

# Dual-lens 4K Intelligent Auto Tracking Camera

RC051



Designed for intelligent educational settings, the RC051 combines dual lenses for panoramic and close-up views, delivering 4K UHD images. It includes built-in instructional tracking and directing, AI features like facial recognition and teaching behavior analysis. It also supports HDMI input, which enhances the teaching experience.



## FEATURES

### ▼ DUAL-LENS

The camera incorporates a dual-lens design that combines panoramic and close-up capabilities. The panoramic lens offers an effective resolution of 4.93MP, while the close-up lens provides 8.29MP, enabling comprehensive classroom coverage and capturing every detail.

### ▼ ULTRA-CLEAR CLOSE-UP

The close-up lens provides exceptional clarity with its narrow field of view. The 21° teacher-focused lens, boasting an 8MP resolution, delivers clarity equivalent to a 42° lens with a 34MP resolution. Likewise, the 44° student-focused lens matches the clarity of a 95° lens with 58MP resolution.

### ▼ MINI PTZ

The camera is equipped with a mini PTZ that can horizontally rotate ±40°, expanding the shooting range significantly. It also supports EPTZ, ensuring clear images. The seamless integration of PTZ and EPTZ allows for more precise framing, capturing all the important details in the class.

### ▼ INTELLIGENT TRACKING

The teacher's camera includes advanced algorithms for head, facial, and body recognition and tracking. It can track and capture the teacher without any additional positioning camera or device, ensuring no missed interactive details during teaching.

### ▼ AI SMART DIRECTOR

The camera features built-in AI director algorithms, recognizing real teaching scenarios and automatically switching between teacher panoramic, close-up, and board close-up views, as well as student panoramic and close-up views. It also supports external directing consoles, outputting multi-camera streams via network or USB interfaces to meet the needs of external directing scenarios.

### ▼ AI BEHAVIOR ANALYSIS

Equipped with AI algorithms for facial recognition and behavior analysis, the camera automatically detects the number of students, simplifying school attendance management. These intelligent functions streamline teaching administration, improving efficiency and enhancing the educational experience.

### ▼ MULTIPLE OUTPUT INTERFACES

Supporting various video output interfaces like PoE and USB 3.0, it easily connects to recording and broadcasting hosts, large-screen OPS, and other devices, expanding application scenarios effectively.

Remark: 1. This feature is optional.

## SPECIFICATIONS

### ▼ CAMERA SPEC OF CLOSE-UP CAMERA

Sensor	1/2.7", CMOS, Effective pixel:8.29MP
Scanning Mode	Progressive
Type of Lens Mount	M12
Student Close-up Lens	f=7.37mm, Horizontal FOV: 43°
Teacher Close-up Lens	f=12.49mm, Horizontal FOV: 26°
Digital Zoom	2x
Minimum Illumination	0.5Lux
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Pan Angle	±40°
Tilt Angle	+5° ~ -30°
Maximum Rotation Speed	Student Camera: Pan Speed 60°/s,Tilt Speed 30°/s Teacher Camera: Pan Speed 30°/s,Tilt Speed 30°/s
Image Flip	Support
Image Freeze	Support
Preset Position	255
Preset Accuracy	0.5°

### ▼ CAMERA SPEC OF PANORAMIC CAMERA

Sensor	1/2.7", CMOS, Effective pixel:8.29MP
Scanning Mode	Progressive
Type of Lens Mount	M12
Student Panoramic lens	f=2.2mm, Horizontal FOV: 110°
Teacher Panoramic lens	f=7.37mm, Horizontal FOV: 43°
Minimum Illumination	0.5Lux
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Tilt Angle	+0° ~ -24°
Image Flip	Support
Image Freeze	Support

### ▼ AUDIO

Built-in Array Microphone	4 Microphone array <sup>1</sup> , 100Hz to 16kHz frequency response
Simulation Audio Input	1 x LINE In
Simulation Audio Output	1 x LINE Out
Digital Audio Interface	1 x USB audio input output 1 x network audio input output, supports 1588-based audio clock synchronization

## INTERFACE

- 1 — DC 12V
- 2 — LAN
- 3 — USB
- 4 — SDI
- 5 — LINE IN
- 6 — LINE OUT

### ▼ USB SPEC

Operating System Supported	Windows® 7 ( Only support 1080P and below ), Windows 8.1 and above version; macOS™ 10.10 and above version; Google™ Chromebook™ Version 29.0.1547.70 and above version; Linux ( Need to support UVC)
Hardware Requirements	2.4 GHz Intel® Core 2 DUO processor or higher; 2 GB memory or higher; USB 3.0 or USB 2.0 interface
Color System / Compression	YUY2/MJPEG/H.264
Video Format	Maximum 4K and other different frame rates and resolution video formats
USB Video Communication Protocol	UVC 1.1
USB Audio	The maximum 48K sampling rate, supports UAC1.0
UVC PTZ Control	Support

### ▼ NETWORK SPEC

Video Compression	H.265 / H.264 / MJPEG
Video Stream	First Stream, Second Stream, Third Stream, Fourth Stream
First Stream Resolution	3840x2160,1920x1080, 1280x720, etc.
Second Stream Resolution	2880x1620, 1920x1080, 1280x720, etc.
Third Stream Resolution	1920x1080,1280x720,1024x576, etc.
Fourth Stream Resolution	1920x1080, 1280x720,1024x576, etc.
Video Bit Rate	32Kbps ~ 16384Kbps
Bit Rate Type	VBR, CBR
Frame Rate	25/30fps
Audio Compression	AAC/G.711A
Audio Bit Rate	96Kbps, 128Kbps, 256Kbps
Support Protocols	TCP/IP, HTTP, HTTPS, NDI, SRT, RTSP, RTMP, Onvif, DHCP, GB28181, Multicast, etc.

### ▼ I/O

USB Interface	1x USB 3.0; Type-C
Network Interface	1 x RJ45: 10M / 100M adaptive Ethernet; PoE(802.3af), Support NDI <sup>1</sup>
Audio Interface	1 x LINE In: 3.5mm 1 x LINE Out: 3.5mm
Power Interface	DC005 (DC 12V)
Reset Button	RESET
Infrared Interface <sup>1</sup>	Support
Indicator Light	POWER ,STANDBY

### ▼ GENERIC SPEC

Input Voltage	DC 12V / PoE (802.3af)
Input Current	1A (Max)
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	12W (Max)
Dimension	242mm (W) × 86mm (D) × 70mm (H)
Net Weight	0.62kg
No Failure Time	30000h

