

CLASSROOM RC31

4K UHD Intelligent Teaching Camera



4K@30fps



Dual-camera
collaboration



Intelligent
Tracking



Intelligent
Switching



Smart
whiteboard



AI-attendance
Tracking

RC-31 is a 4K ultra-high-definition intelligent teaching camera designed specifically for the education field. By setting up a teacher unit and a student unit, it can provide coverage of the entire classroom. The camera is equipped with built-in AI tracking algorithms and intelligent switching strategies, allowing for real-time switching of different perspectives, including panoramic and close-up views of the teacher, panoramic and close-up views of the students, as well as close-up views of the teacher's whiteboard. It can automatically generate unobstructed views of the whiteboard, enabling a comprehensive presentation of the teacher's perspective and the students' perspective, making it an ideal tool for interactive teaching in schools.

4K Ultra-HD Image



The camera utilizes a 1/2.8-inch high-quality 4K CMOS sensor with an effective pixel count of 8.31 million, providing an ultra-clear video teaching experience.

Dual-Unit Dual-Perspective



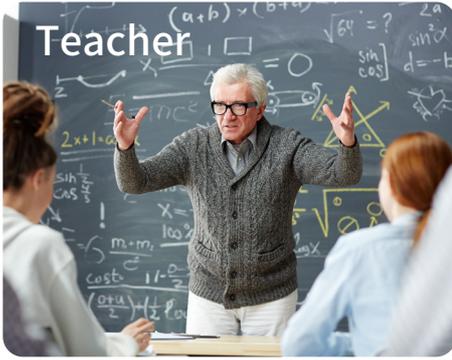
The camera offers both a teacher unit and a student unit. The teacher unit has a 42° field of view and supports autofocus, while the student unit has a 95° field of view, capturing the entire classroom scene.

AI Tracking Capture



The camera is equipped with AI algorithms for detecting human heads, faces, and bodies. The teacher unit can automatically track and capture the teacher's movements, unaffected by student movements or the presence of large screens. The student unit can accurately detect student standing actions, regardless of other student movements.

Intelligent Switching Strategy



The camera features an AI-based automatic switching strategy, allowing real-time switching of different perspectives based on the dynamic conditions in the classroom. This includes panoramic and close-up views of the teacher, panoramic and close-up views of the students, and close-up views of the teacher's whiteboard. The switching process is as smooth as manual broadcasting.

Intelligent Whiteboard Generation



During a class, the camera can automatically remove any obstruction of the whiteboard by capturing human figures, providing real-time unobstructed video streams and snapshots of the whiteboard for easy viewing by students.

Easy Installation and Wiring



The camera supports PoE (Power over Ethernet) connectivity, allowing for a simple and efficient installation. With its compact design, it doesn't take up much space in the classroom. The camera also offers a variety of interfaces, making it compatible with existing school equipment such as large screens, speakers, and monitoring systems.

Product Specification

▼ CAMERA

Sensor	1/2.8inch, CMOS, 8.31MP
Scanning Mode	Progressive scanning
Lens Mount	M12
Lens One (For Teacher)	Focal length: f=7.2mm, Wide Angle: 42°
Lens Two (For students)	Focal length: f=2.8mm, Wide Angle: 95°
Minimum Illuminance	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One-button, Manual, Specific color temperature
Digital Noise Reduction	2D, 3D Digital noise reduction
Backlight Compensation	Support
EPTZ	Support
Auto-focusing	Lens one Support
Digital Zoom	8x
POE-powered	Support

▼ INPUT / OUTPUT INTERFACE

USB Interface	1channel, USB 2.0, Type-C
Network Interface	1x RJ45: 10M/100M Adaptive Ethernet, PoE support
Audio Interface	1x 3.5mm LINE IN 1x 3.5mm LINE OUT
Power interface	DC005 (DC 12V)
Indicator Light	Power indicator light
Infrared Interface	Support

▼ USB FEATURES

Operating System	Windows 11, Windows 10, Windows XP, Windows Vista, Windows 7, Windows 8, Mac OS X, Linux
Color System / Compression	H.264 / MJPEG
Video Format	MJPEG: Max 2160P30fps
USB Audio	UAC1.0
USB Video Communication Protocol	UVC 1.1 ~ UVC 1.5

▼ Network Feature

Video Compression	H.265 / H.264 / MJPEG
Video Stream	Primary video stream, Secondary video stream, Tertiary video stream, Quaternary video stream
Primary Video Stream Resolution	1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360, 320x240, 320x180
Secondary Video Stream Resolution	3840x2160, 1920x1080, 1920x1080, 1280x720, 1024x576, 720x576(50Hz), 720x480(60Hz), 720x408, 640x360, 480x270, 320x240, 320x180
Tertiary Video Stream Resolution	1920x1080, 1280x720, 1024x576, 960x540, 720x576(50Hz), 720x480(60Hz), 720x408, 640x360, 480x270, 320x240, 320x180
Quaternary Video Stream Resolution	1024x576, 960x540, 720x576(50Hz), 720x480(60Hz), 720x408, 640x360, 480x270, 320x240, 320x180
Video Bit Rate	32Kbps ~ 16384Kbps
Bitrate Control	Variable Rate, Fixed Rate
Frame Rate	1~30fps
Audio Compression	AAC / G.711a
Audio Bitrate	96Kbps, 128Kbps
Protocol Support	TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, GB28181, Multicast, etc.

▼ GENERAL NORM

Input Voltage	DC 12V / PoE (802.3af)
Input Current	0.5A (Max)
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	6W (Max)
Size	110 x 96 x 44mm
Mean free error time	>30000h
Net weight	0.2Kg



Home-grown self-research

In-house Audio And Video Technology

For 15 years since its establishment, the company has adhered to independent research and development and innovation, continuously invested in improvement, and fully mastered the core algorithm technology in the field of audio and video. The entire product line is independently controllable, safe, reliable, and highly competitive.



Own factory

Complete Self-owned Supply Chain

The company has its own factory, which can independently complete the production of basic materials such as some mold design and manufacturing, CNC machining, and plastic injection molding. It also has an internationally advanced high-speed double-sided PCB SMT line, precision equipment assembly and testing line, to ensure product quality and stable supply.



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After-sales Service and Support

The company has set up five major marketing centers around the world, with more than 30 after-sales service outlets. It provides 7*12 hour customer service telephone support, as well as various online and offline technical support and after-sales services to comprehensively ensure the user experience.