

# Top Ten Considerations for Deploying the Perfect Video Wall

Video wall display technology marries breathtaking innovation with improved manufacturing process to allow your organization to tell its story, elevate your brand, communicate values, and visualize critical information for optimal decision-making.

As pioneers of video wall technology, Samsung Public Information Display (PID) has enjoyed the market leadership position for the last nine years, as three out of four video walls is a Samsung Display panel. We are proud of our heritage and continue to lead technical advances in this space. We hope our views guide your decision on a video wall solution. In this hyper-competitive market, making a choice can be a daunting task for buyers.

We aim to give you the facts so you can make an informed decision. We asked our award-winning research and development team members what would they look for in a video wall solution, and here is what they said:

## 1. Bezel size

If a video wall were a movie, the bezel would be the hero. Bezel size contributes to the seamless presentation, natural feel and symmetry of the images appearing on the video wall.

The best choice for your video wall is an [extreme narrow bezel \(ENB\)](#) gap that reduces the bezel width (bezel-to-bezel) from the standard 3.5mm to 1.7 mm. The ENB transforms the tiled displays to a large seamless canvas which has the vivid color and unmatched contrast of the LCD and size and scale of the erstwhile projection systems.

If the application needs a more economical approach then the ultra-narrow bezel (UNB) at 3.5 mm might provide appropriate value.

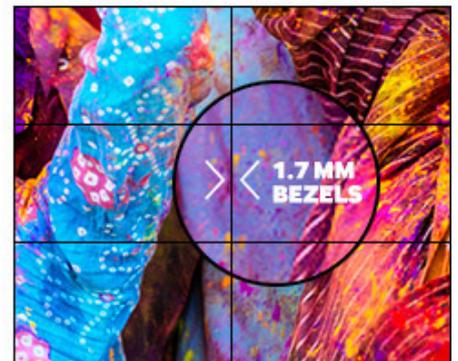
Super Narrow Bezel (SNB)  
5.7mm



Ultra Narrow Bezel (UNB)  
3.5mm



Extremely Narrow Bezel (ENB)  
1.7mm



- [Discover Samsung Display's video wall solutions](#)

## 2. Total cost of ownership

For any business, the most critical issue is Return on Investment (ROI). One essential point of consideration when determining which video wall works best for your needs is affordability, a term that supersedes its primary definition. Affordability certainly pertains to up-front costs, but also includes product longevity and daily operating costs, which add up to savings.

Some users who have fallen for the attractive offer price, and have not thought of the cost, end up paying 2X to 10X the initial cost. Low-quality video walls not only lead to replacement cost later but also disrupt normal operations and result in loss of revenue during the repair period.

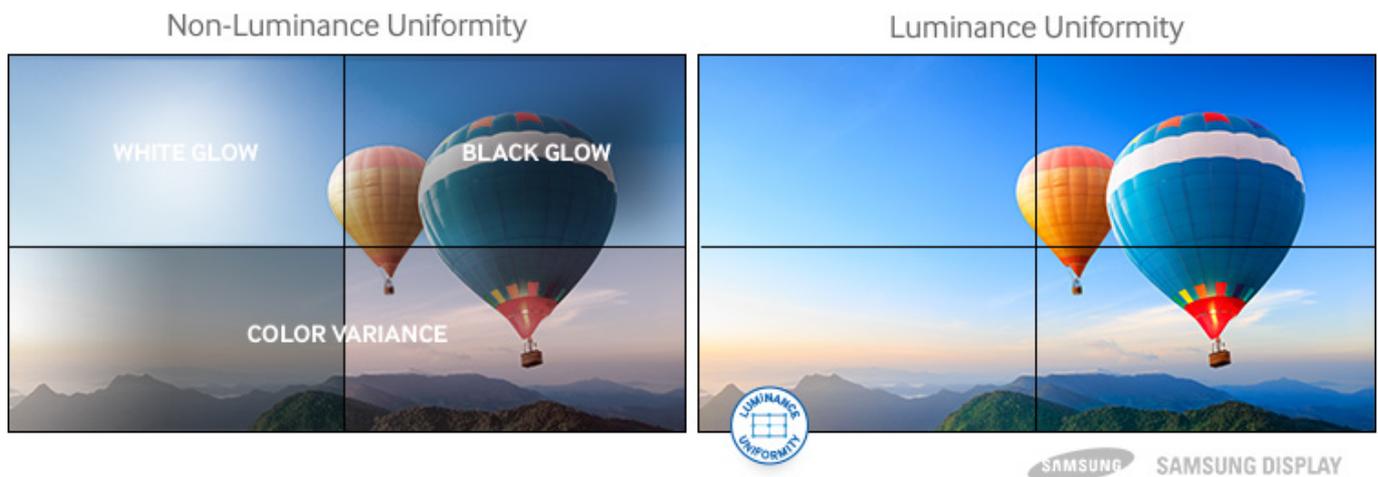
Factors like efficiencies in power consumption ensure that your story is told without breaking the bank. Additional items to consider are warranty, expected product life, and the weight of that panels, which contributes to the shipping costs, mounting gear required, and maintenance costs.

- [Discover why PID is the best option for the professional user](#)

## 3. Luminance uniformity

In a tiled display setup, unmatched and variable uniformity settings can lead to a sub-par visual experience. Samsung Display PID leads other manufacturers and can guarantee a uniform white luminosity of 90%. When overlooked, this seemingly benign specification has caused major heartache later.

Ensure your panels deliver uniform performance across your video wall, thus guaranteeing the information for any business is communicated beautifully.



## 4. Image quality

Image quality is a vital factor when it comes to video walls. In fact, there is no compromising the image quality as it fully determines the level of engagement with the story you want to tell.

Look for high resolution, high definition panels with contrast ratios of 3,000 or above, wide color gamut and high brightness. A [higher contrast ratio](#) helps to ensure that your images retain their finer details like shadows, dark backgrounds and fine text.

Displays with a lower contrast ratio are unable to show deep blacks, and in bright ambient light conditions, this lack of contrast becomes even more pronounced, leading to a washed-out effect on the display.

Low Contrast Ratio



High Contrast Ratio



## 5. Durability

We recommend choosing video wall displays that are built for 24/7 usage and at least come from a manufacturer that provides a 2-year or more warranty.

Look for video wall panels that use vertical alignment technology and high Tni liquid crystals, resistant to heat, moisture, and dust, and engineered for black mura prevention to deliver superior longevity and reliability. Samsung Display PID's exceptional build quality comes with a backlight unit that has a minimum guarantee of 45,000 lifetime hours.

- [Learn about our commitment to quality](#)

## 6. Ambient light conditions at installation

Considering the application location of the product will help you ensure that the solution performs as expected and will save you money in the long run.

Ambient light can play havoc with the native contrast ratio. In high ambient light, you want to ensure that your display comes with a high contrast ratio of at least 3000:1 and is equipped with anti-glare solutions that minimize the direct reflection of ambient light. High contrast ratios allow for deeper blacks, making the picture look more vivid than a standard display.

## 7. Brightness

To make your installation visible and readable, make sure to pick the brightest panel (highest number of nit). A screen that is not bright enough can be perceived as lower quality and is also known to increase eye strain.

## 8. Shape and size

Depending on how and where the video wall will be used, you'll need to decide on how large the solution will be. Often, the size and layout will be determined by dimensions and features of the space where the product will be operated. A video wall in a university common area will not be the same as a video wall used for control rooms or hospitals, for example.

Make sure to pick a manufacturer that provides the lightest and thinnest solutions to comply with The American Disability Act's (ADA) regulations. Also, evaluate the native image size to ensure seamless content presentation. Combination of these factors will help you determine the size and quantity of panels needed as well as their orientation and location.

## 9. Type of business

Do not forget to assess the business needs to ensure that your display video wall has the features that meet your expectations. Do you wish to make a museum experience more lifelike and immersive, are you showcasing the latest business trends, or will your video wall display mission-critical information in a control room full of experts?

Video walls employed in digital signage applications will have requirements substantially different from a video wall in a control room. No matter the use, the video wall solution should aid your business, enrich the user's experience, and offer extreme reliability.

## 10. Type of content

The type of content that appears on your video wall must also be a factor behind which solution works best for you and your business and ultimately determines which video wall would work best.

- How many input sources are there?
- How many different images would be displayed at the same time?
- What are the sources' aspect ratios?
- Is it static or moving image?
- Is it text heavy?

Answers to these questions will help you determine the overall aspect ratio, pixel density, contrast ratio, response time and color saturation requirements.

## Create an amazing video wall

“A picture is worth a thousand words”—and image is a crucial component of meaningful storytelling, an important element in analysis, and a key to building connections and awakening imagination. Professional video walls should be engineered for top performance in a range of operating conditions and cover the aforementioned considerations. [Find the solution that suits your needs](#) and enjoy powerful visualization and collaboration through sharp, vibrant images.

If you need more information while considering a video wall, feel free to [contact our team](#). They are passionate about video walls and would love to help you in your selection journey

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