

4K Intelligent Educational Box Camera

Designed for scenarios like blended learning, interactive teaching, and educational recording, the camera comes in two models: the teacher's camera and the student's camera. Installed on the front and rear walls of the classroom, respectively. Features a 4K UHD CMOS image sensor, delivering ultra-clear images. Equipped with built-in image recognition, intelligent tracking, intelligent director, and smart blackboard writing, it delivers an immersive educational experience.



4K 30fps



Smart
Blackboard
Writing



Intelligent
Director



8X
Optical Zoom



POE+



POC

Key Features

- 4K Ultra HD**
 Utilizes a 1/2.8-inch UHD CMOS image sensor, providing output of 4K30/25. The camera is compatible with resolutions like 1080p and 720p, ensuring clear images.
- Dual-Camera Design**
 Teacher's camera: Equipped with a 42° wide-angle lens that supports autofocus, ensuring clear and focused capturing of the teacher.
 Student's Unit: Features a 95° low-distortion wide-angle lens, providing a broader FoV for students in the classroom
- Intelligent Tracking & Director**
 Embedded with image recognition, intelligent tracking, and directing algorithms. Automatically identifies interactive behaviors between teachers and students. Automatically switches between panoramic views and close-up shots of the teacher, close-up shots of the blackboard, panoramic and close-up views of the students. No need for manual control, ensuring precise presentation.
- Support 3G-SDI Interface**
 Supports 3G-SDI interface for effective transmission with a maximum distance of 150 meters (1080P25). Simultaneously outputs SDI, network, and USB signals.
- Smart Blackboard Writing**
 The camera incorporates smart blackboard writing algorithms that generate unobstructed images or display content above the teacher's figure when writing on the blackboard, making it easier for students to take notes.ensuring clear images in low-light situations.
- PoC and PoE**
 Supports Power over Cable (PoC) and Power over Ethernet (PoE). Integrates power, video, audio, and control into a single cable for simplified installation and operation.

Technical Specification

| Model | UVC1801 |
|-------------------------------|--|
| Camera Specification | |
| Sensor | 1/2.8 inches, CMOS, Effective Pixels: 8.46 Megapixels |
| Lens (Teacher) | Focal length: f=7.2mm, Horizontal FOV: 42° |
| Lens (Student) | Focal length: f=2.88mm, Horizontal FOV: 95° |
| Digital Zoom | 8X |
| Scanning Mode | Progressive |
| Minimum Illumination | 0.5Lux (F1.8, AGC ON) |
| Shutter | 1/30s ~ 1/10000s |
| DNR | 2D & 3D DNR |
| White Balance | Auto, Indoor, Outdoor, One Push, Manual, VAR |
| Backlight Compensation | Support |
| WDR | OFF/ Dynamic level adjustment |
| EPTZ | Support |
| Auto Focus | Support (Teacher machine) |
| PoE+ | Support |
| PoC | Support |
| Select Lens I/II | Corresponding to the teacher/ student tracking mode, respectively |
| Input/Output Interface | |
| Interfaces | USB 2.0 (type-A), 3G-SDI, LAN(POE), RS485, LRG, Control Switch |
| Video Output Interfaces | 3G-SDI, USB, LAN |
| Network Interface | 1 x RJ45: 10M/100M/1000M adaptive Ethernet,PoE support |
| USB Interface | 1 x USB2.0, Type-A |
| Audio Interface | 1 x LINE IN: 3-core phoenix interface |
| USB Interface | 1 x USB2.0, Type-A (Support Host or Device mode) |
| Control Interface | 1 x RS485: 2-core phoenix interface, Max. distance 1200m, VISCA/Pelco-D/Pelco-P protocols |
| Power Interface | JEITA type (DC IN 12V) |
| Network Specification | |
| Video Compression Format | H.265 / H.264 / MJPEG |
| Image Stream | First Stream, Second Stream, Third Stream,Fourth Stream |
| First Stream Resolution | 3840x2160, 1920x1080, 1280x720 etc |
| Second Stream Resolution | 3840x2160, 1920x1080, 1280x720, etc |
| Third Stream Resolution | 1920x1080, 1280x720, 1024x576, etc |
| Fourth Stream Resolution | 1024x576, 960x540, 720x576(50Hz), 720x480(60Hz), 720x480, etc |
| Video Bit Rate | 32kbps ~ 16384kbps |
| Bit Rate Control | VBR, CBR |
| Frame Rate | 50Hz: 1fps ~ 50fps, 60Hz:1fps ~ 60fps |

| | |
|-------------------|--|
| Audio Compression | AAC, G711A |
| Audio Bit Rate | 96Kbps, 128Kbps, 256Kbps |
| Protocols | TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, GB/T 28181, Multicast, etc. |

Other Specification

| | |
|-----------------------|---------------------------------|
| Input Voltage | DC 12V / PoC / POE (802.3af) |
| Input Current | 0.5A (Max.) |
| Operating Temperature | -10° C ~ 40° C |
| Storage Temperature | -40° C ~ 60° C |
| Power Consumption | 6W (Max.) |
| Net Weight | 0.37kg |
| Dimension | 72mm (W) x 60mm (D) x 130mm (H) |

Interface Picture:

