FIND OUT MORE

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies, redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, printers, medical equipment, network systems, and semiconductor and LED solutions. We are also leading in the Internet of Things space through, among others, our Smart Home and Digital Health initiatives. We employ 319,000 people across 84 countries with annual sales of US $196 billion. To discover more, please visit our official website at www.samsung.com and our official blog at global.samsungtomorrow.com.

SMART LED Signage

For more information about Samsung SMART LED signage,
visit www.samsung.com/business/smart-led-signage or www.samsung.com/displaysolutions

SAMSUNG BUSINESS

SAMSUNG SMART LED SIGNAGE
INDOOR SERIES

Capture your customers' imagination

Bring your message to life with innovative Samsung SMART LED signage. Designed for customer-facing environments, Samsung SMART LED signage indoor series deliver bright, compelling content to keep viewers engaged and focused on featured messaging. The customizable design accommodates users' unique operational needs while helping business owners produce brilliant messaging. As a result, businesses can offer customers a differentiated and seamless viewing experience.

Highlights

- Deliver superior picture quality with brighter, high-resolution screens
- Customize a signage solution to your unique requirements
- Hit the ground running, with pre-assembled and pre-tested solutions for quicker, more efficient installation
- Support your signage solution with round-the-clock service

SAMSUNG BUSINESS

RECOGNIZE THE OPPORTUNITIES

Trust a Market Leader

The transition to all-digital media across all platforms is well underway, and a compelling reason to move to new, future-compatible displays. Advances in LED technology make LED signage more affordable and more practical, making it more common in commercial applications, meaning there are new opportunities waiting to be seized by forward-thinking organizations.

Brighter, vivid and bezel-free LED signage is becoming the new standard in indoor signage, replacing LCD video wall solutions. LED signage offers bigger, completely customizable screens that transmit video, text and images, flawlessly.

Samsung SMART LED signage indoor series should be your first choice for impressie, eye-catching experience in various retail, corporate, transportation and broadcasting environments. Samsung has acquired YESCO Electronics which has over 20 years of experience, to broaden our signage portfolio and draw on their experience in the digital signage arena. Samsung and YESCO Electronics are at the forefront of the signage market. We lead the industry in ease of installation, brightness, image clarity, contrast, energy efficiency and serviceability.

VIBRANT IMAGES AND COLOR

Precisely Selected Diodes

Samsung ensures the quality of our displays with top-tier diodes lasting up to 100,000 hours(11.4 years) to half brightness. This means Samsung SMART LED signage is brighter and more vibrant, while our preferential binning practices minimize potentially distracting manufacturing variations.

Finely Calibrated for Perfect Color and Brightness

We calibrate our displays in our plant from pixel to pixel, module to module and across the whole sign. This "whole-sign" calibration ensures overall brightness and color uniformity. We can also calibrate to a customer-specified color gamut (the range of colors that are possible). This assures flash tones are correct and colors are true; regardless of video equipment or media used.

Two-step Calibration

Our unique two-step calibration process provides superior luminance and color correction.

● **Step 1: Dot Correction** · Technicians adjust the electrical current flowing to each LED using a dot-correction-value. Commonly, this process is skipped, resulting in an unacceptable loss of luminance, because it lowers brightness to the dimmest LED in the screen. Through dot correction, we either raise or lower the brightness as necessary, without having to sacrifice total screen brightness.

● **Step 2: PWM Correction** · This adjusts the pulse width modulation of each LED for color correction. By combining this with dot correction, screens look their best and keep ideal uniformity with high brightness.

2-step calibration

STEP 1
DOT CORRECTION

luminance uniformity

STEP 2
PWM CORRECTION

Color uniformity

1-step calibration

STEP 1
PWM CORRECTION

Color uniformity
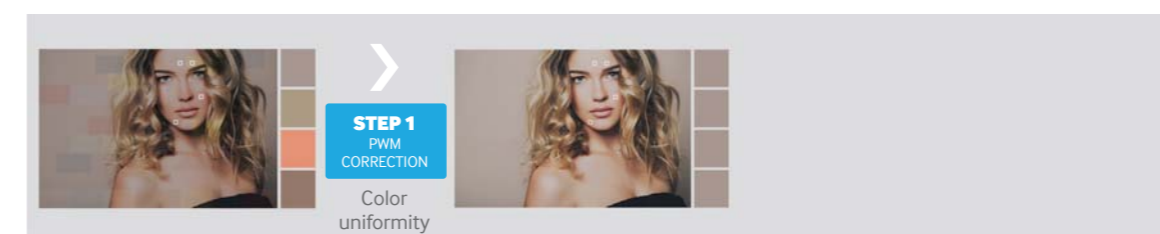
Advanced Video Processing

Samsung LED displays come equipped with one-to-one pixel drive system, which transmits video to all lines simultaneously. This results in higher total brightness and lower power consumption because each LED is illuminated simultaneously but with lower voltage. This system also offers up to a 24,960 Hertz refresh rate, and eliminates the "whitewash" effect and visible scan lines prevalent on screens with inferior processors.

Standard Processor

Samsung Processor

Processor sends video to one line at a time, scanning rapidly between lines.

Advanced processor sends video to all lines simultaneously.

EXPERTISE IN SERVICE

On-time and Flawless Installation

With our streamlined manufacturing and installation practices, Samsung ensures customers get their outdoor displays up and running more quickly, more efficiently and with less chance of delays and defects.

Samsung displays are fully assembled, calibrated and tested at the factory, then shipped to their final location in large sections. This minimizes the number of parts in transit and simplifies installation. When the sections arrive on-site, they are put together and once they are installed, they are tested and calibrated again, quickly and efficiently. This ensures the color and image quality is maintained.

^ Single piece construction

Conventional LED signage is delivered in parts, requiring long hours of on-site assembly and calibration, meaning there is a chance for defects to slip through. All this adds up to days of on-site work, increased risk of misalignment and component degradation.

Customizable Design

Samsung SMART LED signage is custom-made to specification and to fit any location. Our dedicated team has a wealth of experience creating signage that conforms to unusual shape and space requirements.

Our unique monocoque construction method means our display cabinets are built like modern aircraft, with the chassis integrated into the structure. This ensures robustness and lower weight. We design to precise specifications: whether you need a speaker compartment, wheels (for rail structure), protection, or something different.

Dependable Support 24/7

We provide live 24-7/365 service and technical support to ensure the long-term reliability and efficiency of your signage solution.

Pre-emptive Solutions

Before an issue becomes a problem, turn to Samsung's real-time monitoring, diagnostics and support from NOC (Network Operation Center). Staffed 24-7/365 by technical experts, it can diagnose and provide solutions in real-time and control basic device configurations remotely. It is also your single point of contact for all service inquiries and on-site service dispatches. By using "Peek and Tweak" remote monitoring, our diagnostic teams can remotely adjust module color and luminance without interrupting service to maintain image quality over time, and reduce service calls and on-site visits.

Our monitoring systems also use an LED dot-error-analysis-method to recognize visual irregularities, and power and temperature fluctuations before they become problems to ensure an uninterrupted visual experience.

Proactive Support

If a more complex error occurs, a service team will work closely with customers to alleviate problems quickly and return the display to optimal operation. Our technicians are ready to give their aid and troubleshoot any issues that may arise.

INDOOR LED SIGNAGE LINEUP

Specification		P3	P4	P6	P8	P10	P12	P16
Physical Parameters	Pixel Pitch	3.175mm (.125") centers	4.1275mm (.1625") centers	6.35mm (.25") centers	8.255mm (.325") centers	10.32mm (.40625") centers	12.7mm (.5") centers	16.51mm (.65") centers
	Pixel Configuration	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue
	Pixel Density	99,200 m² / 9,216 ft²	58,698 m² / 5,453 ft²	24,800 m² / 2,304 ft²	14,675 m² / 1,363 ft²	9,392 m² / 876 ft²	6,200 m² / 576 ft²	3,669 m² / 341 ft²
	Modul Configuration (LxH)	64x72 pixels	64x72 pixels	32x36 pixels	32x36 pixels	32x16 pixels	16x16 pixels	16x16 pixels
	Diode Type	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)
	Dimensions (LxH) (per module)	203x229 mm	264x297 mm	203x229 mm	264x297 mm	330x165 mm	203x203 mm	264x264 mm
	Weight (per module)	0.39kg	0.52kg	0.32kg	0.50kg	0.27 or 0.54kg	0.27kg	0.44kg
	Cabinet Construction	All aluminum construction	All aluminum construction	All aluminum construction	All aluminum construction	All aluminum construction	All aluminum construction	All aluminum construction
Optical Parameters	Brightness	2,000 nit	2,000 nit	2,000 nit	2,000 nit	2,500 nit (black faced)	2,000 nit	2,000 nit
	Viewing Angle (Horizontal)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)
	Viewing Angle (Vertical)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)
	Number of Colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors
	Gray Scale Intensity	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue
	Dimming Capability	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness
	Color Wavelength	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm	red: 630nm, green: 530nm, blue: 468nm
	Color Temperature (Default)	6,500K	6,500K	6,500K	6,500K	6,500K	6,500K	6,500K
	Color Temperature (Adjustable)	4,500 - 9,000K	4,500 - 9,000K	4,500 - 9,000K	4,500 - 9,000K	4,500 - 9,000K	4,500 - 9,000K	4,500 - 9,000K
Electrical Parameters	Video Rate	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second
	Animation Rate	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second	60 frames per second
	Video Processing	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression	24 bit, 100% digital, no compression
	Color Processing	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)
	Input Power Range	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz	120/240 volts, 50/60 Hz
	Power consumption - Max(W/m²)	992 (W/m²) / 92.2 (W/ft²)	587 (W/m²) / 54.5 (W/ft²)	484 (W/m²) / 44.9 (W/ft²)	433 (W/m²) / 40.2 (W/ft²)	282 (W/m²) / 26.3 (W/ft²)	397 (W/m²) / 36.9 (W/ft²)	385 (W/m²) / 35.8 (W/ft²)
	Power Consumption - Typical(W/m²)	495 (W/vm²) / 46 (W/ft²)	293 (W/m²) / 27.3 (W/ft²)	173 (W/m²) / 16.1 (W/ft²)	161 (W/m²) / 14.9 (W/ft²)	103 (W/m²) / 9.6 (W/ft²)	118 (W/m²) / 10.9 (W/ft²)	106 (W/m²) / 9.8 (W/ft²)
	Refresh Rate	24,960 Hz	24,960 Hz	24,960 Hz	24,960 Hz	24,960 Hz	24,960 Hz	24,960 Hz
	Scan Rate	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed	Scan Rate 1:1 non-multiplexed
	Calibration	Pixel to pixel - Module to module	Pixel to pixel - Module to module	Pixel to pixel - Module to module	Pixel to pixel - Module to module	Pixel to pixel - Module to module	Pixel to pixel - Module to module	Pixel to pixel - Module to module
	Calibration White Point	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K
	Calibration Standards	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut
Operation Conditions	Working Temperature	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)	-18°C to 55°C (0°F to 131°F)
	Cooling	Quiet running vent fans	Quiet running vent fans	Quiet running vent fans	Quiet running vent fans	Quiet running vent fans	Quiet running vent fans	Quiet running vent fans
	IP Rating	IP50	IP50	IP50	IP50	IP50	IP50	IP50
	LED Lifetime	100,000 hours to half brightness	100,000 hours to half brightness	100,000 hours to half brightness	100,000 hours to half brightness	100,000 hours to half brightness	100,000 hours to half brightness	100,000 hours to half brightness
Certification	Certification	UL/ULC listed	UL/ULC listed	UL/ULC listed	UL/ULC listed	UL/ULC listed	UL/ULC listed	UL/ULC listed
Service	Service	Front Service and/or Rear Service	Front Service and/or Rear Service	Front Service and/or Rear Service	Front Service and/or Rear Service	Front Service and/or Rear Service	Front Service and/or Rear Service	Front Service and/or Rear Service