Image uniformity and picture quality
From large video walls, to individual work stations, control room displays must be able to show even the most minute details to ensure nothing is missed. Samsung’s control room display solutions feature cutting-edge picture quality with unmatched brightness, contrast and stunning 8K resolution to ensure leaders don’t miss any important details.

Reliability
The highly sensitive nature of information in control rooms requires them to be operational around the clock. Working in this environment, you simply cannot afford any downtime. Samsung displays are built for 24/7 use, maintaining both picture quality and uniformity. The displays are even reliable in harsh environments including varied temperature, humidity and dust. They also feature power redundancy, protecting against any interruptions resulting from unexpected disruption in power availability.

Operational excellency
Samsung has maintained its position as the global leader in digital signage for a decade thanks to superior visual display technology, but that goes beyond technical specifications. Samsung displays also feature industry-leading operational excellency with easy installation and maintenance. The displays also feature low power consumption and a lifetime guarantee.

Keep the control room humming with the best-in-class visual display technology
For many years, control rooms have acted as critical information hubs for various organizations around the globe. A crucial element of any properly-functioning control room is the latest in display technology. In order to monitor multiple information streams efficiently decision makers must be equipped with clear information, and display technology that features the industry’s best picture quality, reliability operational efficiency can make all the difference.
What Samsung Offers

Samsung’s comprehensive line-up of professional displays are built for the control room. From large-scale LED signage and Video walls visible to the entire room to the incredible detail available in QLED 8K Signage and even ultra-wide, high resolution monitors, teams will have the technology to get the job done.

LED Signage
Samsung’s large-scale indoor LED display options including The Wall and IF Series feature a unique customizable design for control rooms of any size or shape and ensure optimal and uninterrupted picture quality for indoor environments.

Video Wall
With extremely narrow bezels, Samsung’s Video walls are a versatile solution to create seamless video walls and reliably deliver flexible and dynamic information around the clock in a variety of formats.

QLED 8K Signage
An innovative breakthrough in display technology, Samsung’s QLED 8K Signage delivers an unmatched, crystal-clear picture with AI upscaling technology supporting 8K-level picture quality.

UHD Signage
Samsung’s UHD signage are premium-grade displays with exceptional picture quality that feature high-brightness allowing for a clear picture regardless of ambient light and 24/7 seamless operation.

Business Monitor
Ultra-wide, high-resolution monitors from Samsung feature best-in-class picture quality and a unique curvature allowing for a more comfortable viewing experience for extended periods of time ensuring all team members are able to work efficiently.

Calibration Solution
Samsung’s leading calibration tools, Color Expert LED and Color Expert Pro ensure displays are showcasing color and visuals exactly as intended.
LED Signage

Unmatched image detail and contrast that’s built to last

Large-scale indoor LED display options from Samsung provide a perfect view of critical information, unique customizable design, easy installation and guaranteed performance to keep the control room operational at all times.

The Wall

Black seal & Ultra chroma technology

The Wall supports every control room builds its display walls as intended. Black Seal technology showcases unparalleled contrast and immaculate detail. Ultra Chroma technology produces vibrant and natural colors. The Wall’s narrower wavelength of color results in higher color purity.

Quantum HDR technology

The Wall renders true-to-life imagery necessary in a control room. Advanced HDR technologies, including LED HDR and HDR10+ support, optimize picture quality scene-by-scene, while an extremely accurate grayscale expression allows for more precise and natural imagery.

IF series

Accurate color expression

A unique grayscale management algorithm empowers the IF Series displays to deliver consistent red, green and blue hues without distortion, even in low grayscale settings. This color stability ensures optimal and uninterrupted picture quality for viewing precise information in control room environments.

Brightness and contrast

Samsung’s IF Series displays deliver a uniform picture and comfortable long-term viewing with Scene Adaptive HDR technology. This includes specialized inverse tone mapping algorithms that analyze and optimize gradation and brightness levels within individual content scenes.

Light weight & easy installation

For added flexibility, the IF Series displays offer front* access to critical signage components, simplifying installation and eliminating the need for additional space around the display which allows for close adherence to neighboring surfaces. The IF series’ light weight also simplifies design and eliminates the need for investment in a frame or wall.

24/7 support & long lifetime

The Samsung IF series is a professional grade display that is designed to be operational 24/7 ensuring critical information is always available and avoiding any down-time in the control room. The displays also include an operational stability lifetime guarantee of 100,000 hours.

*Note: Here, “Conventional LED Display” refers to displays that do not contain integrated low grayscale correction technology.
Video Wall Display: UHF, VMR-U, UDE series

Fine-tune factory calibration
Samsung’s multi-step factory calibration process tunes video wall displays to the optimal uniform brightness and color across multiple displays to fit any control room requirements. Every video wall display presents fine-tuned picture quality whether used as a single display or as multiple screens.

Long-term performance
To provide consistent display clarity and uninterrupted content in any environment, Samsung’s video wall panels undergo rigorous performance testing. The panel prevents screen darkening, light leakage and deterioration, ensuring the long-term delivery of brilliant content.

Business Monitor: Ultra-wide & High resolution series

High resolution
Samsung’s video wall provides high resolution image display which gives maximum visibility within the control room. Increased visibility ensures efficient monitoring and enables critical decision making within the control room environment.

Curved & Wide
Samsung’s curved monitors create a more immersive, seamless video wall that gives users the full picture. Optimized for a single person’s workload, Samsung’s displays always enable the maintenance of a clean desk and efficient working.

Video Wall & Business Monitor
Immersive, uninterrupted viewing with brilliant picture quality
A video wall is often at the heart of a control room, providing clear visibility for efficient monitoring and maintenance. Samsung’s displays offer optimal brightness, high resolution, an immersive curved design, and long-lasting performance in any environment.
QLED 8K Signage

Clear delivery of critical information

Samsung’s video wall and QLED 8K Signage deliver crystal clear picture ensuring control room staff are seeing all the critical information they need to on one, uniform screen, in the highest resolution.

8K AI upscaling

Samsung QLED’s Quantum Processor 8K uses AI-powered machine learning to compare data from millions of images to reduce noise and refine details, delivering improved resolution. With AI-powered upscaling, control room staff are able to recognize precise detail even in low resolution.

QPR-8K series

True 8K resolution

Samsung QLED 8K offers super high resolution with more than 33 million pixels, 4 times higher than 4K UHD content and 16 times higher than FHD. Monitors have a more accurate view and greater control without interference between displays.

8K AI upscaling

Samsung QLED’s Quantum Processor 8K uses AI-powered machine learning to compare data from millions of images to reduce noise and refine details, delivering improved resolution. With AI-powered upscaling, control room staff are able to recognize precise detail even in low resolution.

QMR series

Intelligent UHD upscaling

Samsung’s cutting-edge intelligent UHD upscaling technology – which is based on Samsung’s proprietary intelligent UHD engine – performs edge restoration and noise reduction to deliver UHD-level picture quality for control room’s use, even with lower resolution content.

Non-glare & 24/7

Samsung UHD signage has non-glare panels to ensure that all control room staff can see the same picture with no interference due to reflection of light. In addition, 24/7 professional grade operation capabilities support the mission critical workloads common within control rooms.

UHD Signage

Capturing customer attention with impactful welcome

Vibrant digital signage welcomes every visitor to the stadium, entertaining and informing with dynamic content and promotions. Visually engaging content from multiple brands, encourages interactions and purchases once they get into the stadium.

Conventional glare panel Non-glare panel

*Note: Viewing experience using 8K AI upscaling may vary according to types of content and format. It may not apply to PC connection, and certain conditions of Game Mode.

*Note: Native 8K content based on current 8K streaming, connectivity and decoding standards. Future and certain third-party standards not guaranteed or may require additional devices/adapter for phase.
Calibration Solution

Precise and refined picture quality

Samsung’s leading calibration tools, Color Expert LED and Color Expert Pro, offer full criteria customization and color calibration. Mobile calibration also offers a simplified tuning process and uniformity down to the pixel-level, meaning colors and visuals are presented exactly as intended.

Color Expert LED / Color Expert LED Mobile

Pixel-level uniformity
Samsung’s Color Expert LED provides pixel-level uniformity, resulting in more precise and refined picture quality than module-level calibration. Using professional calibration devices, images are accurate and flawless, enhancing even the subtlest details.

Automatic calibration
Color Expert LED Mobile offers dramatic timesaving capabilities over conventional manual calibration, which can take up to an hour. This simplifies onsite maintenance, ensuring issues are addressed quickly without impacting the production process.

Color Expert Pro / Color Expert Pro Mobile

Enhanced picture quality for any setting
Color Expert Pro delivers stunning before-and-after results. White balancing options enable accurate white color, while users can also calibrate for consistent luminance and color uniformity across displays. Gamma and gray scale calibration bring out subtleties, detail and depth in white-to-black gradation.

Convenient and cost-effective refinement
Color Expert Pro Mobile uses a smartphone camera to quickly and easily calibrate without a professional calibrator physically connected to the video wall. This highly cost-effective solution can calibrate up to 25 sets (5x5) of displays at once, dramatically faster than one-by-one calibration methods.

Samsung Color Expert technology

Factory Calibration
Multi-step factory fine tune for uniform brightness and colors

A CM Chipset

Hardware Calibration

Calibration Software

Color Expert Pro
Color Expert LED

Conventional

Color Expert LED Mobile

Manual calibration

Auto calibration

Human-eye based adjustment

Inside-free uniformity calibration via mobile

Aging

Local Uniformity

Gamma

White Balance

Samsung calibration process

STEP 1

STEP 2

STEP 3

STEP 4

Conventional

Color Expert Pro Mobile

Local Uniformity

Gamma

White Balance

Quick & Easy Full Screen Calibration

Intuitive UI

Wireless

Mobile Calibration

Color Expert Pro

15x15 Calibration

White Balance

Gamma

Local Uniformity

18 bit color processing

(Color Expert LED)

Multi-step factory fine tune for uniform brightness and colors

A CM Chipset

18 bit color processing

(Color Expert LED)

15x15 Calibration

White Balance

Gamma

Local Uniformity

Multi-step factory fine tune for uniform brightness and colors

A CM Chipset

18 bit color processing

(Color Expert LED)

15x15 Calibration

White Balance

Gamma

Local Uniformity

18 bit color processing

(Color Expert LED)
## Specification

### The Wall

<table>
<thead>
<tr>
<th>Model</th>
<th>Screen Size</th>
<th>Resolution</th>
<th>Brightness</th>
<th>Contrast Ratio</th>
<th>Color</th>
<th>Panel Type</th>
<th>Interface</th>
<th>Service</th>
<th>Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH55</td>
<td>55&quot;</td>
<td>1080 x 1920</td>
<td>350 nit</td>
<td>5,000:1</td>
<td>SSSP 5</td>
<td>MagicINFO</td>
<td>White balance, Module &amp; screen-level</td>
<td>In: DP1.2, HDMI 2.0(B), USB Type-C</td>
<td>Yes</td>
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### LED signage

#### Indoor

<table>
<thead>
<tr>
<th>Project</th>
<th>Pixel Pitch</th>
<th>Dope Type</th>
<th>Brightness</th>
<th>Device</th>
<th>Device</th>
<th>Device</th>
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<tbody>
<tr>
<td>IFH - D</td>
<td>2.5, 4.0, 6.0</td>
<td>Surface Mount</td>
<td>438x438x438mm</td>
<td>6,816 x 4,096 x 24bit</td>
<td>11.8mm</td>
<td>Front and Rear</td>
</tr>
<tr>
<td>IFH - E</td>
<td>1.5, 2.0, 2.5</td>
<td>Surface Mount</td>
<td>438x438x438mm</td>
<td>6,816 x 4,096 x 24bit</td>
<td>11.8mm</td>
<td>Front and Rear</td>
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#### Outdoor

<table>
<thead>
<tr>
<th>Project</th>
<th>Pixel Pitch</th>
<th>Dope Type</th>
<th>Brightness</th>
<th>Device</th>
<th>Device</th>
<th>Device</th>
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</thead>
<tbody>
<tr>
<td>QMR</td>
<td>55&quot;, 65&quot;</td>
<td>1920x1080</td>
<td>500 nit</td>
<td>4,000:1</td>
<td>14/7</td>
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<tr>
<td>QMR</td>
<td>65&quot;</td>
<td>1920x1080</td>
<td>700 nit</td>
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### Video wall display

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<th>Project</th>
<th>Screen Size</th>
<th>Resolution</th>
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<th>Panel Type</th>
<th>Interface</th>
<th>Service</th>
<th>Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH55 - C</td>
<td>55&quot;</td>
<td>1080 x 1920</td>
<td>350 nit</td>
<td>5,000:1</td>
<td>SSSP 5</td>
<td>MagicINFO</td>
<td>White balance, Module &amp; screen-level</td>
<td>In: DP1.2, HDMI 2.0(B), USB Type-C</td>
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### QLED 8K signage

<table>
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<th>Project</th>
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<th>Resolution</th>
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<th>Contrast Ratio</th>
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<th>Panel Type</th>
<th>Interface</th>
<th>Service</th>
<th>Installation</th>
</tr>
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<tbody>
<tr>
<td>WM5 - B</td>
<td>82&quot;</td>
<td>3840 x 2160</td>
<td>500 nit</td>
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<td>White balance, Module &amp; screen-level</td>
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### UHD signage

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<th>Project</th>
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<th>Resolution</th>
<th>Brightness</th>
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<th>Panel Type</th>
<th>Interface</th>
<th>Service</th>
<th>Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>QHM</td>
<td>55&quot;, 65&quot;</td>
<td>3840 x 2160</td>
<td>400 nit</td>
<td>4,000:1</td>
<td>14/7</td>
<td>In: DP1.2, HDMI 2.0(B), USB Type-C</td>
<td>Samsung Galaxy phone only</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>QHM</td>
<td>65&quot;</td>
<td>3840 x 2160</td>
<td>300 nit</td>
<td>4,000:1</td>
<td>14/7</td>
<td>In: DP1.2, HDMI 2.0(B), USB Type-C</td>
<td>Samsung Galaxy phone only</td>
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<tr>
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<td>3840 x 2160</td>
<td>300 nit</td>
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<td>14/7</td>
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<td>Samsung Galaxy phone only</td>
<td>Yes</td>
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### Business monitor

<table>
<thead>
<tr>
<th>Project</th>
<th>Screen Size</th>
<th>Pixel/Screen</th>
<th>Aspect Ratio</th>
<th>Resolution</th>
<th>Brightness</th>
<th>Viewing angle</th>
<th>Connectivity</th>
<th>Eye Save Mode</th>
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<tbody>
<tr>
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<td>3840 x 1080</td>
<td>16:9</td>
<td>350 nit</td>
<td>178°(H)/178°(V)</td>
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### Color Expert LED

<table>
<thead>
<tr>
<th>Model</th>
<th>Technology Type</th>
<th>System Requirement</th>
<th>LED Signage Compatibility</th>
<th>Calibration Feature</th>
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</thead>
<tbody>
<tr>
<td>Color Expert LED</td>
<td>PC software/Calibration with ACM driver</td>
<td>Windows 7 32/64bit, Windows 8.1 32/64bit, Windows 10 32/64bit</td>
<td>Yes</td>
<td>White balance, General mapping, Color temperature, Panel level uniformity</td>
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### Color Expert Pro

<table>
<thead>
<tr>
<th>Model</th>
<th>Technology Type</th>
<th>System Requirement</th>
<th>Video Wall Compatibility</th>
<th>Calibration Feature</th>
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<tbody>
<tr>
<td>Color Expert Pro</td>
<td>PC software/Calibration with ACM driver</td>
<td>Windows 7 32/64bit, Windows 8.1 32/64bit, Windows 10 32/64bit</td>
<td>Yes</td>
<td>White balance, Gamma correction, Local uniformity</td>
</tr>
</tbody>
</table>

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**Note:** Specifications and features may vary depending on the model and region. Please consult the official product documentation for the most accurate information.