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12G



AI Intelligence Precision Framing

4K 30x Tracking
PTZ Camera
PTC-600



www.datavideo.com

Brand New 4K Auto tracking PTZ Camera

PTC-600 4K Auto-Tracking PTZ camera features a professional and high-end design, making it suitable for large-scale events such as performance halls, stadiums, lecture theaters, and corporate presentations. Its robust and aesthetically pleasing design is paired with a 30X optical zoom, delivering rich image depth and vibrant color reproduction even in low-light environments. Additionally, it offers next-generation AI tracking capabilities, ensuring smooth camera movement and natural framing, which enhances the visual presentation and supports high-quality live video production.

- Next-generation AI auto-tracking, delivering a new visual experience.
- 30X optical zoom, providing high-definition image quality from long distances.
- Equipped with a 1/1.8" CMOS sensor, ensuring excellent performance even in low-light environments.
- Supports NDI HX3 with 4K resolution
- Supports UVC output up to 4K30P
- Capable of simultaneous streaming to two different platforms without additional encoders.
- Dual-mode Line/Mic audio input offers you clear and high-quality audio.



PTC-600 SERIES

Standard Version



12G-SDI Version



Capable of Handling Broadcast-Grade Production



The PTC-600 boldly meets the increasingly stringent demands of broadcast-grade production, featuring the latest generation CMOS sensor and advanced transmission interfaces like 12G SDI, and 4K HDMI. The key upgrade lies in the lens optics, significantly enhancing image resolution and performance in low-light environments.

First, the aperture's light intake has been improved. We've upgraded to a bright F1.35 aperture, paired with an optimized high-quality lens consisting of 5 groups and 14 elements. This upgrade ensures consistent brightness and reduces vignetting when capturing wide-angle shots, particularly enhancing low-light performance.

Another major improvement is resolution. Many users are unaware that their 4K PTZ cameras may never achieve true 4K resolution due to optical distortions. We have worked extensively to minimize lens distortion to approximately 0.04%, meeting ISO 12233 standards. This allows for a center resolution of over 1700 lines, significantly enhancing the camera's ability to capture fine details such as hair and text, resulting in sharper, clearer images.

Durability has also been improved. We subjected components like the aperture and lens zoom mechanisms to rigorous testing, ensuring they can withstand over a million cycles of movement while maintaining consistent performance. This guarantees smooth operation without any physical stuttering, allowing for precise transmission of all lens movements during shooting.

Finally, the overall image quality of the PTC-600 has been elevated. By integrating the extensively upgraded lens components with a highly compatible sensor, new-generation algorithms, and multiple connection interfaces, the PTC-600 ensures that various applications—such as large conferences and TV programs—achieve advanced results, meeting ideal usage expectations.

Performance under low light

Enhanced low-light performance ensures vibrant, detailed images, even in challenging lighting conditions.



Lens distortion correction

Minimized distortion enhances image accuracy, perfect for detailed visuals like presentations, charts, and fine text.



Natural Tracking, Effortless Shooting

In virtual production, the FreeD function is highly regarded for its excellent performance and numerous advantages. The FreeD protocol ensures compatibility between the camera and most 3D rendering engines, synchronizing the positional data generated during shooting—such as pan, tilt, zoom, focus, and iris—with the integrated 3D engine. Through precise camera and image processing technology, it simulates real scenes and objects in virtual production. Characters can also interact within the virtual space, providing an immersive experience that is almost indistinguishable from real-world environments. Additionally, it supports widely used FreeD protocol virtual systems in the market.



Unlocking the Transmission Potential of a Single Ethernet Cable with NDI® | HX3 Technology

NDI® | HX3 is the latest NDI protocol, delivering exceptionally high image quality and low latency. Now enhanced to support 4K, NDI® | HX3 enables all PTC-600 models to transmit audio and video signals directly, providing a comprehensive upgrade with additional bandwidth requirements. NDI® | HX3 combined with 4K is ideal for users prioritizing top image quality and low latency in live production.

With high control flexibility, NDI® | HX3 achieves a balance of quality and efficiency without compromise, delivering near Full NDI quality and low latency while minimizing bandwidth needs.

The PTC-600's professional XLR audio input enhances audio quality, supporting seamless connections with microphones and mixers, and transmitting both audio and video via NDI® | HX3. Additionally, NDI® | HX3 offers PoE (Power over Ethernet) and integrates control signals, enabling users to extend up to 100 meters over a single Cat6 network cable. This feature is especially useful for outdoor events and other varied setups.

NDI HX3

VIDEO | AUDIO | POWER | TALLY | CONTROL





Quick Access to Camera's Auto tracking

You will be allowed direct access to auto tracking via various external controllers such as the supplied RMC-1AT remote control and DVIP controllers (RMC-300A, PTC View Assist, etc.)

In addition to camera controllers, you can also easily enable auto tracking on smart switchers which include KMU-200, SHOWCAST 100, etc as well as complete solution systems like ZR-1 Hybrid Video Production Solution.



SHOWCAST 100



RMC-300A



PTC View Assist



TPC-700P



RMC-1AT

Custom AI Object Tracking

If you are filming multiple people, you can designate a person for Auto tracking. Once linked to the camera, only the designated person will be tracked, avoiding interferences such as the desks, people coming back and forth, large objects, etc.



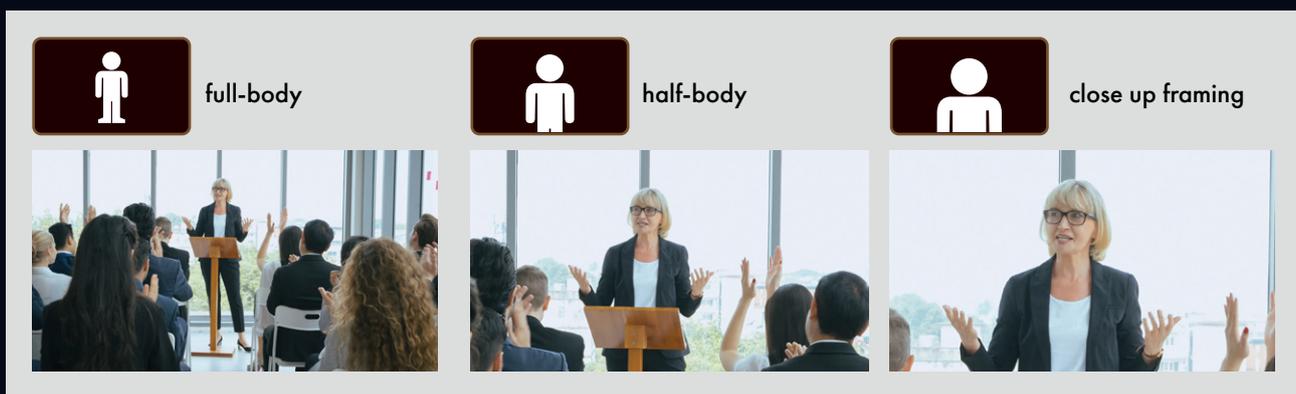
Talent Position: Center / Left Side / Right Side

The positioning of talent depends on the videographer's creativity and intent rather than strict rules. Different positions can convey various emotions, messages, or visual effects. A centered composition provides a sense of stability and balance, suitable for scenes that require highlighting the main subject. Videographers may also place the talent on the left third or right third of the frame, leaving adequate space in the foreground to showcase the talent's sight direction or potential future possibilities.



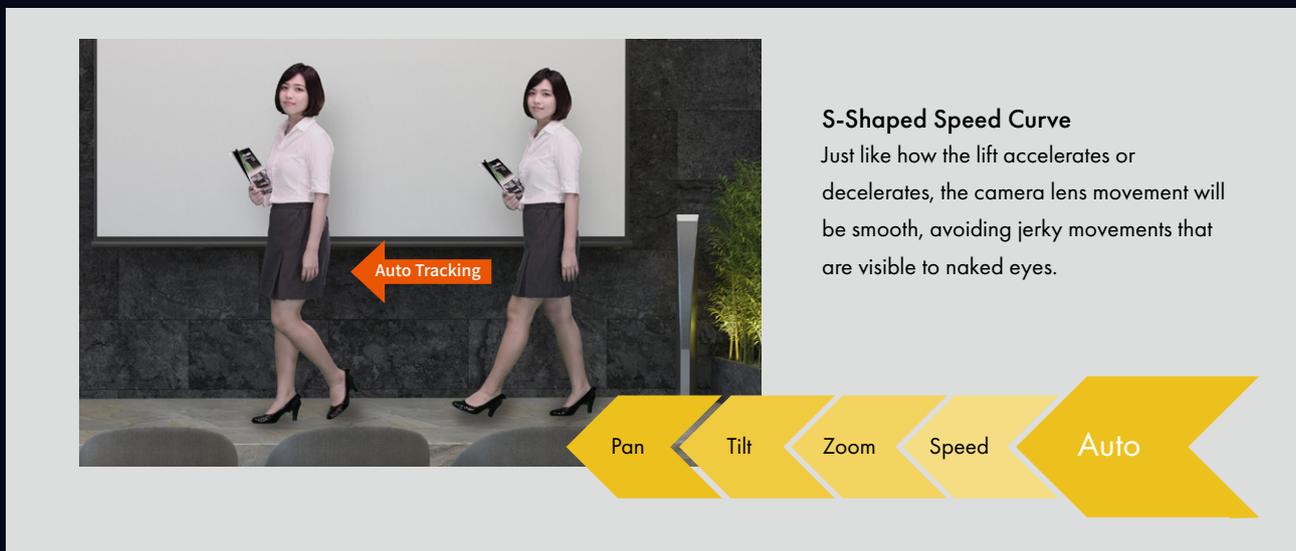
Quick Access to Framing Options

All of the PTC-600 camera series include RMC-1 controller. User can quickly select full-body, half-body and close up framing, making it easy to change the shooting scene and framing requirements.



Smart PTZ Speed Adaptation

The integrated PID algorithm is able to detect the movement speed of the identified object and automatically adjust the camera's corresponding pan, tilt and zoom speeds in such a way that the lens movement will be smooth, avoiding common camera lens movement problems like jerky movements or unpredicted halts.



Supports 12G-SDI Output

The PTC-600 is equipped with a 12G-SDI output port, specifically designed to deliver ultra-high-quality 4K SDI video content. It ensures smooth and detailed visuals while seamlessly integrating with other professional broadcast-grade 12G-SDI equipment, creating a unified high-end video production and transmission experience.



Compliant with the ONVIF Profile S standard

The PTC-600 series cameras are compliant with the ONVIF Profile S standard, ensuring seamless integration and interoperability in network video systems.



Multiple simultaneous video output

Supports simultaneous HDMI 2.0 output up to 2160p 50/60 and also 3G-SDI output up to 1080p60/50.



Various Control Options

Control real-time pan, tilt, and zoom camera movements with Datavideo PTZ View Assist APP, RMC-300A and RMC-180 series. With configurable preset positions supported.



SHOWCAST 100



PTZ View Assist



RMC-180 MARK II



RMC-300A

Multiple Network Protocol with Dual Stream function

Support RTSP and RTMPS protocols, easy to stream directly to two different CDN platforms and Datavideo dvCloud as well.



NDI® Virtual Input

PTC-600 as a video input source can be applied to various platforms: Skype, GoToMeeting, WebEx, Zoom, and more.



Broadcast quality 4K HDMI / 3G-SDI PTZ camera

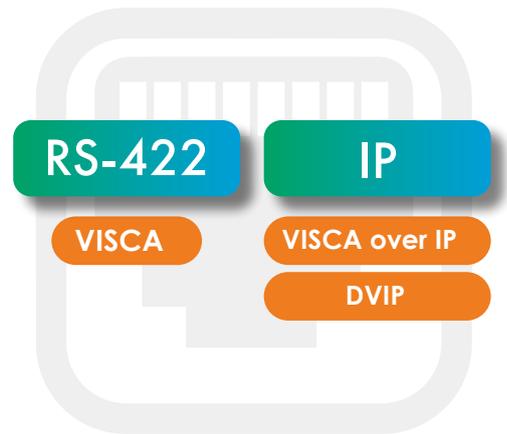
Resolution is up to 2160p 50/60. 30x optical zoom for PTC-600 series which you a high quality video.

Low Noise in low light CMOS effectively ensures high SNR of video quality.

Advanced 3D noise reduction technology is also used to further reduce the noise while ensuring image sharpness.

RS-422, DVIP and Ethernet Camera Control

RS-422 and ethernet to use DVIP or VISCA over IP commands to integrate with larger control systems.



Supports H.264/H.265 video compression

Support compression of resolution up to 3840x2160 with frame up to 59.94, 60fps and the second channel 720x480p compression. AAC, MP3 and PCM audio compression also supported.

Tally Light

The PTZ camera is equipped with tally lights on both the front and rear panels. The green and red lights indicate preview and program status, respectively, for broadcast applications.





Simply enable Auto tracking
with your IR remote control

RMC-1AT PTZ Controller



All you need is a remote control to set and control all four cameras and save the four presets.

Menu
Press the Menu button to open the camera's OSD menu which will show you all functions of the PTC-600.

Power
Press to activate the camera or enter standby mode.

Camera Selection / Setting
Select to set or control up to four cameras.

Camera Presets
Each camera is allowed up to four presets which store the camera's current pan, tilt and zoom position, as well as settings such as iris, focus and movement speed. Presets allow quick access to settings required for specific camera shooting.

Focus
Ergonomic design to ease manual focus adjustment.

Zoom
Sets zoom speed and zooms in and out.

Micro Joystick
The joystick controls the pan and tilt directions or selects options or values while the OSD menu is opened.

Return
This returns the camera lens position to the Home position. When the OSD menu is opened, this button returns to the previous menu hierarchy level.

IP Address Reset
Press and hold to restore the default IP address.

AF Auto Focus
Press the AF button to turn on/ off auto focus function.

Store
Saves the current pan, tilt and zoom settings of the camera as well as settings such as iris, focus and movement speed to presets 1 to 4.

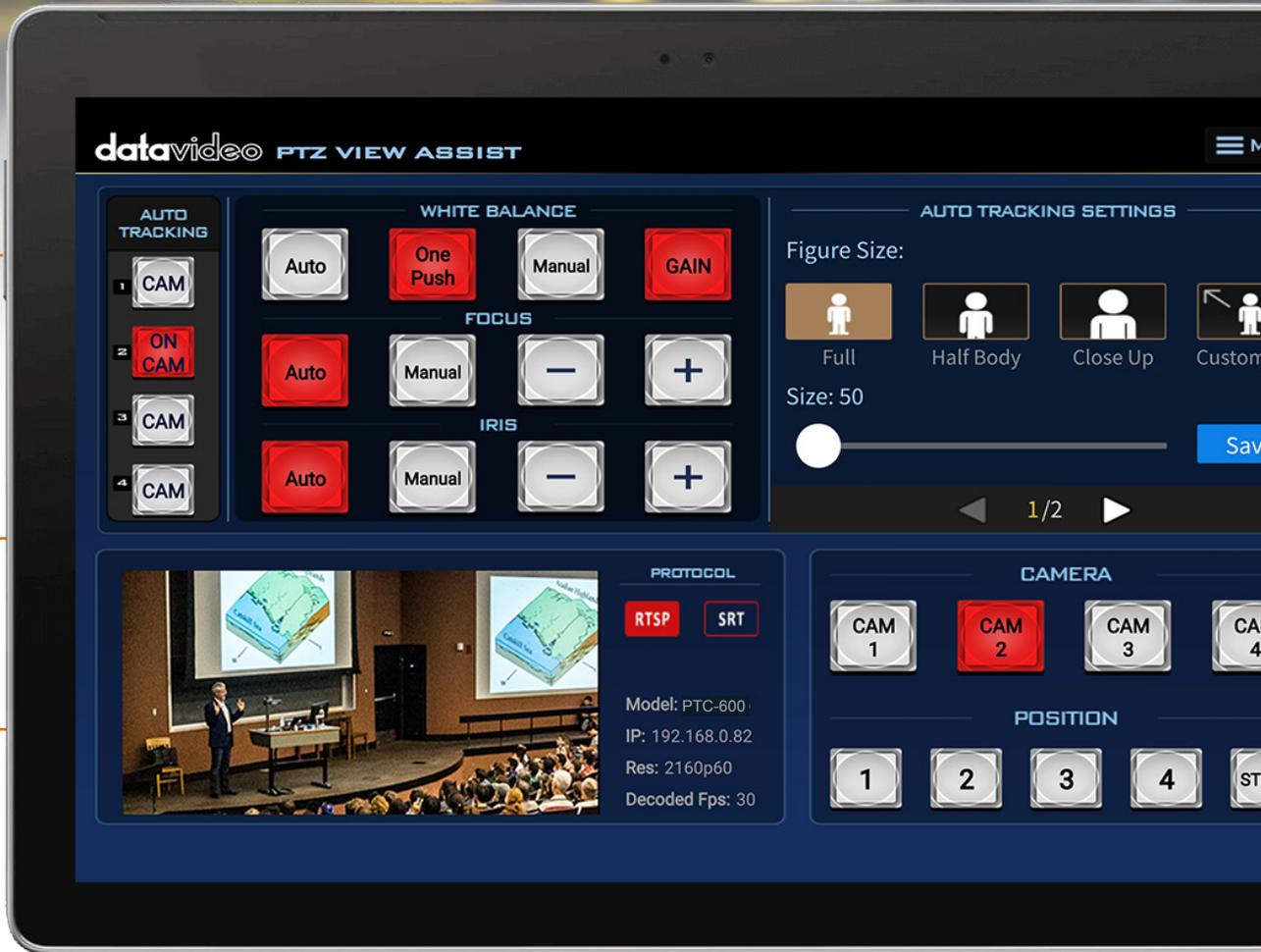
AT Tracking Enable
The AT button activates the auto tracking function of the PTC-600 series with one key. User can quickly select full-body, half-body and close up framing, making it easy to change the shooting scene and framing requirements.

datavideo
RMC-1AT

Auto Tracking

White Balance
Focus
Iris

Monitoring

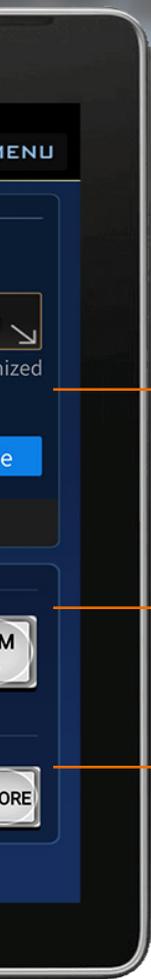


PTZ View Assist

Control up to four cameras with your Tablet



The camera control app is tailored for the Datavideo PTZ camera series. It can monitor the live streaming video from all Datavideo camera series. The app can control up to 4 cameras simultaneously via DVIP, you can intuitively set up and recall the presets, and adjust white balance, focus, and IRIS. The app can decode the live streaming via RTSP and SRT, easily monitor the live streaming video and set up the parameters promptly in one application. Datavideo provides iOS and Android versions, you can download on Google Play and App Store for free!



Camera Control

Camera

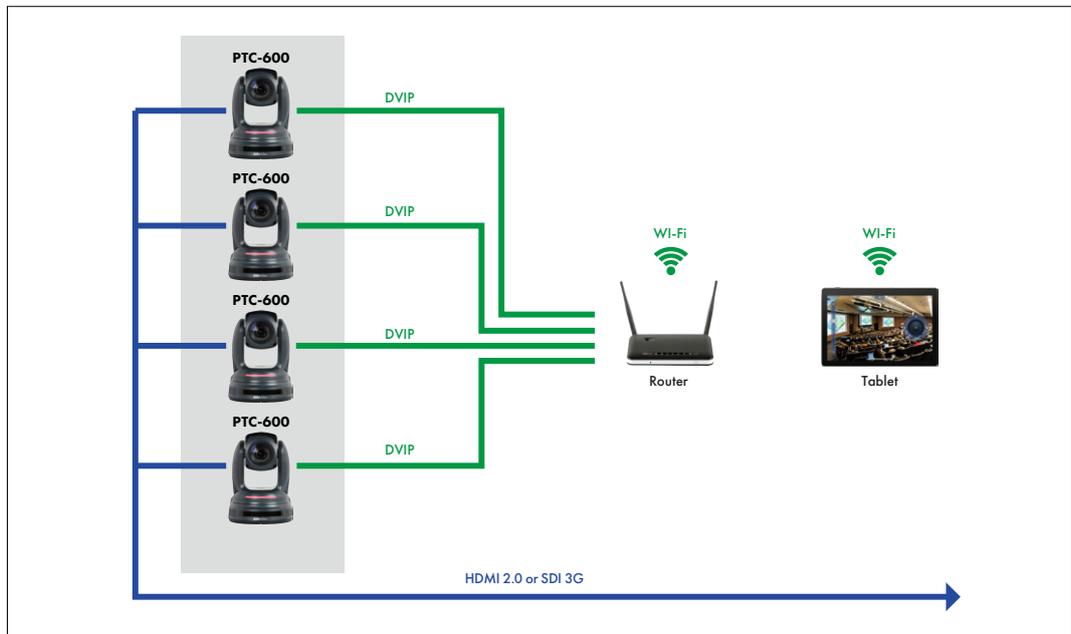
Protocol

Position

Mobile phone version available soon

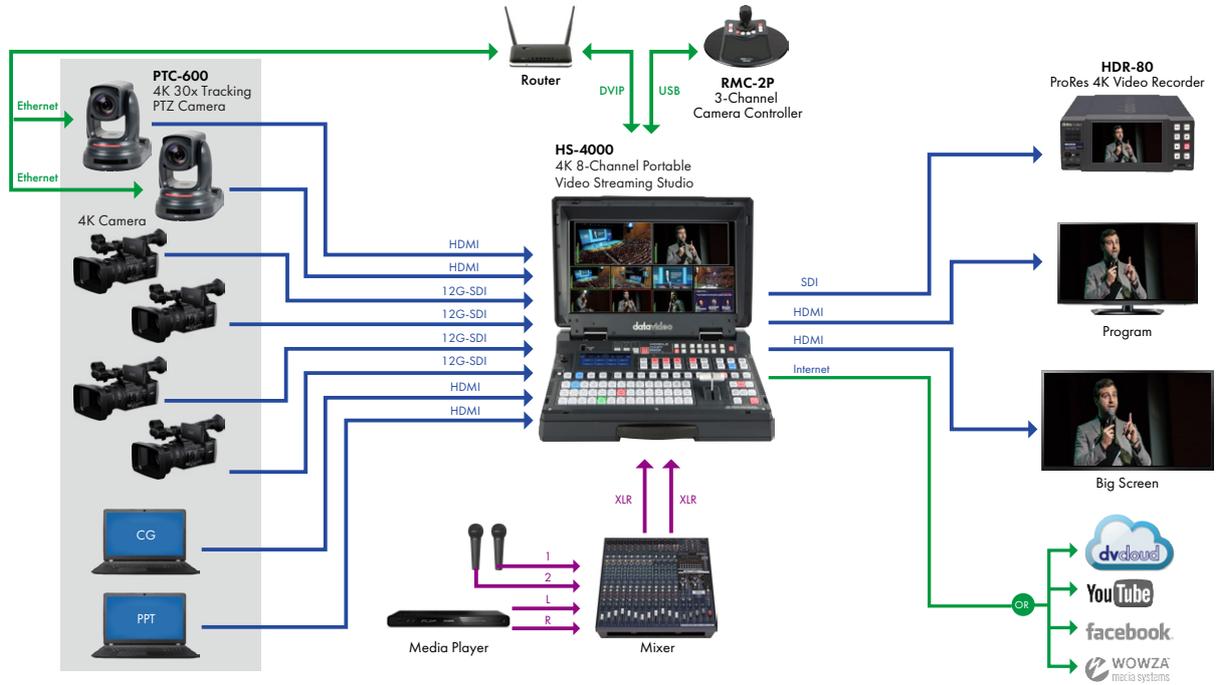


Camera control via web UI APP control

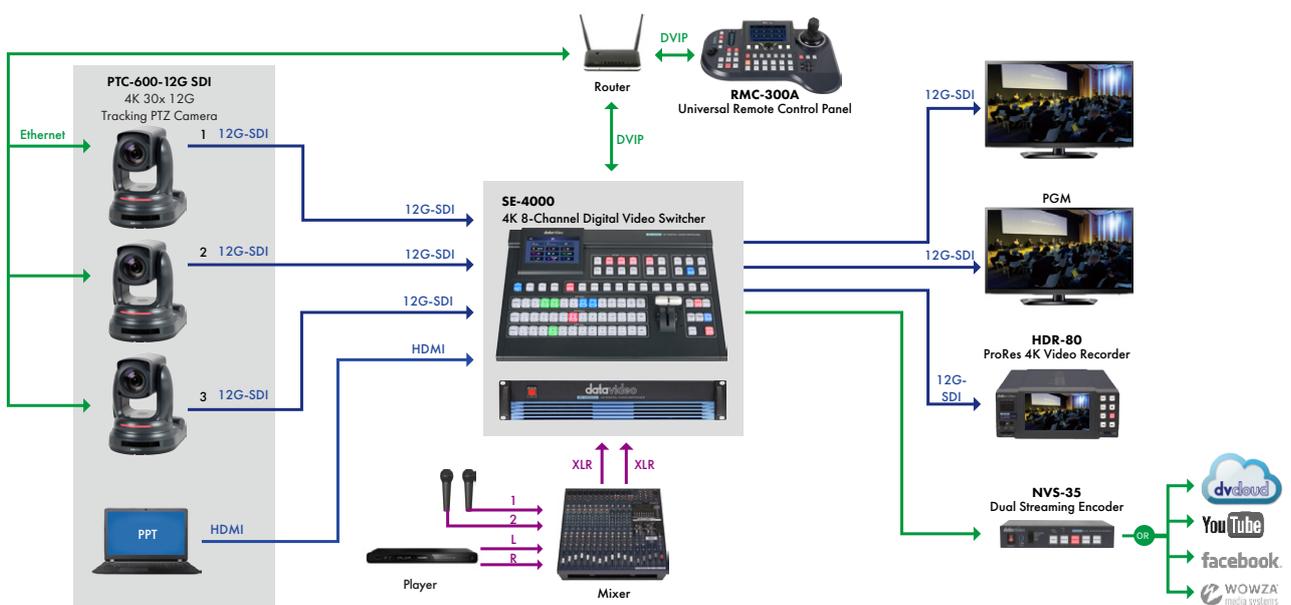


The camera control app is able to control datavideo PTZ cameras. Once you install the app on the tablet, it is easy to control the cameras in the same network!

PTC-600



PTC-600-12G SDI



Optional accessories



RMC-300A
Universal Remote Control Panel



RMC-180 MARK II
PTZ Camera Controller

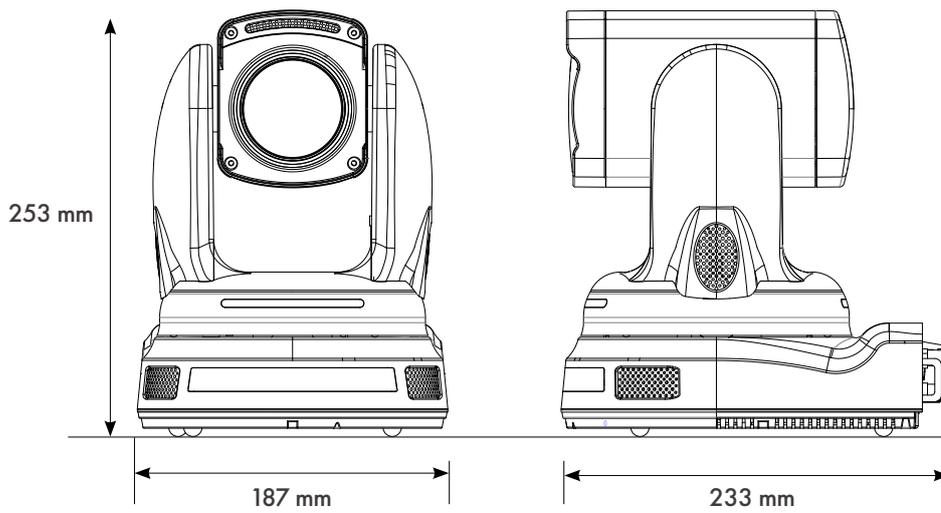


RMC-2P
3-Channel Camera Controller



VP-929
HDMI 4K Repeater

Dimension



	PTC-600	PTC-600-12G SDI
Product Name	4K 30x Tracking PTZ Camera	4K 12G 30x Tracking PTZ Camera
Video format/Resolution	HDMI: 2160p60/59.94/50/30/29.97/25 (2160p60/59.94/50 YUV 4:2:2) 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 SDI 1080p 60/59.94/50/30/29.97/25 720p 60/59.94/50	HDMI/12G-SDI: 2160p60/59.94/50/30/29.97/25 (2160p60/59.94/50 YUV 4:2:2) 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 SDI 1080p 60/59.94/50/30/29.97/25 720p 60/59.94/50
Image Sensor	1/1.8" CMOS	1/1.8" CMOS
Effective Pixels (approx.)	8.42Mega Pixels	8.42Mega Pixels
S/N Ratio	≥55dB	≥55dB
Min. Illumination	0.5 Lux @ (F1.8, AGC ON)	0.5 Lux @ (F1.8, AGC ON)
Electronic Shutter	1/30s ~ 1/10000s	1/30s ~ 1/10000s
Zoom Ratio	30x Optical, 4x Digital Zoom	30x Optical, 4x Digital Zoom
Effective Zoom Ratio	31.06x	31.06x
Gamma Control	Off/Normal	Off/Normal
Iris Control	Auto/Manual	Auto/Manual
Digital Noise Reductions	2D/3D	2D/3D
On-Screen Display	English/Simplified Chinese/Traditional Chinese	English/Simplified Chinese/Traditional Chinese
White Balance	Auto, Indoor, Outdoor, One Push, Manual	Auto, Indoor, Outdoor, One Push, Manual
AGC / Gain Control	Yes	Yes
Mirror / Flip Image	Yes	Yes
Focus Mode	Auto/Manual/One Push	Auto/Manual/One Push
Panning / Tilting Range	Pan: 340 Tilt: -20~+105	Pan: 340 Tilt: -20~+105
Preset	255 Position	255 Position
Focal Length	30x, f=6.91mm~214.64mm, F1.35(Wide) ~F4.6 (Tele)	30x, f=6.91mm~214.64mm, F1.35(Wide) ~F4.6 (Tele)
Field of View (Horizontal, Wide)	60°	60°
Image Compensation	Back light compensation	Back light compensation
Video Output	HDMI 2.0 x 1 3G-SDI x1 10/100/1000M RJ45 (802.3bt, PoE++) x1 UVC out (USB type C) x1	HDMI 2.0 x 1 3G-SDI x1 12G-SDI x1 10/100/1000M RJ45 (802.3bt, PoE++) x1 UVC out (USB type C) x1
Audio Input	XLRx2 (line in), 3.5mm x1 (mic in)	XLRx2 (line in), 3.5mm x1 (mic in)
Tally LED	Yes	Yes
Control Protocol	Pelco-D, Pelco-P, VISCA, VISCA over IP, DVIP, ONVIF, NDI, FreeD	Pelco-D, Pelco-P, VISCA, VISCA over IP, DVIP, ONVIF, NDI, FreeD
Remote Control Interface	IR, Web GUI, RS-422/RS-232, DVIP NDI	IR, Web GUI, RS-422/RS-232, DVIP NDI
Video Compression Format	H.264/H.265/MJPEG	H.264/H.265/MJPEG
Audio Compression Format	AAC	AAC
Audio Bitrate	96Kbps, 128Kbps, 256Kbps	96Kbps, 128Kbps, 256Kbps
Streaming Protocols	RTSP, RTMP(S), ONVIF, Multicast, SRT, NDI Hx3	RTSP, RTMP(S), ONVIF, Multicast, SRT, NDI Hx3
First Stream Supported Resolution	3840x2160 / 1920x1080 / 1280x720 1024x576 / 960x540 / 640x480 / 640x360	3840x2160 / 1920x1080 / 1280x720 1024x576 / 960x540 / 640x480 / 640x360
Second Stream Supported Resolution	1280x720 / 1024x576 / 720x576 (50Hz) 720x480 (60Hz) / 720x408 / 640x360 480x270 / 320x240	1280x720 / 1024x576 / 720x576 (50Hz) 720x480 (60Hz) / 720x408 / 640x360 480x270 / 320x240
Video Bitrate	32Kbps ~ 50Mbps (Single Stream)	32Kbps ~ 50Mbps (Single Stream)
Video Bitrate Mode	VBR, CBR	VBR, CBR
Encoding Frame rate	50Hz: 1-50fps, 60Hz: 1-60fps	50Hz: 1-50fps, 60Hz: 1-60fps
F/W Update	Via Web UI or USB 3.0 (type C)	Via Web UI or USB 3.0 (type C)
POE	PoE++	PoE++
IR Control	Yes	Yes
Camera Control Unit	RMC-2P/ RMC-180 series/ RMC-300 series/ PTZ View Assist APP	RMC-2P/ RMC-180 series/ RMC-300 series/ PTZ View Assist APP
Tripod Mount	1/4-20 UNC	1/4-20 UNC
Color	Dark Blue/White	Dark Blue/White
Dimension (LxWxH)	187(W)x 253(H)x233(D) mm	187(W)x 253(H)x233(D) mm
Weight	3.0 Kg	3.0 Kg
Operating Temp. Range	0~40 °C	0~40 °C
Power	DC 12V	DC 12V



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