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# PRODUCT INSTRUCTIONS

## Integrated Teaching Machine

Product Type: KS-HC85S

Document version: V2024.1

Manufacturer' s Signatures			
Editor	Auditor	Final Reviewer	Approver

Customer need to send back this document after sign&stamp

Customer please fill this table		
Customer' s advice	Signaure	Stamp

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## Revision History

(Date)	(Version)	(Description)	(Author)
2024.4.25	V2024.1	Created	Eric

## 1. Product instructions

- 1.1 Real 4K resolution display with high color gamut, which made of zero-fitting process.
- 1.2 Built-in intelligent CPU and operation system.
- 1.3 Optional OPS PC module.
- 1.4 With touch screen technology.
  - 1.4.1 Anti-light interference (working smooth under sun light) ;
  - 1.4.2 High-precision touch screen with rapid responses, smooth in writing and presentation;
- 1.5 Display, touch screen, intelligent CPU 3 in 1.
- 1.5.1 HD image GPU engine,
- 1.5.2 With intelligent display chips and Android system,
- 1.5.3 Writable and annotable at any interface.
- 1.6 Input HDMI signals will wake up the device on standby mode
- 1.7 Wireless screen share is supported
- 1.8 WIFI 6 bluetooch 5.0 is supported
- 1.9 HDMI 4K 60Hz is supported
- 1.10 The system will boot from your last settings, and all input channels are nameable.
- 1.11 Built-in AI HD camera and microphone array(total 8 microphone units),
- 1.12 Android 14 system, 4K UI display, 4K Whiteboard,
- 1.13 The front is with switchable USB/Type C interfaces.
- 1.14 Smart light sensor will adjust the display brightness automatically.
- 1.15 Picture-in-picture function: Under Android system, it supports picture/vedio opening, or other operations when a vedio is already in full-screen playing. So that you can quickly shift to other channels.

## 2. Product Appearance



### 3. Product Parameters

<b>Parameters</b>	
Size	85 inch
Response time	8ms
Aspect ratio	16:9
Active area	1872mm (H) x1053 (V)
Resolution	3840 (H) ×2160 (V)
Pixel unit size	0.124 (H) x 0.374 (V)
Scanning frequency	60Hz
Display color	1.07B (10bit)
Color gamut (NTSC) , Typ	85%
Contrast ratio	5000:1
Viewing Angle	178° (H/V)
Backlight type	DLED
Brightness, Typ	400cd/m <sup>2</sup>
Service lifetime	≥50000 hours
<b>Loud speaker parameters</b>	
Speaker channel type	2.0
speaker power	2×10W
Optional	2.1 channel: 2×15W+1×20W, or 2.2 channel: 2×15W+2×10W
<b>Camera parameters</b>	
Camera	48MP (8000*6000) images 4K 8MP (3840*2160) video
Qty	1
location	center of the top
Viewing angle	120° (MAX)
<b>Microphone parameters</b>	
Max pickup sound range	8m
Microphone qty	8
<b>AI Fuctions</b>	
Speaker face tracking, Speaker voice tracking Supports 4K 8Mega pixels video (3840*2160)	
<b>Touch screen</b>	

touch screen type	IR touch
Operation system supported	Windows11/Windows10/Windows8/Windows7/Windows XP/Android/Linux/Mac OS X/Chrome
touch point qty	20
Min diameter of stylus tip	2mm
Input method	Fingers, stylus, other opaque objects
Respons speed	<10ms
touch screen accuracy	±1mm (90%)
Maximum distance between stylus and touch screen when writing, Typ	2.5mm
Communication method with motherboard	USB
Tempered glass hardness	7H
Coordinate points	32767(W) × 32767(D)

### Operation System

System version	Android 14
CPU	Quad-Core A55*8 1.2GHz
GPU	Mali G52MP8
RAM	4GB
ROM	32GB

### Input/ Output Interfaces

Side ports	TOUCH OUT 3.0	1
	HDMI IN	2
	HDMI OUT	1
	TYPE C	/
	RJ45 OUT	/
	RJ45 IN	1
	USB 3.0	/
Bottom ports	LINE_OUT & HEADPHONE_OUT	1
	VGA IN	1

	AUDIO IN	1
	DP IN	1
	USB 2.0	1
	TOUCH OUT 3.0	1
	RS232	1
	OPTICAL OUT	1
Front ports	HDMI	1
	USB	2
	TOUCH (USB2.0)	1
	Type-C (data file transfer, USB terminal function)	/
Optional port	NFC	/

#### **Power supply parameters**

Power input type	100-240V~50/60Hz
Maximum power	500W
Standby power	≤0.5W

#### **Windows computer system ( Optional )**

PC Type	Plugable computers module with Intel Cores
Hardware	I5/I7/I9 (Optional)
PC interface standard	80pin OPS-C

#### **Dimensions/Weight**

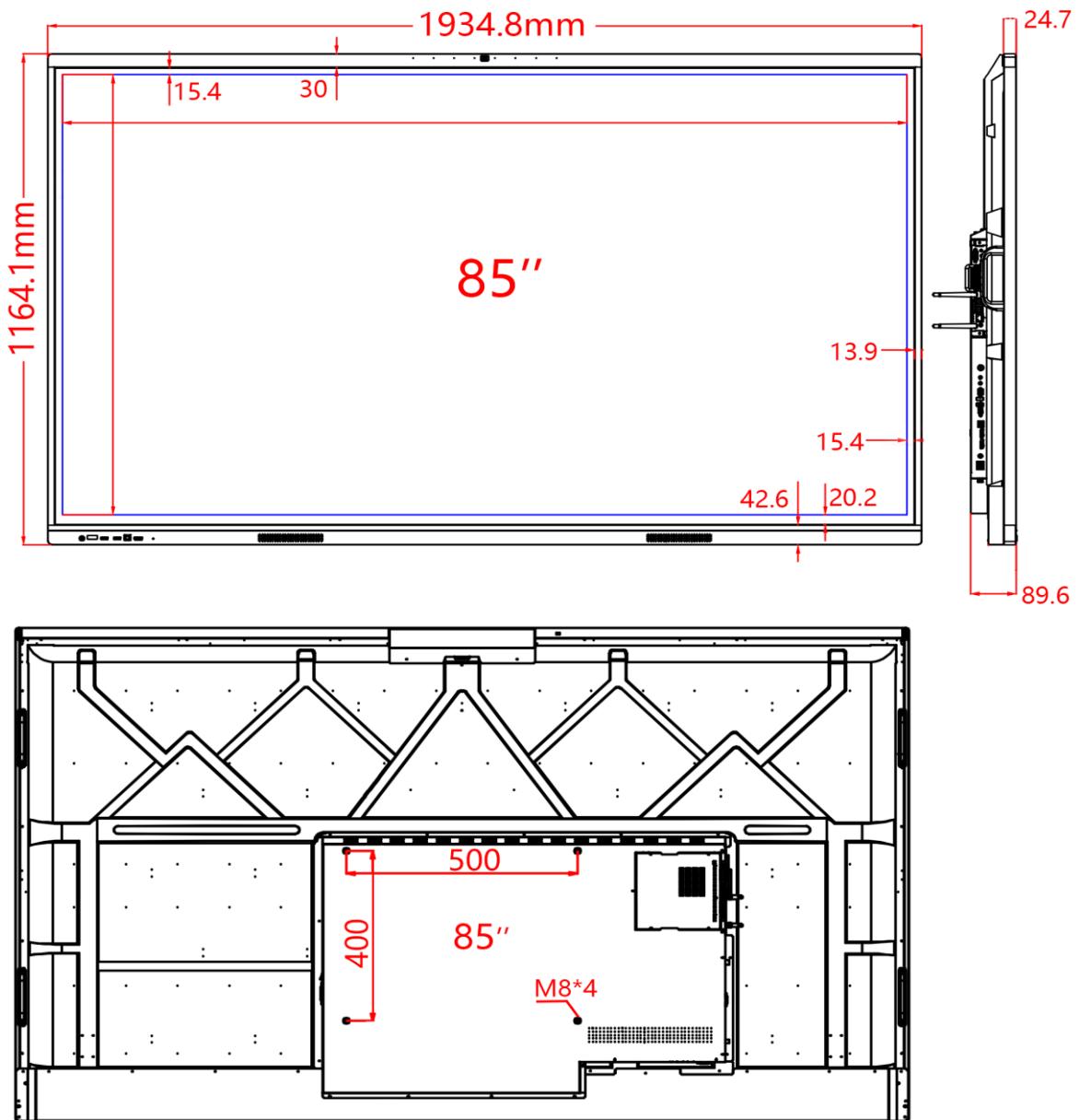
Device dimensions (L×W×H)	1934.8 × 89.6 × 1164.1mm
Carton dimensions (L×W×H)	2080 × 210 × 1285mm (Tolerance±10mm)
Flat panel+Wall mount total thickness(Please refer to the actual product)	112.0±3mm
VESA Holes range (L×W)	500×400mm
Screw type of wall mount	M8×25mm
Net Weight ( without OPS)	69±1kg
Gross weight	77±2kg (The total weight may different due to different accessories, please refer to actual product.)

#### **Accessories in pack ( please refer to actual products due to different options )**

Power cable	×1
Wall mount	×1
Stylus	×1

Pointer	×1
Quality certificate	×1
Warranty card	×1
<b>Environmental requirements</b>	
Temperature condition	0°C~40°C
Humidity condition	≤ 80%RH
Storage temperature	-10°C~60°C
Storage humidity	10%~80%RH
Working altitude	<5000m

#### 4. Product Six Views



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## 5.Precautions

- 1.1Please read this precautions carefully before your first operation.
- 1.2Please note and follow the warning signs on product/instructions.
- 1.3If press the" standby" button on the front, the device will enter standby mode, it will not shut down. There is a rocker switch on the rear side, it' s power switch of this device. The "I" indicates power on, "O" indicates power off. Please don' t place anything near to the power switch, to make sure that you can shut down this device conveniently.
- 1.4Please shut down the device and unplug the power cable if you won' t use it for a long time. Please shut down and unplug the power cable in lightning weather.
- 1.5This product need a threehole socket nearby, and it' s ground wire shall

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connect to the ground. Please don't step on the power cable and don't place anything on it.

1.6Please use the right power supply which shows on name plate. If you are not sure about your power supplier type, please confirm with your supplier first.

1.7Please shut down this device if there are unusual sounds or burning smells from it. Please contact your supplier to check and fix it.

1.8All flammable and explosive items, heating items, such as candles, fireworks, electric stoves, electric lights shall keep away from this device.

1.9Please don't place this device on any unstable platform, nor it may flip and cause damage.

1.10There are some gap/holes on rear side for heat dissipation, please don't cover it. Please place the machine in a ventilated area to ensure good heat dissipation.

Please ensure at least 10cm ventilation space on the left& right& back , and at least 20cm ventilation space on the top.

1.11Please don't put any liquids, metal objects into the case, if it happens accidentally, please contact your supplier in time.

1.12Please don't use any chemical to wipe this device, it may corrode the metal structures and coatings. Please shut down and unplug power cable first, and use slightly damp rag to clean the dust on display& structure. Never use any detergents/ sprays.

1.13Please keep this device away from water/ moisture, such as toilet, kitchen, pool.

1.14Please do not splash or dump any water/liquids to the device, especially the holes on rear side.

1.15Please don't insert any irrelevant objects into interfaces/socket, nor it may cause safety issues.

1.16Do not try to repair this device by your own, please contact your supplier and follow their guideline.

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1.17Please follow our instruction when you install your device. And please use our accessories only.

1.18The wall mount (if included) only can install on a solid wall which can withstand 500kg weight. If you need to lift the device up in installation, please let a professional to it and keep everything safe. Manufacturer does not undertake this task.

1.19Please install this device in appropriate location, such as on the wall or a wheel stand. Please use our original wheel stand and follow your supplier's guidance.

1.20Please read the text on nameplate carefully. Please use specified spare parts only, or ask it from your supplier if needed.

1.21Please make sure that all ground wires in PCB / socket shall connect to ground correctly.

1.22If you move this blackboard from a lower temperature area to a higher temperature area, in order to fully remove the condensed water droplets inside, please wait for some time before turning on the power.

1.23All discarded batteries shall be disposed& recycled correctly.

Do not allow children to touch the batteries. Do not put any batteries in the fire, it may explode in fire and bring danger.

1.24The total weight, dimensions, package details, colors, appearance may different due to your options, please refer to actual product.

1.25When you combine the flat panel with blackboard, please leave at least 2cm space from blackboard frames. Please keep 1.5cm space between sliding blackboard panel and flat panel screen. Please leave at least 5cm space on below, left, right, and at least 9cm space on the top (between mounting slot and flat panel frame).

1.26Please strict follow the transport instructions on outer cartons, place and sucure the devices. Please aviod any tipping and hitting (especially don't hit the front of display).

\*The hardware designs and software program of this product are protected by copyright. If this product and the contents of the instructions are copied without

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authorization, we will retain the right to resort to legal claims.

The contents and pictures in this manual are for reference only and do not constitute any form into commitment. We reserves the right to improve and change the appearance design of products without prior notice.\*

#### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### FCC Radiation Exposure Statement

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure