



Interactive Intelligent Flat Panel

TV-X8165 (Specification TV-X65A)



Description

itc HUB interactive intelligent flat panel focuses on small and medium-sized conference rooms to create a small conference center. The product integrates high-definition display, digital whiteboard, high-quality audio and other functions; equipped with Windows 10 IoT Enterprise Entry system, it meets the needs of conference presentation, writing, interaction, collaboration, sharing, video, data security, etc., covering the entire process of the meeting.

Features

Product hardware/software functions:

- *The 1.65-inch DLED LCD display features a Full HD 4K system icon display and a simple, business-inspired design. Made of an all-aluminum alloy with an Aurora Purple color scheme, the ultra-narrow bezel design boasts 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 conferencing functions and utilizes the 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 12 magnetic Pogo pin connectors and an optional smart camera module (a detachable 48MP HD camera and 8-array microphone). This eliminates the need for separate wiring and provides physical protection against the leakage of meeting information.
- *Ultimate Audio Experience: This product features a 2.0-channel design with two sound chambers: 2 x 20W (mid-high-range) slot-firing speakers; and five sound effects (standard, conference, vocal, music, and cinema) to meet the needs of various scenarios.
- *A full-function Type-C port enables screen projection, reverse control, and audio and video signal transmission.
- *It features an HDMI loop-through port and a DisplayPort input, supporting 4K 60Hz.
- *It features one RS232, two I/O ports, and two RELAY IoT central control ports for easy integration and management with other devices, enabling intelligent environmental control and enhancing user experience and comfort.
- *It has a built-in battery and supports power-off protection. In the event of an unexpected power outage, the internal battery automatically saves meeting materials and progress, allowing continued use upon power-up.
- *It features an 85% NTSC color gamut for crisp, vibrant, and saturated images, faithfully reproducing detailed images.
- *A hardware-level blue light protection mechanism with a blue light ratio of less than 25% effectively filters and reduces high-energy, short-wavelength blue light radiation, ensuring fatigue-free viewing for extended periods and protecting eye health.
- *The display utilizes high-precision touch technology, accurately recognizing objects as small as 1.6mm in diameter, ensuring a smooth user experience.
- *The screen and screen protector utilize zero-lamination technology to effectively prevent light reflections.
- *Made of premium anti-glare (AG) tempered glass, it effectively suppresses ambient light interference and screen reflections, significantly reducing visual discomfort caused by glare, ensuring comfortable viewing and providing a softer viewing experience.
- *Supports device detection, which verifies 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, and switch between them with one click.
- *Supports gaze-activated power-up: In Quick Shutdown mode, you can gaze-activated the device.
- *Supports multiple wake-up methods. When the screen is off, you can wake it up by lifting a pen, double-clicking the screen, or pressing a button. Lifting a pen allows quick access to whiteboard and annotation features.
- *Supports an optional smart camera module for voice assistant assistance, allowing you to control key functions such as starting and ending a meeting, turning off the screen, and shutting down the device.
- *With a borderless document design, users automatically enter document presentation mode upon opening a document, displaying the document content full screen. During the presentation, you can annotate, play videos, and use a split-screen whiteboard. You can insert images with unlimited image overlays, and save annotations to PDF files to showcase more document content.
- *A pre-meeting welcome screen is available, allowing you to add background audio, video, and images, and customize the welcome screen theme.
- *A quick meeting mode is available for impromptu meetings, multi-person discussions, brainstorming sessions, and other activities.
- *Features a switch between meeting mode and simple mode. Simple mode retains only whiteboard, screen projection, and document presentation functions, and adds a quick return to Windows feature.
- *Supports two voting modes: QR code scanning (with options for anonymous or real-name voting, and supports multiple custom options such as single-choice, multiple-choice, and rating) and smart hand-raising voting (automatically counting the number of hands raised in the room 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.
- *Features a QR code sign-in function, allowing users to sign in and view the meeting immediately. After scanning the QR code, the sign-in's name is displayed in real time. Multiple facial recognition sign-in is also available.
- *Features meeting screen recording, with 2K and 4K resolutions available. Multiple recording options are supported: users can scan the QR code to take the recordings with them, save them to a local computer, the conference room, or a USB drive.



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*Supports multiple screen projection methods, including NFC touch transfer, wireless projection, wired projection, and one-touch projection via a projector. Supports mixed mobile and computer screen projection, supporting up to four simultaneous screens. Supports reverse operation of computer screen projection content.

*Supports application projection, such as projecting from a specific browser or document. Other application messages do not appear in pop-up windows, allowing users to work on other tasks during the projection process, protecting privacy.

*Supports mixed split screens, allowing users to display whiteboards, dynamic videos, audio, documents, annotations, and other pages simultaneously during a meeting. Any split screen can be displayed full-screen or different solutions can be compared. Supports up to eight split screens.

*Supports pre-uploaded files through the Smart Conference Management Platform. Files can be viewed directly during the meeting upon entering the meeting on the Smart Conference Flat Panel. Supports simultaneous file viewing on multiple conference flat panels.

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

*Supports quick file transfer. Scan a QR code to 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; inserting images, Office documents, PDFs, document files, and other materials into the whiteboard; inserting tables; canvas preview; multi-touch writing; multiple erasing methods, including gesture erase, swipe to clear, circle eraser, and pixel eraser; unlimited canvas and two-finger zoom; and supports multiple whiteboard file saving formats, including PNG, PDF, Word, and PPT.

*The whiteboard supports OCR intelligent text 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 the QR code to take them with you or save them to a local computer, a conference room, or a USB drive.

*Supports countdown mode for PPT presentations.

*Post-meeting file archiving is available. In-meeting sign-in, voting results, and recorded audio and video can be saved locally or uploaded to the integrated management platform.

*A five-finger long press activates the circular menu bar, allowing quick access to apps. Customizable circular menu apps are supported, including Tencent Meeting, sign-in, voting, photo taking, signature wall, calculator, and more.

*An app market is available, allowing users to download, install, and uninstall apps as needed.

*The integrated Doubao AI model 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. (Requires a camera and audio pickup module.)

*In conjunction with the central control system, voice control of meeting room lighting and air conditioning is supported, as well as the ability to control the smart conference tablet to open files and whiteboards. (Requires a camera and audio module for implementation)

*Integrated with the Doubao AI model, it provides intelligent voice file retrieval. This allows users to quickly search and open locally stored files using natural voice commands (e.g., "Open the 2023 Q4 financial report"), significantly improving file retrieval efficiency. (Requires a camera and audio module for implementation)

*It features an AI meeting minutes function that records audio files during meetings and intelligently summarizes the meeting content afterward, generating a summary, agenda, decisions, to-do items, meeting keywords, and more. This function can be viewed via the web and HTML5 platforms. (Requires a camera and audio module for implementation)

II. Product comprehensive management platform functions:

*A smart conference management platform, utilizing a B/S architecture, supports login and control software for Windows, Linux, macOS, Android, and iOS operating systems, meeting diverse on-site needs.

*The integrated management platform offers multiple account permissions for both regular users and administrators. The platform features a dashboard that displays the number of meeting rooms, meeting room usage, device online and offline status, and user account status. It also provides monthly, weekly, and daily statistics on daily attendees, meeting duration, number of meetings, and daily active users, facilitating statistical analysis and unified management without the need for separate cloud-based platform configuration.

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

*It features a meeting creation function, allowing users to reserve meeting rooms and meeting times in advance. Once a reservation is successfully made, the device homepage displays a real-time list of meetings for the day. The meeting list displays information such as the host and meeting time. Users can set whether the current meeting is encrypted, whether materials can be downloaded, and how long historical meetings can be saved, with options ranging from 6 months to 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 management platform supports web login, allowing users to view unit meetings and historical meetings. Historical meetings display the meeting name, booker, meeting number, start time, and whether a video was recorded. 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-power on and off devices, perform device inspections, and perform remote control.

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

*It has the function of AI model application applet, supports registration and login to the cloud platform; supports invitation and creation of units; supports meeting reservations, conference room management, equipment control and other functions; supports viewing of meeting minutes.



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III. Product video conference software functions:

- *Built-in video conference 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.

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)
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×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



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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
Operating 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
Audio channel	2.0 channels
Maximum audio power	2×20W @ 6Ω
Storage temperature	-10°C~+60°C
Storage humidity	10%~80%RH, non-condensing
Working temperature	0°C~+40°C
Working humidity	20%~80%RH, non-condensing
Working altitude	≤5000m
Display size	1428.5mm × 803.5mm
Screen size (length × thickness × height)	1482.7mm × 88.2mm× 876.6mm
Complete machine size (length × thickness × height)	1482.7mm × 88.7mm× 882.8mm
Wall mounting size (length × thickness × height)	1482.7mm × 121.1mm× 882.8mm
Packaging size (length × thickness × height)	1660mm × 220mm × 1010mm
Thickness	88.7mm
Net weight	38kg
Gross weight	47kg
Casing color	Silver gray
Casing material	Aluminum profile/sheet metal
Wall mounting hole (VESA) 4-M8 screw hole	600mmx400mm