

## Sony's CLEDIS, Large-Scale Display Solution with Tiles

Written by Bob Snyder  
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You can see it at InfoComm for the first time in public. It won't be available in Europe until Q1 2017.

Sony brings out **CLEDIS** (Crystal LED Integrated Structure) technology, its redefinition of high-end visual display solutions with a new large-scale canvas solution that builds on Sony's self-emitting display capabilities-- but with ultrafine LEDs as the light source.

CLEDIS is designed for a range of commercial applications where intricately detailed video displays are required on a large scale, such as industrial product design and manufacturing for automotive.

CLEDIS' borderless design allows multiple tiles to be seamlessly aligned so no visible gaps can be seen by the naked eye. The result is an immersive picture with an almost 180 degree viewing angle, creating an image that can be "as large as your imagination can handle" with corner-to-corner image uniformity in terms of brightness and colour. And Sony says it has a brightness of 1000 cd/m<sup>2</sup> (1000 nits), producing imagery with 10-bit colour depth and a wide colour gamut (approximately 140% of sRGB).

The CLEDIS self-emitting display technology uses R (red), G (green), and B (blue) ultrafine LEDs mounted on the display surface, with each pixel emitting light independently. Each pixel is composed of one separate R, G and B ultrafine LED, with the light source only 0.003 mm<sup>2</sup> in

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size. The remaining surface area is more than 99% black.

Combined with the technology's **isotropic luminescence**, which delivers the same colour reproduction and brightness for viewers at any angle, the high black-to-surface ratio delivers a high contrast ratio in both light and dark viewing environments. The surface-mounted light source also dramatically improves the efficiency of light used.

The solution also features Sony's unique pixel drive circuitry (to achieve fast video response with a frame rate of up to 120 fps), critical for sports, concerts, or training simulations, where users need large screen visuals with no delay or motion artifacts.

The scalable canvas is made up of **multiple display units (each measuring 403 mm × 453 mm)** that can be joined together to create a large-screen display with a size and aspect ratio based on each application's requirements.

For example, a display measuring 9.7m across and 2.7 m high (8K × 2K) can be constructed by combining 144 standalone display units. The display units have no borders, so can be combined to create immersive, large screen visuals that appear seamless as if one single panel.

The CLEDIS display solution shown at InfoComm 2016 will be an 8Kx2K, 9.7m x 2.7m configuration.

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