

TREND

LECTURE ARCHIVING SYSTEM

Your best choice of lecture recording system
for hybrid classrooms



Advantages



Abundant audiovisual interfaces for diverse applications

High-Definition Touch Screen

The lecture capture video station is integrated with a 15.6-inch high-definition touch screen that can conveniently accessible at your fingertips. The large screen ensures optimal display of all video images, whether for live broadcasts or classroom presentations. The intuitive interface streamlines complex processes, enhancing efficiency in both realtime coordination and management.



Diversified director management

8 layout modes are available to meet diverse viewing and command needs. Whether you're setting up a small classroom presentation or a large broadcast, you can customise the layout to best suit the scene.

11 transition effects provide a smooth and natural switch to enhance the viewing experience. It also supports customisation of subtitles, station logos, opening and closing credits and other graphic elements.



Stable and flexible recording

The LCS offers the flexibility to record up to 4K UHD resolution. Whether it's segmented recording, scheduled recording, simultaneous recording of film channels and source channels, the LCS offers great flexibility in arranging and organising your video. The system integrates a 1TB hard disc to ensure long time continuous recording. This storage capacity can accommodate large files, recordings and video content.



Live learning without location limitation

The LCS is equipped with the capability to facilitate live streaming via a range of protocols, including RTMP and HLS. Thus, it is readily compatible with diverse third party platforms from YouTube to Vimeo, the system integrates seamlessly with your preferred service and systems. It offers a convenient way to construct a remote or flipped classroom for students to engage in online learning.

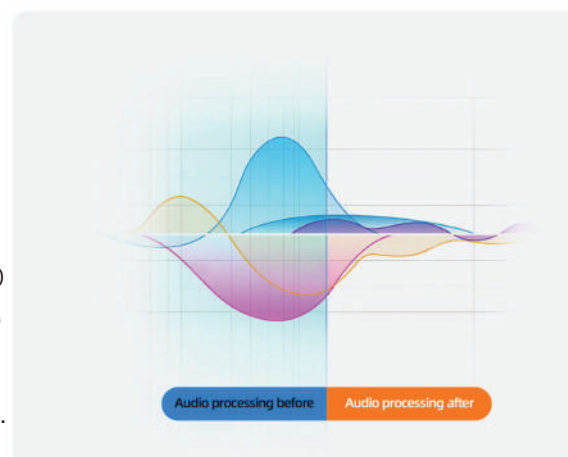
1v9 low latency remote interaction

The LCS comes with a 5-port gigabit switch (including 3 POE ports), making it easier to set up with interactive stability. In addition, the system includes a low-latency interactive module that allows HD remote interaction with up to 10-party LCS without the need for an external MCU server. It is suitable for engaging, high-definition remote interaction experience in app free scenarios. Remote interaction for over 10 parties are also possible with external MCU servers.



Smooth audio processing

With built-in audio processing module, LCS supports sound feedback cancellation, sound echo cancellation, automatic mixing, noise suppression, and audio matrix to ensure smooth, silky, stable sound experience for remote interaction. It also supports wireless microphone, linear input audio signal pickup and local sound reinforcement.



Swift access to mainstream online conferencing software

The LCS is equipped with a built-in UVC output, which is capable of supporting the UVC/UAC protocol. It can be driver-free through the host USB output, providing video and audio, and can be connected to third-party online conferencing software, such as Zoom or Teams, facilitating rapid access to online teaching and conferencing.



Recommended Camera



4K PTZ Camera

- 1/2.8" CMOS
- 8.46 MP resolution
- 12x optical zoom
- 8x digital zoom
- Auto Focus/Auto Exposure/Auto White Balance
- 4K@60FPS output



4K ePTZ Camera

- Single-Cable PoE Power
- 4K UHD with 8.4MP image sensor
- EPTZ Support
- Industrial-Grade UHD lens
- Smart Teaching Tracking
- 3D Digital Noise Reduction

Recommended Microphone



Ceiling Microphone

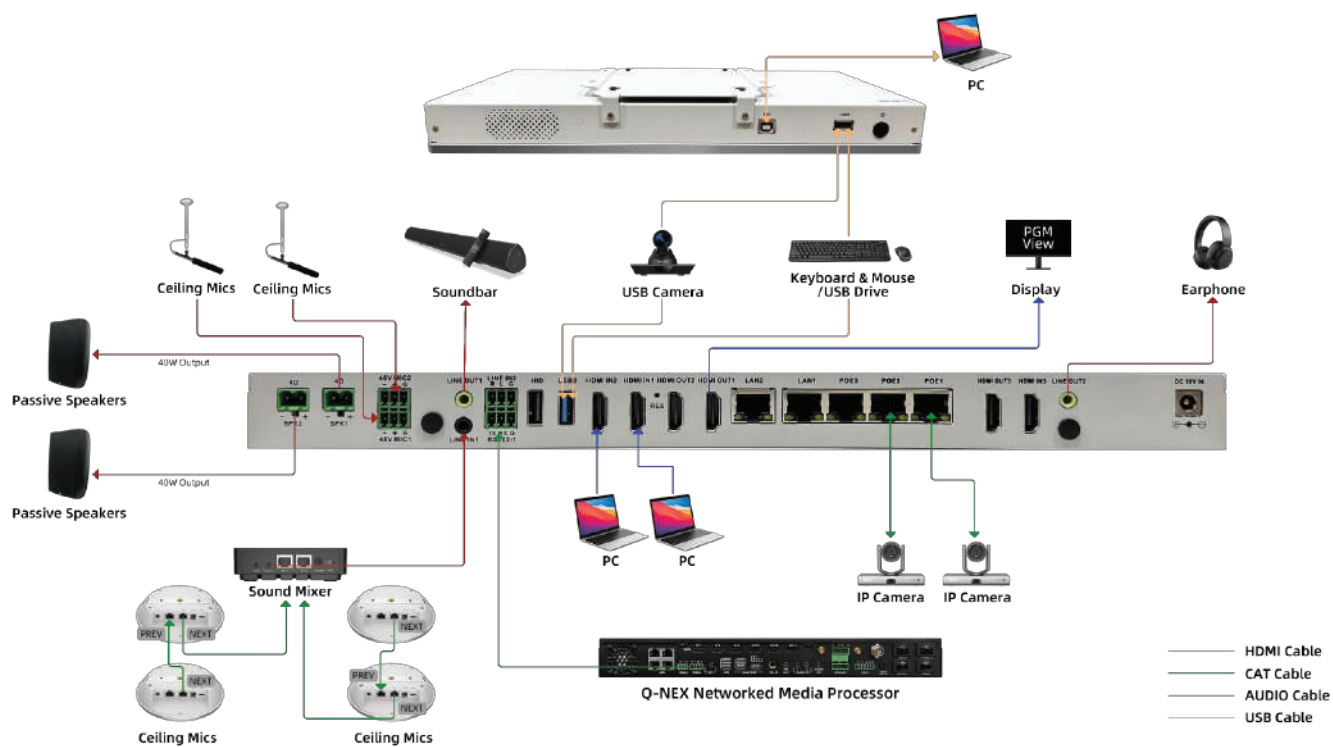
- 8 meters pickup radius
- Support AEC, AGC, ANS
- Support 4 cascade ceiling mics



Ceiling Microphone

- Cardioid Polar Pattern
- $-34\text{dB} \pm 3\text{dB}$ Sensitivity
- 30Hz to 18KHz Frequency Response
- Aluminum Alloy Extendable Rod Bracket

Applications



Specifications

Video Station

Model

VS-TR-018

System structure

Embedded Linux system

Display screen

15.6-inches, 1920 * 1080 resolution, G+G Structure
PCAP capacitive touch, anti-glare, anti fingerprint,
anti-scratch

Video input

3 x HDMI OUT

Video output

3 x HDMI OUT

Maximum input resolution

3840 * 2160

Audio input

1 x 3.5mm jack LINE IN, 1 x Phoenix terminal LINE IN,
2 x Phoenix terminal 48V MIC, 2 x HDMI IN

Audio output

2 x 3.5mm jack LINE OUT, 2 x HDMI OUT

Video encoding

H.264, H.265

Audio encoding

AAC

Video output format

MP4, TS

Video encoding framerate

25 ~ 60fps

Video bit rate

256kbps ~ 20480Kbps adjustable

Audio bit rate

32~192Kbps adjustable

Data storage

Built-in >= 1T storage, support USB export, support
FTP upload

Network

5 x RJ45 network ports, 3 of which support POE

Serial port

1 x RS232 serial port

USB interface

3 x USB ports

Software upgrade

Support online upgrade and local upgrade

Power parameters

AC220V

4K PTZ Camera

Model

PT-TR-018

Image Sensor

1/2.8" 4K CMOS, 8.46MP

HFOV

81°~7.6°

Image

Auto Focus / Auto Exposure / Auto White Balance

AGC

Auto / Manual

White Balance

Auto / Indoor / Outdoor / One Push / Manual / Static

AE Control

Auto / Manual / Shutter Priority / Iris Priority
Brightness Priority

Shutter Speed

1/50~1/10,000s

SNR

≥ 50dB

Minimal Illumination

0.5Lux

Image Sensor

1/2.8" 4K CMOS, 8.46MP

White Balance

Auto

Exposure

Auto

Lens

8mm | 2.8mm

Field of View

Horizontal : 43°, Vertical : 28°
Horizontal : 94°, Vertical : 62°

Pan

-130° ~+ 130°; 0.2° ~ 80°/s

Tilt

-30° ~+ 90°; 0.2° ~ 60°/s

Preset Number

64

HDMI 2.0

4KP60 / P50 / P30 / P25, 1080P60 / P50 / P30 / P25,
720P60/P50

Audio Interface

1 x LINEIN, 3.5mm

Network

1 x RJ-45: 10M / 100M / 1000M self-adaptation ethernet
port, support POE; Video format: H.264 / H.265;
Close-up : 4K P30 / P25, 1080 P30 / P25, 720 P30 / P25,
360 P30/P25, Single stream output
4K P60 / P50 / P30 / P25, 1080 P60 / P50 / P30 / P25,
720 P60/P50/P30/P25
Full view : 4K P30 / P25, 1080 P30 / P25, 720 P30 / P25,
360P30 / P25

USB2.0

UVC support UVC1.1 protocol
UCV Video compression support H.264/MJPEG:
4KP / P25, 1080 P30 / P25, 720 P30 / P25

3G-SDI (Optional)

1*3G-SDI; Video Resolution : 1080P60 / P50 / P30 / P25,
720 P60/P50

HD-BaseT (Optional)

1*HD-BaseT; Video Resolution : 4K P60 / P50 / P30 /
P25, 1080 P60 / P50/P30 / P25, 720 P60 / P50

DIP Switch

Rotary DIP switch to define video format

Control Interface

1 x RS232IN, 1 x RS232OUT

Power

DC12V; <18W

Control Protocol

VISCA

Operating Environment

Temperature : 0°C ~+ 40°C; Relative Humidity :
10 % RH~90%RH

Storage Environment

Temperature : -20°C ~+ 60°C; Relative Humidity :
10% RH ~ 95% RH

Dimensions (L×W×H)

245mm × 145mm × 165mm

Weight

1.8kg

Specifications

4K ePTZ Camera

Model

ePT-TR-018

Sensor

1/2.8", Effective Pixel : 8.4MP

Scanning Mod

Progressive

Teacher's View

Focal length : f = 8mm , HFOV40°

Students' View

Focal length : f = 2.2mm , HFOV120

Depth of Field

1-10 meters (for students) ; 5-12 meters (for teacher)

Shutter

1/25s ~ 1 / 10000s

White Balance

Auto

Digital Noise Reduction

3D Digital Noise Reduction

Backlight Compensation

Support

EPTZ

Support

Digital Zoom

4x

PoE Power Supply

Support

Auto - Tracking

Teacher Mode / Student Mode

Audio

Built-in microphone with 6m voice pickup range

Video Compression

H.264

Video Stream

Main stream , sub stream

Panorama Stream Resolution

1920 x 1080p@25 ; 1280 x 720p@25

Close-up Stream Resolution

1920 x 1080p@25 ; 1280 x 720p@25

Video Bit Rate

512Kbps ~ 10000Kbps

Bit Rate Control

Fixed Bit Rate

Frame Rate

1 ~ 25fps

Support protocol

HTTP, UDP, TCP, RTSP, WEBSOCKET

Network Interface

1xRJ45 : 10M / 100M Ethernet Interface ,
Support Po Epower supply

USB Interface

TYPE-B ; USB2.0

Audio Interface

Phoenix contact (differential analog signal)

Input Voltage

DC12V

Operating Temperature

0°C~50°C

Storage Temperature

-10°C ~+ 50°C

Power Consumption

<3.5W

Size

190.00mm (W) x 60.00mm (L) x 46.00mm(H)

Ceiling Microphone

Model

TR-CM-016

Voice Technical Parameters

Automatic echo cancellation (AEC)
Automatic gain control technology (AGC)
Automatic Noise Suppression (ANC)

Microphone Array

Built-in 8 omnidirectional microphones

Cascade Connection

Up to 4 unit cascading

Pickup Range

8 meters

Sensitivity

-26 dBFS

Signal Noise Ratio

>95 dB (A)

Frequency Response

20Hz - 16kHz

Sampling Rate

32KHz, high resolution broadband audio

USB Protocol

Support UAC

Interface(s)

1x 12V DC , 2 x RJ45 Port, 1 x 3.5mm , 1x USB-C

Power Supply

Adapter DC12V1A, or POE

Size (length*width*height)

156mm x 156mm x 35.6mm

Ceiling Microphone

Model

TR-CM-012

Type

Condenser mic

Directivity

Cardioid polar

Sensitivity

-34dB ± 3dB (0dB=1V / Pa at 1KHz)

Frequency response

30Hz ~ 18KHz

Output impedance

250Ω balanced output

Power supply

48V phantom power supply

Bracket

Aluminum alloy extendable rod bracket



Stepwell Smart Solutions (SSS) is the creator of TREND interactive technology that helps the world interact and share content. The company's products are utilized by organizations of all sizes, with hundreds of thousands of users across multiple industries and geographies. For more information on Stepwell please visit www.stepwellsolutions.com