WELCOME TO THE WORLD OF LED



What is an LED Video Wall?

Light-emitting diodes (LEDs) can be found in torches, lamps and the backlight of most LCD screens; essentially they are tiny light bulbs. LED Video Walls comprise of individual LEDs that light up with different colours to create an image; so think of each LED as a pixel. Our ranges of LED Video Walls use surface mounted-diode (SMD) technology, combining red, green and blue micro LEDs so each pixel can create a full range of colours. LED Video Walls have a modular design so they can be made to fit any space. Content is sent, usually from a media player, to a sending box which then distributes the image to each module and in turn each LED.



LED Video Walls VS LCD Video Walls

When thinking about Video Wall technology the major choice you will be faced with is whether LED or LCD is the way to go. Both have their unique advantages and strengths depending on your requirements, expectations and resources.

LED Video Wall	LCD Video Wall
Between each module and cabinet there are no seams across the entire display, creating a seamless display.	Between each panel there is an ultra-narrow bezel that can be as thin as 3.5mm screen to screen.
Fill any space thanks to the smaller cabinet sizes and modular design, is not bound to 16:9 aspect ratio.	As standard come in a fixed 16:9 aspect ratio, ideal for displaying High Definition content but more limiting.
Both indoor and outdoor options available.	Can only be used for indoor applications.
Ultra high contrast ratios achieve true blacks and an unbelievable colour range.	Smaller pixel pitch can potentially produce higher resolutions, depending on content and media player.
Bespoke installation required.	More user friendly hardware.
Robust, rugged enclosures.	Very fragile LCD panels can be damaged easily during installation.
Unbelievable levels of brightness can be achieved, ideal for outdoor applications that need to compete with the sun.	Designed specifically for indoor use so not available in high brightness.
Can be accessed from front or rear making maintenance flexible and simple.	Typically use pop-out wall mounts for serviceability.
100,000 hours lifetime.	70,000 hours lifetime.
Premium solution.	Affordable option.

Pixel Pitch

One factor to consider when planning your LED Video Wall project is viewing distance and how pixel pitch plays a part in this. Pixel pitch refers to the distance between each LED/pixel, so in a P6 LED Video Wall there would be 6mm between each pixel, both horizontally and vertically. This is why typically indoor LED Video Walls have lower pixel pitches when compared to outdoor LED Video Walls as you would expect outdoor displays to be viewed from a further distance. When deciding which pixel pitch is right for you, a general rule of thumb is the number after the "P" dictates the optimum viewing distance in meters. For example, the optimum viewing distance for a P6 LED Video Wall is 6 meters or more.



Content Management Systems

All Digital Signage solutions require a commercial display, a media player and a content management system; this theory is no different with an LED Video Walls. Just like with our LCD based Digital Signage solutions, we can provide an all-in-one LED Video Wall solution. By sourcing all of the necessary components from one supplier you can eliminate problems that arise when supporting and maintaining a solution from separate manufacturers and software suppliers. Our software is more streamlined and user-friendly, as we are not competing with traditional Digital Signage software companies who add an abundance of generally redundant features. Using over a decade of industry experience, research and development we have developed a content management system that works in sync with our LED Video Walls.



How Does an LED Video Wall Work?

An LED Video Wall is made up of several components. The first of which is the media player, which sends the content via HDMI to the sending box. The sending box processes this video signal and sends it to the receiving card of the first LED cabinet. Each cabinet, which is comprised of separate LED modules, is then daisy chained to one another using a CAT5 cable to carry this signal.







Rear View

Indoor and Outdoor LED Video Walls

LED Video Walls allow you to deliver your message on a grand scale and can be a very powerful tool. LED technology allows you to create Video Walls for both indoor and outdoor applications. Iconic locations such as New York's Times Square and London's Piccadilly Circus are dominated by outdoor LED Video Walls and tourists flock to see the advertising displays. LED technology is versatile thanks to protective IP-rated enclosures that shield the display from all outdoor weather conditions. Another huge advantage of LED is brightness; when compared to LCD technology indoor LED Video Walls are also nearly twice as bright. Outdoor LED Video Walls are more than 12 times the brightness of most standard LCD Digital Signage displays to help them compete with direct sunlight.



Installation

Our LED Video Walls can be installed quickly and efficiently due to smart interlocking cabinets and secure magnets. When it comes to installation of an LED Video Wall there are multiple factors that need to be taken into account. Where is the LED Video Wall being mounted; is it going on a wall or a custom built freestanding structure? Is a structural engineer needed? Will extra equipment such as a cherry picker be required? Is the display a permanent install or a temporary rental? How much and what type of power going to be needed? We can provide as much support as necessary when it comes to the installation of your LED Video Wall.

Maintenance

LED is one of the most durable and reliable display technologies available but like any form of equipment it does need to be properly maintained to ensure optimum performance. The failure rate of LED is astonishingly low and even when it does occur the modules can be easily accessed and swapped out. The level of maintenance required can be mitigated by considering certain factors during the design and installation stage, such as making sure there is sufficient ventilation. LED Video Walls are not a 'fit and forget' type of technology and that is why we can offer maintenance packages where appropriate, so you can be sure your LED Video Wall is properly cared for and has a long lifetime of operation.

