### Calibrator Compatibility

| Konica Minolta | CA310          |
|               | CA410          |
| Canon         | 7D             |

### System Requirement Samsung LED Signage Compatibility

| Color Expert LED       | Windows 7 32bit/64bit, Windows 8 32bit/64bit, Windows 10 32bit/64bit | The Wall Pro 9.84 |
|                       | A calibrator is required to use the Samsung Color Expert LED software. Customers must purchase the calibrator separately. | IF 1.2 |
|                       |                                                               | IFH 1.5, 2.5 |

| Color Expert LED Mobile | Samsung Galaxy phone only - Samsung Galaxy S7/S8/S9, Galaxy Note8/9 | The Wall Pro 9.84 |
|                        |                                                               | IF 1.2 |
|                        |                                                               | IFH 1.5, 2.5 |

| Color Expert LED Cinema | Windows 7 32bit/64bit, Windows 8 32bit/64bit, Windows 10 32bit/64bit | Onyx (IC925H, IC025H, IC035H) |
|                        | A calibrator is required to use the Samsung Color Expert LED Cinema software. | |

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**Samsung Color Expert LED**

For more information about Samsung Color Expert LED, visit www.samsung.com/business or www.samsung.com/displaysolutions

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**Color Expert LED**

Easy and effective LED calibration solution for captivating content

- Pixel-level precision
- Complete customization
- Simple set up and easy user-interface

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Samsung SMART LED signage delivers bright, compelling content to keep customers engaged with innovative, customizable displays. Maintaining the picture quality of this cutting-edge technology requires careful and accurate calibration. Samsung’s new versatile solution includes a PC Version, providing precise adjustment down to the pixel-level as well as a simple and effective mobile version. Samsung Color Expert LED and Color Expert LED Mobile allow users to easily customize LED signage for specific business needs. Color Expert LED Cinema including a three-step factory calibration and on-site tuning ensures Onyx to deliver accurate picture quality as the director intended.

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**Color Expert LED**

- Wireless solution
- Automatic calibration
- Fast and effective process

**Color Expert LED Mobile**

- Rigid three-step factory calibration
- On-site white balance and edge correction

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[Image of Samsung LED signage and calibration software interface]
Why is LED signage calibration essential?

For industry-leading businesses, the transition to digital media across communication channels is well under way. As advances in technology have made LED signage more affordable and practical, vivid and bezel-free LED signage has become the new norm for many commercial applications with brighter, larger and more customizable screens.

In order to provide the most immersive and engaging viewing experience possible with LED signage, customized visual settings and accurate display calibration are essential. Beyond initial installation and setup, the long lifespan of LED displays sometimes necessitates module replacements requiring additional calibration to ensure a completely uniform picture that keeps customers engaged.

What is Samsung Color Expert LED?

Samsung’s Color Expert LED technology is a complete calibration solution to ensure LED displays maintain picture quality from the factory through the full lifetime of the display. The technology contains three elements to guarantee optimal picture quality. Factory-tuning individual pixels ensures uniform color and brightness. Each display is also embedded with ACM for LED to enable precise calibration with 18-bit color processing. Color Expert LED is a critical final step to finely tune color and other features at installation and for maintenance.

The Color Expert LED Cinema solution for Onyx cinema LED displays involves a detailed three-step factory calibration so all Onyx displays meet the DCI certification requirements and deliver accurate and uniform display directly from the factory. Color Expert LED Cinema offers on-site calibration including white balance and edge correction.

Color Expert LED The mobile version of Color Expert LED provides users a faster and more cost-efficient method of calibration via mobile phone.

Samsung Color Expert LED Cinema factory calibration process

Step 1
Current & Gamma

Step 2
Pixel uniformity

Step 3
White balance & Gamut mapping

How to calibrate
Program matches target area’s color and brightness to target data or reference area

1. Instant calibration with mobile phone: Requiring nothing more than a mobile phone and a Wi-Fi network, calibration is instant and efficient and doesn’t require any additional expensive professional devices. Automatic calibration means Color Expert LED Mobile does not miss any subtle differences in color and brightness that the human eye might miss, creating a more accurate and uniform picture.

2. Catch minute details with automatic calibration: Color Expert LED Mobile does not miss even the slightest variations in color and brightness thanks to automatic calibration which creates a more accurate and uniform picture.

3. Save time and money with efficient tool: Color Expert LED Mobile provides drastic savings in time and money compared to conventional, manual calibration.

Color Expert LED Mobile

LED Signage Manager (LSM) is a software solution giving users the ability to manage and configure display layout and adjust settings as part of the initial signage setup and installation process. The LSM solution can adjust white balance and do edge correction.

Color Expert LED

Businesses need to move more quickly than ever in today's fast-paced environment. Samsung’s Color Expert LED Mobile application allows users to easily adjust their LED signage on-the-go with three key benefits.

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3. Save time and money with efficient tool: Color Expert LED Mobile provides drastic savings in time and money compared to conventional, manual calibration.
Video display walls are an impactful way to engage with customers, but they must have total color uniformity to maximize and maintain engagement. Samsung’s Color Expert LED provides pixel-level uniformity, bringing more precise and refined picture quality to life, when compared with module-level uniformity. Using professional calibration devices, the uniformity is accurate and flawless, enhancing even the subtlest details and catching the attention of customers with stunning visuals.

**Pixel-level uniformity**

Color Expert LED offers a simple, step-by-step Windows wizard-based setup process, designed to make the installation process as seamless as possible. Its user-friendly interface, which is easy to follow and calibrate as needed, means users will have no difficulty when setting up and utilizing the solution. By simplifying the setup process, Samsung allows users to implement the solution quickly and efficiently, maximizing the benefits for both the business and its customers.

**Color Expert LED**

**Complete customization of calibration**

Color Expert LED offers convenient color and brightness calibration, through a range of powerful performance capabilities including gamut mapping, color temperature, white balance and screen uniformity. These all allow for detailed customization and accurate color presentation, offering businesses the opportunity to communicate important messages to each and every customer.

**Simple setup with easy UI**

Using just a mobile phone camera and Wi-Fi network, calibration with Color Expert LED Mobile can be done without the need for additional, expensive professional devices. When an existing module must be replaced, Color Expert LED Mobile can be used to reach a resolution from anywhere, any time. Samsung’s innovative remote capabilities provide businesses the perfect solution to instantly and efficiently calibrate on-site, meaning no downtime for the display and maximum engagement with customers.

**Wireless connection capabilities**

When replacing modules on a LED display wall, engineers traditionally compare new and existing modules with the human eye, increasing the likelihood that more nuanced issues are missed. Color Expert LED Mobile calibrates automatically based on a target area ensuring it does not miss any subtle differences in color and brightness. This creates a more accurate and uniform picture, bringing stunning pictures to life in vivid color and detail.

**Automatic calibration**

When replacing modules on a LED display wall, engineers traditionally compare new and existing modules with the human eye, increasing the likelihood that more nuanced issues are missed. Color Expert LED Mobile calibrates automatically based on a target area ensuring it does not miss any subtle differences in color and brightness. This creates a more accurate and uniform picture, bringing stunning pictures to life in vivid color and detail.

**Fast and effective calibration**

Color Expert LED Mobile provides dramatic time saving capabilities when compared to conventional, manual calibration, which can take up to an hour to finish. This simplifies onsite maintenance, but ensuring any issue is fixed quickly, not impacting the business or interactions with customers. In addition, by making adjustments based on a standard target figure, as opposed to needing an engineer, Color Expert LED Mobile is a time and cost-efficient solution for businesses looking to stand out.
System configuration

Step 1.
Connect LED signage to the computer

Step 2.
Install Color Expert LED and LSM on the computer
- Color Expert LED and LSM is available for download at: www.secslm.com or displaysolutions.samsung.com
- Users must log in as a partner, navigate to help and search “LSM” or “Color Expert LED”
- For system authorization, please contact your Samsung account manager

Step 3.
Connect colorimeter or DSLR camera to computer using USB cable

Step 4.
Confirm LED signage is using latest firmware, update if necessary

Step 5.
Select and measure data of target module to be calibrated

Step 6.
Select existing calibrated module as reference or enter target setting data

Step 7.
Run calibration
- If using DSLR camera, upload calibration results to LED signage through LSM

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Color Expert LED

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System configuration

Step 1.
Connect mobile phone to LED signage

Step 2.
Install Color Expert LED Mobile on mobile phone
- Color Expert LED Mobile is available for download at: www.secslm.com or displaysolutions.samsung.com
- Users must log in as a partner, navigate to help and search “Color Expert LED Mobile”
- For system authorization, please contact your Samsung account manager

Step 3.
Confirm LED signage is using latest firmware, update if necessary

Step 4.
Select target module to be calibrated and existing calibrated module as reference

Step 5.
Run calibration