

DHI-LPH86-MC420-C

86 inch Smart interactive whiteboard



Series Overview

Dahua DeepHub Classic Smart Interactive Whiteboard is a new generation of smart interactive whiteboards that have a high performance main controller and multiple intelligent functions. It adopts direct-type LED backlight technology and has a 4K LED display that is built of anti-dazzle tempered glass with a hardness of 7 on the Mohs scale. The display comes in 65", 75", and 86". This ultra-thin whiteboard supports up to 10 multi-user writing points and is equipped with a 52 MP lens, speakers, 8 microphone arrays, and is touchscreen. It offers various functions such as video conferencing, writing on the whiteboard, wireless screen sharing and allows you to scan codes to access content on the whiteboard.

Functions

4K HD Display

With up to 3840 × 2160 resolution, the 4K HD display delivers a clear image in sharp, vivid colors.

AI Recognition of Drawings

Identifies hand-drawn structures such as straight lines, arrow-straight lines, arrow-dotted lines, triangles, parallelograms, trapezoids, rectangles, pentagons, circles, cylinders, pentagrams, semicircles, and ellipse.

Easy to Share

Enhances the experience of sharing files by scanning a code. It automatically determines the network of the device to readily share the QR code across the extranet and the intranet. QR code encryption and extraction are also featured, providing privacy and data security through the required entry of a 6-digit password for verification.

- Built-in Deephub Meeting software that offers online conferences and customizable support for real-time collaboration.
- Displays in 4K Ultra HD and uses 4K UI.
- With its 2 built-in mid-high frequency speakers, the device supports 2.0-channel audio output, and its total power is 40 W.
- Produces vibrant visuals through its NTSC High Gamut Screen that offers wide color coverage up to 90% and its advanced technology that produces accurate color reproduction of $\Delta E \leq 1.5$.
- Features split screen, and performs screen sharing between the whiteboard and phones, computers, tablets and more devices.
- Microsoft Office and other related software can be installed, and it can play audio and video files in various formats.
- Offers a smooth writing experience through handwriting recognition, pen writing, its fast writing response speed, and pen pressure recognition.
- Support AI recognition of text and drawings.
- Intelligent pen detection that automatically wakes up the whiteboard for annotations when the pen is lifted.
- Built-in 8 array microphone and AI 48M camera that supports 9x zoom, produces high-quality visuals and audio communication, and supports auto-framing and voice tracking.
- Seamlessly calls the camera and microphone of the whiteboard through its Type-C IN port and screen projector.
- Supports unlocking through NFC.
- Includes a full-featured Type-C IN port.

File Management

Supports managing and using Office files, image, video and audio files, and file formats such as PDF and TXT.

Similar to Real Writing Experience

The electronic whiteboard supports pen-point writing. It comes equipped with specialized pressure-sensitive writing pens, designed to enhance the writing experience. With its soft, comfortable nib, writing on the whiteboard feels natural, similar to the real writing experience.

Technical Specification

Built-in System	
Operating System	Android 14
CPU	Quad-core A73 + Quad-core A53
CPU Frequency	2.2 GHz + 2.0 GHz
GPU	ARM Mali-G52 MP8 (8EE)
RAM	8 GB
ROM	64 GB
Card Swiping with NFC	Yes, supports binding up to 10 cards.
NFC	Supports quick unlock via NFC.

Function	
Operating System of External Module	Windows 7/8/10/11
Wi-Fi Hotspot	Dual-band 2.4 G/5 G; Supports enabling hotspot and Wi-Fi at the same time

LCD Panel	
Screen Size	86 inch
Backlight	DLED
Aspect Ratio	16:9
Brightness	400 cd/m² (typ.)
Resolution	3840 (H) × 2160 (V)
Viewing Angle	H: 178°; V: 178°
Lifespan	≥50, 000 hrs
Display Color	90% NTSC (typ.)
Refresh Rate	60 Hz
Static Contrast Ratio	1200 (typ.)
Response Time	8 ms (typ.)

Camera	
Camera	Android: Photo: 52 MP; Video: 8 MP Windows: Photo: 8 MP; Video: 8 MP
Auto Control	Auto white balance
Distortion	−8.6%
Max. Resolution	Photo: 9632 (H) × 5418 (V); Video: 3840 (H) × 2160 (V)
Field of View	D: 99°; H: 87°; V: 49°
Face Detection	Yes
Digital Zoom	Yes , supports up to 9x digital zoom.

Device Ports	
Light Sensor	1
Front Button	1 × power button
Front Ports	1 × TYPE-C, 1 × HDMI IN, 2 × USB 3.2 Gen1
Network Port	2 × RJ-45
Wi-Fi	Yes, 1 × Station, 1 × AP

Wi-Fi Standard	Station: 802.11b/g/n/a/ac/ax AP: 802.11b/g/n/a/ac/ax
Wi-Fi Frequency Range	2400–2483.5 MHz, 5150–5350 MHz, 5470–5725 MHz, 5725–5850 MHz
MAX Power Transmission (Wi-Fi)	≤20 dBm@2400–2483.5 MHz; ≤23 dBm@5150–5250 MHz; ≤20 dBm@5250–5350 MHz; ≤27 dBm@5470–5725 MHz; ≤14 dBm@5725–5850 MHz
Bluetooth	Yes
Bluetooth Standard	BR/EDR/BLE, BT5.2
Bluetooth Frequency Range	2400–2483.5 MHz
MAX Power Transmission (Bluetooth)	≤20 dBm@2400–2483.5 MHz
RFID Modulation Method	ASK
RFID Frequency Range	13.56 MHz
MAX Power Transmission (RFID)	42 dBuA/m @10 m
USB	4 × USB 3.2 Gen1 Type-A; 1 × USB 2.0 Type-A; 1 × Micro USB 2.0
RS-232	1 × DB9 male connector
Video Input	2 × HDMI 2.0 (4K@60Hz)
Video Output	1 × HDMI 2.0 (4K@60Hz)
Audio Output	1 × 3.5 mm Line Out port; 1 × SPDIF port
Others	2 × Touch port
IrDA	1
Microphone	8 arrays
Type-C Port	1 × Type-C IN (DP IN (4K@60 fps) + USB 3.2 Gen1 host+ USB 2.0 device (touch) + 5W Charging)

Touchscreen	
Response Time	≤3.3 ms
Touch Technology	Infrared
Touch Points	32@Android, 50@windows
Valid Touch	1.5 mm (0.06") (over 90% touch area)
Writing Mode	Finger + Pen (attaches magnetically)
Anti-light Interference	Anti-dazzle tempered glass
Surface Hardness	≥9H
Touch Resolution	32,767 × 32,767
Number of Multi-user Writing Points	10 points (over 90% touch area)

Speaker	
Number of Cavities	2
Frequency	150 Hz–20 kHz
Power	2.0 sound channel, front-end: 2 × 20 W
Built-in Speaker	2

Microphone	
Pick-up Distance	Long-range sound pickup: 8 m–12 m (26.25 ft–39.37 ft)
Number of Microphones	8 arrays
AGC	Yes
Echo Cancellation	Yes
Polar Pattern	Omnidirectional
Intelligent Noise Filtering	YES
General	
Power Supply	100–240 VAC, 50/60 Hz
Power Consumption	318 W (basic), 453 W (max)
Operating Temperature	0 °C to +40 °C (+32 °F to +104 °F)
Storage Temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Operating Humidity	10%–90% (RH), non-condensing
Storage Humidity	10%–90% (RH), non-condensing
Product Material	Metal casing
Protective Glass	3.2 mm anti-dazzle tempered glass
Casing Color (Frame/Rear)	The left and right sides are black, and the top and bottom are silver.
Product Dimensions	1,953.5 mm × 87 mm × 1,206 mm (76.91" × 3.43" × 47.48") (L × W × H)
Frame Size	Top border: 40.9 mm (1.61"), left and right borders: 17.5 mm (0.69"), bottom border: 65.3 mm (2.57")
Packaging Dimensions	2,090 mm × 227 mm × 1,315 mm (82.28" × 8.94" × 51.77") (L × W × H)
Net Weight	65 kg (143.30 lb)
Gross Weight	88.9 kg (195.99 lb)
Holes Distance	800 mm × 400 mm (31.50" × 15.75")
Installation	Wall mount; mobile bracket
Standby Power Consumption	≤0.5 W
Packing List	1 × Smart interactive whiteboard 1 × Wireless plug-in module 1 × Power cord 2 × Stylus pen 1 × Quick start guide 1 × Legal and regulatory information 1 × Wall mount bracket 1 × Wall-mount screw package 1 × Remote control
Glass Thickness	3.2 mm

Ordering Information		
Type	Model	Description
Smart interactive whiteboard	DHI-LPH86-MC420-C	86 inch Smart interactive whiteboard
Accessories (Optional)	DHI-PKC-MS0A	DHI-PKC-MS0A

Type	Model	Description
Accessories (Optional)	DHI-PKC-WM1A	Omnidirectional Digital Microphone
	DHI-SP-PI7C82IS	Open Pluggable Specification
	DHI-SP-PI5C75IS	Open Pluggable Specification
	DHI-SP-PI7C75IS	Open Pluggable Specification
	DHI-PKC-MS1A	DHI-PKC-MS1A
	DHI-PKC-MS0C	DHI-PKC-MS0C
	DHI-PKC-UC0B	USB Camera
	DHI-SP-PI5C72IS	Open Pluggable Specification
	DHI-PKC-UC0A	USB Camera
	DHI-PKC-MS1C	Mobile Stand
	DHI-SP-PI7C72IS	Open Pluggable Specification
	DHI-PKC-WP1B	Wireless transmitter
	DHI-SP-PI5C82IS	Open Pluggable Specification
	DHI-PKC-MS3B	Mobile Stand
	DHI-PKC-WP0B	Domestic General 22 inch Smart interactive whiteboard
	DHI-PKC-MS2B	Mobile Stand
	DHI-PKC-IP1A	Smart Pen

Accessories

Optional:



DHI-PKC-MS0A
DHI-PKC-MS0A



DHI-PKC-MS0C
DHI-PKC-MS0C



DHI-PKC-MS1A
DHI-PKC-MS1A



DHI-PKC-MS1C
Mobile Stand



DHI-PKC-MS2B
Mobile Stand



DHI-PKC-MS3B
Mobile Stand

Optional:



DHI-PKC-UC0A
USB Camera



DHI-PKC-UC0B
USB Camera



DHI-PKC-WM1A
Omnidirectional Digital
Microphone



DHI-PKP-IP1A
Smart Pen



DHI-PKP-WP0B
Domestic General 22
inch Smart interactive
whiteboard



DHI-PKP-WP1B
Wireless transmitter



DHI-SP-PI5C72IS
Open Pluggable
Specification



DHI-SP-PI5C75IS
Open Pluggable
Specification



DHI-SP-PI5C82IS
Open Pluggable
Specification



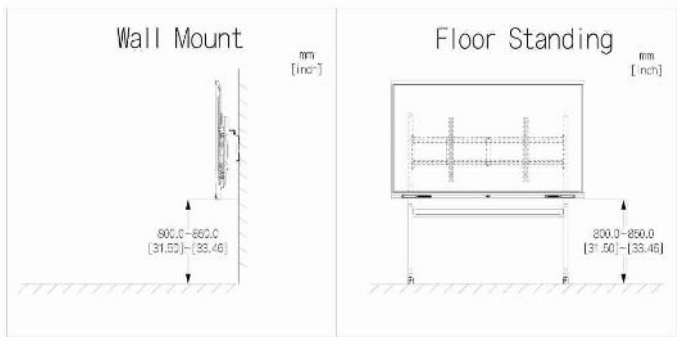
DHI-SP-PI7C72IS
Open Pluggable
Specification



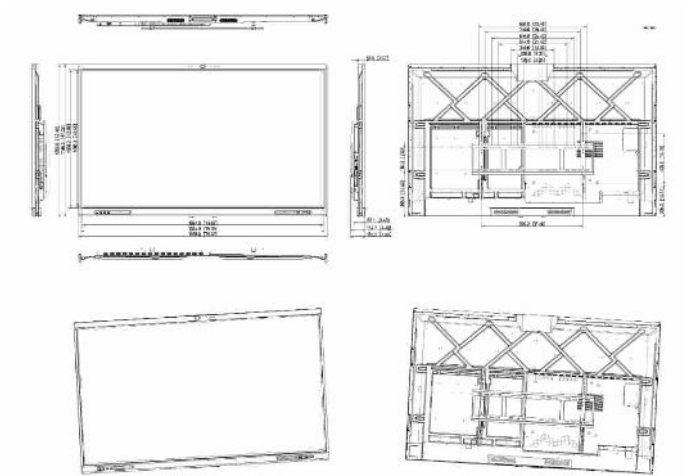
DHI-SP-PI7C75IS
Open Pluggable
Specification



DHI-SP-PI7C82IS
Open Pluggable
Specification



Dimensions (mm[inch])



Panels

