

# Education Display Solutions

Imagine a new era of learning

Digital flipchart | Interactive whiteboard | Smart signage | LED signage | Monitors | Hybrid classroom solution



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## Digitalization in education is not an option, but a must

Even before the pandemic, there was a trend of digitalization in schools and the education sector, but it was focused in urban, more advanced areas and the speed of digitalization was significantly slower compared to what we are seeing now. Since the pandemic, the need for digital transformation and technologies has increased rapidly and governments in countries across the world are increasing their investment in the digitalization of schools and education industry more broadly. With virtual learning the new reality, children must be able to learn whenever and wherever they are, meaning that digitalization in schools and education is no longer an option, but a must.



### New learning trend

The need for virtual and online education is increasing. In addition, hybrid learning, which provides online and offline classes at once, is also emerging as a new educational trend. Students and teachers must adapt to the new reality, while ensuring that the education is engaging and effective to maintain the progress of students.



### The need for a connected campus

Schools often need to showcase events and announcements in real time, so one of their major concerns is how to provide timely content throughout the campus. Advanced display technologies enable efficient content management across campus, while also providing eye-catching content to reach people anywhere on campus.

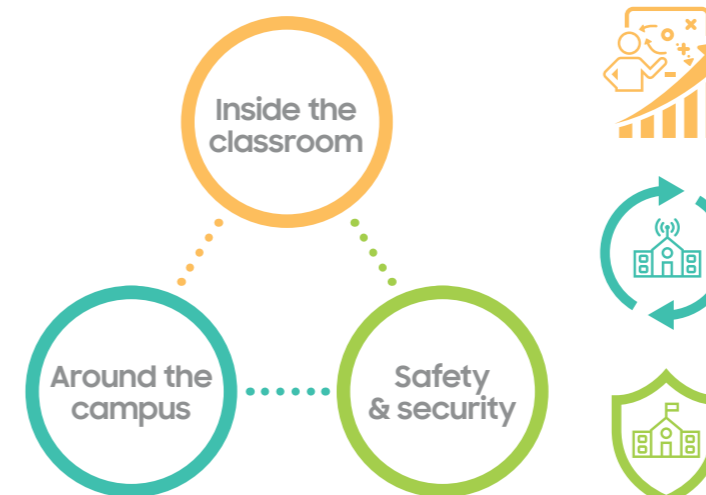


### Health and safety top of mind

Due to the increased sensitivity around health and safety, display solutions must address these concerns and provide total peace of mind for every user. Display products designed with safety in mind and solutions that enable preparation for potential emergencies have become a critical part to protect students, teachers and staff.

## Experience a new era of learning reimaged

To enable education institutions to meet the requirements of this digitalization trend, Samsung offers a full portfolio of display solutions optimized for any education environment. Whether you are inside the classroom, around the campus, or learning and teaching from home, Samsung's education line-up gives teachers the tools they need to deliver an enhanced experience, while maintaining student engagement, collaboration and confidence. Samsung's supporting solutions and education partners also ensure the safety and security of students and teachers for total peace of mind.



### Elevate the classroom experience

Captivate students with eye-catching visuals and integrate with leading learning platforms and collaboration tools, ready right out of the box.



### Rethink school-wide communication

Deliver informative messages in real time across your network of displays with reliable, easy-to-manage solutions that simplify campus communication.

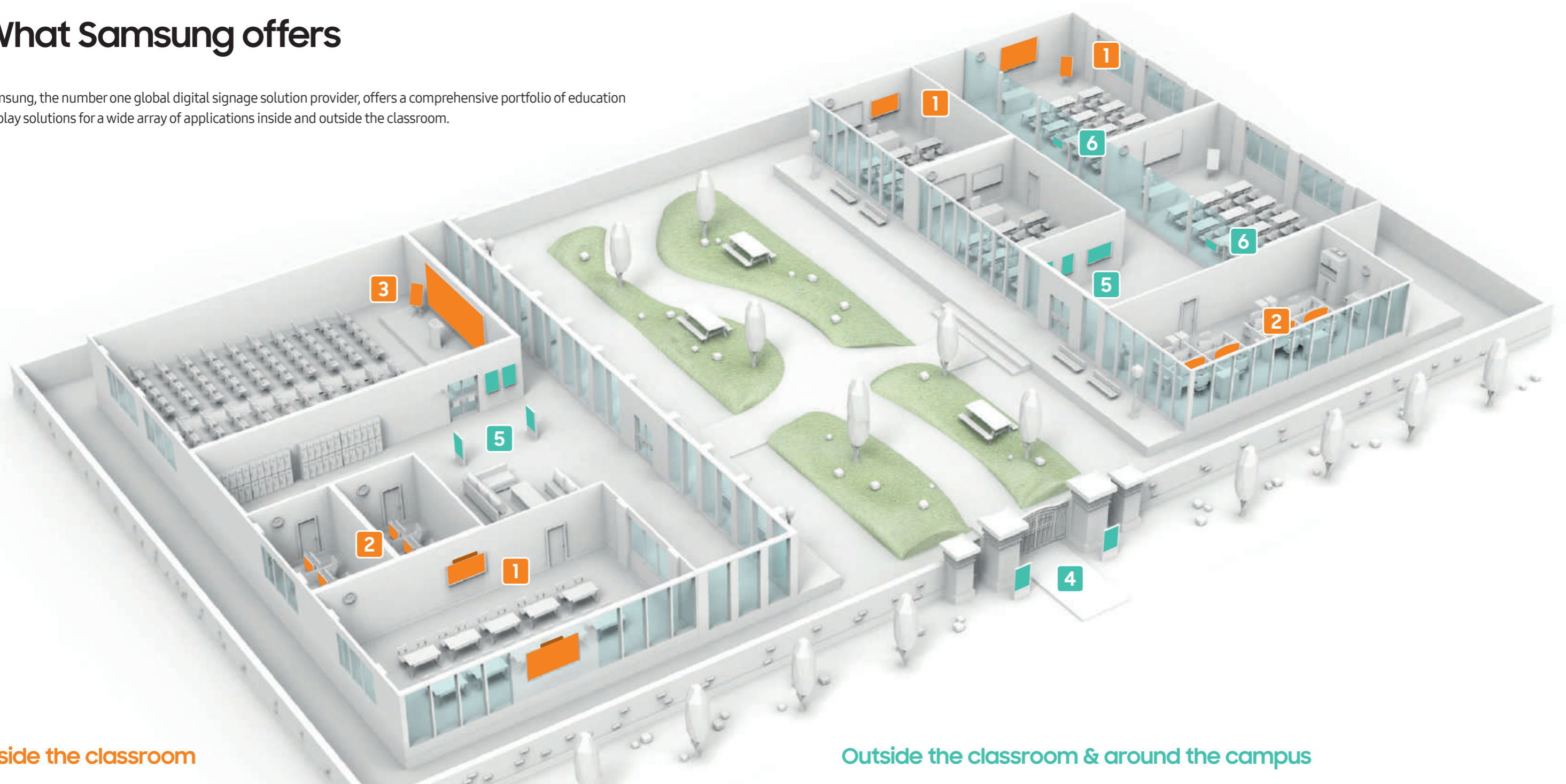


### Build safer learning spaces

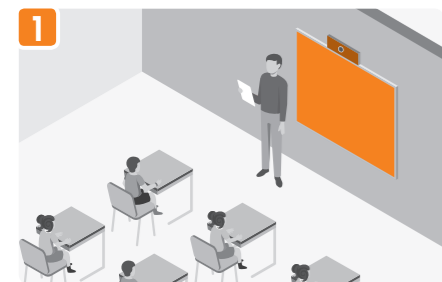
Keep the community safe and healthy with up-to-date safety-conscious technologies. Ensure school data and user privacy is secure with Knox protection.

# What Samsung offers

Samsung, the number one global digital signage solution provider, offers a comprehensive portfolio of education display solutions for a wide array of applications inside and outside the classroom.



## Inside the classroom

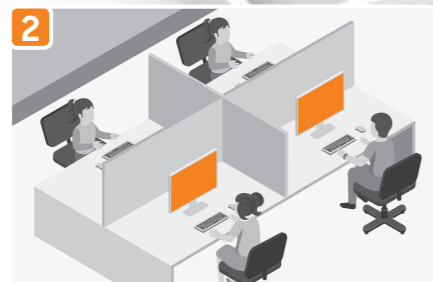


### Classroom

Increased classroom collaboration and engagement is critical to ensure every student feels involved and confident. Interactive whiteboard and digital flipchart creates a positive classroom environment.

#### Related products

Business TV, Digital flipchart, Interactive whiteboard



### Personal study room

Students need a properly equipped study room to enhance focus on their self-study. Advanced monitors can create an optimal viewing experience in any study room, helping students stay productive.

#### Related products

High resolution monitors, Ultra-wide monitors



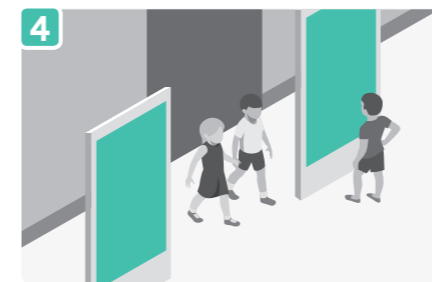
### Auditorium

LED signage and video walls ensure that any auditorium delivers visible and vibrant content to every student, regardless of how big the space is and how big the audience is.

#### Related products

LED signage, Video wall, Digital flipchart

## Outside the classroom & around the campus

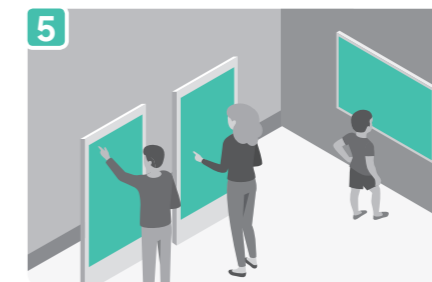


### Entrance

Make a first impression as students first enter the campus, with digital signage that delivers important information with great visibility, even in bright sunlight.

#### Related products

Outdoor signage



### Hallway

In a busy hallway with people passing by, display technology becomes even more important in communicating critical information such as school events, emergency alerts and safety guidelines.

#### Related products

Interactive displays, Crystal UHD signage



### Lecture room

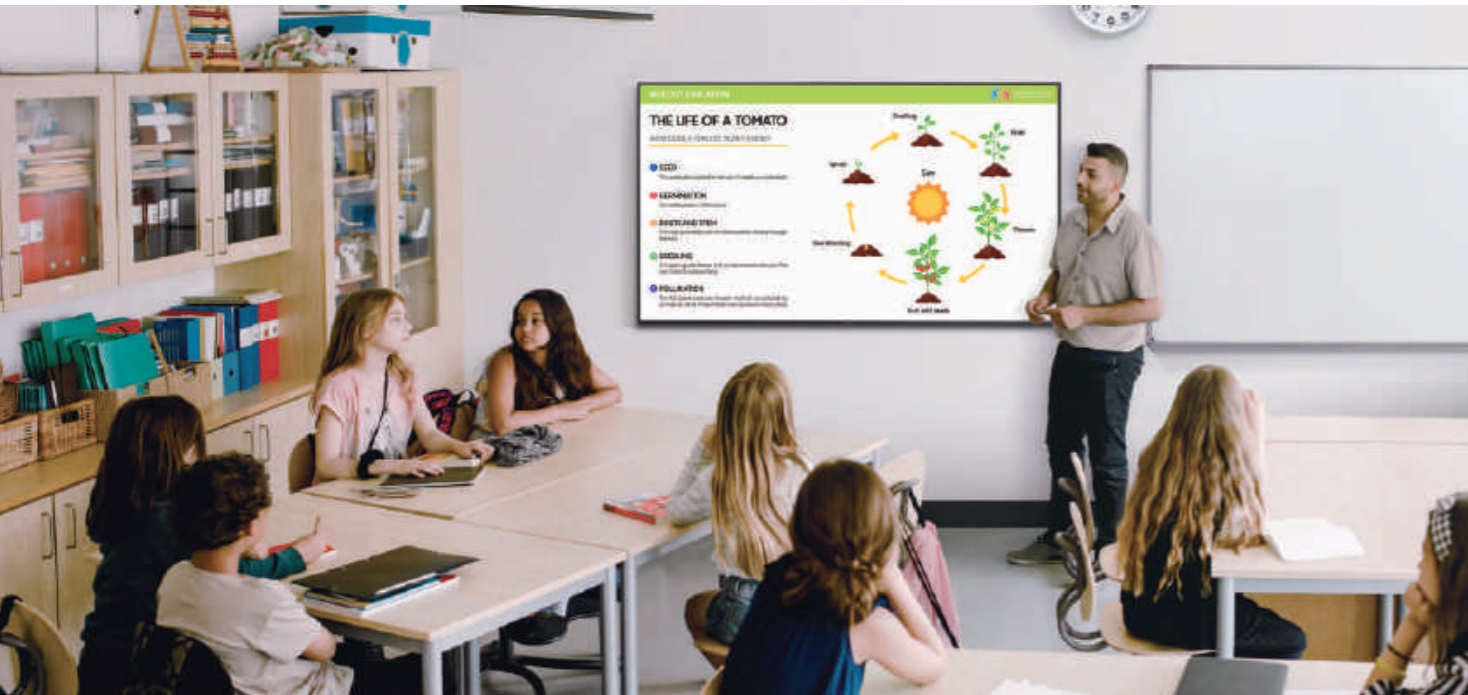
Students and teachers are reliant on digital display technology for lecture information. Small displays can be used as a tool to display the information, installed right outside the classroom.

#### Related products

Small displays

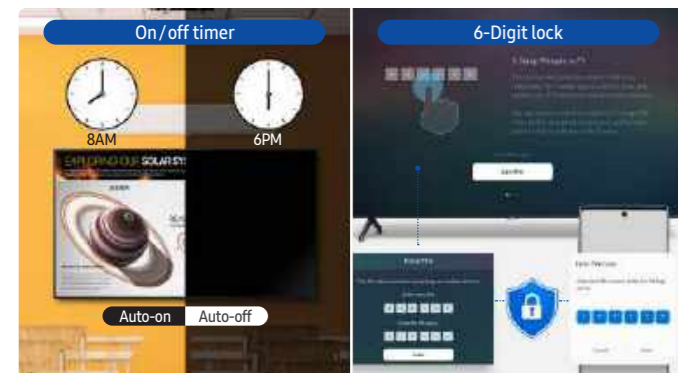
## Bring lessons to life with dynamic content

Samsung's business TV is the ideal display solution for classroom environments, enabling more interactive and interesting learning through the delivery of dynamic audiovisual content.



### Eye-catching content

Samsung's business TV delivers an eye-catching visual experience with UHD resolution in a range of sizes to fit any education environment. Crystal Display ensures optimized color expression and High-Dynamic Range improves brightness levels to better keep the attention of students and ensure important lessons deliver a lasting impression for optimized student performance and progress.



### Easy setup and management

Samsung's business TV frees up more time for teachers to focus on lesson planning and delivery, making them spend less time dealing with technical setup and issues maintenance. In addition, a pin-code protects the display settings, avoiding any potential content interruptions during class.



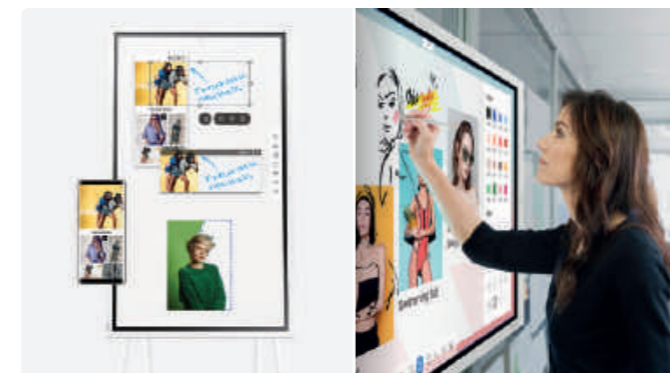
## Captivate students with interactive content

With Samsung Flip, ideas can flow freely for students and teachers. Its enhanced collaboration capabilities empower any teacher to lead their class while encouraging students to develop new ideas without the hassle of any technical difficulties.



### Pen and paper writing

Samsung Flip provides you with a smooth and familiar pen to paper writing experience in a variety of available colors, styles and widths. Up to 4 people can write simultaneously, using any object as a writing tool. In addition, users can quickly erase the drawings with finger or palm swipe.



### Flexible image editing & Annotation on

With Samsung Flip, users can quickly and easily select, move, crop, capture, and edit any image. Samsung Flip allows users to write on any background source. By simply clicking the note layer button, users can enjoy smooth writing without affecting any work behind the original layer.

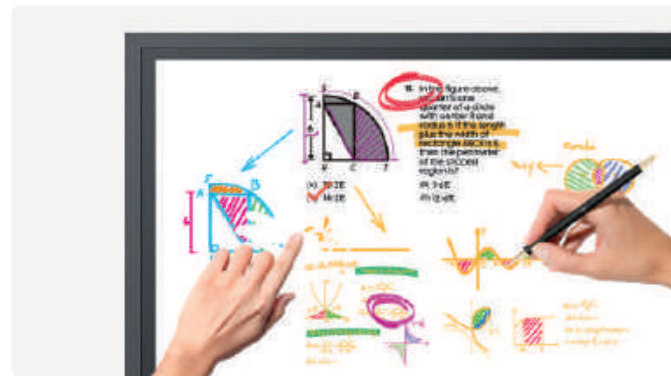


# Interactive whiteboard

WMR series 85"

## Create light bulb learning moments

In-classroom interactive displays redefine what interactive looks like. While teachers can create a more engaging classroom environment, students can receive digital experience while learning.



### Enhanced touch technology

Samsung Flip provides a wide color palette and range of thicknesses for a differentiated writing experience. It also provides an intuitive tool for up to 20 people to write and draw simultaneously on the large, 85-inch clear UHD display. These intuitive features ensure that all participants can actively and directly take part to increase class efficiency and engagement.



Smooth & fast writing



Multi writing up to 20



Flexible erasing

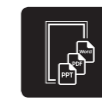


UHD resolution



### Advanced collaboration

Samsung Flip ensures easy access regardless of the content source – Microsoft Word, PowerPoint, Excel and Adobe PDF files – for improved class engagement. Samsung Flip now supports web browsing, with no additional device needed. Once the browser is open, annotation is still available for users to draw around the browser for on-the-spot collaboration.



Document viewer



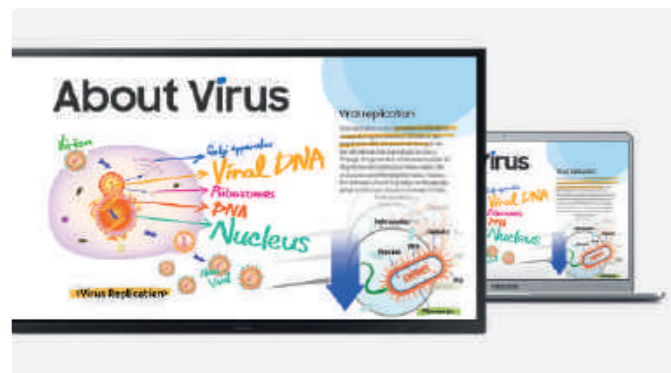
Web surfing



6-digit lock



Remote management



### Optimized for education

Teachers are able to connect their personal devices to the Flip using the 'touch out' function, controlling content on the display in real-time while having the flexibility to move around. Any edits made to the content on-screen will also be mirrored back to the personal device and vice versa for efficient collaboration.



Touch out



Various templates



Flexible image editing



Annotation on



### Multiple connection options

A versatile selection of connectivity options, including USB, HDMI, DP, screen sharing and the recently added OPS slot, ensures the Flip is accessible from a variety of devices. When teaching a class, the Flip works seamlessly in the background to allow teachers to focus on engaging their students.



USB



Screen mirroring



WIN10

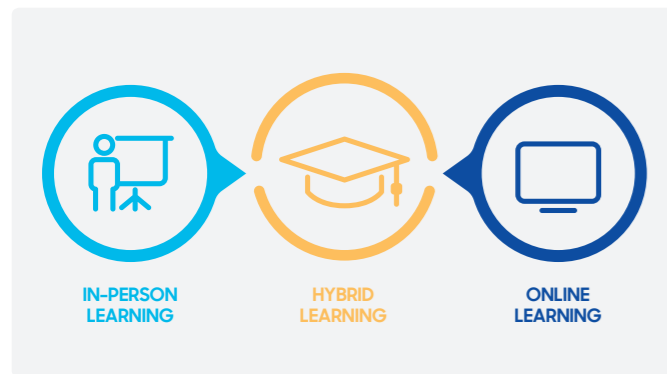


OPS slot

# Hybrid classroom solution





## Provide students a high-quality education from anywhere

Leading technology providers – Samsung and Cisco – offer a solution designed for hybrid classroom learning. This integrated solution is built for live, online learning environments with face-to-face engagement, creating a new paradigm in education.



### Learning anytime, anywhere

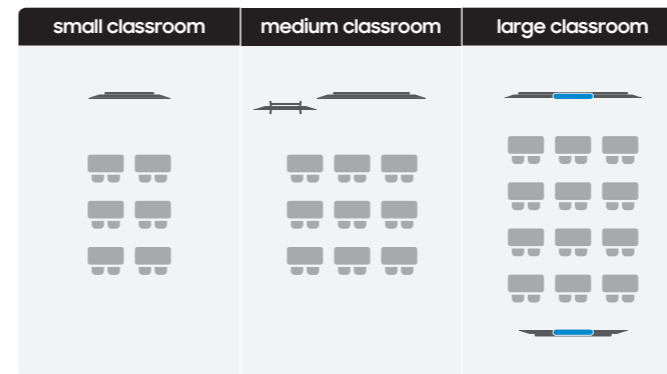
Hybrid learning allows students to be taught through a mix of in-person and online activities, keeping students engaged. Hybrid learning environments combine the most beneficial features of face-to-face and online learning, allowing students to participate in live learning and receive immediate feedback – while having access to flexible tools to be more productive and save on costs for the school by operating more efficiently.

-   
Active participation
-   
Immediate feedback
-   
Flexible learning schedule
-   
Time & cost efficiency

### Best-in-class technologies for enhanced learning

Samsung's visual technology provides best-in-class performance both in-person and online, secured by Knox for security and available in a range of sizes from 55 inches to 85 inches for any classroom. Samsung displays paired with Cisco's intelligent video conferencing platform featuring auto-framing and speaker setting, create a seamless video experience for students and teachers.

-   
Crystal clear visuals
-   
Natural and easy to use
-   
Powerful security
-   
Integration with Google Classroom and LMS



### Various options

Every school and each classroom are unique so it's important to choose the right technology solution for your setup. Samsung and Cisco's solutions are customizable and able to fit a wide variety of classroom arrangements and sizes – whether small, medium or large.

-   
Various products
-   
Various sizes
-   
Various solutions



### Flexible and effective for everyone

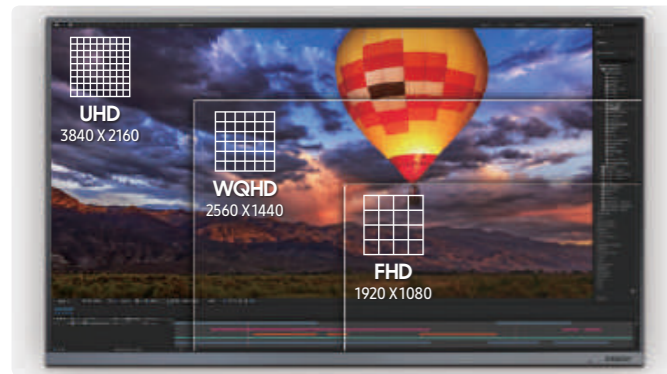
Integrated hybrid learning solutions improve classroom learning in a number of ways. The new model of face-to-face and online learning not only benefits teachers with additional resources for instruction, but also provides a more cohesive learning experience for students impacted by physical school closures – giving much needed flexibility for a high-quality education from anywhere.

# High resolution monitors

TU87F/T85F series

## Keep students motivated

High resolution monitors with UHD and WQHD resolutions, which provide extended displays with complete detail, allow students to stay focused on the latest assignment or group project.



\* UHD resolution is only available on TU87F series.  
\*\* WQHD resolution is only available on T85F series.

### Detailed clarity

Samsung's UHD and WQHD monitors deliver more screen space and detail for truly lifelike images. This means students can view documents and webpages with less scrolling and enjoy higher readability with reduced eye strain – even during a long period of learning.

- UHD resolution\*
- WQHD resolution\*\*
- 1 billion colors
- Wide viewing angle



### Multi-productive displays

PBP transforms a single monitor to a dual-view monitor by displaying content from two sources side by side on one screen. With PIP, students can see and organize multiple apps and files exactly how they want to – all supported by a variety of connectivity options and ergonomic design to improve comfort and learning efficiency.

- PBP
- PIP
- Multiple inputs
- Ergonomic design

# Ultra-wide monitors

CJ89/CJ79 series

## Work with a better view

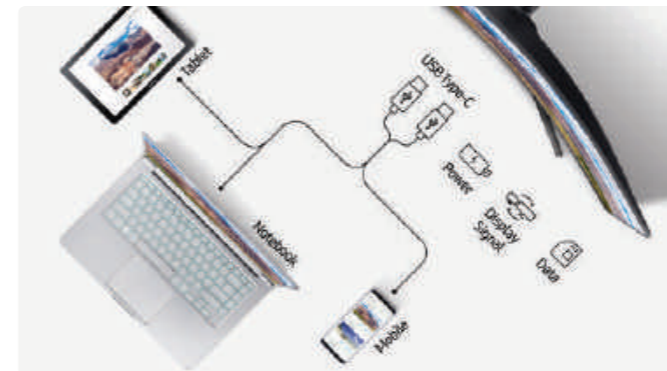
A top choice for comfortable viewing, seamless multitasking, and an uncluttered single-screen setup for faculty and staff. Ultra-wide curved monitors offer a cost-effective way to enhance productivity when it matters most.



### A better way to multi-task

The ultra-wide screen supports a number of open windows without scroll or zoom, while eliminating the clutter and inconveniences of the traditional dual monitor setups. Multi-tasking features – PIP, PBP and Easy Setting Box – allow teachers and administrative staff to work on multiple documents and applications simultaneously.

- Ultra-wide screen
- PBP
- PIP
- Easy Setting Box



### Ultimate connectivity

Samsung's ultra-wide monitors let teachers and administrative staff multitask more efficiently, saving desk space. USB Type-C ports transmit both power and data. The built-in KVM switch lets them control two computers connected to the monitor using just one keyboard and mouse.

- USB Type-C ports
- Multiple USB ports
- Thunderbolt™
- Built-in KVM switch

# LED signage

IFJ/IFR/IER series

## Increase audience's attention and involvement

For successful lessons and presentations, everyone in the auditorium must have visibility of all the content on display no matter how many are in the room. Samsung's LED signage delivers an impactful viewing experience on a large scale.



### Clearly refined visuals

Utilizing a propriety algorithm, LED HDR creates true-to-life images, turning any content into HDR-level quality without requiring any special metadata. Samsung's LED signage also supports HDR10+ that optimizes brightness and contrast ratio scene-by-scene to ensure each frame looks exactly as intended.



LED HDR



HDR10+ support



Multi-link HDR



### Screen uniformity

Samsung's complete and comprehensive calibration solution ensures LED displays continuously maintain picture quality. While all LED screens undergo multi-step factory calibration process, users can also easily manage brightness and color uniformity with their mobile devices.



Mobile calibration



Frame rate sync



Front service



High durability

# Video wall

VHR-R/VHT-E/VMT-E/VMT-U series

## Deliver a seamless visual experience

Samsung's video wall displays provide a captivating viewing experience for a wide variety of auditorium settings, allowing viewers to see vivid content regardless of where they are seated.



### Immersive viewing experience

A narrow bezel – 0.88mm to 3.5mm bezel-to-bezel options – minimizes the visual distraction of video walls. The displays' non-glare panels provide better visibility regardless of ambient light and the displays can project UHD content across multiple screens with daisy chain (up to 5x5).



Various bezel options



Non-glare panel



UHD resolution by daisy chain



Fine-tuned uniformity



### Wide viewing angles & built durable

Through wide viewing angles, students and teachers can get clear details and vivid colors regardless of where the screen is located. IP5x certified, Samsung video walls are dust-resistant and able to withstand a range of environmental conditions without needing to prepare additional enclosure in dusty places.



Wide viewing angle



IP5X rating



24/7 operation



ISTA-certified packaging

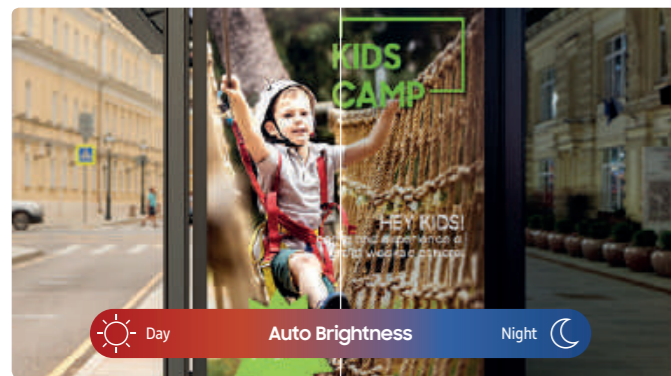


# Outdoor signage

OHF/OHN/OHN-S/OHN-D series

## Keep any campus informed – even outdoors

Samsung's lineup of outdoor displays ensures the clear and concise delivery of important messages. Outdoor message center displays in front of the school capture the attention of students as soon as they walk through the door.



### Unsurpassable visibility day and night

Samsung's outdoor signage allows for exceptional, consistent content delivery with high brightness and 24/7 performance. With a built-in dimming sensor, the display automatically adjusts the brightness based on the external lighting environment.

- High visibility
- Dimming sensor
- 24/7 operation
- Embedded media player



### Built strong to endure outdoor elements

Samsung's outdoor signage is certified to perform in outdoor settings. IK10-rated Magic Protection Glass and IP56-rated protection\* ensure the displays will withstand physical impact as well as dust\*\*, humidity or other outdoor elements that could affect the display.

- High durability
- Weather proof
- IP56 rating
- Magic Protection Glass

\*For kit models without front glass, IK10-rating does not apply and IP56 is contingent upon usage of a separate front glass.  
\*\* Ingress of dust is not entirely prevented but will not accumulate in sufficient quantities to interfere with the satisfactory operation of the equipment.

# Interactive displays

QMR-T series

## Help students and visitors easily navigate your campus

Built with responsive touch performance and eye-catching UHD picture quality, Samsung's interactive displays help students, faculty and visitors get anywhere on campus — from the art room to the auditorium.



### Powerful touch experience

Upgraded Tizen OS makes playback more stable and opens up new possibilities with high-speed content. A responsive capacitive touch functionality offers an engaging experience while the user-friendly design enables comfortable, productive digital interactions.

- All-in-one touch solution
- Fast response time
- Capacitive touch



### Enhanced picture quality & easy management

Samsung's interactive displays provide UHD resolution\* capabilities for incredibly clear content, increasing users' engagement with lifelike images. It also offers improved visibility through non-glare glass. IP5X and Center IR ensures efficient and reliable performance.

- UHD resolution\*
- Non-glare panel
- Center IR
- IP5X rating

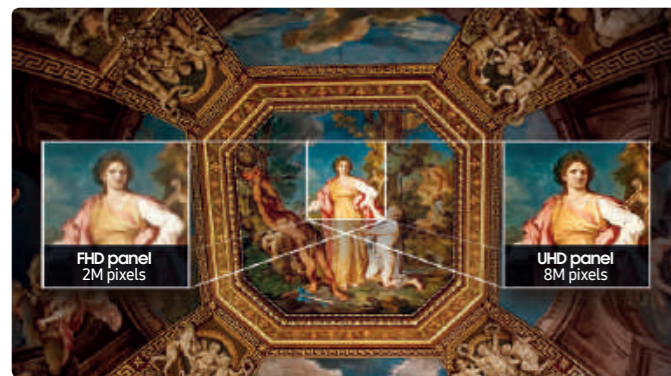
\* The UHD feature is only supported for 43 inches and 55 inches display.

# Crystal UHD signage

QHR/QMR/QBR series

## Ensure every student gets the message

Samsung's Crystal UHD signage helps students, faculty and visitors get where they need to be, when they need to be there – whether it's a final exam or football game.



### Real 4K resolution

Samsung's UHD signage showcases intricate details thanks to 4K UHD resolution. Samsung's cutting-edge intelligent UHD upscaling technology performs edge restoration and noise reduction to deliver UHD-level picture quality, even with lower resolution content.



### High visibility at all times

Samsung's UHD signage delivers clear information 24/7 with an impressive brightness. The display's non-glare panels provide better visibility regardless of ambient light. Using 10-bit processing, the displays are able to showcase a wider spectrum of colors – up to a billion different shades – capturing subtle differences for flawless color expression.



# Small displays

QBR/QBR-T series

## Easily check your lecture room information

Samsung's small displays can be used as a tool to display the information on the day's lecture, installed outside the classroom.

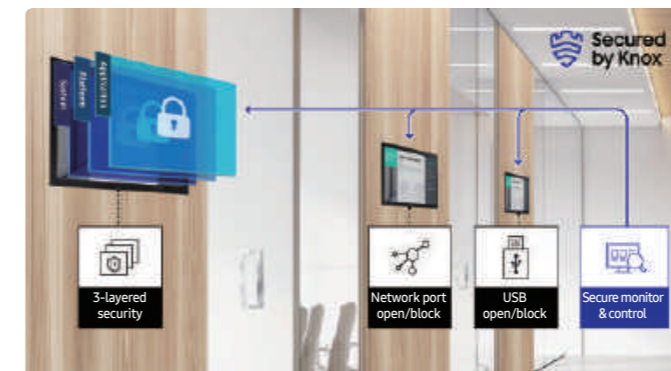


### Slim design & crisp content

The compact and slim design of the display allows for efficient space utilization, even in compact locations. A sleek rear design makes the display optimal for wall mounting while the connectivity, content play and device controls are easy to operate.

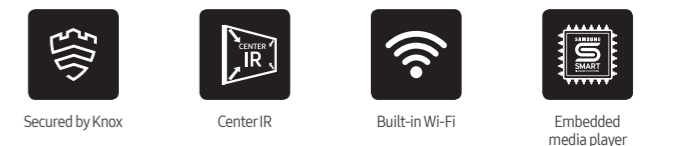


\* Touch functionality is only available on QBR-T series model.



### Comprehensive security setup

The powerful Knox security system provides rigid, three-layer security, offering airtight protection at the application, platform and system level, while restricting access to content and hardware. In addition, remote control of the network and USB ports prevents any unauthorized access.



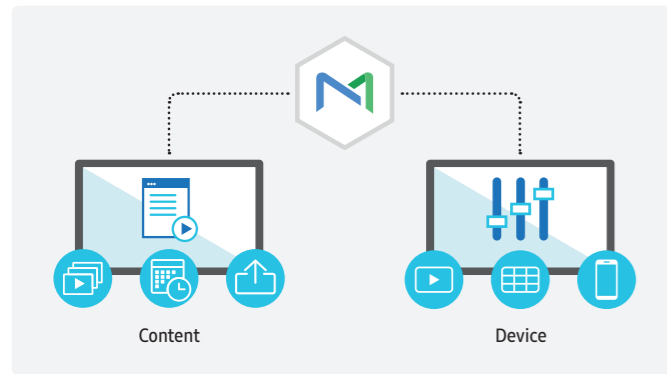
# Management solution

## Manage your display devices and content comprehensively

Samsung not only provides professional displays, but a comprehensive, all-in-one solution, allowing you to intuitively manage and control all of the displays as needed.





## MagicINFO™ solution






### One-stop device and content management

With MagicINFO™, you can manage both content and device on a single platform. Unlike other content management solutions, Samsung's MagicINFO is a completely integrated solution for all types of display including LCD and LED signage.

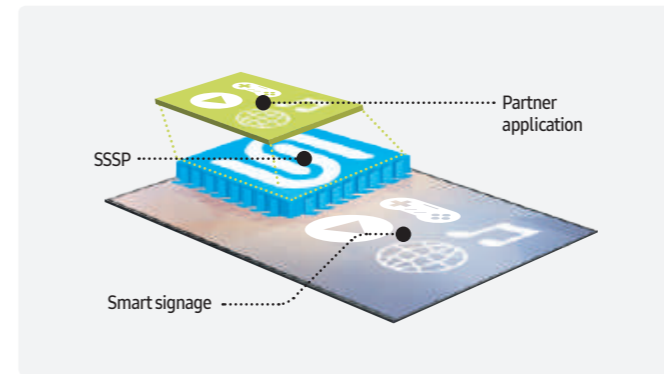
-   
Content design
-   
Content upload & scheduling
-   
Content publication
-   
Monitoring & control

### Intuitive user interface

Unlike other content management solutions that only trained professionals can use, Samsung's MagicINFO has an intuitive drag-and-drop web interface for users of all backgrounds, with no special training needed.

-   
Embedded templates
-   
Email notification
-   
Automated scheduling
-   
Condensed dashboard

## SSSP solution



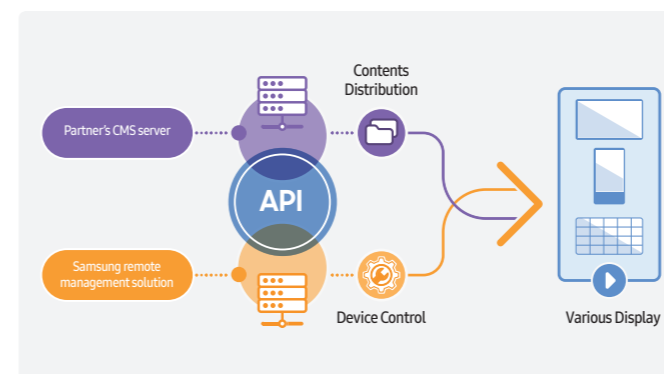
### Integrated application development





SSSP is a fully integrated program that offers a versatile open platform and advanced SDK/API functionality. Partners can enjoy a developer-friendly platform with high compatibility with HTML5 and ECMAScript 6 and 3-layer secured protection to craft solutions that suit their operational needs.

-   
Easy development
-   
High compatibility
-   
Secured protection
-   
High expandability

### Remote management solution

Samsung Remote Management Solution is a central remote service solution that enables remote monitoring of devices and eliminates the need for site visits or service calls. The Remote Management Solution platform synchronizes with partners' CMS and provides a comprehensive review of hardware and content.



-   
Remote control
-   
Remote software updates
-   
Error detection
-   
Mobile access

# Specifications

## Business TV

Project	Screen size	Resolution	Brightness	Contrast ratio	Features	Connectivity
BET-H	43", 50", 55" 65", 70", 75"	3840 x 2160	250 nit	4,700:1	Crystal processor 4K, UHD Upscaling, 16/7 operation hour, Samsung Business TV app, Mobile Connection, Web browser, YouTube, Game mode, Remote Access, Auto on-off timer, Security lock	WiFi 5, Bluetooth, HDMI(2), USB(T), RJ45

## Digital flipchart & Interactive whiteboard

Project	Screen size	Resolution	Brightness	Contrast ratio	Touch type	Touch pen type	# of drawing	Object recognition range	Connectivity
WMR	55", 65"	3840 x 2160 (landscape)	350 nit (w/o glass), 220 nit (with glass)	4,000:1 (w/o glass)	InGlass™	Passive pen	4 drawing	2mm/ 4mm / 8mm / 50mm, 1024 level on Brush Mode	In: [Basic] HDMI(2), USB / [With tray] HDMI(3), USB(2), USB External(in/out) Out: [Basic] Touch out, Audio out / [With tray] Touch out(2), Audio out, HDMI out Ext: RS232C, RJ45
	4 drawing (internal), 20 touch (external)						2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)	In: HDMI(2), DP, OPS I/F, USB 3.0, USB 2.0 Out: HDMI, Stereo Mini Jack, Touch Out(2) Ext: Touch input, RJ45, RS232C	

## Monitors

Project	Screen size	Flat/Curved	Aspect ratio	Resolution	Brightness	Refresh rate	Connectivity
TU87F	32"	Flat	16:9	3840 x 2160	250 nit	60 Hz	Thunderbolt 3(2), HDMI 2.0, DP1.2, USB 3.0(2)
T85F	27"	Flat	16:9	2560 x 1440	350 nit	75 Hz	HDMI1.4, DP1.2, USB 3.0, USB 2.0(2)
CJ89	49"	Curved (1,800R)	32:9	3840 x 1080	300 nit	144 Hz	DP1.2, HDMI 2.0, USB Type-C(2), USB3.0(3)
	43"		32:10	3840 x 1200		120 Hz	
CJ79	34"	Curved (1,500R)	21:9	3440 x 1440	300 nit	100 Hz	DP1.2, HDMI 2.0, Thunderbolt 3(2), USB 3.0(2)

## LED signage

Project	Pixel pitch	Diode type	Brightness (Peak/Max)	Contrast ratio	Certification	Service	IP rating
IFJ	P1.2	Surface Mount Device(SMD)	1,200 nit / 600 nit	8,000:1	EMC Class B, Safety 60950-1, FCC, UL, CB, KCC, RoHS	Front and parts rear	IP20
IFR/IFR-F	P1.5, P2.0, P2.5, P4.0	Surface Mount Device(SMD)	1,600 nit / 800 nit (P1.5) 1,600 nit / 1,000 nit (P2.0) 2,400 nit / 1,200 nit (P2.5) 1,500 nit / 900 nit (P4.0)	12,000:1 (P1.5) 7,200:1 (P2.0) 10,000:1 (P2.5, P4.0)	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	Front	IP20
IER/IER-F	P1.5, P2.0, P2.5, P4.0	Surface Mount Device (SMD)	1,000 nit / 500 nit (P1.5) 1,200 nit / 600 nit (P2.0, P2.5, P4.0)	6,000:1 (P1.5, P2.5) 8,000:1 (P2.0, P4.0)	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	Front	IP20

## Video wall

Project	Screen size	Resolution	Brightness	Contrast ratio	Operation hour	B-to-B	Bezel width	Connectivity
VHR-R	55"	1920 x 1080	700 nit	1,100:1	24/7	0.88mm	0.44mm(even)	In: DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack Out: DP1.2(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45
VHT-E	55"	1920 x 1080	700 nit	1,200:1	24/7	1.8mm	0.9mm(even)	In: Analog D-SUB, DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack Out: DP1.2(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45
VMT-E	55"	1920 x 1080	500 nit	1,200:1	24/7	1.8mm	0.9mm(even)	In: Analog D-SUB, DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack Out: DP1.2(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45
VMT-U	46", 55"	1920 x 1080	500 nit	1,200:1	24/7	3.5mm	2.3mm(L/L), 1.2mm(R/B)	In: DP1.2 HDMI 2.0(2) HDCP 2.2, USB 2.0 Out: HDMI(Loop-out) Stereo Mini Jack Ext: RS232C(in/out), RJ45

## Outdoor signage

Project	Screen size	Resolution	Brightness	Contrast ratio	Operation hour	IP rating	Connectivity	SoC	S/W
OHN (kit type)	85"	3840 x 2160	3,300 nit (w/o glass)	3,000:1	24/7	IP56 (contingent upon customer's front glass)	In: DP1.2, HDMI 2.0(2), HDCP 2.2, USB 2.0 Out: Stereo Mini Jack Ext: RS232C(in), RJ45(in)	SSSP 6.0	MagicINFO 56
OHN-S (with glass)	85"	3840 x 2160	3,000 nit	3,000:1	24/7	IP56	In: DP1.2, HDMI 2.0(2), HDCP 2.2, USB 2.0 Out: Stereo Mini Jack Ext: RS232C(in), RJ45(in)	SSSP 6.0	MagicINFO 56
OHN-D (kit type)	85"	3840 x 2160	3,000 nit (w/o glass)	3,000:1	24/7	IP56 (contingent upon customer's front glass)	In: DP1.2(2), HDMI 2.0(4), HDCP 2.2, USB 2.0(2) Out: Stereo Mini Jack Ext: RS232C(in), RJ45(in)	SSSP 6.0	MagicINFO 56
OHF	46"	1920 x 1080	3,000 nit	5,000:1	24/7	IP56	In: HDMI1.4(2), HDBaseT(LAN Common) Out: Stereo Mini Jack Ext: RS232C(in/out), RJ45(in/out), HDBaseT	SSSP 6.0	MagicINFO 56
	55"		2,500 nit						

## Interactive displays

Project	Screen size	Resolution	Brightness	Contrast ratio	Operation hour	Touch type	Connectivity	SoC	S/W
QMR-T	32"	1920 x 1080	400 nit (w/o glass), 300 nit (with glass)	5,000:1	16/7	Capacitive touch	In: DP1.2, HDMI 2.0(2), HDCP 2.2, USB 2.0(2) Out: HDMI 2.0(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45	SSSP 6.0	MagicINFO 56
	43"		3840 x 2160						
	55"			4,000:1					

## Crystal UHD signage

Project	Screen size	Resolution	Brightness	Contrast ratio	Operation hour	Panel type	IP rating	Connectivity	SoC	S/W
QHR	43", 50", 55", 65", 75"	3840 x 2160	700 nit	4,000:1	24/7	Non-glare	IP5X	In: DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack, USB 2.0(2) Out: HDMI 2.0(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45	SSSP 6.0	MagicINFO 56
QMR	43", 50", 55", 65", 75", 85"	3840 x 2160	500 nit	4,000:1	24/7	Non-glare	IP5X	In: DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack, USB 2.0(2) Out: HDMI 2.0(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45	SSSP 6.0	MagicINFO 56
QBR	43", 50", 55", 65", 75", 85"	3840 x 2160	350 nit	4,000:1	16/7	-	IP5X	In: DVI-D, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack, USB 2.0(2) Out: Stereo Mini Jack Ext: RS232C(in/out), RJ45	SSSP 6.0	MagicINFO 56
	24/7				Non-glare	-	In: DVI-D, DP1.2, HDMI 2.0(2), HDCP 2.2, Stereo Mini Jack, USB 2.0(2) Out: HDMI 2.0(Loop-out), Stereo Mini Jack Ext: RS232C(in/out), RJ45			

## Small displays

Project	Screen size	Resolution	Brightness	Contrast ratio	Operation hour	Panel type	Connectivity	SoC	S/W
QBR	13"	1920 x 1080	300 nit	800:1	16/7	Non-glare	In: HDMI1.4, HDCP 2.2, USB 2.0 Out: Stereo Mini Jack Ext: RS232C(in), RJ45	SSSP 6.0	MagicINFO 56
	24"		250 nit	1,000:1					
QBR-T	13"	1920 x 1080	250 nit	600:1	16/7	Non-glare	In: HDMI1.4, HDCP 2.2, USB 2.0 Out: Stereo Mini Jack, Touch Out Ext: RS232C(in), RJ45	SSSP 6.0	MagicINFO 56
	24"		250 nit (w/o glass)	1,000:1					