About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, medical equipment, network systems, and semiconductor and LED solutions. For the latest news, please visit the Samsung Newsroom at news.samsung.com.

For more information about Samsung SMART Signage, visit www.samsung.com/business or www.samsung.com/displaysolutions

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Samsung Electronics Co., Ltd.
416, Maetan 3-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-772, Korea

2019-07
Upgrade your studio with industry-leading display technology

Broadcasting has undergone major changes in recent years. With never-ending demand for instant updates and audiences tuning in on new devices, broadcasters are expected to deliver engaging content without delay.

Picture quality
As display technology has evolved, Samsung’s cutting-edge visual displays have led the way. Samsung displays are able to meet the industry’s high color and picture quality requirements to ensure broadcasters can deliver accurate and engaging information with unmatched picture quality.

Creative design
Every studio has a unique layout and design and Samsung’s unique modular LED display technology can be customized to enhance studio space of any size or shape.

Operational reliability
When dealing with any kind of broadcast you can’t afford any technical difficulties. Samsung displays have industry-leading operational efficiency, are designed to be operational 24/7 and include industry-leading lifetime.

* Samsung Indoor LED IF P1.5 Series and LCD signage solution
News Studio, MediaCorp’s Channel News Asia, Singapore
**What Samsung offers**

Samsung’s impressive range of broadcast products ensures from the studio to the editing room, teams have the tools to deliver a premier quality production. Whatever your needs, Samsung’s line-up of professional displays for broadcast is the solution.

- **Studio** Samsung’s Indoor LED products including The Wall and IF Series feature a unique customizable design for any studio size or shape, delivering the industry’s best picture quality.

- **Control Room** Samsung’s Video Walls and QLED 8K signage deliver crystal clear picture ensuring producers and staff members are seeing exactly what was intended.

- **Stage** For live events, Samsung’s indoor and outdoor Rental LED series are designed to be versatile and easy to use while delivering the industry’s leading visuals.

- **Editing Room** Samsung’s UHD signage and ultra-wide, high resolution monitors feature best-in-class picture quality to ensure the editing room is able to operate 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.
Grab audience attention with advanced visual displays

No part of a broadcast is more important to the viewer than the studio. Ensure your viewers are captivated and engaged with industry-leading visual technology, unique custom design and accurate color presentation available from Samsung’s studio visual display offerings.

Indoor LED Signage: The Wall

Black Seal & Ultra Chroma technology

The Wall helps broadcasters find the ideal color presentation. 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, approximately twice that of conventional LEDs.

Quantum HDR technology

The Wall renders true-to-life imagery optimized for broadcasting. Advanced HDR technologies, including LED HDR and HDR10+ support, optimize picture quality, while an extremely accurate grayscale expression allows for more precise and natural imagery.

Indoor LED Signage: IF series

Customized color presentation

Detailed color management functionalities allow IF series users to select, store and deploy the RGB color gamut shades that best fit their own color standards and content requirements. This helps broadcasters quickly deploy content at high clarity across multiple screens.

Reinforce accurate low grayscale color expression

A unique grayscale management algorithm helps the IF series deliver consistent red, green and blue hues without distortion, even in low grayscale settings. This ensures optimal and uninterrupted picture quality in broadcast studio environments.

*Note: “Conventional LED display” refers to displays that do not contain integrated low grayscale correction technology.

*Samsung Indoor LED IF P1.5 series (4 UHD screens) Broadcasting Studio, Polsat, Poland
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 broadcaster application or environment. 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 operational environment, Samsung’s video wall panels undergo rigorous performance testing. Samsung’s superior panel prevents screen darkening, light leakage or any deterioration, ensuring long-term delivery of brilliant content.

QLED 8K Signage: QPR-8K series

Real 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. Content creators have a more accurate view and greater control of images through editing tools for multiple videos and projects at once.

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, content creators can preview details more precisely before delivering to audiences.

Control Room
24/7 management and efficient control
A fully-functioning, reliable control center is critical to ensure efficiencies when broadcasting content to large audiences. From fine-tuning to displaying uninterrupted content, Samsung allows broadcasters to maximize the viewing experience 24/7.
**Stage**

Capture audience imagination with real-time content

Digital signage is now critical to creating an impactful experience at live events. Audiences expect content that enhances each performance and provide crystal clear images from any location in the venue, indoor or outdoor, offering a memorable experience.

**Indoor Rental LED Signage: VMR-I series**

Real-time content delivery and rotation support

Samsung’s VMR-I Series enables the delivery of real-time content with reduced frame latency, critical for live concerts and events. The display’s ability to rotate freely also helps to effortlessly create customized designs while ensuring content is played regardless of the layout, no matter how unique.

**Outdoor Rental LED Signage: VMR-O series**

Optimum performance in any environment

All components of the VMR-O Series undergo strict testing to ensure optimum performance at all times. The series has full outdoor IP65/65 validated design, protecting it against water, dust and all outdoor elements, ensuring continuous operation regardless of the environment.

**Editing Room**

Optimum content delivery with full editing capabilities

The editing room is an integral part of the broadcast process, ensuring that only the best content is delivered to audiences. Samsung’s UHD signage and ultra-wide, high resolution monitors allow content creators and editors to see the whole image and edit efficiently.

**UHD Signage: QMR, QBR 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 broadcasters, even with lower resolution content.

**Business Monitor: Ultra-wide & High resolution series**

Incredible image detail and multi-tasking

Samsung’s ultra-wide and high-resolution monitor increases content creators’ work efficiency by showing more content on one screen, ensuring that no details are missed and the whole image is visible. This is all enabled without disruption of using multiple monitors or lower resolution screens.
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. Additionally, mobile calibration option offers a simplified tuning process. With uniformity down to the pixel-level, 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 and catching the attention of audiences with stunning visuals.

Automatic calibration

Color Expert LED Mobile provides 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. Users can calibrate for consistent luminance and color uniformity across displays. Gamma and gray scale calibration brings out subtleties, detail and depth in white-to-black gradation.

Convenient and cost-effective refinement

Color Expert Pro Mobile uses the 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.

Expert’s consulting

Do you need expert’s consulting?

Every studio has its own brand identity and picture quality standard. Samsung understands the unique needs of individual broadcasters and has experienced professionals available for consultation.

For more information speak with your regional sales representative or visit displaysolutions.samsung.com.
**Specification**

**The Wall**

<table>
<thead>
<tr>
<th>Project</th>
<th>Pixel Pitch</th>
<th>Dot Type</th>
<th>Brightness (Max. lm)</th>
<th>Contrast Ratio</th>
<th>Certification</th>
<th>Cabinet Size</th>
<th>Weight</th>
<th>Service</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNI</td>
<td>P0.84</td>
<td>Chip-on-Board (COB)</td>
<td>1,400 / 500 nit</td>
<td>10,000:1</td>
<td>EMC Class &amp; Safety 09F59-1</td>
<td>86.6 x 45.5 x 27.2 mm (WxHxD)</td>
<td>12.5 kg (cabinet)</td>
<td>Front only</td>
<td>(R) oral</td>
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<tr>
<td>HRR</td>
<td>P0.84</td>
<td>Chip-on-Board (COB)</td>
<td>1,400 / 500 nit</td>
<td>10,000:1</td>
<td>EMC Class &amp; Safety 09F59-1</td>
<td>86.6 x 45.5 x 29.9 mm (WxHxD)</td>
<td>15.4 kg (cabinet)</td>
<td>Front only</td>
<td>(R) oral</td>
</tr>
</tbody>
</table>

(1) Front Service • Modules accessible through the front in groups of six.

**LED signage**

<table>
<thead>
<tr>
<th>Project</th>
<th>Pixel Pitch</th>
<th>Dot Type</th>
<th>Brightness (Max. lm)</th>
<th>Contrast Ratio</th>
<th>Certification</th>
<th>Cabinet Size</th>
<th>Weight</th>
<th>Service</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF1</td>
<td>P1.2</td>
<td>Surface Mount Device</td>
<td>1,200 nit</td>
<td>4,000:1</td>
<td>EMC Class &amp; Safety 07F59-1</td>
<td>86.4 x 86.4 x 17.7 mm (WxHxD)</td>
<td>51.9 kg (cabinet)</td>
<td>Front and Rear</td>
<td>(R) oral</td>
</tr>
<tr>
<td>IF2</td>
<td>P1.2</td>
<td>Surface Mount Device</td>
<td>1,200 nit</td>
<td>4,000:1</td>
<td>EMC Class &amp; Safety 07F59-1</td>
<td>86.4 x 86.4 x 17.7 mm (WxHxD)</td>
<td>51.9 kg (cabinet)</td>
<td>Front and Rear</td>
<td>(R) oral</td>
</tr>
<tr>
<td>IH1</td>
<td>P1.5, 2.0, 2.5</td>
<td>Surface Mount Device</td>
<td>1,400 nit</td>
<td>2,000:1</td>
<td>EMC Class &amp; Safety 06F59-1</td>
<td>480 x 480 x 24.5 mm (WxHxD)</td>
<td>6.8 kg (cabinet)</td>
<td>Front and Rear</td>
<td>(R) oral</td>
</tr>
<tr>
<td>IH2</td>
<td>P1.5, 2.0, 2.5</td>
<td>Surface Mount Device</td>
<td>1,400 nit</td>
<td>2,000:1</td>
<td>EMC Class &amp; Safety 06F59-1</td>
<td>480 x 480 x 24.5 mm (WxHxD)</td>
<td>6.8 kg (cabinet)</td>
<td>Front and Rear</td>
<td>(R) oral</td>
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<tr>
<td>IH1-D</td>
<td>P2.5, 2.6, 6.0</td>
<td>Surface Mount Device</td>
<td>1,400 nit</td>
<td>2,000:1</td>
<td>EMC Class &amp; Safety 06F59-1</td>
<td>480 x 720 x 24.5 mm (WxHxD)</td>
<td>31.6 kg (cabinet)</td>
<td>Front and Rear</td>
<td>(R) oral</td>
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**Video wall display**

<table>
<thead>
<tr>
<th>Project</th>
<th>Screen Size</th>
<th>Resolution</th>
<th>Brightness</th>
<th>Aspect Ratio</th>
<th>Operation Mode</th>
<th>Input-Output</th>
<th>Connectivity</th>
<th>Weight</th>
<th>Service</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFM-27UN-CE</td>
<td>27&quot; (70.7 cm)</td>
<td>1,920 x 1080</td>
<td>200 nit</td>
<td>16:9</td>
<td>Dynamic (1500 nit), Static (800 nit)</td>
<td>HDMI 2.0 (x2), DisplayPort (x2), USB-C (x1), USB-A (x2)</td>
<td>59.5 kg</td>
<td>Front</td>
<td>(R) oral</td>
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<tr>
<td>UFM-27UN-HM</td>
<td>27&quot; (70.7 cm)</td>
<td>1,920 x 1080</td>
<td>200 nit</td>
<td>16:9</td>
<td>Dynamic (1500 nit), Static (800 nit)</td>
<td>HDMI 2.0 (x2), DisplayPort (x2), USB-C (x1), USB-A (x2)</td>
<td>62.1 kg</td>
<td>Front</td>
<td>(R) oral</td>
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<tr>
<td>UFM-34UN-CE</td>
<td>34&quot; (86.4 cm)</td>
<td>2,560 x 1440</td>
<td>300 nit</td>
<td>21:9</td>
<td>Dynamic (2400 nit), Static (1200 nit)</td>
<td>HDMI 2.0 (x2), DisplayPort (x2), USB-C (x1), USB-A (x2)</td>
<td>49.2 kg</td>
<td>Front</td>
<td>(R) oral</td>
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<tr>
<td>UFM-34UN-HM</td>
<td>34&quot; (86.4 cm)</td>
<td>2,560 x 1440</td>
<td>300 nit</td>
<td>21:9</td>
<td>Dynamic (2400 nit), Static (1200 nit)</td>
<td>HDMI 2.0 (x2), DisplayPort (x2), USB-C (x1), USB-A (x2)</td>
<td>51.8 kg</td>
<td>Front</td>
<td>(R) oral</td>
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**ULH signage**

<table>
<thead>
<tr>
<th>Project</th>
<th>Screen Size</th>
<th>Resolution</th>
<th>Brightness</th>
<th>Viewing Angle</th>
<th>Connectivity</th>
<th>Color</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Q4K-8K</td>
<td>82&quot;</td>
<td>3840 x 2160</td>
<td>600 nit</td>
<td>178°/178° (H/V)</td>
<td>HDMI 2.0 (Loop-out), DisplayPort, USB Type-C (2), RJ45</td>
<td>40,000</td>
<td>$45,000</td>
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**Business monitor**

<table>
<thead>
<tr>
<th>Project</th>
<th>Screen Size</th>
<th>Resolution</th>
<th>Brightness</th>
<th>Viewing Angle</th>
<th>Connectivity</th>
<th>Color</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRB</td>
<td>24&quot;</td>
<td>1920 x 1080</td>
<td>500 nit</td>
<td>178°/178° (H/V)</td>
<td>HDMI 2.0 (Loop-out), DisplayPort, RJ45</td>
<td>40,000</td>
<td>$11,000</td>
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<tr>
<td>CH070</td>
<td>21.5&quot;</td>
<td>4000 x 2100</td>
<td>500 nit</td>
<td>178°/178° (H/V)</td>
<td>HDMI 2.0 (Loop-out), DisplayPort, RJ45</td>
<td>60,000</td>
<td>$22,000</td>
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<tr>
<td>CR99</td>
<td>29&quot;</td>
<td>3840 x 2160</td>
<td>600 nit</td>
<td>178°/178° (H/V)</td>
<td>HDMI 2.0 (Loop-out), DisplayPort, RJ45</td>
<td>60,000</td>
<td>$22,000</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>Colored Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Expert Pro</td>
<td>PC software Calibration with ACM chip</td>
<td>Samsung Galaxy phone only</td>
<td>-</td>
<td>White balance, Gamma correction, Local uniformity</td>
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**Color Expert Pro**

<table>
<thead>
<tr>
<th>Model</th>
<th>Technology Type</th>
<th>System Requirement</th>
<th>LED Signage Compatibility</th>
<th>Colored Feature</th>
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<tbody>
<tr>
<td>Color Expert Pro</td>
<td>PC software Calibration with ACM chip</td>
<td>Samsung Galaxy phone only</td>
<td>-</td>
<td>White balance, Gamma correction, Local uniformity</td>
</tr>
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