Smart Interactive Whiteboard

Product specifications · models YDH55SH to YDH98SH (55" to 98")

Key features

- **Many devices in one:** combines the functions of a projector, screen, electronic whiteboard, TV, computer, tablet, set-top box, learning device and speaker.
- **Dual operating system:** switch between Android and Windows with one touch. Highly compatible, it runs a wide range of software for office work, teaching, training and presentations.
- **Built-in camera:** 8 MP 4K HD camera (12 MP and 48 MP options available), ideal for internal communications, video conferencing, remote training and distance learning.
- **Built-in microphone array:** two-way voice recognition with clear voice pick-up at 7–8 metres. The 8-microphone array provides effective noise reduction, intelligent filtering of ambient sound and leading echo cancellation, with four key functions: echo cancellation, beamforming, ambient noise suppression and sound source localisation.
- **4K interface:** the Android home screen runs in 4K ultra-high definition for a sharper, more detailed image.
- **4K writing whiteboard:** high-precision ±1 mm original handwriting with custom pen-tip technology and one-touch switching between single-point and multi-point modes. Write with one finger, zoom with two, drag with three and erase with the back of your hand. Copy, insert 2D and 3D shapes, and insert and draw tables with ease. Add pages and preview your work at any time, then save and share it via QR code.
- **Android USB permissions:** lock the USB ports so that a (customisable) password is required to access any USB drive inserted.
- **Magnetic infrared stylus:** the stylus has a built-in magnet so it attaches directly to the left or right of the front frame, ready to write.
- **Document annotation:** open PPT, Word, Excel, PDF and other files directly. Annotate over any screen and save locally or share via QR code.
- **Wireless screen mirroring:** share your phone or tablet screen at ultra-fast 5G Wi-Fi speeds. Android users download the mirroring app (audio and video supported); iOS users mirror directly via AirPlay. Laptops can also share wirelessly with two-way control (wireless mirroring dongle required). Up to four sources can be mirrored at once.
- **VIP welcome:** create a welcome presentation for each visitor at no cost, register visitors and save locally or share via QR code.
- **Voting software:** participants vote from their phones for one or more people, with live results shown on the display.
- **Built-in hardware self-test and maintenance tools:** test the touch frame, PC module and light sensor, with on-screen hints on the cause of any problem, plus system optimisation and display of device parameters and temperature.
- **80-pin Intel OPS slot:** supports standard 80-pin OPS computers for easy maintenance and upgrades.
- **Five-finger screen off, three-finger follow:** turn the screen off and on with five fingers, with different ECO modes; a three-finger floating toolbar follows your hand.
- **Three-way front USB:** front USB ports shared between Android and the OPS computer: two USB 2.0 and one USB 3.0.
- **One-touch start:** three-in-one button for energy saving, environmental friendliness and extended lifetime.
- **Design:** ultra-narrow 1.37 cm frame with rounded corners for safety.

Display

Model	YDH55SH	YDH65SH	YDH75SH	YDH85SH	YDH98SH
Screen size	55"	65"	75"	85"	98"
Active area	1210 × 680 mm	1429 × 804 mm	1650 × 928 mm	1872 × 1053 mm	2158.85 × 1214.35 mm
Resolution	3840 × 2160	3840 × 2160	3840 × 2160	3840 × 2160	3840 × 2160
Backlight	ELED	DLED	DLED	DLED	DLED

Model	YDH55SH	YDH65SH	YDH75SH	YDH85SH	YDH98SH
Brightness (typ.)	300 cd/m²	260 cd/m²	350 cd/m²	350 cd/m²	400 cd/m²

Common display specification	Value
Response time	8 ms
Aspect ratio	16:9
Refresh rate	60 Hz
Colours	1.07 billion (10-bit)
Colour gamut (typ.)	72% NTSC
Contrast ratio (typ.)	5000:1
Viewing angle	178° (H/V)
Lifetime	≥ 30,000 hours

Touch and writing system

Feature	Specification
Technology	Infrared recognition
Compatible systems	Windows 10/8/7/XP, Android, Linux, macOS, Chrome OS
Touch points	20
Minimum detectable object	3 mm
Fine-tip pens	Five 3 mm pens can write simultaneously
Input	Finger, stylus and other opaque objects
Response time	≤ 10 ms
Accuracy	± 1 mm (over 90% of the touch area)
Writing height	3.5 mm
Communication	High-speed USB
Surface hardness	7H
Output coordinates	32767 × 32767

48 MP camera (optional)

Feature	Specification
Module	SYX-4K
Module size	80 × 25 mm (± 0.2 mm)
Object distance	30 cm – ∞
OS requirements	Windows XP/7/10 or Linux 2.6.26; Android 4.0 or later
Sensor	1/2.25" 48 MP
Pixel array	8000 × 6000 @ 5 fps / 3840 × 1920 @ 30 fps
Pixel size	1.4 µm × 1.4 µm
Lens	5P + IR, F2.0, PDAF
Field of view	D 96°, H 73°, V 62°
TV distortion	< 1.5
IR filter	650 ± 10 nm
AGC / AEC / white balance	Automatic
Compression	MJPEG / YUV

Feature	Specification
Output modes	4000 × 3000, 3288 × 2512, 2592 × 1944 and 1920 × 1080, all at 30 fps

13 MP camera (optional)

Feature	Specification
Module	HJY8A_S11-H-V1.0
Module size	L 80 × W 16 mm / L 74.5 × W 15.5 × H 5.4 mm
Object distance	30 cm – ∞
OS requirements	Windows XP/7/10 or Linux 2.6.26; Android 4.0 or later
Sensor	1/3.06" CMOS
Pixel array	3840 × 3104
Pixel size	1.4 µm × 1.4 µm
Sensitivity	0.65 V/(lux·s) @ 550 nm
Maximum frame rate	3840 × 3104 @ 15 fps; 3840 × 2160 @ 30 fps
Lens	5P + IR, F2.0, EFL 2.6 mm
Field of view	D 81°, H 69°, V 54°
TV distortion	< 1
IR filter	650 ± 10 nm
AGC / AEC / white balance	Automatic
Compression	MJPEG / YUV

Microphone array

Feature	Specification
Microphone type	Equidistant linear microphone array
Number of microphones	8
Signal-to-noise ratio	67 dB
Sensitivity	–26 ± 3 dB
Pick-up distance	10 m
Sampling rate	16 kHz
Bit depth	16-bit
Functions	Echo cancellation, beamforming, ambient noise suppression and sound source localisation
Pick-up boards	2 (95 × 6 × 1.6 mm)
Main control board	100 × 17 × 1 mm
System compatibility	Windows 7/10, Android 6.0 and later

Android system configuration

Feature	Specification
Platform	T982
Android version	Android 13
CPU	Quad-core ARM Cortex-A55, 1.8 GHz
GPU	Mali-G52 MP2 (2EE)
RAM	4 GB

Feature	Specification
Storage	32 GB
Wireless network	IEEE 802.11 a/n, 2.4 GHz
Screen-sharing hotspot	IEEE 802.11 a/b/g/n, dual band 2.4 GHz / 5 GHz
Bluetooth	V4.0 (BT 2.1 + EDR / BT 3.0 / BT 3.0 + HS)
Wireless range	12 m

Input/output ports

Port	Specification
AV video input	1 × 3-in-1 terminal (black)
HDMI input	1 × HDMI 2.0
Android USB 3.0	1 × USB 3.0 (horizontal)
Android USB 2.0	1 × USB 2.0 (horizontal)
RS232 control	1 × 9-pin D-SUB (black)
RJ45	1 × network port
Headphone output	1 × headphone jack (black)
Touch output	1 × standard USB type B
AV video output	2 × jacks (black)
Coaxial output (SPDIF)	1 × RCA (yellow)
Front: remote control receiver	1
Front: PC/Android USB	3 × USB shared between the OPS computer and Android
Front: HDMI and touch	1 × HDMI and 1 × touch output, working together
Front: one-touch power button	1

Power, audio and environment

Model	YDH55SH	YDH65SH	YDH75SH	YDH85SH	YDH98SH
Maximum power (excl. PC)	95 W	≤ 135 W	≤ 195 W	≤ 285 W	500 W

Feature	Specification
Power input	100–240 V ~ 50/60 Hz
Standby consumption	≤ 0.5 W
Audio	Stereo, 2 × 12 W full range
Operating temperature	0 °C to 40 °C
Operating humidity	10% – 90% RH
Storage temperature	–20 °C to 60 °C
Storage humidity	10% – 90% RH
Altitude	Below 5000 m

Size and packing

Model	YDH55SH	YDH65SH	YDH75SH	YDH85SH	YDH98SH
Overall dimensions (excl. wall mount)	1270.8 × 775.5 × 64.9 mm	1483.2 × 895 × 91.8 mm	1705.4 × 1020 × 91.8 mm	1951.6 × 1159.6 × 91.8 mm	2216 × 1313.5 × 96.33 mm
Packing dimensions	1370 × 880 × 180 mm	1600 × 1000 × 200 mm	1800 × 1130 × 200 mm	2060 × 1270 × 200 mm	2360 × 1433 × 280 mm
VESA	400 × 400 mm	400 × 500 mm	400 × 600 mm	400 × 800 mm	400 × 1000 mm
Net weight	27 kg	40 kg	56 kg	72 kg	98 kg
Gross weight	32 kg	48 kg	66 kg	83 kg	118 kg

Housing: aluminium profile. Front frame colour: silver top and bottom, black left and right (standard); all-black or all-silver available on request.

Android interface and multi-screen interaction

The Android system includes three built-in home screen themes that can be switched at any time. Android phones, iPhones and laptops can all be cast to the large screen.

Function	Description
Master control	The display can show any device sharing its screen directly.
Multi-screen display	Up to 4 screens displayed simultaneously.
PPT page turning	Gesture control or built-in icons, quick and convenient.
Landscape full screen	Enable full screen in the sharing software settings; full screen also available from a tablet.
Android mirroring	Scan the QR code for instructions, download the app, connect to the display's 5G hotspot, open the app, select the display and tap one-click casting. Audio and video supported.
Windows mirroring	Two options: 1) share via the app over the same local network (smoothness depends on network speed); 2) use the screen-sharing dongle connected to the display's 5G hotspot, with two-way control (best performance, no lag).
iOS mirroring	Connect to the display's 5G hotspot and choose Screen Mirroring on your phone. Audio supported.
Android video / music push	Send local video or music files from your phone to the display; the sender controls volume and playback.
Android image push	Send images to the display; the sender can zoom in and out in real time.
Android document push	Send documents to the display for viewing.
Android remote control	Use your phone as a remote: power on/off, home, back, etc.
Reverse mirroring	Show the large screen on your phone.
Screenshots	Capture the large screen from your phone with one tap.
Camera	Share the camera image to your phone in real time (Android and iPhone).

Design features

- Ultra-narrow bezel with seamless rounded outer corners.
- Front-facing speaker cavity design.
- One-touch power button and front ports (PC/Android USB, PC USB, HDMI, touch).
- Camera integrated into the front frame.
- Pen holders on the left and right of the front frame for easy access.
- Built-in equidistant 8-microphone array.

In the box

Item	Qty
Infrared stylus with built-in magnet	1
Remote control	1
User manual	1
Certificate of conformity	1
Power cable	1

Installation and recommended sizes

Two installation methods: wall mount or mobile stand.

Recommended size	55"	65"	75"	86"	98"
Room area (m²)	10–20	20–30	30–40	≥ 50	≥ 60
Number of people	5–8	20	35	≥ 50	≥ 65

Universal wall bracket YDH-B01 (55"–86")

Installation steps: level and mark, drill, fit the bracket, hang the screen.

Feature	Specification
Model	YDH-B01
Colour	Matt black
Material	Selected thickened cold-rolled steel
Maximum load	≤ 80 kg
Distance from wall	80 mm
Construction	One-piece stamping, no joints

Premium mobile trolley stand (55"–86", optional)

Feature	YDH-Y01	YDH-Y02
Colour	Matt black	Matt black
Material	High-quality cold-rolled steel, pickled, fine matt black electrostatic powder coat	Same as YDH-Y01
Maximum load	95 kg	136 kg
Height range (centre from floor)	1280 to 1700 mm	1280 to 1700 mm
Centre shelf load (documents)	20 kg	20 kg
Base footprint	L 1000 × W 550 mm, 4 nylon castors with foot brake	L 1120 × W 650 mm, 4 nylon castors with foot brake
Outer packing	L 1600 × W 695 × H 120 mm	L 1600 × W 695 × H 120 mm
Recommended screen size	55" – 65"	75" – 86"

OPS computer (optional)

Fitted with an Intel Core processor, with one-click switching between Android and Windows.

Feature	Specification
Model	i3 / i5 / i7
Type	Ultra-slim plug-in modular Intel Core computer
Recommended configurations	i3, i5 or i7 with 4 GB DDR4 and 128 GB M.2 SSD
Graphics	Intel HD Graphics (integrated)
Wi-Fi	IEEE 802.11 a/n, 2.4 GHz
Sound	Integrated high-definition stereo sound card
Operating system	Windows 7 / 10 Enterprise
Ports	HDMI out ×1, USB 2.0 ×2, USB 3.0 ×2, mic in ×1, audio out ×1, VGA out ×1, RJ45 ×1
Compatible OPS sizes	195 × 180 × 42 mm / 195 × 180 × 33 mm / 195 × 180 × 30 mm

With our OPS computer, the following teaching software is included: a free early-years education package with animated lessons for small, medium and large groups; a teaching management platform for primary and secondary education with simulated experiments, homework questions and digital campus tools (some modules are paid); and Whiteboard 3.0, a free digital whiteboard with ±1 mm infrared writing, 20-point multi-user writing, pen types and colours, teaching shapes, screen shade, magnifier, eraser, page management, copy/paste/clone, backgrounds and recording.

Wireless screen-sharing device QS36-2 (optional)

Smart wireless dongle that casts a computer screen to the display with two-way control, for simple, interactive collaboration.

Feature	Specification
Model	QS36-2
Set-up	No configuration or installation required
Interface	USB
Compatible systems	Windows 7/8/10, Apple Mac
Resolution	720p – 1080p
Frame rate	30–60 fps (audio and video)
Total latency	90–180 ms
Display mode	Extended desktop supported (Windows 7/10)
Reverse touch control	10-point touch feedback (Windows 7/8/10); mouse mode (Windows, Mac)
Connections	1–8 (more than 8 requires an additional professional router)
Simultaneous channels displayed	1–9, depending on the receiver
Wireless rate	Transmitter 300 Mbps
Wireless protocol	IEEE 802.11 a/g/n/ac
Frequency band	5.8 GHz
Encryption	AES
Authentication	WPA2-PSK

Smart pens (optional, choose one)

1. YDH-1 smart presenter: plug and play. Touch writing, PPT page turning, full screen, annotation and air-mouse function, widely used in education, training, business, industry and conferences. Instructions included.

2. YDH-BS smart pen: an active, pressure-sensitive infrared smart pen offering a natural interactive experience for education, training, business and conferences.

Feature	Specification
Bluetooth	BLE 4.1, up to 15 m in open spaces
Pressure sensing	2048 levels for a natural handwriting feel
Electrical	Charging voltage 5 V, current < 125 mA, USB Type-C charging port
Interfaces	USB 3.0 / 2.0 / 1.1
Requirements and capabilities	Windows 10 version 1709 or later. One-click launch of whiteboard or PPT writing; 2048-level pressure-sensitive handwriting; one-click full screen, page forward/back and exit; annotations saved in Office; air mouse with spotlight, magnifier and laser pointer.
Top button	Single click: open/close app · Double click: hide screenshots
Motion control	Click: air mouse, spotlight, magnifier, laser pointer · Long press: follow
Page Up	Click: previous page · Long press: start slideshow
Page Down	Click: next page · Long press: exit slideshow
Erase button	Click: change ink colour (four colours) · Long press: erase

Applications

Training organisations, remote negotiations, academic exchange, maker spaces, company meetings and training courses.

Safety notes

- This product is suitable for use only at altitudes below 5,000 metres.
- This product is suitable for safe use only in non-tropical climates.
- The environmental protection use period is ten years. Under normal use, hazardous substances in this product will not leak or change in a way that causes serious environmental pollution, personal injury or property damage.
- Functions marked with the corresponding symbol in this product manual require the relevant optional hardware and software licences.
- This is a Class I device and must be connected to a mains socket with a protective earth connection. When connected to a coaxial-cable aerial socket, the protective earth must be isolated from the device; failure to do so may cause a fire risk.

Please contact us for current lead times and pricing. Specifications may change without prior notice as products are continuously improved. Images are for illustration only.