Special delivery classroom teaching host

TS-0663

Description

It adopts integrated hardware design, embedded Linux operating system, and highly integrated system modules such as image collection, recognition and tracking, recording, automatic guidance, live, and on-demand, which is a new generation of recording host to meet the needs of producing high-quality teaching videos, online learning, interactive teaching and so on.

Feature

* It adopts integrated hardware ARM+DSP design and embedded Linux operating system. It is highly integrated with system modules such as image recognition and tracking, automatic guidance, live, on-demand, collection, and recording. It is easy to use, easy to maintain, and has ultra-high security.
* Based on the B/S architecture, you can log in to the web terminal to realize functions such as live management, signal management, user management, file management, scheduled recording, central control management, and system management.
* Supports AAC audio encoding, accurate and simultaneous recording of audiovisual.
* Adopting H.264/H.265 video encoding and decoding technology, the bit rate is adjustable, supports video encoding from 256kbps to 12Mbps, and the maximum resolution can reach 3840*2160.
* Using advanced tracking algorithms, by detecting the vertical movement of face contours and ignoring other activities of students, the accuracy rate reaches more than 90%, intelligently presenting the "focus" of the classroom.
* There is no need to install tracking auxiliary analysis cameras, and it can support younger students and classes with large height differences, and adapt to the height of students in different classes.
* The recording host has a built-in encryption algorithm, which ensures that genuine machines need to be activated before they can be used, and supports the use authorization date.
* It has three major application function modules: recording module, TV module, and interactive module.
* The built-in audio processing module supports multi-channel mixing, AGC function, noise reduction adjustment, audio adjustment and other functions, which can solve the echo, noise and other problems in interactive recording classrooms.
* The host has 1TB of storage space, can store up to 1,000 lessons, and supports frequent use of the device for more than a year; it supports automatic deletion of old files and loop recording.
* The host has 2 HDMI input interfaces, which can be used to connect to teaching computers.
* The host has 2 HDMI output interfaces, which can be used to connect to TV sets.
* The host has 5 network signal inputs and uses standard RTSP stream access to collect network camera signals.
* The host has 1 network audio input interface for connecting to an omnidirectional microphone to collect the voices of teachers and students; 2 3.5mm audio inputs for collecting external microphone and computer audio. 3 channels of audio support mixing input, 3.5mm audio input has the highest priority, and omnidirectional microphone input has the lowest priority.
* The host has 1 3.5mm audio output interface for monitoring or external sound equipment; 1 HDMI audio output for TV sound reinforcement.
* The host has an RS-232 Phoenix terminal interface, which can be used for seamless signaling connection with other control systems.
* The host has 1 RS-485 control interface for connecting and controlling the touch screen.
* The host machine comes standard with a control touch screen. The touch screen supports functions such as guide recording, classroom interaction, device shutdown, and recording duration display, and is suitable for various teaching scenarios.
* The host has 2 USB 2.0 interfaces, which can be used to connect U disks or 2.4GHz remote control consoles. The recorded video files can be automatically copied by connecting to a USB storage device, enabling copying as you record.

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* The host has one 802.3ab 1000Base-T Gigabit network interface and supports IPv4.
* The host has dual power supply function and supports standard POE power supply and DC 12V power supply. When an external power outage occurs or the power module is damaged, the host can be used normally.
* The host comes with a 2.4G remote control, which can realize remote control of the recording and broadcasting host and supports air mouse control mode.
* It supports manual broadcasting through the broadcasting software, and can also be used with the built-in automatic broadcasting module for fully automatic broadcasting.
* Supports remote control of the control screen. By clicking the control screen button, you can realize input source screen monitoring or director switching, recording mode switching, and start and stop recording.
* It supports the simultaneous operation of the rotation and zoom of up to 3 PTZ cameras, and supports the setting of preset position tracking functions, and the screen can be called up with one click.
* Supports recording multiple video formats such as MP4, AVI, MOV, FLV and MKV.
* It supports 7 screen layouts, including three screens, four screens, and conversation screens, and supports 2 custom screen layouts to meet personalized needs.
* Supports custom segmented recording, with optional duration of 30-480 minutes, and can be seamlessly connected with non-linear editing tools from other manufacturers.
* Supports switching special effects, including 12 kinds of screen switching special effects such as gradient, wipe, push, expand, and fly-in.
* Supports subtitle settings and built-in subtitle templates. Users can customize the size, color, and position of letters.
* Supports online speech transcription function to transcribe speech into text and automatically generate subtitles (to achieve this function, you need to connect to a third-party service) .
* Supports the function of customizing the title title, uploading a custom title title and customizing its display time.
* Supports labeling each video screen to distinguish between screens and display different content.
* Built-in video interaction function can realize the interaction of 4 recording hosts. In discussion mode, the main lecture room can have audiovisual interaction with any lecture room; in mute mode, the lecture room can watch the live broadcast of the lecture.
* Support address book function. In discussion mode, users can enter the device name or IP address in the search box at the top to find the corresponding contact that has been added, or they can create a new contact on the right side of the search box to add a contact. The added contacts can be dialed, edited, deleted and other operations through the buttons on the right.
* Supports class convening function. In interactive mode, the main lecture room can directly initiate interactive functions on classroom terminals that have participated in classroom interactions by viewing historical records. No additional configuration is required, which is convenient and fast.
* Support permission control function. In interactive mode, the main lecture room can be set to turn on and off the terminal screen and sound in the lecture room, and the screen layout of the interactive screen can be set.
* Supports dual-screen dual display function. In recording and broadcasting mode, the HDMI OUT2 interface outputs the guide preview interface, and the HDMI OUT1 interface outputs computer courseware content. In interactive mode, the HDMI OUT2 interface outputs the interactive images of the lecturer and the listener. When the lecturer turns on the auxiliary stream sharing, the HDMI OUT1 interface of the lecturer and the listener outputs the lecturer's computer courseware content; when the lecturer does not turn on the auxiliary stream sharing, the HDMI OUT1 interface of the lecturer Output the computer courseware content of the lecturer, and the HDMI OUT1 interface of the lecturer outputs the computer courseware content of the lecturer .
* Combined with the special delivery classroom interaction platform, interaction between 50 recording hosts can be achieved. Supports a variety of screen layouts, can display up to 16 screens at the same time, and can automatically perform screen polling.
* Supports docking with educational resource public service platforms to realize resource on-demand and sharing application functions; supports selection of viewing content by platform, school period, subject, version and teaching materials, automatic caching and high-definition video playback; supports on-demand, drag and drop, review, and jump Wait for the video content playback operation.
* It supports the scheduled recording function. After the scheduled recording schedule is edited, it will automatically record at the scheduled time, and automatically generate file names with information such as venue, speaker, and theme.
* Built-in VOD on-demand module, you can perform online playback, pause, jump and other operations of video files through the network.
* Supports live broadcast function, supports live broadcast for 50 users at the same time within the local area network ; supports standard RTMP streaming protocol, can be connected to third-party live broadcast platforms for online live broadcast, conveniently expanding the number of live broadcasts.
* It supports automatic uploading of backup files and can cooperate with third-party FTP file servers to automatically push courseware to the file server. Bandwidth can be automatically adjusted for file upload and download to prevent network congestion.
* Supports video file repair function. During the recording process, video files damaged due to power outage can be repaired.
* Supports one-click reset function to avoid file damage, IP address loss, and administrator password loss that may cause the system to become unusable.
* Supports one-click upgrade function. When the system has new function iterations, function upgrades can be achieved by importing firmware.
* It supports software central control. After filling in the central control instructions in the recording and broadcasting management interface, you can perform central control operations through the interface and connect to other devices for one-click control.
* Supports docking with private cloud platform servers. After successful docking, the cloud platform can provide unified management and control of the equipment, making it easier to manage multiple recording equipment.

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Specification

Video protocol	H.264/H.265
Code stream	256Kbps~12Mbps
Video output format	MP4/MOV/MKV/FLV/AVI/TS
Audio protocol	AAC
Live protocol	Supports TS, RTSP, RTP and RTMP real-time protocol streams
Network protocol	Support TCP, UDP, RTMP, RTSP, FTP, DHCP, HTTP protocols
Video input interface	2 -channel HDMI high-definition video interface
Video output interface	2 -channel HDMI high-definition video interface
Input resolution	3840x2160P30/P25fps, 1920x1080P60/P50/I60/I50/P30/P25fps, 1280x720P60/P50fps
Output resolution	3840x2160P30fps, 1920x1080P60/P50/P30/P25fps, 1280x720P60/P50/P30/P25fps, 720X576P60/P50/P30/P25fps
Audio input interface	2-channel 3.5mm audio interface, 1-channel RJ45 audio interface
Audio output interface	1 channel 3.5mm audio interface
Network port	1 Gigabit network port
USB interface	2-channel USB 2.0 interface
Control port	1 RS-232 interface, 1 RS-485 interface
Panel buttons	1×switch button
Storage	1TB
power supply	DC 12V/5A
Power consumption	30W
Weight	1.8kg
Dimension（L×D×H）	300×158×45mm
Operating temperature	-10℃~55℃ (ambient temperature under well-ventilated conditions)
Relative humidity of working environment	20%~80% relative humidity, no condensation