computing technology. Here, Intel Real Sense features a front-facing camera that captures even the most subtle facial movements, precisely tracks widely varying finger and hand movements, and clearly distinguishes between backgrounds and foregrounds. In addition, the

Intel technology includes a rear-facing camera that can accurately scan and measure rooms and objects, and a snapshot camera that can alter a photo's background after a photo has been taken.

"Samsung Display's revolutionary Transparent and Mirror OLED display solutions will drive retail and digital signage leaders, and their customers, to further innovate through greater manipulation of the Intel RealSense platform in order to deliver highly differentiated, exquisitely personalized customer experiences," said Jose Avalos, worldwide visual retail director, retail solutions division, Internet of Things group, Intel Corporation.

Mirum, the global digital technology integrator involved in the project, specializes in bringing leading-edge technology to the masses by helping retailers and public information [display](#) providers undergo a digital business transformation, said Win Mak, CEO of Mirum Hong Kong. "Magic Mirror 2.0 is a prime example of how Mirum Hong Kong is staying at the forefront of [technology](#), utilizing our partnerships wisely as we continue to explore opportunities to help our clients incorporate innovation into their business activities. This is how we help market leaders become successful digital pioneers within their respective industries."

Provided by Samsung

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