datavideo

20x ZOOM | 4K 50/60 UHD | AT AUTO TRACKING

4K Tracking PTZ Camera
PTC-305/ PTC-305T/ PTC-305NDI

www.datavideo.com

4K Tracking PTZ Camera

Brand New 4K Auto tracking PTZ Camera

The Datavideo 4K Auto Tracking PTZ Camera PTC-305, is a high-performance tool for live production settings. This camera operates at 4K50/60p with advanced auto-tracking capabilities. It can be controlled using a traditional RS-422 serial port, or through IP remote control via DVIP (Datavideo's proprietary protocol) or Sony VISCA over IP. Notably, the PTC-305 series supports dual streaming output, making it ideal for A/V market applications, and facilitates easy streaming to platforms like Facebook (RTMPS), YouTube, and dvCloud.

Additionally, the PTC-305 models are compliant with the ONVIF Profile S standard, ensuring compatibility and interoperability in various network video environments.

For diverse workflow needs, Datavideo offers extended models like the PTC-305T 4K HDBaseT and PTC-305NDI.

PTC-305T

PTC-305/ PTC-305T/ PTC-305NDI

- 2160p50/59.94/60 PTZ camera
- Supports Auto tracking function
- 1/1.8" CMOS
- 20x Optical Zoom, 16x Digital Zoom
- 4K Video outputs: HDMI 2.0, 3G-SDI, H.264/H.265 Streaming
- 2160p and 1080p (3G-SDI) Simultaneous video output
- Excellent low light performance (0.5 Lux @ F1.8, AGC ON)
- RS-422 Serial Control
- DVIP (Datavideo Proprietary Protocol) Control
- Supports Sony VISCA via browser and VISCA over IP Protocol
- External audio input: 3.5mm audio in (mic in or line in)
- User friendly web UI via browser & app (iOS and Android)
- Dual streaming: 2160p and 480p simultaneously
- The PTC-305NDI camera supports both NDI | HX3 and NDI | HX2 technologies, with switchable functionality.
- Compliant with the ONVIF Profile S standard.
- Support DC and POE power supply

PTC-305

PTC-305 SERIES

PTC-305

20x ZOOM | 4K 50/60 UHD | AT AUTO TRACKING

IRID   RS-232/RS-422   MIC IN/LINE IN   3G-SDI   4K HDMI   F/W UPGRADE ONLY   DC IN 12V

DVIP POE LAN   PTC-305   4K TRACKING PTZ CAMERA   AT AUTO TRACKING

PTC-305T

HDBaseT | 20x ZOOM | 4K 50/60 UHD | AT AUTO TRACKING

IRID   RS-232/RS-422   MIC IN/LINE IN   3G-SDI   4K HDMI   F/W UPGRADE ONLY   DC IN 12V

HDBaseT/POE   datavideo   PTC-305T   4K HDBaseT TRACKING PTZ CAMERA   AT AUTO TRACKING

PTC-305NDI

NDI®HX3 | 20x ZOOM | 4K 50/60 UHD | AT AUTO TRACKING

IRID   RS-232/RS-422   MIC IN/LINE IN   3G-SDI   4K HDMI   F/W UPGRADE ONLY   DC IN 12V

NDI®HX3 DVIP LAN   PTC-305 NDI   4K NDI TRACKING PTZ CAMERA   AT AUTO TRACKING

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.

Left Side

Center

Right Side
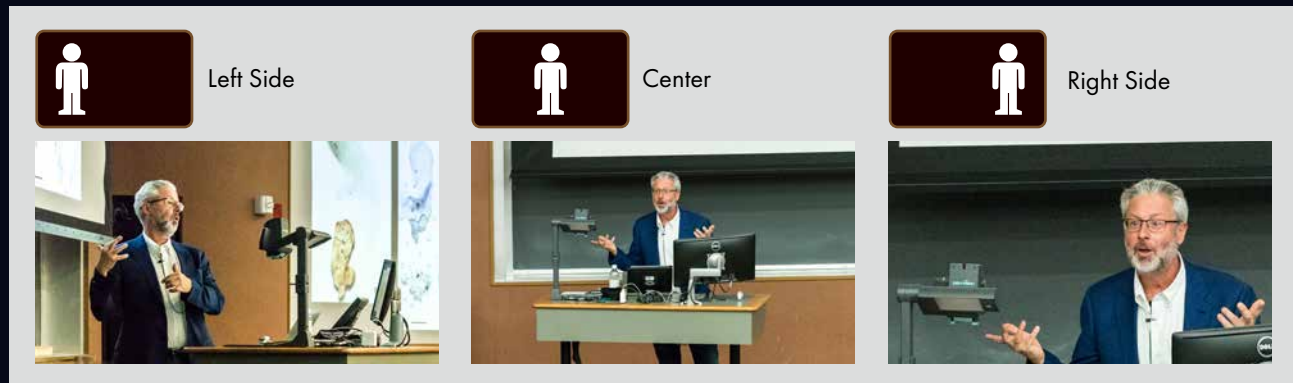
Quick Access to Framing Options

All of the PTC-305 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.

full-body

half-body

close up framing
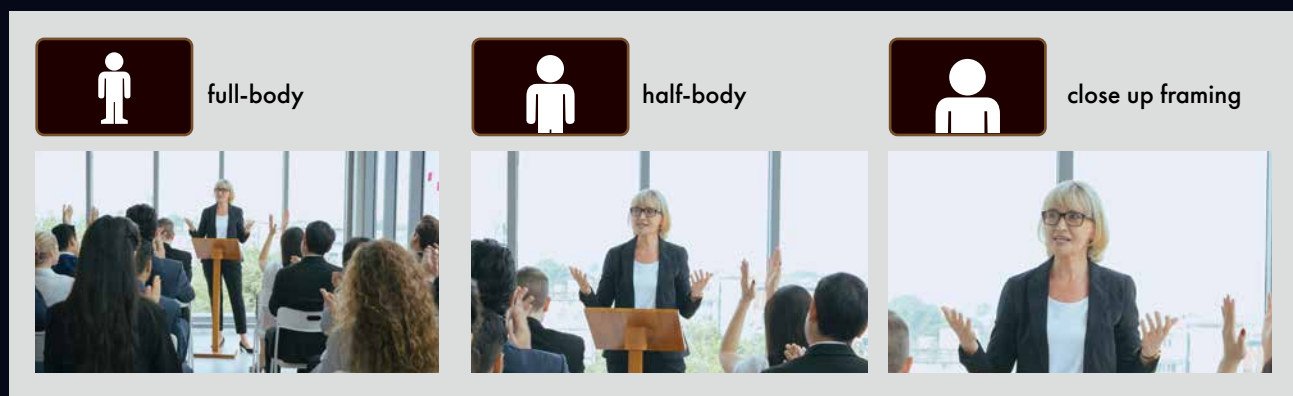
Smart PTZ Speed Adaptation

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.

自動追蹤

S-Shaped Speed Curve

Just like how the lift accelerates or decelerates, the camera lens movement will be smooth, avoiding jerky movements that are visible to naked eyes.

Pan   Tilt   Zoom   Speed   Auto

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.

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.

SHOWCAST 100

PTZ View Assist

RMC-180 MARK II

RMC-300A

Multiple simultaneous video output

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

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

Resolution is up to 2160p 50/60. 20x optical zoom for PTC-305 series which you a high quality video.

streaming 4K HDMI
3G SDI

4K 50/60 UHD

20x ZOOM

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.

RS-422

VISCA

DVIP

RMC-300A

Compliant with the ONVIF Profile S standard

The PTC-305 series cameras are compliant with the ONVIF Profile S standard, ensuring seamless integration and interoperability in network video 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

Green and red tally lights to show the preview and program status for broadcast applications.
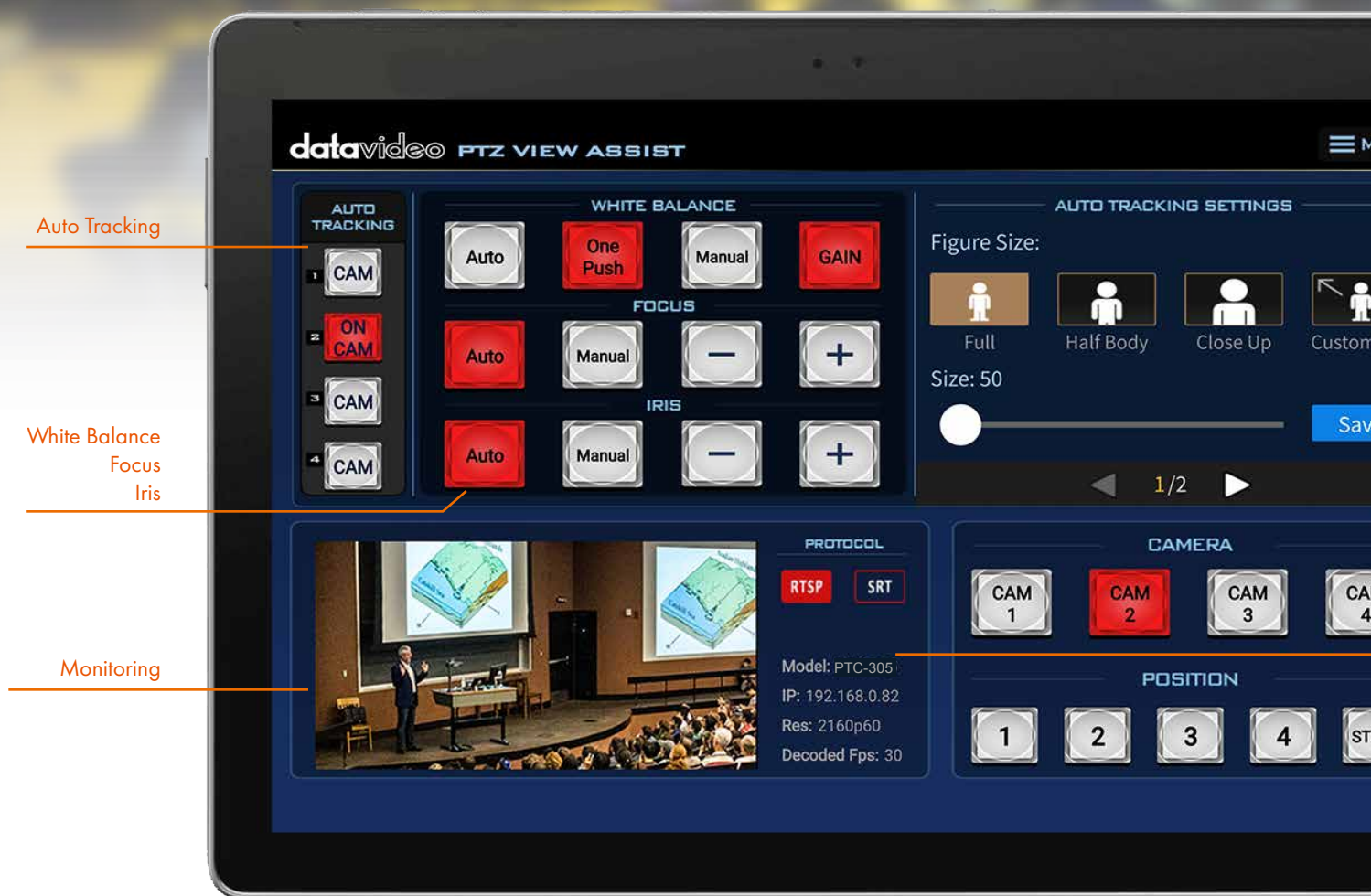

Onvif® | S

H.264

HEVC

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-305.

Focus
Ergonomic design to ease manual focus adjustment.

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.

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

AT Tracking Enable
The AT button activates the auto tracking function of the PTC-305 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.

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.

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.

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

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.

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 PTC-140, PTC-145, PTC-280, PTC-285, PTC-300 and PTC-305 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!

Mobile phone version available soon

Camera control via web UI APP contrcol
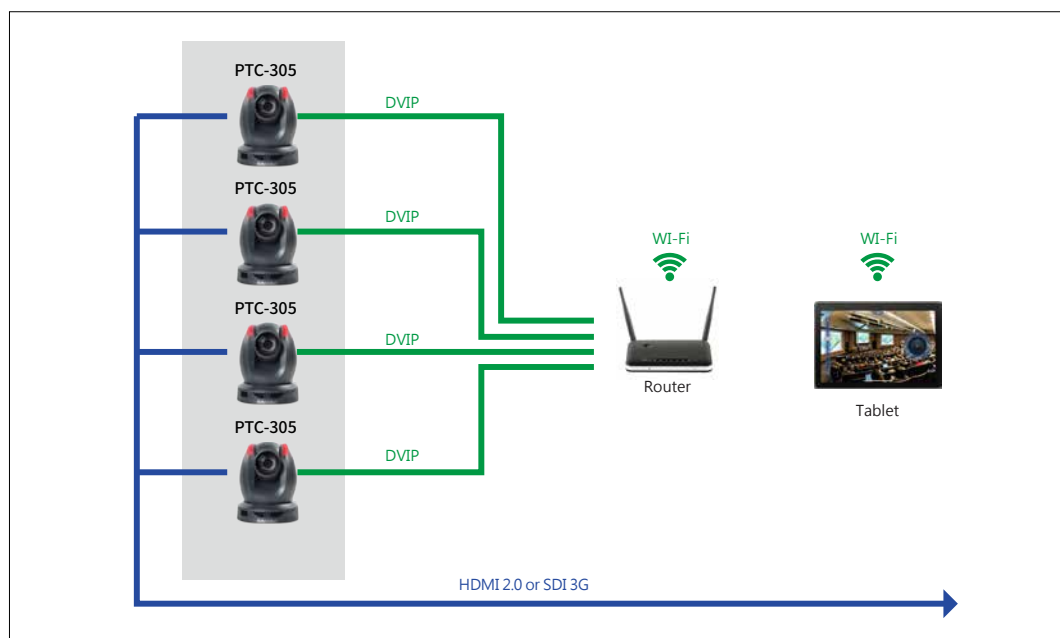
The camera control app is able to control datavideo PTZ cameras. Once you install the app on the tablet, it is easy to control the cameras in the same network!
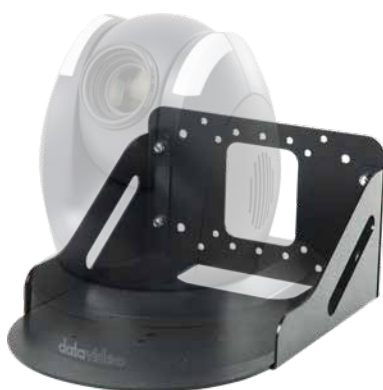
PTC-305
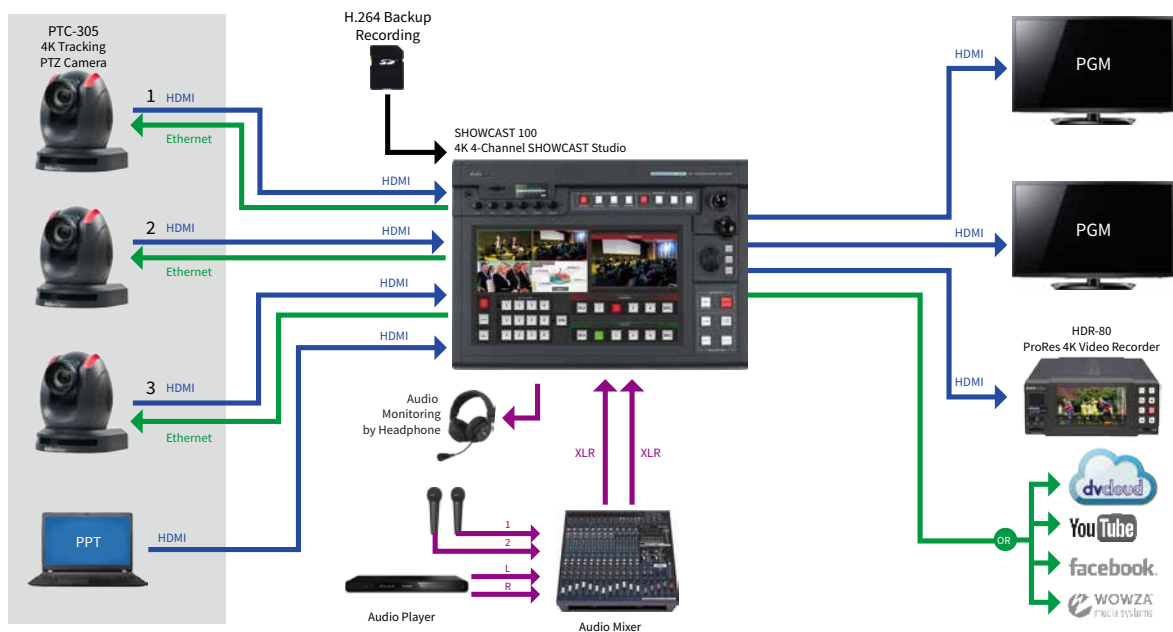
PTC-305T

Optional accessories

The WM-1 can be positioned upside-down or rightside-up to suit various applications. The three-piece design is sturdy, and easy to install onto any wall.
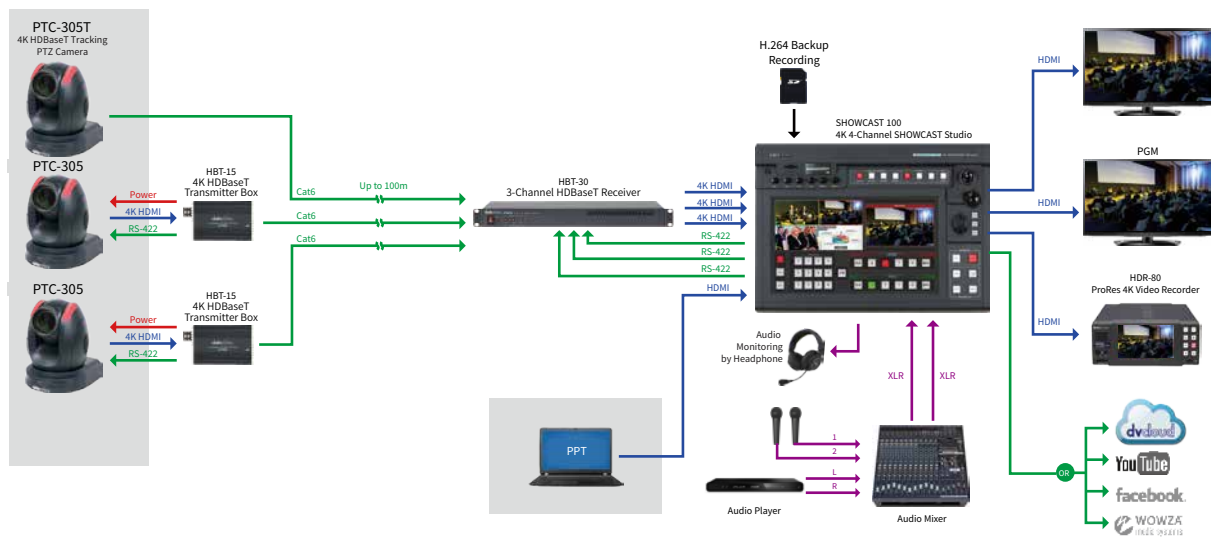
VP-929
HDMI 4K Repeater

WM-1
Wall Mount

WM-1W
Wall Mount (White)

What's in the box accessories

RMC-1AT
 IR remote control

Ceiling mount bracket

DC 12V Adaptor

Dimension

PTC-305 and PTC-305NDI

219mm

173 mm

189.08mm

PTC-305T

228.5mm

184.43 mm

194.13mm

Specification

HDBaseT   **NDI HX3**

	PTC-305	PTC-305T	PTC-305NDI
Product Name	4K Tracking PTZ Camera	4K HDBaseT Tracking PTZ Camera	4K NDI Tracking PTZ Camera
Video format/Resolution	HDMI: 2160p60/59.94/50/30/29.97/25 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 *2160p60/59.94/50 YUV 4:2:2 SDI: 1080p 60/59.94/50/30/29.97/25 1080i 60/59.94/50 720p 60/59.94/50	HDMI: 2160p60/59.94/50/30/29.97/25 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 *2160p60/59.94/50 YUV 4:2:2 SDI: 1080p 60/59.94/50/30/29.97/25 1080i 60/59.94/50 720p 60/59.94/50	HDMI: 2160p60/59.94/50/30/29.97/25 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 *2160p60/59.94/50 YUV 4:2:2 SDI: 1080p 60/59.94/50/30/29.97/25 1080i 60/59.94/50 720p 60/59.94/50
Image Sensor	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Effective Pixels (approx.)	8.42Mega Pixels	8.42Mega Pixels	8.42Mega Pixels
S/N Ratio	≥55dB	≥55dB	≥55dB
Min. Illumination	0.5 Lux @ (F1.8, AGC ON)	0.5 Lux @ (F1.8, AGC ON)	0.5 Lux @ (F1.8, AGC ON)
Electronic Shutter	1/30s ~ 1/10000s	1/30s ~ 1/10000s	1/30s ~ 1/10000s
Zoom Ratio	20x Optical, 16x Digital Zoom	20x Optical, 16x Digital Zoom	20x Optical, 16x Digital Zoom
Iris Control	Auto / Manual	Auto / Manual	Auto / Manual
Digital Noise Reductions	3D	3D	3D
On-Screen Display (OSD)	English/Simplified Chinese/Traditional Chinese	English/Simplified Chinese/Traditional Chinese	English/Simplified Chinese/Traditional Chinese
White Balance	Auto, Indoor, Outdoor, OnePush, Manual, VAR	Auto, Indoor, Outdoor, OnePush, Manual, VAR	Auto, Indoor, Outdoor, OnePush, Manual, VAR
AGC / Gain Control	Yes	Yes	Yes
Mirror / Flip Image	Yes	Yes	Yes
Focus Mode	Auto/Manual	Auto/Manual	Auto/Manual
Panning / Tilting Range	Pan: 300° Tilt: +130° to -15°	Pan: 300° Tilt: +130° to -15°	Pan: 300° Tilt: +130° to -15°
Panning / Tilting Speed	Pan: 0.876°/s~43°/s Tilt: 0.693°/s~21.32°/s	Pan: 0.876°/s~43°/s Tilt: 0.693°/s~21.32°/s	Pan: 0.876°/s~43°/s Tilt: 0.693°/s~21.32°/s
Preset	255 Position	255 Position	255 Position
Focal Length	20x, f = 6.7mm ~125mm, F1.58 ~ F3.95	20x, f = 6.7mm ~125mm, F1.58 ~ F3.95	20x, f = 6.7mm ~125mm, F1.58 ~ F3.95
Field of View (Horizontal, Wide)	60°	60°	60°
Image Compensation	Back light compensation	Back light compensation	Back light compensation
Video Output	HDMI 2.0 x1 3G-SDI x1 10/100/1000M RJ45 (PoE) x1	HDMI 2.0 x1 3G-SDI x1 HDBaseT x 1 10/100/1000M RJ45 (PoE) x1	HDMI 2.0 x1 3G-SDI x1 10/100/1000M RJ45 (PoE) x1
Audio Input	3.5 mm x1 (mic in/line in) switch from Web UI	3.5 mm x1 (mic in/line in) switch from Web UI	3.5 mm x1 (mic in/line in) switch from Web UI
Tally LED	Yes	Yes	Yes
Control Protocol	Pelco-D, Peldo-P, VISCA, VISCA over IP, DVIP, ONVIF	Pelco-D, Peldo-P, VISCA, VISCA over IP, DVIP, ONVIF	Pelco-D, Peldo-P, VISCA, VISCA over IP, DVIP, ONVIF, NDI
Remote Control Interface	IR, Web GUI, RS-422/ RS-232, DVIP	IR, Web GUI, RS-422/ RS-232, DVIP HDBaseT(RJ-45)/Serial control on Receiver Box: Transmit up to 100m	IR, Web GUI, RS-422/ RS-232, DVIP, NDI
Video Compression Format	H.264/H.265/MJPEG	H.264/H.265/MJPEG	H.264/H.265/MJPEG
Audio Compression Format	AAC, G711	AAC, G711	AAC, G711
Audio Bitrate	96Kbps, 128Kbps, 256Kbps	96Kbps, 128Kbps, 256Kbps	96Kbps, 128Kbps, 256Kbps
Streaming Protocols	RTSP, RTMP(S), ONVIF, Multicast, SRT	RTSP, RTMP(S), ONVIF, Multicast, SRT	RTSP, RTMP(S), ONVIF, Multicast, SRT, NDI│Hx3 (1080p)
First Stream Supported Resolution	3840x2160, 1920x1080, 1280x720 1024x576, 960x540 , 640x480, 640x360	3840x2160, 1920x1080, 1280x720 1024x576, 960x540 , 640x480, 640x360	3840x2160, 1920x1080, 1280x720 1024x576, 960x540 , 640x480, 640x360
Second Stream Supported Resolution	720x480 , 640x360, 480x270, 320x240	720x480 , 640x360, 480x270, 320x240	720x480 , 640x360, 480x270, 320x240
Video Bitrate	32Kbps ~ 50Mbps (Single Stream)	32Kbps ~ 50Mbps (Single Stream)	32Kbps ~ 50Mbps (Single Stream)
Video Bitrate Mode	VBR, CBR	VBR, CBR	VBR, CBR
Encoding Frame rate	50Hz: 1-50fps 60Hz: 1-60fps	50Hz: 1-50fps 60Hz: 1-60fps	50Hz: 1-50fps 60Hz: 1-60fps
POE	IEEE 802.3at	IEEE 802.3at	IEEE 802.3at
F/W Update	Via Web UI or USB 2.0	Via Web UI or USB 2.0	Via Web UI or USB 2.0
IR Control	Yes	Yes	Yes
Camera Control Unit	RMC-180 series/RMC-300 series/PTZ View Assist APP	HS-1600T Mark II/RMC-180 series/RMC-300 series/PTZ View Assist APP	RMC-180 series/RMC-300 series/PTZ View Assist APP
Tripod Mount	1/4-20 UNC	1/4-20 UNC	1/4-20 UNC
Optional Accessories	WM-1/ WM-10/ WM-11	WM-1/ WM-10/ WM-11	WM-1/ WM-10/ WM-11
Color	Dark Blue/White	Dark Blue/White	Dark Blue/White
Dimension (LxWxH)	173 (W) x 219 (H) x 189.08 (D)	173 (W) x 219 (H) x 189.08 (D)	173 (W) x 219 (H) x 189.08 (D)
Weight	2.6 kg	2.6 kg	2.6 kg
Operating Temp. Range	0~40 °C	0~40 °C	0~40 °C
Power	DC 12V 21W	DC 12V 21W	DC 12V 21W

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