



# Intelligent interactive flat panel

## TV-X8198 ( Specification TV-X8198A1)



### Description

itc HUB intelligent interactive flat panel focuses on small and medium-sized conference rooms and creates a small conference center. The product integrates high-definition display, digital whiteboard, 4K camera, array microphone, intelligent central control, high-quality audio and other functions; equipped with Windows 10 IoT system, it meets the needs of conference presentation, writing, interaction, collaboration, sharing, video, data security, environmental monitoring and control, and covers the entire process of the meeting.

### Feature

- \*98-inch DLED LCD screen with full HD 4K system icon display, simple business style design, the whole adopts all-aluminum alloy material with aurora purple color, ultra-narrow bezel design with a screen ratio of up to 90%, ultra-thin screen, hidden port, simple and atmospheric shape.
- \*Built-in non-independent computer module, all conference functions are run in the computer module, and the computer module uses Windows 10 IoT genuine activated operating system.
- \*The national secret SM2 and SM3 encryption algorithms are used to encrypt data files and keep the encryption state during transmission to ensure the security and reliability of data transmission and storage; comply with national safety standards and enhance the overall information security protection capabilities.
- \*It has a 48MP high-definition camera, a field of view of 118°, 8 array microphones, and a sound pickup distance of up to 12 meters; the camera has multiple camera modes such as smart framing and speaker tracking.
- \*The camera and microphone are detachable modules, with 12 pogo pin magnetic interface design, no additional wiring is required, and physical protection is used to prevent the leakage of meeting information.
- \*The camera module has a knob lens privacy cover, and users can turn off the lens when the camera is not in use to ensure privacy and security.
- \*AI noise reduction can automatically eliminate 300 common noises, such as keyboard typing, chair moving, and air conditioning vibration.
- \*Ultimate audio experience: The product adopts a 2.1-channel design with 3 sound chambers: 1×32W (bass) + 2×20W (mid-high) gap sound speakers; with 5 sound effect options (standard, conference, human voice, music, theater) to meet the needs of different scenarios.
- \*It has a Type-C full-function interface, which can realize screen projection, reverse control, and audio and video signal transmission functions.
- \*It has an HDMI loop-out interface and a DP input interface, supporting 4K 60Hz.
- \*It has a smart button, built-in infrared sensor, temperature and humidity sensor, and light sensor, combined with IoT sensing technology, to support real-time monitoring and display of temperature and humidity.
- \*It has 1 RS232, 2 IO, and 2 RELAY IoT central control interfaces, which are convenient for integration and management with other devices, realize intelligent environmental control, and improve the user experience and comfort.
- \*It has a built-in storage battery and supports abnormal power-off protection function. After an abnormal power-off, the internal battery is enabled to automatically save the meeting materials and meeting progress, and it can continue to be used after power-on.
- \*It has a high color gamut of 85% NTSC, and the image display is clear, colorful, and saturated, and the picture details are truly restored.
- \*It has a hardware-level blue light protection mechanism, with a blue light ratio of less than 25%, which can effectively filter and reduce the radiation of high-energy short-wave blue light, so as to achieve long-term viewing without fatigue and ensure the health of users' eyes.
- \*The display screen adopts high-precision touch technology, which can accurately identify touch objects with a diameter of 1.6 mm, ensuring a delicate operation experience.



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- \*The whole screen and the screen protection layer adopt zero-fit technology to effectively prevent light reflection.
- \*Using advanced anti-glare (AG) tempered glass material, it effectively suppresses ambient light interference and screen reflection, significantly reduces the discomfort caused by glare to vision, ensures viewing comfort, and provides a softer visual experience.
- \*Supports multiple wake-up methods. In the screen-off state, you can wake up the device screen by keeping looking, picking up the pen to wake up, double-clicking the touch screen, and pressing the button. The gaze wake-up method can customize the gaze time, and the pen wake-up can quickly use the whiteboard and annotation functions.
- \*It has a borderless document design. When the user opens the document, it automatically enters the document presentation mode. The document content will be displayed in full screen. During the document presentation, you can annotate, play videos, split the screen whiteboard, insert picture materials, and there is no limit to the picture stacking, which meets the needs of displaying more document content.
- \*It has a pre-meeting welcome interface function, which can add background audio, video, and pictures, and can customize the welcome interface theme.
- \*It has a quick meeting mode to meet temporary meetings, multi-person discussions, brainstorming and other activities.
- \*It has a confidential meeting mode. After the confidential meeting is turned on, the meeting materials cannot be downloaded, and the meeting materials are automatically burned after the meeting. The materials used during the meeting and the temporarily cached files are automatically encrypted and cannot be opened after the meeting. It has an interface watermark that covers the entire meeting to prevent taking photos and recording videos, and leaking meeting information.
- \*It has quick voting and custom voting/scoring functions, and has voting and satisfaction evaluation templates; the voting methods are divided into scanning code voting and raising hands voting. Scanning code voting can choose anonymous voting and real-name voting, and voting/scoring can be customized.
- \*It has a scan code sign-in function. You can sign and watch during the meeting. After scanning the code to sign in, the name of the sign-in person will be displayed in real time.
- \*It has a conference screen recording function, which supports the selection of 2K and 4K resolutions. It supports multiple screen recording saving methods, which can be scanned and taken away or saved locally, in the meeting, or in a USB flash drive.
- \*Supports multiple screen projection methods such as NFC touch transmission, wireless screen projection, wired screen projection, and one-click screen projection by screen projection device; supports mixed screen projection display of mobile phones and computers, and supports up to four screens on the same screen; the computer side supports reverse operation of the projection content.
- \*Supports application screen projection, for example, specifying browser screen projection, specifying document screen projection; other application messages do not pop up, and other tasks can be processed during the screen projection process to protect privacy.
- \*Supports mixed split screen, and can display whiteboard, dynamic video, audio, document, annotation and other pages at the same time in the meeting. It can display any split screen in full screen or compare different solutions, and supports 4 split screens.
- \*Supports document presentation function. During the document presentation process, annotations and video playback can be made to meet the needs of more content document presentation.
- \*Supports scanning QR code to upload multiple file formats in the meeting, including MP4, MP3, PDF, WORD, XLSX, text, JPG, PNG, etc., which can be directly viewed and annotated.
- \*Support whiteboard writing; support inserting image materials into the whiteboard; support multi-point writing; support gesture erasing, sliding screen clearing, circle eraser, pixel eraser and other erasing methods; with infinite canvas, two-finger zoom function; support multiple whiteboard file saving formats, which can be saved in PNG, PDF, WORD, PPT.
- \*The whiteboard supports OCR intelligent text recognition and graphic recognition functions, which can automatically convert the written fonts and patterns into standard text and graphics.
- \*Support full-channel annotation function, you can choose a variety of annotation saving methods, you can scan the code to take away or save to local, conference, U disk.
- \*Support PPT speech countdown mode.
- \*It has the function of post-meeting file archiving. The sign-in, voting results, and conference screen recording audio and video can be saved locally or uploaded to the comprehensive management platform.

## Product comprehensive management platform function

- \*It has a smart conference management platform. The platform adopts B/S architecture and supports Windows, Linux, MacOS, Android, IOS and other operating systems to log in to the control software to meet different needs on site.
- \*The comprehensive management platform has multiple account permissions for ordinary users and administrators; the platform has a backend data dashboard function, which can view the number of conference rooms, conference room usage, equipment online and offline status, and user account status. It can count the number of daily attendees, daily meeting duration, daily number of meetings, daily active users, etc. by month, week, and day, which is convenient for statistical analysis and unified management, without the need to configure a separate cloud platform.



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\*It has the function of creating meetings, and can reserve meeting rooms and meeting times in advance. After the reservation is successful, the device homepage will display the list of meetings for the day in real time; the meeting list can view information such as the host and meeting time; it can set whether the meeting is encrypted and whether the data is allowed to be downloaded, and the storage time of historical meetings can be set, which can be selected from 6 months, 12 months, and permanent.

\*It supports web-based login to the management platform, which can view unit meetings and historical meetings. Historical meetings display the meeting name, meeting reservation person, meeting number, meeting start time, and whether the video is recorded. It can view/export pre-meeting sign-in and voting results, and meeting recording videos.

\*It has a meeting setting function, which can set whether the meeting files are encrypted. If file encryption is turned on, the meeting materials cannot be saved locally on the client and cannot be shared. After the meeting, the materials cannot be viewed locally and can only be viewed and downloaded through the background.

## Specification

<b>Processor</b>	Intel i3 11th generation processor, maximum turbo frequency 4.10GHz
<b>System version</b>	Windows 10 IoT Enterprise Entry
<b>Memory</b>	8 GB
<b>Storage</b>	512GB
<b>Display type</b>	DLED LCD display
<b>Display size</b>	98 inches (16:9)
<b>Screen display size</b>	2160.8mm × 1216.4mm
<b>Physical resolution</b>	3840 (H) × 2160 (V)
<b>Color gamut NTSC</b>	85 %
<b>Color</b>	1.07B(10bit)
<b>Screen brightness</b>	350CD/m <sup>2</sup> ( min. ) 400CD/m <sup>2</sup> (typ.)
<b>Contrast</b>	1200:1(typ.) 5000:1(max)
<b>Anti-blue light</b>	support
<b>Anti-glare</b>	support
<b>Frame rate</b>	60Hz
<b>Viewing angle</b>	178°(H/V)
<b>Camera Type</b>	Magnetic camera, pluggable, plug and play
<b>Pixel camera</b>	48 MP
<b>Maximum field of view</b>	118°±5°
<b>Horizontal field of view</b>	108°±5°
<b>Lens focus</b>	auto focus
<b>Distortion rate</b>	No distortion
<b>Angle adjustment</b>	Adjust down 15°
<b>Low light</b>	New CMOS image sensor, using noise reduction algorithm to significantly reduce image noise, image noise ratio ≥ 64dB
<b>Drive standards</b>	UVC/UAC national standard
<b>Camera module dimensions(Length × Thickness × Height)</b>	301mm×61mm×46mm
<b>Microphone pickup distance</b>	12m
<b>Input interface</b>	1*LAN ; 1*TOUCH ; 1*HDMI-IN ; 1*DP-IN ; 1*VIDEO-IN ( USB-C+reverse control ) ; 1*LINE-IN ; 1*MIC-IN ; 4*USB-A ; 1*USB-C ; 1*RS232 ; 2*IO ; 2*RELAY
<b>Touch sensing format</b>	HID standard
<b>Output interface</b>	1* HDMI -OUT ; 1* LINE - OUT ;
<b>Touch sensing technology</b>	Infrared sensing touch recognition technology
<b>Maximum number of input points</b>	40 points
<b>Response time</b>	8ms (typ.)
<b>Writing method</b>	Finger, stylus, or other opaque objects
<b>Writing height</b>	2.0mm
<b>Touch accuracy</b>	The middle 90% touch area is ±1mm
<b>Two-point recognition distance</b>	>20mm
<b>Theoretical clicks</b>	Unlimited
<b>Touch diameter</b>	Single point ≥1.6mm, multiple points ≥2mm
<b>Glass specifications</b>	3.2mm tempered glass
<b>Writing screen surface hardness</b>	9H
<b>Glass haze</b>	3%-8%
<b>Visible light transmittance</b>	≥88%



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<b>Color temperature (source)</b>	Min. 8000K Type 9500K Max. 11500K
<b>Interpolation resolution</b>	32768 × 32768
<b>Operating voltage</b>	DC 5V±5%
<b>Power</b>	≤2.5W
<b>WiFi</b>	WiFi6 2.4GHz/5GHz
<b>Bluetooth</b>	Bluetooth 5.2
<b>Power supply</b>	90-264V~50/60HZ input
<b>Standard power consumption</b>	≤460W
<b>Standby power consumption</b>	< 0.5W
<b>Audio channels</b>	2. 1 channel
<b>Maximum sound power</b>	2 × 20 W @ 4 Ω + 1 × 32 W @ 4 Ω
<b>Storage temperature</b>	-10°C~+60°C
<b>Storage humidity</b>	10%~80%RH, non-condensing
<b>Operating temperature</b>	0°C~+40°C
<b>Operating humidity</b>	20%~80% RH , non-condensing
<b>Operating altitude</b>	≤5000m
<b>Bare metal dimensions (length x thickness x height)</b>	2231.3 mm × 122.2 mm × 1302.8 mm
<b>Packing size (length x thickness x height)</b>	2525 mm × 435 mm × 1750 mm
<b>Display size</b>	2160.8 mm × 1216.4 mm
<b>Thickness</b>	122.2mm
<b>Net weight</b>	117 kg
<b>Gross weight</b>	143 kg
<b>Shell color</b>	Aurora Purple
<b>Housing material</b>	Aluminum profile/sheet metal
<b>Wall mounting holes (VESA) 4-M8 screw holes</b>	800mmx600mm
<b>Service life</b>	50,000hrs(min.)
<b>Duration</b>	18 hours×7 days