



Interactive Intelligent Flat Panel

TV-X8165 (Specification TV-X8165A)



Description

Interactive intelligent flat panel are mainly used in small and medium-sized conference rooms to create small conference centers. 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.

Features

I. Product hardware/software functions:

- *The 1.65-inch DLED LCD screen features a Full HD 4K system icon display and a simple, business-inspired design. Made entirely of aluminum with an Aurora Purple finish, it boasts an ultra-narrow bezel design with a 90% screen-to-body ratio, an ultra-thin body, and hidden ports, creating a simple and elegant design.
- *A built-in, non-independent computer module runs all meeting functions. The computer module uses a genuine, activated Windows 10 IoT operating system.
- *Data files are encrypted using the national SM2 and SM3 encryption algorithms and remain encrypted during transmission, ensuring the security and reliability of data transmission and storage. This complies with national security standards and enhances overall information security.
- *It features a 48MP HD camera with a 118° field of view and eight microphone arrays, enabling a voice pickup range of up to 12 meters. The camera also features multiple recording modes, including smart framing and speaker tracking.
- *The camera and microphone are detachable modules with 12 magnetic Pogo pin connectors, eliminating the need for additional wiring and providing physical protection against the leakage of meeting information.
- *The camera module features a rotary lens privacy cover, allowing users to close the lens when not in use, ensuring privacy and security.
- *AI noise reduction automatically eliminates 300 common noises, such as keyboard tapping, chair movement, and air conditioner vibrations.
- *Ultimate audio experience: The product adopts a 2.1-channel design with three sound chambers: 1 x 32W (bass) + 2 x 20W (mid-treble) slot-firing speakers. Five sound effects options (standard, conference, vocal, music, and cinema) are available to meet the needs of different scenarios.
- *It features a full-function Type-C port, enabling screen projection, reverse control, and audio and video signal transmission.
- *It features an HDMI loop-through port and a DisplayPort input port, supporting 4K 60Hz.
- *It features a smart button with built-in infrared sensors, temperature and humidity sensors, and a light sensor. Built-in IoT sensing technology supports real-time temperature and humidity monitoring and display, and automatically adjusts the brightness of the all-in-one device based on ambient light to provide the most comfortable display brightness.
- *Equipped with one RS232, two I/O ports, and two RELAY IoT central control interfaces, it facilitates integration and management with other devices, enabling intelligent environmental control and enhancing user experience and comfort.
- *A built-in battery storage function supports power outage protection. After an abnormal power outage, the internal battery automatically saves meeting materials and progress, allowing continued use upon power restoration.
- *With an 85% NTSC high color gamut, images are displayed with clarity, vibrant colors, and saturation, faithfully reproducing image details.
- *A hardware-level blue light protection mechanism with a blue light ratio of less than 25% effectively filters and reduces high-energy short-wave blue light radiation, ensuring fatigue-free viewing for extended periods and protecting user eyes.
- *The display utilizes high-precision touch technology, accurately recognizing touch objects with a diameter of 1.6 mm, ensuring a smooth user experience.
- *The screen and screen protector utilize zero-lamination technology to effectively prevent light reflections.
- *Made of high-grade anti-glare (AG) tempered glass, it effectively suppresses ambient light interference and screen reflections, significantly reducing visual discomfort caused by glare, ensuring comfortable viewing while providing a softer visual experience.
- *Supports device detection, which checks the integrity of the motherboard hardware and the functioning of connected devices.
- *Supports signal source preview. After connecting a signal source, you can preview the PC, HDMI IN, DP IN, and Type-C signal sources in the signal source menu bar; you can switch between them with one click.
- *Supports gaze power-on, and quick power-off mode.
- *Supports multiple wake-up methods: In the screen-off state, you can wake the device by maintaining gaze, raising the pen to wake up, double-clicking the touch screen, or pressing a button. The gaze wake-up method allows you to customize the gaze time, and the pen-raising method allows quick access to the whiteboard and annotation functions.



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*Supports voice assistant assistance, allowing you to control key functions such as starting and ending a meeting, turning the screen off, and shutting down the device.

*A borderless document design automatically enters presentation mode upon opening a document, displaying the document's contents full screen. During the presentation, users can annotate, play videos, and use a split-screen whiteboard. They can insert images with unlimited image layering. Annotations can be saved as PDFs to showcase more document content.

*A pre-meeting welcome screen allows for adding background audio, video, and images, and customizing the welcome screen theme.

*A quick meeting mode is available for impromptu meetings, multi-person discussions, brainstorming sessions, and other activities.

*A confidential meeting mode prevents downloading of meeting materials and automatically incinerates them after the meeting. Meeting materials and temporarily cached files are automatically encrypted and cannot be opened after the meeting. A watermark covers the entire meeting to prevent photo recording and the leakage of meeting information.

*The user can switch between meeting mode and simple mode. In simple mode, only the whiteboard, screen projection, and document presentation are visible on the main interface. A quick return to Windows function is also supported.

*Supports two voting modes: QR code scanning (with options for anonymous or real-name voting, and support for customizable settings such as single-choice, multiple-choice, and rating) and intelligent hand-raising voting (automatically counting the number of hands raised in person using AI visual recognition technology). The system includes built-in standardized templates for voting and satisfaction assessments. All voting data is aggregated in real time and automatically generated into visual reports (supporting bar charts and tables), ensuring efficient and transparent meeting decision-making.

*A QR code check-in function allows instant sign-in and viewing during the meeting. The name of the sign-in person is displayed in real time after scanning the QR code, and multiple facial recognition check-in functions are available.

*Meeting screen recording is available with 2K and 4K resolutions. Multiple screen recording storage methods are supported: scan the QR code to take the recording away or save it to a local computer, the conference room, or a USB flash drive.

*Supports multiple screen projection methods, including NFC touch transfer, wireless screen projection, wired screen projection, and one-touch screen projection from a screen projector. Supports mixed mobile and computer screen projection, with up to four screens displayed simultaneously. The computer supports reverse operation of the projected content.

*Supports application screen mirroring, such as specific browsers and documents. Other application messages do not pop up, and other tasks can be performed during the screen mirroring process, protecting privacy.

*Supports mixed split screens, allowing simultaneous display of whiteboards, dynamic videos, audio, documents, annotations, and other pages during a meeting. Any split screen can be displayed in full screen or different solutions can be compared. Up to eight split screens are supported.

*Pre-meeting files can be uploaded through the Smart Conference Management Platform and viewed directly after entering the meeting via the Smart Conference Panel. Multiple conference panels can also be joined to view files simultaneously.

*Supports shared documents and shared whiteboards, enabling simultaneous collaboration across multiple conference panels. Joining a meeting using the meeting ID allows for shared whiteboards and cloud storage files for remote collaboration.

*Supports quick file transfers, allowing users to scan and upload files in various formats, including MP4, MP3, PDF, WORD, XLSX, text, JPG, PNG, and more. Files can be viewed and annotated directly, and quickly inserted into the whiteboard.

*Supports whiteboard writing; supports inserting images, Office documents, PDFs, document files, and other materials into the whiteboard; supports inserting tables; supports canvas preview; supports multi-touch writing; supports multiple erasing methods such as gesture erasing, swipe to clear the screen, circle eraser, and pixel eraser; features an infinite canvas and two-finger zoom; supports multiple whiteboard file saving formats, including PNG, PDF, Word, and PPT.

*The whiteboard supports OCR intelligent text recognition and image recognition, automatically converting handwritten fonts and patterns into standard text and images.

*Supports full-channel annotation, with multiple options for saving annotations: scan a QR code to take them away or save them to a local device, the conference room, or a USB drive.

*Supports countdown mode for PPT presentations.

*Supports post-meeting archiving, allowing attendance, voting results, and meeting recordings to be saved locally or uploaded to the integrated management platform.

*Supports a five-finger long press to wake up the circular menu bar, allowing quick app opening. Supports customizable circular menu apps, including tools like Tencent Meeting, check-in, voting, taking photos, signature walls, and a calculator.

*Features an app market where users can download, install, and uninstall apps as needed.

*Integrated with the Doubao AI model, it provides real-time intelligent Q&A for meeting participants. During the meeting, participants can ask questions via voice, and the AI assistant will generate accurate answers and display them in a dedicated answer box.

*Integrating with the central control system, it supports direct voice control of meeting room lighting and air conditioning, as well as controlling the smart conference tablet to open files and activate the whiteboard.

*Integrated with the Doubao AI model, it provides intelligent voice file retrieval, allowing users to quickly retrieve and open locally stored files using natural voice commands (such as "Open the 2023 Q4 financial report"), significantly improving file retrieval efficiency.

*It has AI meeting minutes function, records audio files during the meeting, intelligently summarizes the meeting content after the meeting, generates meeting summary, agenda, decision, to-do items, meeting keywords, etc., and supports viewing through web pages and H5 pages.

II. Product comprehensive management platform functions:

*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 background data dashboard function, which can view the number of conference rooms, conference room usage, equipment online and offline status and user account status, and can count the number of daily participants, daily meeting duration, daily number of meetings, daily active users, etc. on a monthly, weekly and daily basis, which is convenient for statistical analysis and unified management without the need to configure a cloud platform separately.

*Administrators have user management privileges and can invite users, edit user names, departments, titles, and enter photos. Administrators can disable and enable regular users, and batch import accounts is supported.

*The device supports creating meetings, allowing users to reserve meeting rooms and times in advance. Once a reservation is successfully made, the device homepage displays a real-time list of meetings for the day. Information such as the host and meeting time can be viewed in the meeting list. The device can set whether the meeting is encrypted, whether downloads are allowed, and how long historical meetings can be saved (6 months, 12 months, or permanently). Meeting files can be uploaded in advance through the Smart Meeting Management Platform, and voting and ratings can be created.

*The device supports web login to the management platform, allowing users to view unit meetings and historical meetings. Historical meetings display the meeting name, booker, meeting number, start time, and whether video recording is available. Users can also view/export pre-meeting check-in and voting results, as well as recorded meeting videos.

*Device management is supported, allowing users to batch control device power on/off, perform device inspections, and perform remote control.

*Meeting settings allow you to set whether meeting files are encrypted. Enabling file encryption prevents in-meeting materials from being saved locally or shared. Post-meeting materials are not accessible locally and can only be viewed and downloaded through the backend.

*An AI model application mini-program supports cloud platform registration and login; invitations and unit creation; meeting scheduling, conference room management, device control, and meeting minutes viewing.

III. Product video conferencing software functions:

*Built-in video conferencing software, supports ITU-T H.323 communication protocol, conference rate supports 128Kbps~8Mbps; supports H.264 Baseline Profile, H264 High Profile video protocol.

*Supports 640×480 30fps, 1280×720 30fps, 1920×1080 30fps, 2560×1440 30fps, 3840×2160 30fps, 4000×3000 25fps, 6000×8000 5fps HD resolution encoding and decoding.

*Integrated address book and call record function modules.

*Supports common functions such as switching templates and chairman control.

*Supports joining the corresponding meeting without registration, just enter the meeting number, and can choose to join in the meeting interactive mode or live broadcast mode.

*One-click convening of an immediate meeting can quickly create a virtual meeting on the MCU and automatically join the meeting. The venue can be invited to join the meeting. The meeting supports electronic whiteboard, file sharing, electronic voting, meeting sign-in and other functions.

*Supports scheduled meetings. You can select members, set meeting passwords, chairman passwords, live broadcast passwords, meeting time, etc. After submission, the MCU automatically convenes the meeting according to the meeting time. The meeting supports electronic whiteboard, file sharing, electronic voting, meeting sign-in and other functions.

*Supports switching from live broadcast mode to conference mode or from conference mode to live broadcast mode. The conference mode supports electronic whiteboard, file sharing, electronic voting, meeting sign-in and other functions.

*The screen layout supports automatic split screen function, automatically selects the appropriate layout according to the number of terminals joining the meeting and automatically opens the screen; supports automatic fill function, selects a fixed screen layout, and the terminal automatically opens in an idle window after joining the meeting.

*Supports data conference functions such as meeting sign-in, electronic whiteboard, electronic voting, file sharing, etc., to meet the application needs of scenarios such as remote meetings and training.

*Supports multi-screen layout, single screen supports 25 channels of screen display at the same time.



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Specification

Processor	Intel i3 11th generation processor, maximum turbo frequency 4.10GHz
System version	Windows 10 IoT Enterprise Entry
Memory	8GB
Storage space	128GB
Display type	LCD display
LCD panel	IPS
Backlight mode	DLED
Display size	65 inches (16:9)
Physical resolution	3840 (H) ×2160 (V)
Color gamut NTSC	85%
Color saturation	1.07B(10bit)
Screen brightness	350CD/m ² (min.) 400CD/m ² (typ.)
Contrast ratio	1200:1(typ.) 5000:1(max)
Anti-blue light	Support
Anti-glare	Support
Display frame rate	60Hz
Viewing angle	178°(H/V)
Camera type	Magnetic camera, pluggable, plug and play
Camera privacy cover	Support
Camera pixels	4800W
Maximum field of view angle	118°±5°
Horizontal field of view angle	108°±5°
Lens focus	Autofocus
Distortion rate	No distortion
Angle adjustment	15° downward adjustment
Low illumination	New CMOS image sensor, using noise reduction algorithm to significantly reduce image noise, image signal-to-noise ratio ≥64dB
Drive standard	UVC/UAC national standard
Camera appearance dimensions (w*h*d)	301mm×61mm×46mm
Microphone pickup distance	12m
Input interface	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
Output interface	1×HDMI-OUT ; 1×LINE-OUT
Touch sensing technology	Infrared sensing touch recognition technology
Touch output form	HID standard
Maximum number of input points	40 points
Response time	8ms (typ.)
Writing method	Opaque objects such as fingers and touch pens
Writing height	2.0mm
Touch accuracy	The middle 90% touch area is ±1mm
Two-point recognition distance	≥10mm
Theoretical number of clicks	Unlimited times
Touch diameter	Single point ≥1.6mm, multiple points ≥2mm
Glass specifications	3.2mm tempered glass
Writing screen surface hardness	9H
Glass haze	3%-8%
Visible light transmittance	≥88%
Optical depth	20mm
Color temperature (under signal source)	Min: 8000K ; Type: 9500K ; Max: 11500K
Interpolation resolution	32768 × 32768
Working voltage	DC 5V±5%
Touch screen power	≤2.5W
WiFi	WiFi6 2.4GHz/5GHz
Bluetooth	Bluetooth 5.2
Power supply	100-240V~50/60HZ input
Standard power consumption	≤460W
Standby power consumption	≤0.5W



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Audio channel	2.1 channel
Maximum audio power	2×20W @ 4Ω+1×32W @ 4Ω
Storage temperature	-10°C~+60°C
Storage humidity	10%~80%RH, non-condensing
Operating temperature	0°C~+40°C
Operating humidity	20%~80%RH, non-condensing
Operating altitude	≤5000m
Display size (length × height)	1428.5mm × 803.5mm
Screen size (length × thickness × height)	1482.7mm × 98.2mm × 876.6mm
Complete machine size (length × thickness × height)	1482.7mm × 102.3mm × 882.8mm
Wall-mounted installation size (length × thickness × height)	1482.7mm × 121.1mm × 923.7mm
Packaging size (length × thickness × height)	1660mm × 220mm × 1010mm
Thickness	102.3mm
Net weight	47.1kg
Gross weight	58.2kg
Casing color	Aurora purple
Casing material	Aluminum profile/sheet metal
Wall-mounted hole (VESA) 4-M8 screw hole	600mmx400mm