

W-R02 Series

Classroom Recording and Broadcasting Solution



-  Cameras' angle can be switched randomly
-  Embedded AI tracking algorithm, behaviour analysis and keying
-  Wall-mount design
-  POE camera for power supply, control and transmission
-  Supports smoothly select and switch the 6 views
-  Embedded architecture design
-  17.3 inch multi-point touch screen with low consumption and high performance



- live on demand
- remote interaction
- teaching and research management
- supervision tour
- data statistics



4K Auto-Tracking

Full automatic tracking of teachers and students without any wearable markers for 4K recording.

Easy Recording

No specialized equipment needed, teachers can easily complete video recording without distraction.

Safe Touch Operation

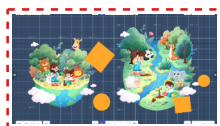
Embedded ARM architecture with a secure touch operation interface.

Technological Compatibility

Open technology architecture that integrates existing resources with future plans, supporting multiple protocols.



The AI system automatically performs image analysis and scene switching, tracking teachers and students' full views and close-ups in real-time without the need for manual operation.



1 IFPD courseware



2 Teacher panoramic view



3 Teacher close-up view



4 Student panoramic view



5 Student close-up view



6 Online Course Live Streaming

Host

Product configuration	
Processor	RK3588 8-core
Internal Dimension	8G
Memory	1T
System	Linux

Screen Parameters	
Size	17.3 inches
Material quality	Fully bonded capacitive touch LCD screen
Resolution ratio	1920*1080
Technology	Anti-fingerprint
Function	Gesture screen-off, backlight control

Video coding	
Encapsulation Protocol	H.265 H.264
Recording Resolution	4K resolution (3840*2160)
File format	MP4 FLV TS

Peripheral Interface	
HDMI	HDMI IN*2 HDMI OUT*3
USB	USB 3.0*3 USB2.0*1
RJ45	POE*4 LAN*1 DMIC*1
Audio frequency	3.5mm IN*1 3.5mm OUT*1 LINE IN*1 LINE OUT*1
Independent Audio Module	MIC IN*2 LINE IN*2 LINE OUT*2
TYPE C	1
RS232	3
Debug	1
Loudspeaker	Built-in 5W*2

General Specification	
Size	429*392.5*59mm
Net weight	5.14kg
Input voltage	DC48V
Input currenton	4.2A

Tracking Camera（Teacher）

Close-up Image Parameters	
Sensor	1/2.7-inch, CMOS, Effective pixels: 8.29 million progressive scan
Scanning Method	Line by line
Lens Mount Type	M12
Teacher Close-up Lens	Focal length: f=13.1mm, horizontal field of view: 25°
Digital Zoom	2x
Minimum Illumination	0.5 Lux @ (F2.8, AGC ON)
Electronic Shutter	1/30s~1/10000s
White Balance	Auto, Indoor, Outdoor, One-Touch, Manual, Preset color temperature
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Horizontal Rotation Range	±40°
Vertical Rotation Range	+5°~-30°
Maximum Rotation Speed	Horizontal: 30°/s, Vertical: 30°/s
Horizontal, Vertical Flip	Support
Image Freeze	Support
Preset Position Quantity	255
Preset Position Accuracy	0.5°

Panoramic Image Parameters	
Sensor	1/2.7-inch, CMOS, Effective pixels: 4.93 million, line by line
Scanning Method	Line by line
Lens Mount Type	M12
Teacher Panoramic Lens	Focal length: f=7.37mm, horizontal field of view: 43°

Minimum Illumination	0.5 Lux @ (F2.2, AGC ON)
Electronic Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One-Touch, Manual, Preset color temperature
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Vertical Rotation Range	+0°~-24°
Image Freeze	Support
Horizontal, Vertical Flip	Support

Network Features	
Video Encoding Standard	H.265 / H.264 / MJPEG
Frame Rate	25/30fps Default 25fps
Audio Compression Standard	AAC/G.711A
Audio Bitrate	96Kbps, 128Kbps, 256Kbps
Supported Protocols	TCP/IP, HTTP, HTTPS, NDI, SRT, RTSP, RTMP, Onvif, DHCP, GB28181, Multicast, etc.

Input/Output Interfaces	
USB Interface	1 channel, USB 3.0: TYPE-C
Network Interface	Supports 10M/100M adaptive, supports PoE power supply (802.3af), optional support for NDI protocol
Line Input Interface	1 channel, Line In, 3.5mm audio input interface
Line Output Interface	1 channel, Line out, 3.5mm audio output
Power Interface	DC005 type (DC 12V)
Reset Button	RESET
Indicator Light	POWER blue, STANDBY green

General Specifications	
Input Voltage	DC 12V/PoE (802.3af)
Input Current	Maximum 1A
Size	242.05*86.03*70.55mm
Net Weight	0.62kg

Tracking Camera (Student)

Close-up Image Parameters

Sensor	1/2.7-inch, CMOS, Effective pixels: 8.29 million progressive scan
Scanning Method	Line by line
Lens Mount Type	M12
Teacher Close-up Lens	Focal length: f=7.37mm, horizontal field of view:43°
Digital Zoom	2x
Minimum Illumination	0.5 Lux @ (F2.4, AGC ON)
Electronic Shutter	1/30s~1/10000s
White Balance	Auto, Indoor, Outdoor, One-Touch, Manual, Preset color temperature
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Horizontal Rotation Range	±40°
Vertical Rotation Range	+5°~-30°
Maximum Rotation Speed	Horizontal: 60°/s, Vertical: 30°/s
Horizontal, Vertical Flip	Support
Image Freeze	Support
Preset Position Quantity	255
Preset Position Accuracy	0.5°

Panoramic Image Parameters

Sensor	1/2.7-inch, CMOS, Effective pixels: 4.93 million, line by line
Scanning Method	Line by line
Lens Mount Type	M12
Teacher Panoramic Lens	Focal length: f=2.2mm, horizontal field of view:
Minimum Illumination	0.5 Lux @ (F2.2, AGC ON)
Electronic Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One-Touch, Manual, Preset color temperature
Digital Noise Reduction	2D&3D Digital Noise Reduction
Backlight Compensation	Support
Vertical Rotation Range	+0°~-24°
Image Freeze	Support
Horizontal, Vertical Flip	Support

Network Features

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Directional

Basic Parameters

Type	Pre-polarized capacitive type
Directivity	Super cardioid
Frequency Response	20Hz~20KHz
Sensitivity	-32db±2db
Nominal Impedance	≤150Ω
Recommended Load Impedance	≥1kΩ
Signal-to-Noise Ratio	70dB,1kHz at 1Pa
Maximum Sound Pressure Level (THD<0.5%)	140dB SPL
Operating Temperature Range	-10°~50°
Current Consumption	≤3mA
Connection Method	Balanced output, 3-pin XLR male connector
Surface Material	Black lacquer
Tube Material	Brass
Size	φ21mm×141mm
Weight	0.176KG

