TRACKING CAMERA

Dual-lens 4K Intelligent Auto Tracking Camera



The RC051 is designed for intelligent teaching environments, integrating panoramic and close-up dual lenses for up to 4K UHD output. It captures interactive teaching scenes with builtin AI features like teaching tracking, facial recjognition, and behavior analysis, offering a more dynamic intelligent teaching experience.



FEATURES

▼ DUAL-LENS

Featuring a unified design with both panoramic and close-up lenses, the panoramic lens boasts an effective pixel count of 4.93 Megapixels, while the close-up lens reaches an impressive 8.29 Megapixels. This design ensures comprehensive coverage of the entire classroom while delivering high-definition close-up images.

▼ HIGH QUALITY IMAGES

The RC051 includes both teacher and student units. The teacher's panoramic camera uses a 1/2.7-inch HD CMOS sensor, while the closeup camera features a 1/2.7-inch 4K high-quality CMOS sensor for high quality images. The teacher's panoramic camera has a 43° field of view, and the close-up camera has a 25° field of view. The student's panoramic camera provides a 110° field of view, with the close-up camera offering a 43° field of view for clear tight shots.

WINI 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.

SPECIFICATIONS CAMERA SPEC OF CLOSE-UP CAMERA

Sensor	1/2.7", CMOS, Effective pixel:8.29 Megapixels
Scanning Mode	Progressive
Type of Lens Mount	M12
Student Close-up Lens	f=7.37mm, Horizontal FOV: 43°
Teacher Close-up Lens	f=13.1mm, Horizontal FOV: 25°
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

ensor	1/2.7", CMOS, Effective pixel:4.93 Megapixels
canning Mode	Progressive
ype of Lens Mount	M12
tudent Panoramic lens	f=2.2mm, Horizontal FOV: 110°
eacher Panoramic lens	f=7.37mm, Horizontal FOV: 43°
Iinimum Illumination	0.5Lux
hutter	1/30s~1/10000s
/hite Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
igital Noise Reduction	2D&3D Digital Noise Reduction
acklight Compensation	Support
ilt Angle	$+0^{\circ} \sim -24^{\circ}$
mage Flip	Support
mage Freeze	Support

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Simulation Audio Input	1 x LINE In
Simulation Audio Output	1 x LINE Out
Digital Audio Interface	1 x USB audio 1 x network a 1588-based a

USB audio input output network audio input output, supports 88-based audio clock synchronization

INTERFACE



5 ---- LINE OUT

VUSB SPEC

Operating System Supported

Hardware Requirement

Color System / Compre

USB Video Communica

Video Format

Protocol USB Audio UVC PTZ Control

	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)
IS .	2.4 GHz Intel [®] Core 2 DUO processor or higher; 2 GB memory or higher; USB 3.0 or USB 2.0 interface
ession	YUY2/MJPEG/H.264
	Maximum 4K and other different frame rates and resolution video formats
ition	UVC 1.1
	The maximum 48K sampling rate, supports UAC1.0
	Support
EC	
	H.265 / H.264 / MJPEG

V NETWORK SP

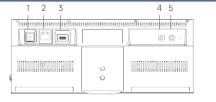
Video Compression	H.265 / H.264 / MJPEG
Video Stream	First Stream, Second Stream, Third Stream, Fourth Stream
First Stream Resolution	3840x2160,1920x1080, 1280X720, etc.
Second Stream Resolution	2880x1620, 1920x1080, 1280X720, etc.
Third Stream Resolution	1920X1080,1280X720,1024x576, etc.
Fourth Stream 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.

VI/0

USB Interface	1x USB 3.0; Type-C
Network Interface	$1xRJ45:10M$ / 100M adaptive Ethernet; PoE(802.3af), Support $NDI^{\rm I}$
Audio Interface	1 x LINE In: 3.5mm 1 x LINE Out: 3.5mm
Power Interface	DC005 (DC 12V)
Reset Button	RESET
Infrared Interface ¹	Support
Indicator Light	POWER, STANDBY

V GENERIC SPEC

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



Remark: 1. This feature is optional