

# 4/3 Inch 4KP60 Dual Cam PTZ Camera

## iSmart Video

NDI® Dante AV™ SRT

4/3" CMOS 20MP Dual 12G-SDI 4KP60/P59.94 @Dual Cam 20x Optical Zoom

Broadcast-grade  
UHD Imaging



PBC-120F

PDAF OIS OLPF ND Filter

Cinema-grade  
Image Capture

Powerful AI Full NDI Free-D GenLock Time Code Dual Tally Lights

Professional-grade  
Functions

### 4/3" CMOS, 20MP

Fitted with a 4/3" CMOS close-up sensor and a 1/1.8" CMOS full-view sensor, 20 MP close-up lens supports high quality broadcast-grade dual-camera output up to 4K P60/P59.94, delivering videos of ultra-high clarity and precise detail reproduction.



### 20X Optical+Wide-Angle Full-View

20x optical zoom, it vividly captures rich details even from far distance. The Wide-Angle full-view can output images and be used to assist AI. Ideal for large-scale program production and live sports broadcasts, its compact design allows seamless adaptation to complex environments.



### Dual 12G-SDI Simultaneous Output

Dual 12G-SDI interfaces (one BNC and one SFP+) enable simultaneous output of two 4KP60 high-quality pictures, meeting broadcast-grade recording needs. High-spec interfaces like GenLock, and TimeCode enable professional recording connections and post-production editing.



### PDAF+CDAF

The combination of PDAF and CDAF focusing technologies enables instant focusing on people/objects in large scenes, at high zoom, and during high-speed movement, ensuring continuous clear image output.



### OIS+EIS

OIS and EIS fit diverse indoor/outdoor scenarios. Even in harsh outdoor conditions, the camera, powered by dual OIS and EIS, ensures steady, high-quality footage during recording.



### OLPF

OLPF technology can reduce and eliminate moiré patterns caused by grids, shutters, and electronic screens during shooting. It can present clear and high-quality images. Even when using an LED screen as the background, it can stably output high-quality footage for film and television production.



## ND Filter

The adjustable ND filter enables users to control the camera's light intake. Even in direct daytime sunlight, it can still output high-quality images. The pre-reserved threaded interface allows direct installation of personalized filters, adding a unique atmosphere to the film.



## Free-D

The Free-D protocol can be used for AR/VR creation. Ensure seamless integration between virtual elements and real scenes, bringing a highly immersive viewing experience to the audience.



## Full NDI, (SDVoE, HDBaseT) Optional

Full NDI enables lossless and efficient transmission of 4K60 UHD video with just a single network cable connection. It also offers SDVoE and HDBaseT options, greatly expanding the camera's scope of application.



## 15+ Years AI Technology Experience

### Lecturer Tracking

Lecturer tracking includes switching between single cam tracking and dual cam tracking, everywhere tracking, selected target tracking, target switch tracking and gesture control etc. It not only significantly enhances the stability of tracking but also can adapt to complicated scenarios.



### Auto Framing

Keep everyone in the picture with multi-person framing. Auto adjust the picture as people enter and leave the area. And it has strong anti-interference ability. With an efficient, and smooth movement, it guarantees high-quality framing result.



### Anything Tracking

You can select any object in the video for tracking. It is not only a breakthrough in tracking technology but also expands the application scenarios of tracking. Any object can be tracked, making tracking a trend and a habit.



## Diverse Application Scenarios

Multimedia classrooms and large-scale training sessions.....



Press conferences, large-scale events, and concerts...



Variety shows, sports arenas, and news recording sessions...



## PBC-120F Technical Data 3-1

Model	PBC-120F
<b>Tracking Camera</b>	
Image Sensor	4/3"CMOS, 20MP
Max Resolution	4KP60
Focal Length	f=9.8mm ~ 196mm
Iris	F2.8 ~ F4.5
Optical Zoom	20X
Field of View	Horizontal: 71° ~ 4°; Vertical: 40° ~ 2°; Diagonal: 79° ~ 4.5°
Digital Zoom	16X
OLPF	Supported
ND Filter	Electronic: 1/64, 1/16, 1/4, 1
Distortion Correction	Supported
Focusing Mode	PDAF+CDAF
Custom Filters	82mm thread for direct installation
<b>Full-View Camera</b>	
Image Sensor	1/1.8"CMOS, 8.46MP
Max Resolution	4KP60
Focal Length	f=4.4mm
Iris	F2.0
Field of View	Horizontal: 85°; Vertical: 53°; Diagonal: 93°
Adjustable Angle	Vertical: ±20°
<b>Image Parameters</b>	
Image Style	One-key switching among multiple image styles
DNR	2D & 3D
Min Illumination	0.5Lux
Shutter Speed	1/25-1/10,000s
Gain	Auto, Manual
White Balance	Auto, Manual, Indoor, Outdoor, Auto Tracking, Static Color Temperature, One push, Follow the full-view
Backlight Compensation	Supported
Wide Dynamic Range	Supported
Exposure Mode	Auto, Manual, Shutter Priority, Brightness Priority, Iris Priority, Auto Tracking, Follow the full-view
Metering Mode	Top, Bottom, Center, Average, Left, Right
S/N Ratio	≥55dB
Parameter Adjustment	Image parameters of close-up and full-views can be adjusted independently
Color Matrix	Supported
Image Stabilization	OIS + EIS
Image Flip	Horizontal mirroring, Vertical flipping
<b>PTZ</b>	
Horizontal	-170°~+170°; 0.05°~120°/s
Vertical	-30°~+90°; 0.05°~90°/s
<b>Software Function</b>	
PIP	Supports picture-in-picture function for both close-up and full-views PIP position: top-left, bottom-left, top-right, and bottom-right.
OSD	Customized overlay of OSD character
Preset Position Freezing	Supported
Software Upgrade	1. USB upgrade, supporting Windows and Mac systems. 2. WEB upgrade, Supports Edge, Chrome, Safari and other major browsers 3. Network MgrTools Updated: Supports Windows & Mac

Model	PBC-120F
<b>Powerful AI</b>	
Lecturer Tracking	<ol style="list-style-type: none"> <li>1. Supports everywhere tracking, zone tracking, and selected target tracking</li> <li>2. Supports two tracking ways: dual cam tracking and single cam tracking</li> <li>3. Supports adjustable target tracking aspect ratio(Full body, half body, close-up)</li> <li>4. Supports setting the target position of the image (left, middle, right)</li> <li>5. Supports the setting of blocking areas and preset areas</li> <li>6. Support switching target and adjustable body size by remote control</li> <li>7. Gesture Control</li> </ol>
Auto Framing	<p>Multi-person framing (framing within designated zone)</p> <p>Support people counting</p>
Anything Tracking	Track any object besides human body
<b>Interface</b>	
HDMI	<p>1-channel HDMI 2.0, switchable close-up &amp; full-view output</p> <ol style="list-style-type: none"> <li>1. Audio: PCM, 48K, dual-channel</li> <li>2. Color space: YUV/RGB 444 (8bit), YUV 422 (10bit), [The default color space is 444 (8bit)]</li> <li>3. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps</li> <li>4. i-frame resolutions: 1080i@60/59.94/50fps</li> <li>5. Broadcast TV resolutions: 3840*2160@59.94/29.97/23.98fps; 1920*1080@59.94/29.97/23.98fps; 1280*720@59.94/29.97fps</li> </ol>
Network	<p>1-channel RJ-45 interface, supporting 10M/100M/1000M adaptive Ethernet.</p> <p>Standard configuration: IEEE802.3BT standard POE++ module (42V-57V wide operating voltage range)</p> <ol style="list-style-type: none"> <li>1. Video formats: H.264/H.265</li> <li>2. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps.</li> <li>3. Network protocols: RTSP, RTMP, RTMPS, Visca Over IP, ONVIF, SRT, NDI HX3, Dante AV-H.</li> <li>4. Audio compression: AAC</li> <li>5. Supports multi-stream output.</li> <li>6. Supports Web UI, HTTP API</li> </ol>
USB	<p>1-channel USB 3.0 Type-A (switchable between HOST and DEVICE)</p> <ol style="list-style-type: none"> <li>1. Audio output: UAC (PCM, 48K, dual-channel).</li> <li>2. Color space: RGB 420</li> <li>3. Compatible with USB 2.0.</li> <li>4. UVC 1.1 protocol.</li> <li>5. UVC video formats: <ul style="list-style-type: none"> <li>•USB 3.0: H.264/H.265/MJPEG: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps</li> <li>NV12: 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps;</li> <li>•USB2.0: H.264/H.265/MJPEG: 1280*720@30/25fps; 640*360@30/25fps</li> </ul> </li> </ol>

Model	PBC-120F
3G-SDI	Two channels of 3G-SDI, one for switch and one for full-view, with audio output supported (PCM, 48K, dual-channel) 1. Video resolutions (3G-SDI switchable): 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps 2. Video resolutions (3G-SDI supports full-view): 1920*1080@60/50/30/25fps; 1280*720@60/50/30/25fps 3. i-frame resolutions (3G-SDI supports switchable): 1080i@60/59.94/50fps 4. Supported broadcast TV resolutions (3G-SDI switchable): 1920*1080@59.94/29.97/23.98fps; 1280*720@59.94/29.97fps
12G-SDI	Two channels of 12G-SDI (one BNC and one SFP+), with audio output supported (PCM, 48K, dual-channel). 1. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps 2. i-frame resolutions: 1080i@60/59.94/50fps 3. Broadcast TV resolutions: 3840*2160@59.94/29.97/23.98fps; 1920*1080@59.94/29.97/23.98fps; 1280*720@59.94/29.97fps
SFP	One fiber optic network interface
Gen-Lock	One BNC interface for input only
Time Code	One BNC interface for input only
Full NDI	One channel of Full NDI, (mutually exclusive with HDBaseT and SDVoE). The video resolutions and formats are the same as those of HDMI
SDVoE (Optional)	One channel of SDVoE, (mutually exclusive with HDBaseT and Full NDI). The video resolutions and formats are the same as those of HDMI
HDBaseT (Optional)	One channel of HDBaseT, (mutually exclusive with SDVoE and Full NDI). The video resolution and format are the same as those of HDMI
Audio	Two Audio-Input XLR Cannon sockets: 1. Phantom power supply. 2. Support AAC/UAC. 3. Sampling rates: 16k, 32k, and 48k.
Factory Reset	Can be restored by pressing the reset button
Control	One channel RS-232/422 (RJ45) Support Visca, Pelco-P, and Pelco-D protocols
Security Lock Slot	One channel Kensington Lock
TF Card	External TF card, MAX 2TB, setting by web UI
Power	Input: 100-240V, 50-60Hz, output: DC 12V, 5A
<b>General</b>	
Preset Number	256
Indicator Light	Power indicator, status indicator, dual tally lights
OLED Display	Rotational display supported
Language	English
Installation Method	Upright, Inverted
Operating Temperature	Temperature: 0°C~+40°C; Humidity: 10%RH~90%RH
Storage Temperature	Temperature: -20°C~+60°C; Humidity: 10%RH ~95%RH
Dimensions (L*W*H)	208.3mm*238mm*299.3mm
Weight	≤5kg
Infrared Remote Control	Supported

## Hangzhou Chingan Tech Co., Ltd

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Website



Linkedin



YouTube

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## iSmart Video

NDI® Dante AV™ SRT

4/3" CMOS 20MP 12G-SDI 4KP60/P59.94 @Dual Cam 20x Optical Zoom

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UHD Imaging

PDAF OIS OLPF ND Filter

Cinema-grade  
Image Capture

Powerful AI Full NDI (Optional) Free-D Dual Tally Lights

Professional-grade  
Functions



PBC-120S

### 4/3" CMOS, 20MP

Fitted with a 4/3" CMOS close-up sensor and a 1/1.8" CMOS full-view sensor, 20 MP close-up lens supports high quality broadcast-grade dual-camera output up to 4K P60/P59.94, delivering videos of ultra-high clarity and precise detail reproduction.



### 20X Optical+Wide-Angle Full-View

20x optical zoom, it vividly captures rich details even from far distance. The Wide-Angle full-view can output images and be used to assist AI. Ideal for large-scale program production and live sports broadcasts, its compact design allows seamless adaptation to complex environments.



### 12G-SDI&3GSDI Simultaneous Output

Equipped with 12G-SDI, it can output 4K P60 images. This powerful function fully meets the recording requirements for broadcast-level high-quality films. At the same time, it supports simultaneous output of images via 12G-SDI and 3G-SDI. During recording, the 3G-SDI images can be used for auxiliary monitoring.



### PDAF+CDAF

The combination of PDAF and CDAF focusing technologies enables instant focusing on people/objects in large scenes, at high zoom, and during high-speed movement, ensuring continuous clear image output.



### OIS+EIS

OIS and EIS fit diverse indoor/outdoor scenarios. Even in harsh outdoor conditions, the camera, powered by dual OIS and EIS, ensures steady, high-quality footage during recording.



### OLPF

OLPF technology can reduce and eliminate moiré patterns caused by grids, shutters, and electronic screens during shooting. It can present clear and high-quality images. Even when using an LED screen as the background, it can stably output high-quality footage for film and television production.



## ND Filter

The adjustable ND filter enables users to control the camera's light intake. Even in direct daytime sunlight, it can still output high-quality images. The pre-reserved threaded interface allows direct installation of personalized filters, adding a unique atmosphere to the film.



## Free-D

The Free-D protocol can be used for AR/VR creation. Ensure seamless integration between virtual elements and real scenes, bringing a highly immersive viewing experience to the audience.



## Optional Full NDI, SDVoe or HDBaseT

Optional Full NDI, SDVoe or HDBaseT, it facilitates the lossless and efficient transmission of videos, significantly saving wiring costs and time and improving the efficiency of film and television production.



## 15+ Years AI Technology Experience

### Lecturer Tracking

Lecturer tracking includes switching between single cam tracking and dual cam tracking, everywhere tracking, selected target tracking, target switch tracking, gesture control etc. It not only significantly enhances the stability of tracking but also can adapt to complicated scenarios.



### Auto Framing

Keep everyone in the picture with multi-person framing. Auto adjust the picture as people enter and leave the area. And it has strong anti-interference ability. With an efficient, and smooth movement, it guarantees high-quality framing result.



### Anything Tracking

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Press conferences, large-scale events, and concerts...



Variety shows, sports arenas, and news recording sessions...



## PBC-120S Technical Data 3-1

Model	PBC-120S
<b>Tracking Camera</b>	
Image Sensor	4/3" CMOS, 20MP
Max Resolution	4KP60
Focal Length	f=9.8mm ~ 196mm
Iris	F2.8 ~ F4.5
Optical Zoom	20X
Field of View	Horizontal: 71° ~ 4°; Vertical: 40° ~ 2°; Diagonal: 79° ~ 4.5°
Digital Zoom	16X
OLPF	Supported
ND Filter	Electronic: 1/64, 1/16, 1/4, 1
Distortion Correction	Supported
Focusing Mode	PDAF+CDAF
Custom Filters	82mm threaded interface for direct mounting
<b>Full-View Camera</b>	
Image Sensor	1/1.8" CMOS, 8.46MP
Max Resolution	4KP60
Focal Length	f=4.4mm
Iris	F2.0
Field of View	Horizontal: 85°; Vertical: 53°; Diagonal: 93°
Adjustable Angle	Vertical: ±20°
<b>Image Parameters</b>	
Image Style	One-key switching among multiple image styles
DNR	2D & 3D
Min Illumination	0.5Lux
Shutter Speed	1/25-1/10,000s
Gain	Auto, Manual
White Balance	Auto, Manual, Indoor, Outdoor, Auto Tracking, Static Color Temperature, One push, Follow the full-view
Backlight Compensation	Supported
Wide Dynamic Range	Supported
Exposure Mode	Auto, Manual, Shutter Priority, Brightness Priority, Iris Priority, Auto Tracking, Follow the full-view
Metering Mode	Top, Bottom, Center, Average, Left, Right
S/N Ratio	≥55dB
Parameter Adjustment	Image parameters of close-up and full-views can be adjusted independently
Color Matrix	Supported
Image Stabilization	OIS + EIS
Image Flip	Horizontal mirroring, Vertical flipping
<b>PTZ</b>	
Horizontal	-170°~+170°; 0.05°~120°/s
Vertical	-30°~+90°; 0.05°~90°/s
<b>Software Function</b>	
PIP	Supports picture-in-picture function for both close-up and full-views PIP position: top-left, bottom-left, top-right, and bottom-right.
OSD	Customized overlay of OSD character
Preset Position Freezing	Supported
Software Upgrade	1. USB upgrade, supporting Windows and Mac systems. 2. WEB upgrade, Supports Edge, Chrome, Safari and other major browsers 3. Network MgrTools Updated: Supports Windows & Mac

Model	PBC-120S
Powerful AI	
Lecturer Tracking	<ol style="list-style-type: none"> <li>1. Supports everywhere tracking, zone tracking, and select tracking</li> <li>2. Supports two tracking ways: dual cam tracking and single cam tracking</li> <li>3. Supports adjustable target tracking aspect ratio(Full body, half body, close up)</li> <li>4. Supports setting the target position of the image (left, middle, right)</li> <li>5. Supports the setting of blocking areas and preset areas</li> <li>6. Support switching target and adjustable body size by remote control</li> <li>7. Gesture control</li> </ol>
Auto Framing	<p>Multi-person framing (framing within designated zone)</p> <p>Support people counting</p>
Anything Tracking	Track any object besides human body
<b>Interface</b>	
HDMI	<p>1-channel HDMI 2.0, switchable close-up &amp; full-view output</p> <ol style="list-style-type: none"> <li>1. Audio: PCM, 48K, dual-channel</li> <li>2. Color space: YUV/RGB 444 (8bit), YUV 422 (10bit) [The default color space is RGB 444 (8bit)]</li> <li>3. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps</li> <li>4. i-frame resolutions: 1080i@60/59.94/50fps</li> <li>5. Broadcast TV resolutions: 3840*2160@59.94/29.97/23.98fps; 1920*1080@59.94/29.97/23.98fps; 1280*720@59.94/29.97fps</li> </ol>
Network	<p>1-channel RJ-45 interface, supporting 10M/100M/1000M adaptive Ethernet.</p> <p>Standard configuration: IEEE802.3BT standard POE++ module (42V-57V wide operating voltage range)</p> <ol style="list-style-type: none"> <li>1. Video formats: H.264/H.265</li> <li>2. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps.</li> <li>3. Network protocols: RTSP, RTMP, RTMPS, Visca Over IP, ONVIF, SRT, NDI HX3, Dante AV-H.</li> <li>4. Audio compression: AAC</li> <li>5. Supports multi-stream output.</li> <li>6. Supports Web UI, HTTP API</li> </ol>
USB	<p>1-channel USB 3.0 Type-A (switchable between HOST and DEVICE)</p> <ol style="list-style-type: none"> <li>1. Audio output: UAC (PCM, 48K, dual-channel).</li> <li>2. Color space: RGB 420</li> <li>3. Compatible with USB 2.0.</li> <li>4. UVC 1.1 protocol.</li> <li>5. UVC video formats: <ul style="list-style-type: none"> <li>•USB 3.0: H.264/H.265/MJPEG: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps</li> <li>NV12: 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps; 640*360@60/50/30/25fps;</li> <li>•USB2.0: H.264/H.265/MJPEG: 1280*720@30/25fps; 640*360@30/25fps</li> </ul> </li> </ol>

Model	PBC-120S
3G-SDI	One channels of 3G-SDI, output full-view video, with audio output supported (PCM, 48K, dual-channel) 1. Video resolutions: 1920*1080@60/50/30/25fps; 1280*720@60/50/30/25fps
12G-SDI	One channels of 12G-SDI (BNC), with audio output supported (PCM, 48K, dual-channel). 1. Video resolutions: 3840*2160@60/50/30/25/24fps; 1920*1080@60/50/30/25/24fps; 1280*720@60/50/30/25fps 2. i-frame resolutions: 1080i@60/59.94/50fps 3. Broadcast TV resolutions: 3840*2160@59.94/29.97/23.98fps; 1920*1080@59.94/29.97/23.98fps; 1280*720@59.94/29.97fps
SFP	One fiber optic network interface
Full NDI (Optional)	One channel of Full NDI, (mutually exclusive with HDBaseT and SDVoE). The video resolutions and formats are the same as those of HDMI
SDVoE (Optional)	One channel of SDVoE, (mutually exclusive with HDBaseT and Full NDI). The video resolutions and formats are the same as those of HDMI
HDBaseT (Optional)	One channel of HDBaseT, (mutually exclusive with SDVoE and Full NDI). The video resolution and format are the same as those of HDMI
Audio	Two Audio-Input XLR Cannon sockets: 1. Phantom power supply. 2. Support AAC/UAC. 3. Sampling rates: 16k, 32k, and 48k.
Factory Reset	Can be restored by pressing the reset button
Control	One channel RS-232/422 (RJ45) Support Visca, Pelco-P, and Pelco-D protocols
Security Lock Slot	One channel Kensington Lock
TF Card	External TF card, MAX 2TB, setting by web UI
Power	Input: 100-240V, 50-60Hz, output: DC 12V, 5A
<b>General</b>	
Preset Number	256
OLED Display	Rotational display supported
Indicator Light	Power indicator, status indicator, dual tally lights
Language	English
Installation Method	Upright, Inverted
Operating Temperature	Temperature: 0°C~+40°C; Humidity: 10%RH~90%RH
Storage Temperature	Temperature: -20°C~+60°C; Humidity: 10%RH ~95%RH
Dimensions (L*W*H)	208.3mm*238mm*299.3mm
Weight	≤5kg
Infrared Remote Control	Supported

Hangzhou Chingan Tech Co., Ltd

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