



THE FIVE KEY CONSIDERATIONS FOR BUYING A VIDEO WALL IN 2015

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THE FIVE KEY CONSIDERATIONS FOR BUYING A VIDEO WALL IN 2015

There are many important technology advancements in the new generation of video walls being announced this year. Here are five key technology must-haves to consider when evaluating the latest round of video wall solutions coming to market.

Introduction

You've seen the rapid growth in the installation of large, dazzling video walls in spaces public and private— from airports to corporate offices to sports arenas to universities. And even retail stores are taking advantage of the benefit of video walls to place branding and marketing where people shop. But with the proliferation of video walls, it's important to learn which technology is engineered to out-perform the lesser brands and models, so you can choose a solution that is designed to not just dazzle but to impart your important messaging effectively, and is built to succeed in every environment. Here are the five key technology and feature considerations to keep in mind.



1

Pushing Video Wall Technology to the Edge— Literally

It's only in recent years that technology improvements and engineering breakthroughs have allowed thinner mullions, or "bezels" in video walls. The term bezel refers to the black line, or thin border between each screen that makes up a video wall. While video walls made up of just stacked video monitors have been available for years, those old-design, clunky video walls were really just stacked TVs or monitors that presented the familiar "grid" of images. In that older technology, the grid was always visible and distracting. And even with the advent of LCD/LED flat panels in recent

years, most video walls are not using the latest, most advanced, thin or super-thin bezel designs. When you choose a video wall, be sure to choose a provider that offers the thinnest bezels available today. The best video wall/flat panel display manufacturers are offering bezel sizes in the "narrow" range: about 3.5mm bezel width. But only the A-tier display and video wall manufacturers are making "super-narrow bezel" products available with a bezel size of as little as 1.8mm.



2

Getting Content to the Video Wall

While the old days of needing highly expensive and specialized video processing hardware to tile content to a video wall are gone, there is much confusion in the industry about the kind of media player is needed for digital signage deployments, or to get content to a video wall in different AV applications. Can an imbedded PC be a good choice for a media player, or is it generally better to utilize a separate appliance type of media player to get content to a video wall? How should the systems integrator, or end user, start to separate what is needed to get content to the screen in the most effective way? The key answer to that question is to choose a

video wall solution that gives you the option to: A) use sophisticated third-party video processing platforms to feed content to your video wall and provide for advanced features such as interactivity (touch screen, gesture control, facial recognition, etc.) if needed; or B) use a display's built-in SoC (System on a Chip) to eliminate the need for a third-party media player and so simplify the system design and save on hardware costs.



3

Choose a Video Wall with Both Elegant Design and the Latest Weight/Depth Advancements

The best video wall systems are made up of flat panels that are lighter in weight, and less deep in profile than what was common a few years ago. If your video wall/flat panel supplier is not offering options that are light weight (20KG or 44lbs), and slim depth (87mm or 3.42 inches) to allow for easier installation and maintenance of the displays after installation, you're using yesterday's technology not today's. Video walls are not available at depths of more than 4 inches, and if you have one that

size and it is at foot-traffic level, it's not in compliance with strict ADA (Americans with Disability Act) regulations. And remember that weight considerations affect many aspects of a video wall installation: shipping costs to get the product to the site; the amount and cost of mounting gear needed; and maintenance costs after the installation is complete. Choose a video wall/display supplier that is at the forefront in light-weight, thin displays and integrated mounting systems.



4

Beneath the Glass: the Heart of the Best Video Walls

To ensure you're getting the best possible canvas (so to speak) for your video wall, choose products that are made up of LCD panels with optically bonded glass. That ensures added ruggedness and durability. But for the best quality you need to look beneath the bonded glass. Be sure your chosen flat panel displays feature the high-end panel technology called IPS (in-plane switching). The best IPS technology allows for an image with 8 million pixels, to ensure optimal color saturation and contrast for off-angle viewing (both horizontal and vertical). IPS technology also provides a screen surface temperature tolerance of

up to 230 degrees Fahrenheit (110 degrees Celsius), which helps alleviate a common problem with screens overheating and, as a result, suffering from permanent picture quality damage. And best of all for the viewer: IPS technology also improves off-angle viewing. With a non-IPS-based display, the viewer needs to be centered directly in front of the monitor to realize the best performance. That's also the case with video walls. When off-viewing angles aren't clean, then color and contrast can decrease dramatically. Only IPS technology solves that problem and vastly improves off-angle viewing.



5

Set-Up & Calibration

Calibration may sound daunting to the end-user and even to systems integrators who are constantly frustrated with identical displays from the same manufacturer that look different while showing exactly the same content. It's all about one simple factor: a video wall is by definition a configuration of individual images. So the different displays that make up a video wall must be calibrated to show a consistent, uniform image across the Wall. This means not only maintaining the brightness uniformity across the screens, but also keeping the edges of each display as bright as the center of each display. There is nothing as ugly as a video wall that includes a scene of a nice blue sky but has one off-color greenish display right in the middle that spoils the effect. There

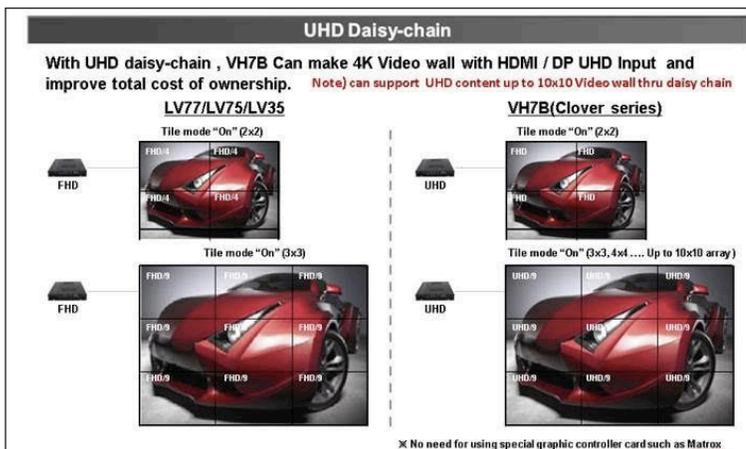
is only one solution to this problem: you must choose a video wall/display provider that not only provides reliable factory calibration (each display in a video wall design is set up at the factory to be calibrated with its sister displays in that video wall design). But due to environmental factors, third-party content software anomalies, and user error, there often needs to be some calibration on-site at a video wall installation, so the video wall/display provider must provide a fast, easy-to-use on-site calibration system. Ideally this will include an Automatic ID setting for easy installation, so that if you install 100 screens, you do not need to waste time and set up the unique ID of each monitor respectively— the Automatic ID eliminates the frustration.

LG VH7B Video Wall



LG Electronics USA has just unveiled an all-new full HD video wall display with the world's slimmest bezel-to-bezel design— less than 2 millimeters. Available in 49- and 55-inch class sizes (48.5- and 54.6-inches measured diagonally), the VH7B is the first video wall display to feature an unprecedented bezel-to-bezel measurement of about 1/16th of an inch, allowing displays to be connected seamlessly with others. The image is unrivaled when combined with the significant improvements LG achieved in maintaining the brightness uniformity across the screens, keeping the edges as bright as the center. To address the challenges of matching color and brightness across all panels, LG has incorporated factory calibration and efficient calibration tools, including Automatic ID setting that allows for easy installation – integrators can achieve an optimal image within only 3-5 minutes per panel.

With UHD daisy-chain , VH7B Can make 4K Video wall with HDMI / DP UHD Input and improve total cost of ownership. (Note) can support UHD content up to 10x10 Video wall thru daisy chain



The LG video wall can source UHD (4K) content for an up to 10x10 array video wall— without an extra video signal splitter (distributor) you can stretch one UHD content element out to a huge 10x10 array video wall screen.

The groundbreaking LG video wall display features LG's "webOS for Signage" smart platform, which takes advantage of the built-in high-performance system-on-a-chip (SoC) that eliminates the need for an external media player, helping to reduce the total cost of ownership. LG's webOS for Signage enables a variety of web-based applications across multiple platforms, as well as the ability to write applications using HTML 5. The new VH7B

series also includes several new features and improvements in design, including its light weight (20KG) and slim depth (87mm), to allow for easier installation, and maintenance.