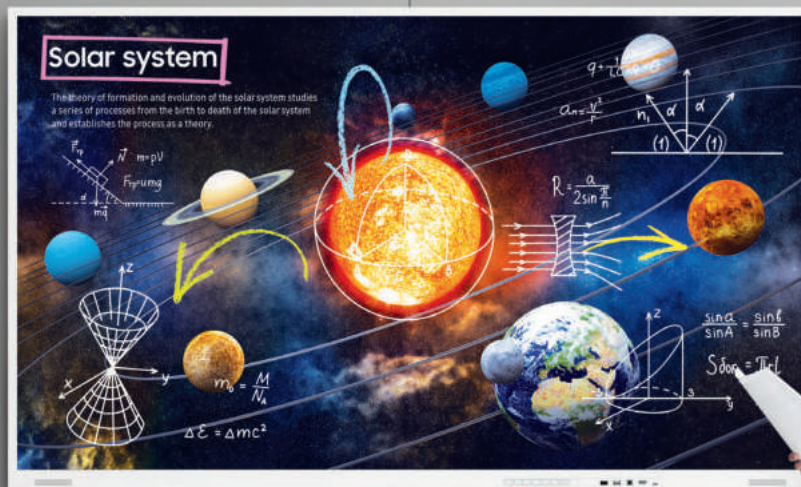# CINOS.net

Resources

For further resources and
documentation please visit us:
www.cinos.net

Samsung Flip Pro
WMB Series

Unlimited learning possibilities.

Take every learning experience to the next level

What is Flip Pro?

Introducing Samsung Flip Pro, the premium interactive display that takes learning experiences to the next level. With intuitive writing, comprehensive connectivity, smart solutions and brilliant hardware, Flip Pro provides both educators and students with boundless resources and great flexibility to create engaging learning. Experience unlimited learning possibilities with Samsung Flip Pro.

Technology highlights

Touch & Writing

- Fast & multi-touch
- Intuitive writing & drawing
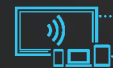
Connectivity

- 3-in-1 USB-C port
- AirPlay 2
- SmartView+
- OPS mount*

Solution

- Workspace
- Boxlight MimioConnect
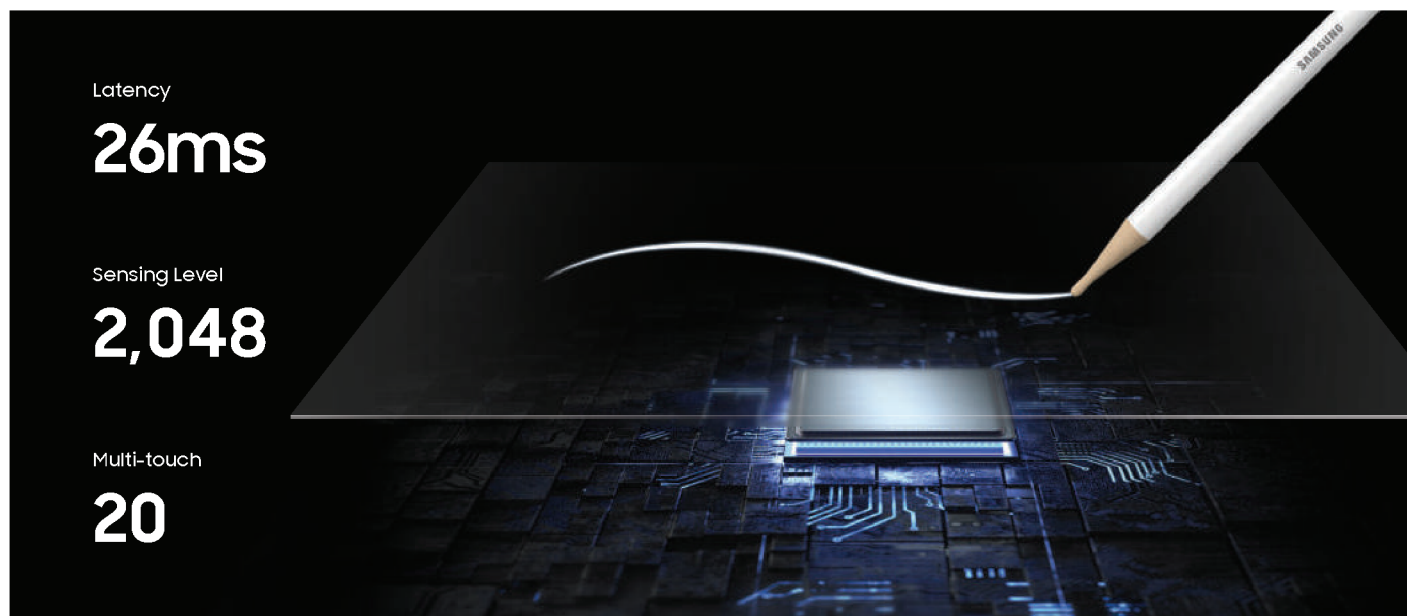- Video call application
- Remote content push

Hardware

- 4Ch. 40W speaker*
- Ambient light sensor*
- Front panel*
- Rear handle*
- Antimicrobial Coating
- Shatterproof film

* Each feature may vary by model.

2

Latency

26ms

Sensing Level

2,048

Multi-touch

20

Fast & multi-touch

Better interaction with best-in-class multi-touch

Samsung Flip Pro creates a realistic, smooth writing and drawing experience with touch technology with 26ms* latency and 2,048 points of thickness built directly into the display. Industry-best touch latency was achieved by Samsung's proprietary prediction logic which analyzes user's writing patterns. Plus, Flip Pro enables multi-touch for up to 20 people for enhanced interactivity.
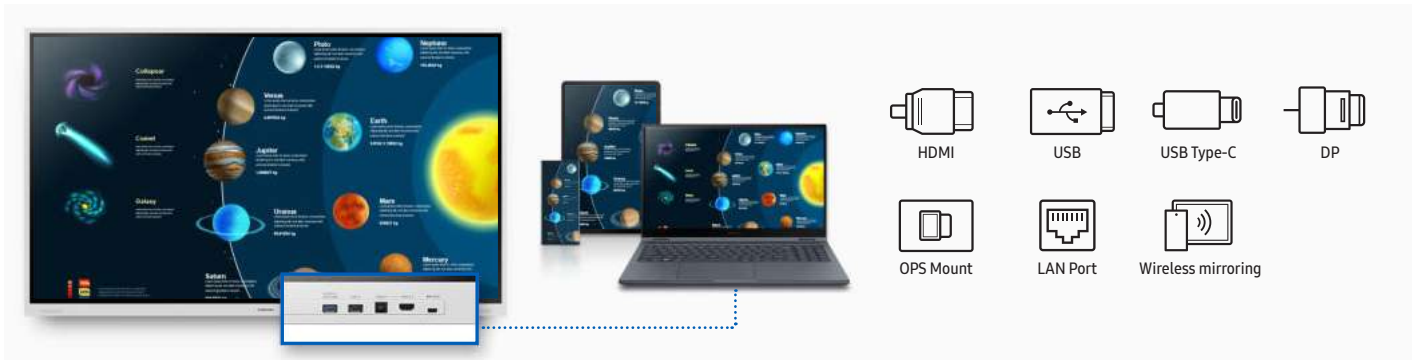
* When using single touch.

Pen & brush mode

Flexible erasing

Quick tool & palette menu

Easy note layer
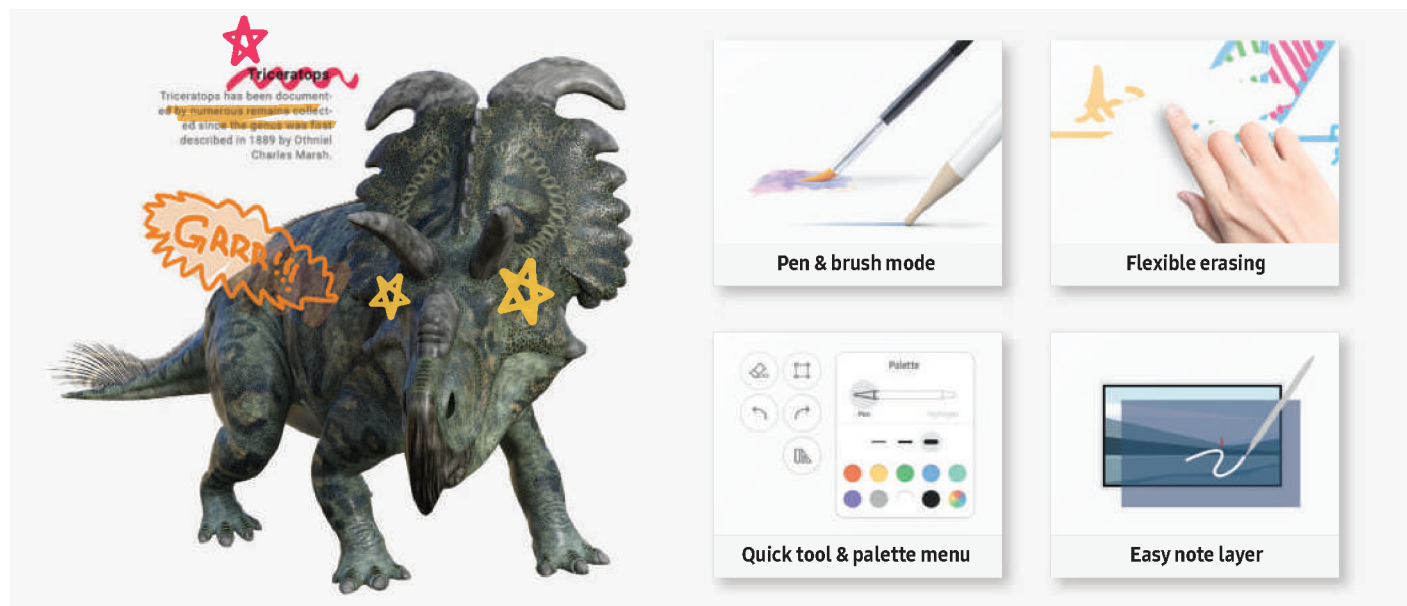
Intuitive writing & drawing

Bring ideas to life in an instant

Ideas are brought to life instantly on Flip Pro with an intuitive user interface. Samsung Flip's unique pen and brush mode provides a real-world writing experience with various options, while flexible erasing requires just a swipe of your finger or palm. The quick tool and palette menu ensure creativity flows and toggle button easily enables a new note layer UI.

* All images are simulated for illustrative purposes.

| HDMI | USB | USB Type-C | DP |
| OPS Mount | LAN Port | Wireless mirroring |

Versatile connectivity

Stay connected from any source

Flip Pro provides multiple connectivity options, including USB, HDMI, DP and OPS mount*. Educators can easily connect any device to access content and display information on a larger screen, as well as connect to any network and other devices through LAN port and wireless screen-mirroring.

* OPS mount is currently only available on WM75B and WM85B.
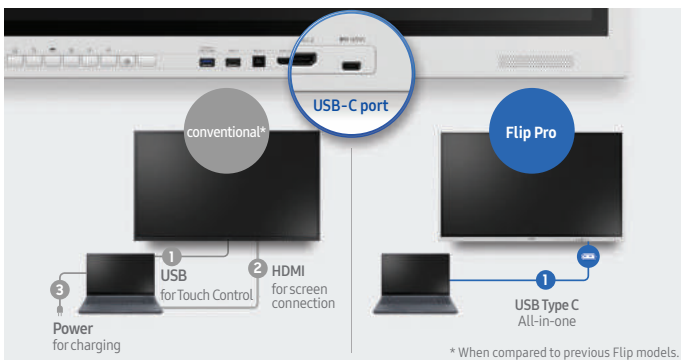
3-in-1 USB-C port

One single port for three functions

Connectivity is enhanced with three-in-one USB Type-C connectivity, enabling screen mirroring, touch control and external device charging (max. 65W)*, allowing educators to deliver interactive and engaging lessons without any hassle.

* Power delivery varies by model.
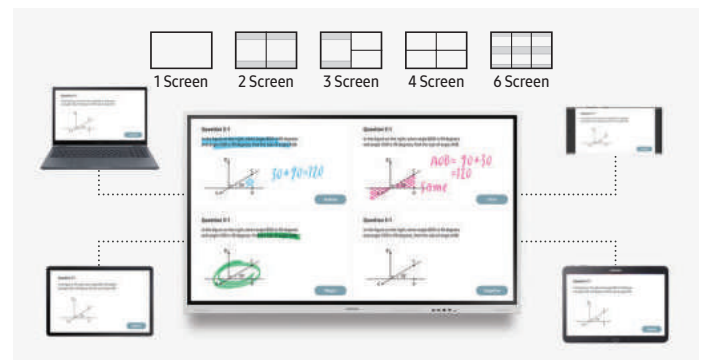
SmartView+

Smart, wireless sharing from multiple devices

With SmartView+, up to 50 devices can be simultaneously connected to the interactive display wirelessly, in addition to enabling multi-view on up to four screens, ideal for larger meeting rooms as well as digitized classrooms.

AirPlay 2

Share with AirPlay 2

Flip Pro is integrated with AirPlay 2, allowing educators and students to present on the big screen, increasing visibility and engagement in larger spaces, while ensuring no student misses out on important information.

OPS Mount

Use your favorite third-party education solutions

With OPS(Open Pluggable Specification) mount*, Flip Pro enables educators to use their third-party education solutions, allowing them to deploy school information systems(SIS), learning apps and tools.

* Sold separately.
** OPS mount is currently only available on WM75B and WM85B.

Workspace

Access whatever you need, from anywhere

With Workspace secured by Knox, Flip Pro enables users to easily access remote PC, network drive and other third-party applications such as Office 365, VMWare, Boxlight MimioConnect and video call applications*. This ensures efficiency from any location and an uninterrupted workflow for educators and students.

* Available apps may vary by region and require service subscription.
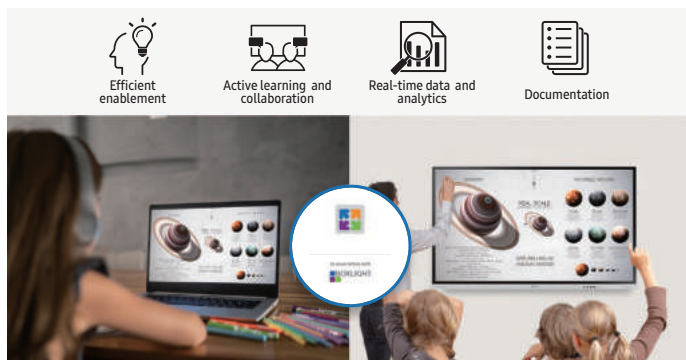
Boxlight MimioConnect

Optimize lesson planning with embedded learning solution

Flip Pro offers the MimioConnect* app, an online blended learning platform, providing an extensive catalog of versatile learning content.

* Service availability varies by region and requires Boxlight subscription.


Video call application

Collaborate with ease over video conferencing

Video conferencing* is supported on Flip Pro based on the WebRTC(Real Time Communication) API, supporting apps such as Google Duo without the need for additional solution compatibility.

* Video call application will be available through a firmware update available Q2 2022. Webcam must be purchased separately.
** Supported webcam(9models): Logitech C930e, C922, C922x, C925E, C920s, C920, C920-CC930C, Logitech Stream Cam.
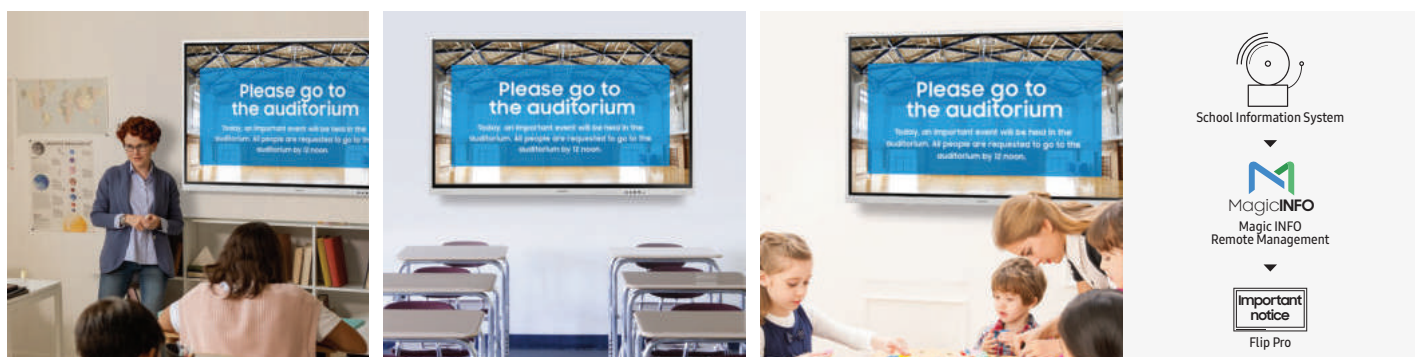
Remote content push

Keep informed with remote management solution

Using Samsung's MagicINFO Remote Management solution*, Flip Pro offers new functionality that pushes content, alerts and warnings from the school information system to the display, notifying teachers and students of important updates which can be pushed directly to Flip displays in every classroom.

* Requires MagicINFO license to use this service and SIS(School Information Service) should be separately built and integrated with MagicINFO.
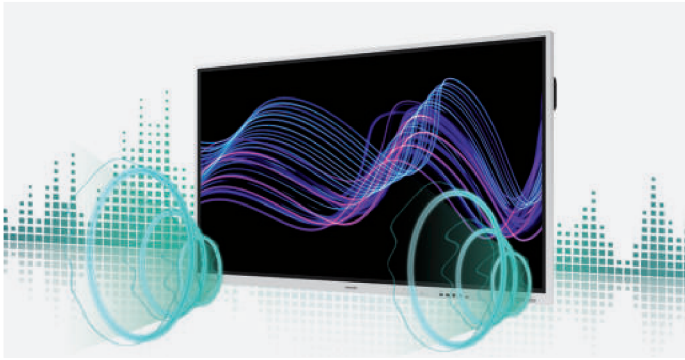
4.0Ch. 40W speaker

Engage learners with immersive sound

Flip Pro offers powerful 4-channel 40-watt speakers* front and backside to enhance students' listening experience, so they are more immersed in content when both watching and listening.

* Speaker option varies by model.

Ambient light sensor

Enjoy optimal content in any lighting conditions

The screen of Flip Pro is equipped with an ambient light sensor* to adjust the brightness according to lighting conditions. Whether the classroom is bright or dark, content can be enjoyed to the fullest.
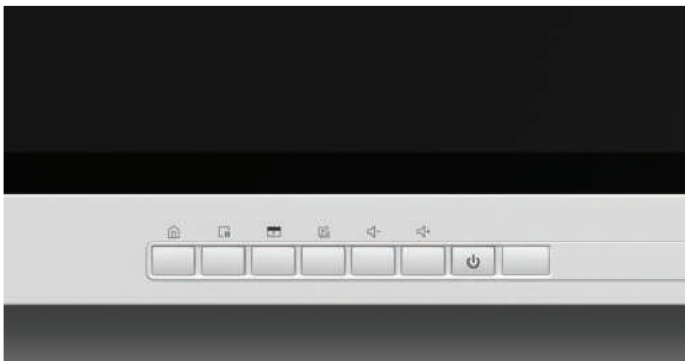
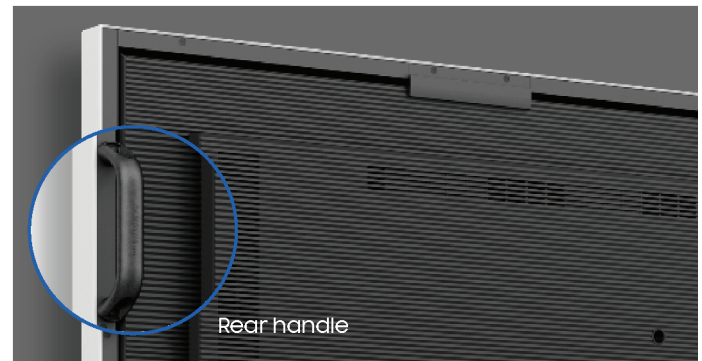* Ambient light sensor is currently only available on WM75B and WM85B.

Front panel

Access frequently used menu directly

Use functions and hotkeys faster and easier. Flip Pro puts the buttons that users most frequently use on the front panel* so they can access more easily and intuitively.

* Built-in front panel is currently only available on WM75B and WM85B.

Rear handle

Easy moving. Less effort.

Move the Flip Pro display freely anywhere in the classroom. The rear handle helps teachers move the large display easily with little effort*.

* Requires separate standing mount to move which must be purchased separately.
* Rear handle is currently only available on WM75B and WM85B.

Protective screen technology

Clean screen and minimized damage risk

Samsung Flip Pro delivers peace of mind with a built-in Antimicrobial Coating* which inhibits microbial growth. Plus, the Flip's display is wrapped in a proprietary shatterproof film, ensuring the screen stays intact in the event of a break.

* To perform its antibacterial function, this product has been treated with the biocidal substance Silver phosphate glass.
* Antibacterial property does not protect users against bacteria and provides no protection against viruses including Covid-19.
* Antimicrobial Coating is on surface of screen only and the effect may vary depending on conditions of use.
* Antibacterial certification: UL2282 which is granted when the antibacterial effectiveness is more than 99%.
(Test method(JIS Z 2801): after inoculation of 0.4cc of liquid with bacteria(Escherichia coli and Staphylococcus aureus) on specimen(5cm x 5cm), a sterilized film(4cm x 4cm) is adhered and left in a thermo-hygrostat with a relative humidity of 90% or more at 35°C for 24 hours, and then the efficiency of killing of the bacteria is measured / Test agency: KOTITI Testing & Research Institute)
* For further details regarding regional restrictions on the antibacterial function, please refer to each country's Samsung.com website.

Application gallery

Versatility for various purposes, in any space

Samsung Flip Pro is available in a variety of sizes to suit any space in both corporate environments and education especially. Regardless of the size of a space, number of people or use case, Flip Pro is an optimal solution for users looking to enhance efficiency and creativity.

Corporate

Huddle room – WM55B

Mid-sized meeting room – WM65B

Boardroom – WM75B / WM85B

Education

Small classroom– WM55B

Mid-sized classroom – WM65B

Auditorium – WM75B / WM85B

Specifications

Model			WM55B	WM65B
Panel	Diagonal Size		55"	65"
	Type		New Edge, 60Hz	New Edge, 60Hz
	Resolution		3,840 x 2,160 (Landscape)	3,840 x 2,160 (Landscape)
	Brightness(Typ.)		350cd/m2 (without glass)	350cd/m2 (without glass)
	Contrast Ratio(Typ.)		4000:1 (Typ.)(without glass)	4000:1 (Typ.)(without glass)
	Viewing Angle(H/V)		178:178	178:178
	Response Time(G-to-G)		8ms(Typ.)	8ms(Typ.)
	Operation Hour		16/7	16/7
Sound	Speaker Type		Built in Speaker (10W x 2CH)	Built in Speaker (10W x2CH)
Connectivity	INPUT	RGB	N/A	N/A
		VIDEO	(Basic) HDMI 1, DP1, (With Tray) HDMI 1, USB-C	(Basic) HDMI 1, DP1, (With Tray) HDMI 1, USB-C
		AUDIO	N/A	N/A
		USB	(Basic) USB 1, (With Tray) USB 2, USB External (In/Out) 1	(Basic) USB 1, (With Tray) USB 2, USB External (In/Out) 1
	OUTPUT	RGB	N/A	N/A
		VIDEO	N/A	N/A
		AUDIO	1(Stereo Mini Jack)	1(Stereo Mini Jack)
		Touch Out	(Basic) Touch Out 1 (USB Upstream Type), (With Tray) Touch Out 1	(Basic) Touch Out 1 (USB Upstream Type), (With Tray) Touch Out 1
	INTERNAL	SENSOR	N/A	N/A
	EXTERNAL	CONTROL	Touch Input RS232C thru stereo jack, RJ45 (For MDC)	Touch Input RS232C thru stereo jack, RJ45 (For MDC)
	BT/WiFi		Yes (Keyboard/Mouse,speaker)	Yes (Keyboard/Mouse,speaker)
Touch	Type		IR	IR
	# of Drawing		20 touch (internal/external) * Whiteboarding app works 4 drawing	20 touch (internal/external) * Whiteboarding app works 4 drawing
	Touch Pen Type		Passive Pen with magnet	Passive Pen with magnet
	Object Recognition Range		2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)	2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)
	Touch Response Time		6.7ms	6.7ms
	Drawing Speed (Touch latency)		26ms	26ms
	Haze		8%~12%	8%~12%
	Thickness		2.85T	3.2T
	Hardness		Heat Semi-Strengthened Glass	Heat Semi-Strengthened Glass
	Additional Film		AG Flim(Anti glare) Hydrophobic Coated PET (Shatter-proof flim) Antimicrobial Coating	AG Flim(Anti glare) Hydrophobic Coated PET (Shatter-proof flim) Antimicrobial Coating
Power	Type		Internal	Internal
	Power Supply		AC100-240V 50/60Hz	AC100-240V 50/60Hz
	Power Consumption	Max[W/h]	154W(100-240V)	528W(100-240V), 506W(220-240V), OPS(16V/4.5A)
		Typical[W/h]	95W	124W
		Rating[W/h]	140W	175W
		Stand-by[W/h]	0.5	0.5
		BTU[W/h]	525.14W	656.425W
Mechanical Spec	Dimension (mm)	Set	1297.4 x 768.2 x 59.9	1522.4 x 897.6 x 62.9
		Package	1464 x 915 x190	1691 x1055 x 198
	Weight (kg)	Set	28.6	39.7
		Package	35.9	48.2
	Color		Gray White	Gray White
	VESA Mount		400 * 400	400 * 400
	Protection Glass		Yes	Yes
	Stand Type		Stand / Wallmount (STN-WM55R / WMN4277SF)	Wallmount (WMN-WN65R)
	Media Player Option Type		N/A	N/A
	Rotation		Landscape only	Landscape only
	Power Cable Length		3M /2.4M(US)	3M /2.4M(US)
	Accessory		Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black), Waranty/QSG	Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black) Waranty/QSG
Operation	Operating Temperature		0℃~ 40℃	0℃~ 40℃
	Humidity		10 ~ 80%, non-condensing	10 ~ 80%, non-condensing
Feature	Key		Flip App	Flip App
	Orientation		Landscape / Portrait	Landscape / Portrait
	H/W		Touch module(IR), Built in Speaker(20W 2CH), WiFi/BT Module Embedded	Touch module(IR), Built in Speaker(20W 2CH), WiFi/BT Module Embedded
	S/W	First screen	Flip S/W (whiteboarding app)	Flip S/W (whiteboarding app)
		Apps	Document viewer SmartView+ Video player Web browser Workspace (RDP/VNC, Office365, VMWare) Edu tool mimioconnect(N.America Only)	Document viewer SmartView+ Video player Web browser Workspace (RDP/VNC, Office365, VMWare) Edu tool mimioconnect(N.America Only)
		WebRTC	Yes	Yes
		Upgradable web engine	Yes	Yes
		SmartView+	Yes	Yes
		Airplay	Ready to update ('22.5)	Ready to update ('22.5)
	Internal Player (Embedded H/W)	Platform	Pontus-M (Tizen 6.5)	Pontus-M (Tizen 6.5)
		Processor	CA72 Quad(1.7GHz)	CA72 Quad(1.7GHz)
		Storage	32GB (2.65GB Occupied by O/S, 29.35GB Available)	32GB (2.65GB Occupied by O/S, 29.35GB Available)
		Operating System	Tizen 6.5 : Samsung Proprietary OS(VDLinux)	Tizen 6.5 : Samsung Proprietary OS(VDLinux)
	Security		802.1x(WPA2 Enterprise) : EAP-TLS, EAP-TTLS, EAP-PEAP	802.1x(WPA2 Enterprise) : EAP-TLS, EAP-TTLS, EAP-PEAP
Accessories	Included		Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black), Waranty/QSG	Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black), Waranty/QSG
	Optional	Stand	STN-WM55R	N/A (3rd party company stand can be supported through VESA)
		Mount	WMN-4277SF	WMN-WM65R
		OPS Mount	-	-
		Tray	CY-TF65BBC	CY-TF65BBC
	3rd party compatibility		Logitech RallyBar Plus	Logitech RallyBar Plus

Model			WM75B	WM85B
Panel	Diagonal Size		75"	85"
	Type		New Edge, 60Hz	New Edge, 60Hz
	Resolution		3,840 x 2,160 (Landscape)	3,840 x 2,160 (Landscape)
	Brightness(Typ.)		350cd/m2 (without glass)	350cd/m2 (without glass)
	Contrast Ratio(Typ.)		4700:1 (Typ.)(without glass)	4700:1 (Typ.)(without glass)
	Viewing Angle(H/V)		178:178	178:178
	Response Time(G-to-G)		6ms(Typ.)	6ms(Typ.)
	Operation Hour		16/7	16/7
Sound	Speaker Type		Built in Speaker (10W x 4CH)	Built in Speaker (10W x 4CH)
Connectivity	INPUT	RGB	N/A	N/A
		VIDEO	HDMI 2(Rear1, Front1), DP1, USB C(Front), OPS I/F	HDMI 2(Rear1, Front1), DP1, USB C(Front), OPS I/F
		AUDIO	N/A	N/A
		USB	2(For SoC, Rear/Front), 1 (for external 3.0x1(Front))	2(For SoC, Rear/Front), 1 (for external 3.0x1(Front))
	OUTPUT	RGB	N/A	N/A
		VIDEO	N/A	N/A
		AUDIO	1(Stereo Mini Jack)	1(Stereo Mini Jack)
		Touch Out	Touch Out 2 (USB Upstream Type, Front 1, Rear 1)	Touch Out 2 (USB Upstream Type, Front 1, Rear 1)
	INTERNAL	SENSOR	N/A	N/A
	EXTERNAL	CONTROL	Touch Input RS232C thru stereo jack, RJ45(For MDC)	Touch Input RS232C thru stereo jack, RJ45(For MDC)
	BT/WiFi		Yes (Keyboard/Mouse, Speaker)	Yes (Keyboard/Mouse,speaker)
Touch	Type		IR	IR
	# of Drawing		20 touch (internal/external) * Whiteboarding app works 4 drawing	20 touch (internal/external) * Whiteboarding app works 4 drawing
	Touch Pen Type		Passive Pen with magnet	Passive Pen with magnet
	Object Recognition Range		2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)	2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)
	Touch Response Time		6.7ms	6.7ms
	Drawing Speed (Touch latency)		26ms	26ms
	Haze		8%~12%	8%~12%
	Thickness		3.2T	3.2T
	Hardness		Heat Semi-Strengthened Glass	Heat Semi-Strengthened Glass
	Additional Film		AG Flim(Anti glare) Hydrophobic Coated PET (Shatter-proof flim) Antimicrobial Coating	AG Flim(Anti glare) Hydrophobic Coated PET (Shatter-proof flim) Antimicrobial Coating
Power	Type		Internal (Main 1ea, OPS 1ea)	Internal (Main 1ea, OPS 1ea)
	Power Supply		AC100-240V 50/60Hz	AC100-240V 50/60Hz
	Power Consumption	Max[W/h]	473W(100-240V), 451W(220-240V), OPS(16V/4.5A)	528W(100-240V), 506W(220-240V), OPS(16V/4.5A)
		Typical[W/h]	187W	197W
		Rating[W/h]	430W(100-240V), 410W(220-240V), OPS(16V/4.5A)	480W(100-240V), 460W(220-240V), OPS(16V4.5A)
		Stand-by[W/h]	0.5	0.5
		BTU[W/h]	1612.93W(100-240V),1537.91W(220-240V), OPS(16V/4.5A)	TBD
Mechanical Spec	Dimension (mm)	Set	1724 x 1026.3 x 89	1945.8 x 1151.1 x 89
		Package	1905 x 1189 x 287	2136 x 1318 x 260
	Weight (kg)	Set	59.3	75.2
		Package	72.2	91.6
	Color		Gray White	Gray White
	VESA Mount		400 * 400	600 * 400
	Protection Glass		Yes	Yes
	Stand Type		Wall Mount	Wall Mount
	Media Player Option Type		OPS Slot support	OPS Slot support
	Rotation		Landscape only	Landscape only
	Power Cable Length		3M /2.4M(US)	3M /2.4M(US)
	Accessory		Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black), Waranty/QSG	Power Cord, USB Upstream Cable(1ea), Pen(2ea, Black), Waranty/QSG
Operation	Operating Temperature		0°C~ 40°C	0°C~ 40°C
	Humidity		10 ~ 80%, non-condensing	10 ~ 80%, non-condensing
Feature	Key		Flip App	Flip App
	Orientation		Landscape	Landscape
	H/W		Touch Overlay(IR), Front Connectivity, OPS I/F Support(w/OPS Box) Built in Speaker(40W 4CH), WiFi/BT Module Embedded	Touch Overlay(IR), Front Connectivity, OPS I/F Support(w/OPS Box) Built in Speaker(40W 4CH), WiFi/BT Module Embedded
	S/W	First screen	Flip S/W (whiteboarding app)	Flip S/W (whiteboarding app)
		Apps	Document viewer SmartView+ Video player Web browser Workspace (RDP/VNC, Office365, VMWare) Edu tool mimioconnect(N.America Only)	Document viewer SmartView+ Video player Web browser Workspace (RDP/VNC, Office365, VMWare) Edu tool mimioconnect(N.America Only)
		WebRTC	Yes	Yes
		Upgradable web engine	Yes	Yes
		SmartView+	Yes	Yes
		Airplay	Ready to update ('22.5)	Ready to update ('22.5)
	Internal Player (Embedded H/W)	Platform	Pontus-M (Tizen 6.5)	Pontus-M (Tizen 6.5)
		Processor	Cortex A72 1.7GHz Quad-Core CPU 2MB L2	Cortex A72 1.7GHz Quad-Core CPU 2MB L2
		Storage	32GB (2.65GB Occupied by O/S, 29.35GB Available)	32GB (2.65GB Occupied by O/S, 29.35GB Available)
		Operating System	Tizen 6.5 : Samsung Proprietary OS(VDLinux)	Tizen 6.5 : Samsung Proprietary OS(VDLinux)
	Security		802.1x(WPA2 Enterprise) : EAP-TLS, EAP-TTLS, EAP-PEAP	802.1x(WPA2 Enterprise) : EAP-TLS, EAP-TTLS, EAP-PEAP
Accessories	Included		Power Cord, USB Upstream Cable(1ea), Pen(2ea), Waranty/QSG	Power Cord, USB Upstream Cable(1ea), Pen(2ea), Waranty/QSG
	Optional	Stand	N/A (3rd party company stand can be supported through VESA)	N/A (3rd party company stand can be supported through VESA)
		Mount	WMN6575SE	WMN8200SF
		OPS Mount	CY-PBRK200	CY-PBRK200
		Tray	-	-
	3rd party compatibility		Logitech RallyBar Plus	Logitech RallyBar Plus

CY-TF65BBC (Tray for WM55B/WM65B only)

Mechanical Spec	Dimension (mm)	Set	269.8 x 111.3 x 56.9
		Package	294 x 136 x 69
	Weight (kg)	Set	0.5
		Package	0.7
	Color		Gray White
Connectivity	Extra Connectivity Ports		USB 1
			USB External (In/Out) 1
			Touch Out 1
			HDMI 1
			USB-C 1
Accessories	Included		Installation Guide Screws

STN-WM55R (Stand for WM55B only)

Mechanical Spec	Dimension (mm)	Set	835 x 1632.9 x 850.6
		Package	1650 x 860 x 208
	Weight (kg)	Set	34.5
		Package	41.5
	Color		Light Gray
	VESA Mount		400 X 400
	Rotation		N/A
Accessories	Included		Installation Guide
Feature	Special	H/W	Slim Design No Assembly Required Installation

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Smart Signage

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2022-06

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