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Disclaimer of Product and Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Warnings and Precautions

- 1. Read all of these warnings and save them for later reference.
- 2. Follow all warnings and instructions marked on this unit.
- 3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- 4. Do not use this unit in or near water.
- 5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
- 6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
- This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
- Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.

- 9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord's rating.
- 10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
- 11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
- 12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
- 13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
 - a. When the power cord is damaged or frayed;
 - b. When liquid has spilled into the unit;
 - c. When the product has been exposed to rain or water;
 - d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
 - e. When the product has been dropped or the cabinet has been damaged;
 - f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

- Datavideo equipment are guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date of purchase.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- All accessories including headphones, cables, and batteries are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

Three Year Warranty

 All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.



- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, Camera module, PCIe Card are covered for 1 year.
- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.

Disposal



For EU Customers only - WEEE Marking

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated

collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

1. Product Overview

The PTC-305T 4K HDBaseT Tracking PTZ Camera features a large 1/1.8" CMOS sensor, supports high-quality 2160p50/60 UHD video output, features 20x optical zoom, 16x digital zooms and supports versatile outputs, including 3G-SDI, HDMI and IP stream. The PTC-305T series will be the ideal choice for taking your remote camera production to the next level.

Features

- 2160p50/59.94/60 PTZ camera
- 20x Optical Zoom, 16x Digital Zoom
- 4K Video interfaces: HDMI, H.264/H.265 Streaming"
- 2160p and 1080p (3G-SDI) Simultaneous video output
- RS-422 Serial Port Control
- External audio input: 3.5mm audio in/line in (switchable on the web UI)
- Friendly web UI
- White color model available.

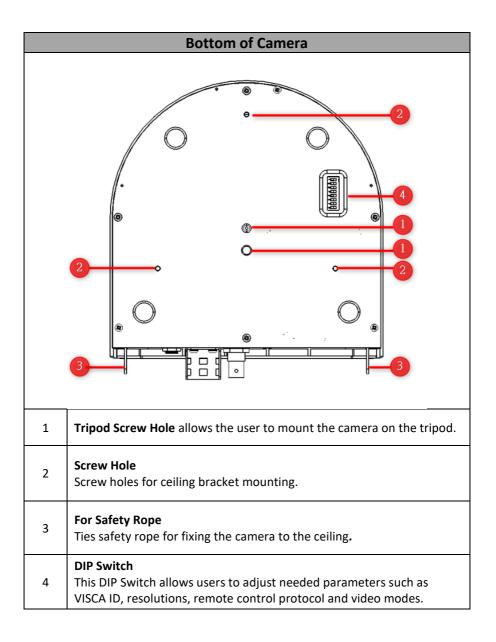
2. Location and Function of Parts

2.1 Camera



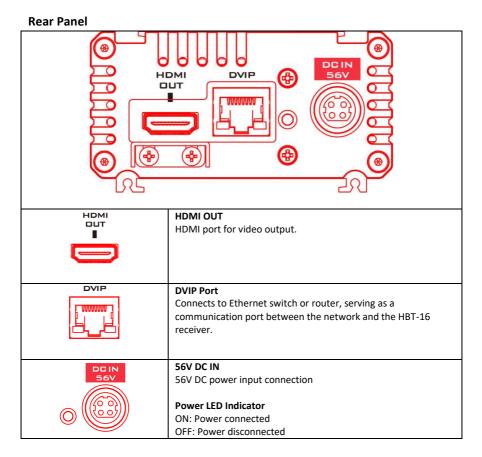
Rear of Camera			
1	USB Port This USB port is used for updating firmware. Users can save the latest version of firmware in a USB flash drive and then insert it into this interface for firmware updating. Note: After inserting the USB flash drive, please remember to turn "ON" the SETUP->USB UPGRADE from the OSD menu of the PTC-305T camera.		
2	Power Input DC in socket connects the supplied 12V PSU. The connection can be secured by screwing the outer fastening ring of the DC In plug to the		

	socket.
3	4K HDMI OUT The 4K HDMI OUT allows you to connect an external HDMI monitor via an HDMI cable.
4	3G-SDI OUT The 3G-SDI OUT allows you to connect an external monitor via an SDI cable.
5	MIC IN/LINE IN The 3.5mm audio input receives external audio.
6	RS-422 Interface (RJ-45) The RS-422 interface serves to connect external RS-422 devices. Use an Ethernet cable to connect external RS-422 controllers. See <u>"Section 18</u> <u>Remote Control Port Pinouts"</u> for making the cable for the RS-422 interface.
7	IRID Interface This interface allows users to use the DVIP Switch to control the numbering of the camera on the remote controller. Users can use this interface to set the camera to any number from No.1 to No. 4 in order to use remote controller to control the camera.
8	HDBaseT/POE Interface Connects the camera to the receiver box, thereby extending video transmission up to 100m. Use a CAT5e/6 Ethernet cable to connect this port to the HDBaseT port of the receiver box which in turn outputs the HDMI video to an externally connected monitor. Moreover, this interface can support the PoE (Power over Ethernet) technology.



2.2 Receiver Box

Note: The receiver box is not the accessory of the PTC-305T, users need to purchase by themselves if needed. In this section, we will take HBT-16 as an example.



14

Front Panel

	HDBDSET HDBDSET RS-232/ RS-422 DIP SWITCH DI RS-422 DI RS-232 (8)
	HDBaseT Port Connects between HBT-15 transmitter and HBT-16 receiver using a CAT.6A Ethernet cable. Note: Visit https://hdbaset.org/hdbaset-recommended-cables/ for cable recommendations.
RS-232/RS-422 Interface The RS-232/RS-422 port connects HBT-16 directly to Datavideo's camera controllers such as RMC-180, RMC-300A or RMC-300C. Use the RS-232 or RS-422 custom cable to connect. See <u>RS-232/RS-422 pinout</u> for more information about the respective cabling. Use the DIP switch to select between RS-232 (00) and RS-422 (01). DIP SWITCH DIP SWITCH DIP SWITCH	

3. Basic Setup

3.1 Power-On Initialization

As shown in the diagram below, after you plug in the power cord, the tally light in the front will start flashing red and will be OFF as soon as the poweron initialization is complete. The camera head should be at the HOME position with the lens facing front. If the power is inserted, the camera lens will go back to the position where the camera power is off last time. Note: After powering-on, you need to wait for about 45 seconds, and then the image which is shot by the PTC-305T will be shown on the connected monitor.



3.2 Video Output

You are allowed to view the camera video via HDBaseT/POE, 4K HDMI OUT and 3G-SDI OUT.

HDBaseT/POE Port



Please follow following steps for viewing the camera video from the web UI.

• Connect the PTC-305T camera to your PC/Notebook PC by an HBT-16 4K HDBaseT Receiver Box

- 1. Please use an Ethernet cable to connect from the HDBaseT/POE interface of your PTC-305T to the HDBaseT interface which is located on the front panel of the HBT-16.
- 2. Please use an Ethernet cable to connect from the DVIP interface which is located on the rear panel of the HBT-16 to the Ethernet interface of your laptop or PC. Moreover, please confirm that your PC and PTC-305 are set within the same local area network.
- 3. Open the web UI by the connected PC or laptop and then please enter the default IP address into the address bar of the web browser.

Note: The default static IP address of the PTC-305T is 192.168.100.100.

4. The login page of the web UI will be opened, please enter the user name and password (the default user name and password are admin/admin).

5. Open the preview window for previewing the video which is shot by the camera.

• Connect the PTC-305T camera to your PC or laptop by a router.

1. Please set the Ethernet IP address of your PC or laptop as 192.168.100.x(x means 0-255) and it will be at the same local area network as the PTC-305T.

2. Please use an RJ-45 Ethernet cable to connect from the HDBaseT/POE port which is located on the rear panel of the PTC-305T to the HDBaseT port of an HBT-16. After that, please use another Ethernet cable to connect from the DVIP port of your HBT-16 to the LAN interface of your router.

3. Please use an RJ-45 Ethernet cable to connect from the RJ-45 Ethernet interface of your PC or laptop to the LAN port of the same router.

4. Please open the web UI from the connected PC or laptop and then please enter the default IP address of the camera into the address bar of the web browser.

Note: The default static IP address of the PTC-305T is 192.168.100.100.

5. The login page of the web UI will be opened, please enter the user name and password (the default user name and password are admin/admin).

6. Click into the preview window on which the video will be displayed.

HDMI Video OUT

Connect the 4K HDMI OUT to an external connected monitor using an HDMI cable.



3G-SDI Video Output

Connect the SDI OUT to an external connected monitor using an SDI cable.



4. Remote Control and On-Screen Menu

The chapter 4 provides an overview of remote control functions and OSD menu.

4.1 Remote Control Functions



No	Function Keys	Descriptions
1	Power Button	Power Button Press this button once to enter Standby Mode, press it again to enter Normal Mode. Note: The power consumption in Standby Mode is approximately half of the power consumption in Normal Mode.
2	Camera 1-4	 Camera 1-4 The Camera 1 to Camera 4 buttons allow you to press the corresponding number in order for further operation after the IRID number of the camera is set by the IRID DIP Switch 1 1 2 3 4 which is located on the rear panel of your PTC-305T camera. If the DIP Switch 1 & 2 are set as (0,0), the camera IRID number will be 1. If the DIP Switch 1 & 2 are set as (1,0), the camera IRID number will be 2. If the DIP Switch 1 & 2 are set as (0,1), the camera IRID number will be 3. If the DIP Switch 1 & 2 are set as (1,1), the camera IRID number will be 4. Note: In normal situation, the DIP Switch 3 & 4 must be "OFF" (set at 0).
PT	Preset1-4 Buttons	The Preset buttons 1, 2, 3, and 4 allow you to set up to 4 camera preset settings. How to set the Preset: Please adjust your desired camera parameters and camera lens position in advance. After that, please press the "STR" button which is located on the remoter controller. And then please press your desired Preset Number button (Preset 1 to Preset 4) to set your setting as a Preset. How to recall the Preset: Please press the desired "Preset No." button (Preset 1 to Preset 4) directly and then the presaved Preset settings will be recalled successfully.

No	Function Keys	Descriptions
4	Focus Far/ Focus Near	Focus Far/Focus Near Please press the "Focus Far" or "Focus Near" button to shift the PTC-305T camera to "Manual" Mode. The "Focus Far" function allows you to focus on the distance. The "Focus Near" function allows you to focus on close distance.
5	Zoom Tele/Zoom Wide Button	Zoom Tale/Zoom Wide Button The Zoom Tale/Zoom Wide button allows you to zoom out and zoom in the subject. "Zoom Tale" allows you to zoom in the subject and "Zoom Wide" allows you to zoom out the subject.
6	Micro Joystick	Micro Joystick: Up/Down/Left/Right/Confirm Please move the "Micro Joystick" to the up, down, left and right sides to move the camera lens to the up, down left and right sides. When the OSD menu is turned on, please move the micro joystick to the up side or down side to select different options. Please move the micro joystick to the left or right side to select different setting values. After that, please press the "Micro Joystick" to confirm your selected value.
7	Reset IP Button	Reset IP Button Please long-press this button for 3 seconds. If there is no DHCP Network environment, the IP address of the PTC- 305T will be changed to 192.168.100.100 automatically.

No	Function Keys	Descriptions
8	STR Button	 STR Button Please press this button and the "Preset 1 to Preset 4" buttons to save your desired Preset. After you desired setting values and camera lens position are set, please press the "STR" button and then press the button of your desired Preset number from "Preset 1 to Preset 4". After that, the Preset is set successfully.
9	AF Auto Focus Button	Auto Focus Button Please press this button to turn on the Auto Focus function.
10	Back Button	Back Button Please press the "Back" button to turn the camera head back to the "Home" position. When the OSD menu is opened, you can go back to the previous layer of the OSD menu by pressing the "Back" button.
11	Menu Button	Menu Button Please press the "Menu" button to open the OSD menu of the PTC-305T camera on the external monitor.
12	Auto-Tracking ON/OFF Button	Auto-Tracking ON/OFF Button Please press this button to turn on or turn off the Auto- Tracking function of the camera.
13	Auto-Tracking Mode Selection Buttons	Auto-Tracking Mode Selection Buttons These three buttons represent "full Body", "half Body" and "close-up" from the left side to the right side respectively.

4.2 OSD Menu

On-Screen Menu allows the user to modify various camera settings. Press **[MENU]** on the **remote control** to open the on-screen menu as shown below.

OSD Menu
Exposure
Color
Image
P/T/Z
Tracking Config
Setup
Communication Setup
Information
Restore Default
【Home】Enter
[Menu] Exit

The table below summarizes the main option items and their sub-options.

	Main Options						
_	Exposure	Color	Image	P/T/Z	Tracking Config	Setup	Communicati on Setup
	Mode	WB Mode	Luminance	SpeedByZoom	Tracking	Language	Protocol
	ExpComp Mode	RG Tuning	Contrast	AF-Zone	Tracking Area	HDMI RGB Mode	V_Address
	Backlight	BG Tuning	Sharpness	AF-Sense	Figure Size	Video Format	V_AddrFix
	Gain Limit	Saturation	Flip-H	L/R Set		Audio Select	Baudrate
Sub-Options	Anti-Flicker	Hue	Flip-V	Display Info		SDI-3G Mode	
	Meter		B&W-Mode	Image Freeze		USB UPGRADE	
Sub-(DRC		NR3D-Level	Digital Zoom		VISCA ID	
			Style	Pre Speed		Audio Channel	
				Pre Zoom Speed			

	Information	Restore Default
	ARM	Restore? Yes/No
	SOC	
	Date	
	AF	
ions	Format	
Sub-Options	Model	
Sub	IP	
	GateWay	
	NetMask	

Details of all options in the on-screen menu are listed in the table below.

Main Menu	Sub Menu	Options	Options
	Mode	Auto Manual	
		SAE AAE Bright	
	ExpCompMode	Off On	ExpComp -7~+7
	Backlight	Off On	
Exposure	Gain Limit	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 Off	

	50Hz	
	60Hz	
	Average	
Motor	Center	
Meter	Smart	
	Тор	
	0	
	1	
	2	
	3	
DRC	4	
	5	
	6	
	7 8	
	8 F1.8	
	F1.0 F2.0	
	F2.4	
	F2.8	
	F3.4	
	F4.0	
Iris	F4.8	
	F5.6	
	F6.8	
	F8.0	
	F9.6	
	F11.0	
	Close	
	NTSC Shutter	PAL Shutter
	1/30	1/25
	1/60	1/50
	1/90	1/75
	1/100	1/100
	1/125	1/120
Shutter	1/180	1/150
	1/250	1/250
	1/350	1/350
	1/500	1/500
	1/725	1/725
	1/1000	1/1000

I		1/1500
	1/1500	
	1/2000	1/2000
	1/3000	1/3000
	1/4000	1/4000
	1/6000	1/6000
	1/10000	1/10000
	0	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
Gain	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	0	
	1	
	2	
	3	
	4	
	5	
	6	
Bright	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14 15	
1	10	

l	1	
		16
		17
		Auto
		Indoor
	WB Mode	Outdoor
	WB Mode	OnePush
		Manual
		VAR
		0
		+1
		+2
		+3
		+4
		+5
		+6
		+0 +7
		+8
		+9
	RG Tuning	+10
		-10
		-9
		-8
		-7
		-6
		-5
		-4
Color		-3
		-2
		-1
		0
		+1
		+2
		+3
		+4
		+5
		+6
		+7
		+8
		+9
	BG Tuning	+10
		-10
		-9
		-8
		-7
		-6
		-5
		-4
		-3
		-2
		-2 -1
		1 -1
	Saturation	60%

1	700/
	70%
	80%
	90%
	100%
	110%
	120%
	130%
	140%
	150%
	160%
	170%
	180%
	190%
	200%
	0
	1
	2
	3
	4
	5
	6
Hue	7
	8
	9
	10
	11
	12
	13
	14
RG	0~255
	0.055
BG	0~255
	2500K
	2600K
	2700K
	2800K
	2900K
	3000K
	3100K
Color Tomp	3100K 3200K
Color Temp	820011
	3300K
	3400K
	3500K
	3600K
	3700К
	3800K
	3900K
•	·

	1	
		4000K
		4100K
		4200K
		4300K
		4400K
		4500K
		4600K
		4700K
		4800K
		4900K
		5000K
		5100K
		5200K
		5300K
		5400K
		5500K
		5600K
		5700K
		5800K
		5900K
		6000K
		6100K
		6200K
		6300K
		6400K
		6500K
		6600K
		6700K
		6800K
		6900K
		7000K
		7100K
		7200K
		7300K
		7400K
		7500K
		7600K
		7700K
		7800K
		7900K
		8000K
	Luminance	0
		1
		2
		3
		4
		1 7
age		
lage		5
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age		5 6 7
age		5 6

1		1
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	11	
	12	
	13	
	14	
	0	
	1	
	2	
	3	
	4	
	5	•
		-
	6	
Contrast	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	Auto	
	0	
	1	
	2	
	3	
	4	
	5	
	6	
Sharpness	7	
	8	
	9	
	10	•
	11	-
	11	•
	13	
	14	4
	15	
Flip-H	Off	ļ
	On]
	Off	
Flip-V	On]
	Off	1
DOM/ Marks		1
B&W-Mode	On	
	Auto	
	Off	1
	1	1
NR3D-Level	2	1
		4
	3	{
1	4	J

	I	1		1
7 3 Befault Norm Style Bright PC PC PC PC AF-Zone Off Center Bottom AF-Sense Center L/R Set STO Display Info Off Image Freeze Off Display Info If Pre Speed 3 Image Freeze Off Display Info If Pre Speed 16x Image Freeze If Image Freeze Image Freeze Image Freeze Image Freeze				
8 Default Norm Bright PC Off On AF-Zone Af-Zone High Bottom Bottom Bottom Image Freeze On Display Info Off On Image Freeze Off Display Info Off On Image Freeze Off Digital Zoom Xax 16x 16x 16x 16x 16x 16x 11 12 13 14 15 16 17 18 19 120 13 14 15 16 17 18 19				
Befault Norm Style Bright PC Off On On AF-Zone Front AF-Sense Low High Low AF-Sense Domon Low Normal L/R Set Off Display Info Off Off On Display Info Off Off On Display Info Off Display Info Off Display Info Off Off On Display Info Off Display Info Off Off On Bax Bax Digital Zoom Bax 16x Bax 16x Bax 16x Bax 16x Bax 16x Bax 16a Ga 17 Bax 18 Ga 120 Ca </td <th></th> <td></td> <td></td> <td></td>				
Style Norm Bright PC PC Off On On AF-Zone Front AF-Sense Top L/R Set STD REV On Display Info Off Image Freeze Off Off On Image Freeze Off Digital Zoom 4x 8x 166x 106 7 11 1 12 3 13 1 11 1 12 1 13 1 14 1 13 1 14 1 15 1 16 1 13 1 14 1 12 1 13 1 14 1 15 1 16 1 17				
Style Bright PC SpeedByZoom Off On Front AF-Zone Front Bottom High AF-Sense Low High Normal L/R Set STD Display Info Off Display Info Off Image Freeze On Display Info Off Image Freeze Off Display Info Off Image Freeze Off Jistal Zoom 3x 4x 8x 16x 1 16x 1 16x 1 16x 1 16x 1 11 1 12 1 13 1 14 15 15 16 16 1 17 1 18 1 19 20 21 21				
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Digital Zoom 4x 8x 16x 16x 1 2 3 4 5 6 7 8 9 10 11 11 11 12 13 13 14 15 16 16 17 18 19 20 21 20 21			Off	
8x 16x 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22			2x	
8x 16x 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		Digital Zoom	4x	
P/T/Z				
P/T/Z				
P/T/Z 2 3 3 4 5 6 7 8 9 10 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D/T/7			
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	1/1/2			
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	Pre Zoom Speed	3	
		4	
		5	-
		6	
		7	
	Tracking	On	
		Off	
	Tracking Area	Presenter	
Tracking Config	Tracking Area	Zone	
		Full	
	Figure Size	Half-Body	
		Close Up	
		繁體	
	Language	EN	ļ
		中文	
		HDMI	Note: There is
	HDMI RGB Mode	DVI	NO DVI Mode for 4K50/59/60
		1080P25	101 41(30/33/00
		720P50	-
		1080P60	-
		1080P50	
	Video Format	1080160	-
		1080150	-
		1080P30	-
		720P60	
		1080P29.97	-
Setup		1080159.94	
		1080P59.94	-
		720P59.94	-
		4KP29.97	-
		4KP59.94	
		4KP25	
		4KP30	
		4KP50	
		4KP60	
	Audio Select	MIC	
		LINE IN	
	SDI 3C Mada	LEVEL-A	
	SDI-3G Mode	LEVEL-B	
	USB UPGRADE	Off	
		On	
		By DIP	
	VISCA ID	By OSD	
	Audia Channel	Stereo	
	Audio Channel	Mono	1
ι			-

		VISCA
	Destaurt	PELCO-D
	Protocol	PELCO-P
		Auto
Communication	V_Address	1
Setup		Off
	V_AddrFix	On
		38400
	Baudrate	2400
	Bauurate	4800
		9600
	ARM	
	SOC	
	Date	
	AF	
Information	Format	
	Model	
	IP	
	GateWay	
	NetMask	
Restore Default	Restore?	

Note: For the "Audio Channel" option in the OSD menu, if the "mono" is selected, the data for the left audio channel will be copied to the right audio channel and they will output together. If the audio source is "mono", only the left audio channel will output the audio.

4.3 Professional Jargon Explanations of the OSD

Menu

There are some professional jargons or nouns which are shown in the OSD menu of the PTC-305T camera, please refer to this section for realizing those jargons.

 Speed by Zoom: When this function is turned "ON", at the time when the zoom-in/zoom out is beginning or it is about to reach the zoomin/zoom-out limit or users want to stop zooming in/zooming out, the zoom-in/zoom-out speed of the camera lens will be reduced linearly. When this function is turned "OFF", the zoom-in/zoom-out speed will be consistent no matter when the camera zoom-in is started or stopped.

- Flip-H: This is the "Horizontal Flipping". When "ON" is selected, the screen which is shot by the camera will flip horizontally. If "OFF" is selected, the screen will be shown in normal direction.
- Flip-V: This is the "Vertical Flipping". When "ON" is selected, the screen which is shot by the camera will flip vertically. If "OFF" is selected, the screen will be shown in normal direction.
- L/R Set: If the "REV" is selected for this option, the panning direction of the PTC-305T camera lens will be opposite to the direction which is controlled by the remote controller. If the "STD" is selected for this option, the panning direction of the camera lens will be the same as the direction which is selected by the remote controller.

5. Instruction for installation

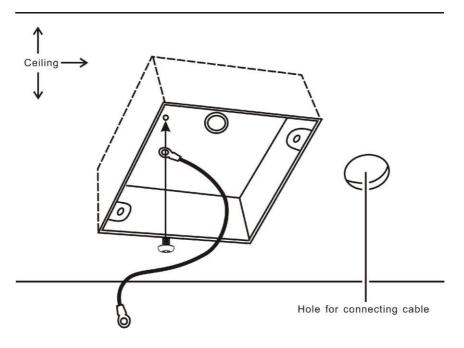
Note: Only mount the bracket on formwork or concrete surface. Do NOT mount the bracket on plasterboard.

Step 1 – DIP Switch Setting

Set the Mirror option to H+V mode.

Step 2 – One End of Retaining Wire

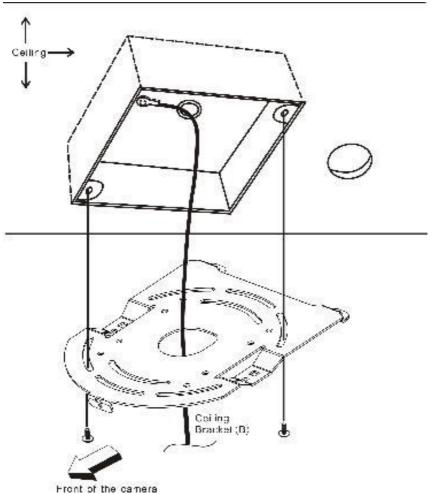
Attach the retaining wire to the junction box mounted on the ceiling by screwing one end of the retaining wire into a screw hole in the junction box with a screw (not supplied) as shown in the diagram below.



Step 3 – Ceiling Bracket (B)

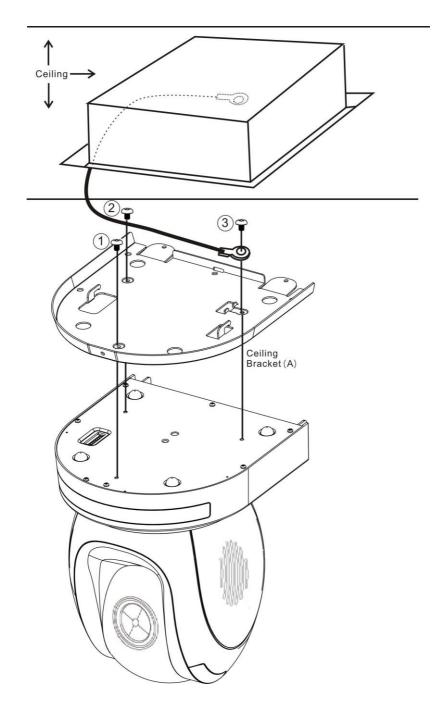
Again, as illustrated in the diagram below, screw a ceiling bracket (B) into the junction box mounted on the ceiling.

Make sure the screw holes of the ceiling bracket (B) are aligned with the holes on the junction box.

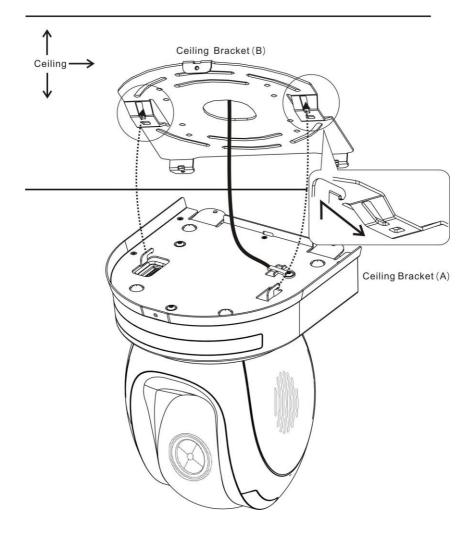


Step 4 – Ceiling Bracket (A) and Camera

- Screw ceiling bracket (A) into the bottom of the camera using three screws.
- Position the screws as shown in the diagram below.
- Align the screw holes on the bottom of the camera with those in the ceiling bracket.
- Insert the screws into the corresponding screw holes in the numbered order.
- The other end of the retaining wire is screwed into the screw hole #3.
- Securely tighten all three screws.

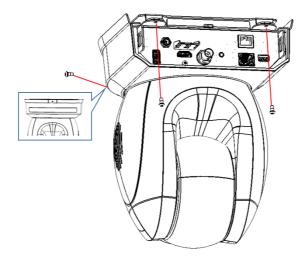






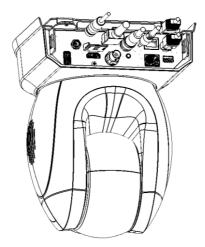
Step 6 – Screw to Fix Camera

Fix the camera by screwing three screws into the corresponding screw holes as shown in the diagram below.



Step 7 – Cable Connection

Connect the cables to the connectors located on the rear of the camera.



6. Network Connection

The HDBaseT/POE port which is located on the rear panel of the PTC-305T allows you to connect to the camera in static IP mode or DHCP mode by the HBT-16. To access and modify these network settings, you will need to login to the camera's web interface.

If this is your first time using the device, please note that the camera's default IP address is **192.168.100.100**.

Set up direct connection between the camera and your PC/laptop through an HBT-16 as depicted in the diagram below; remember to manually assign an IP address of **192.168.100.X** to your PC/laptop.



On your PC/laptop, open a web browser and in the address bar, enter the camera's default IP address, 192.168.100.100 then press the **ENTER** key which should take you to login page of the web interface.

datavia	eo
User name	L admin
Password	a
	Login

简体中文 |繁体中文 |English

The default login credentials are:

- User Name: admin
- Password: admin

After users login into the web user interface successfully, please click the "Network" option and then please click the "IP Configuration Type" dropdown menu from the "Lan Settings" area to modify the connection type of the camera to DHCP or Fixed IP. If the "Fixed IP Address" is selected, it will be set in fixed IP mode. If the "Dynamic IP Address" is selected, it will be set in DHCP mode. After the setting is finished, please click the "Apply" button for completing the setting.

datavideo	Lan Settings		
	IP Configuration Type	Dynamic IP Address 🗸 🗸	
Live	IP Address	192.168.100.100	
Video	Subnet Mask	255.255.255.0	
AT	Gateway	192.168.100.1	
Image	DNS Address	8.8.8.8	
Audio	MAC Address	00:07:36:A5:6D:A5	
System Network	DHCP timeout	30 sec	
Information	Static fallback address	192.168.100.100	
	Static fallback Subnet Mask	255.255.255.0	
3 6 0 9		Apply Cancel	

In following two chapters, we will show you how to enable DHCP and Static IP modes in two separate sections.

6.1 DHCP Mode

Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a network device from a defined range of numbers configured for a given network. The diagram below illustrates a DHCP network connection example.



In order to enable the DHCP mode of the camera, please select "Dynamic IP Address" from the "IP Configuration Type" drop-down menu for assigning a dynamic IP address to PTC-305T by the router. After that, please click the "**Apply**" button to save the new settings and then please reboot the PTC-305T.

datavideo	▲ Lan Settings	
	IP Configuration Type	Dynamic IP Address 🗸 🗸
Live	IP Address	192.168.100.100
Video	Subnet Mask	255.255.255.0
AT	Gateway	192.168.100.1
Image	DNS Address	8.8.8.8
Audio	MAC Address	00:07:36:A5:6D:A5
System Network	DHCP timeout	30 sec
Information	Static fallback address	192.168.100.100
	Static fallback Subnet Mask	255.255.255.0
0 0 0		Apply Cancel

6.2 Static IP

A static IP address is a fixed address manually assigned to PTC-305T. First please select "Fixed IP Address" from the "IP Configuration Type" drop-down menu and then please enter an IP address for the camera, the subnet mask and the gateway IP.

Note: Never assign an address that ends in .0 or .255 as these addresses are typically reserved for network protocols. An address to the very start of the IP pool is also not recommended as it is always reserved for the router.

After the Static IP address is set, please click the "Apply" button for saving new settings and then please reboot the PTC-305T.

datavideo	Lan Settings	
	IP Configuration Type	Fixed IP Address 🗸
Live	IP Address	192.168.100.100
Video	Subnet Mask	255.255.255.0
AT	Gateway	192.168.100.1
Image	DNS Address	8.8.8.8
Audio System	MAC Address	00:07:36:A5:6D:A5
Network	DHCP timeout	30 sec
Information	Static fallback address	192.168.100.100
	Static fallback Subnet Mask	255.255.255.0
000		Apply Cancel

6.3 DVIP

DVIP is a special network configuration software tool designed for DVIP device search on the same network and configuring device network settings such as Hostname, DHCP mode, IP address, subnet mask, gateway IP, and primary and secondary DNS.

Depending on your operating system, download DVIP Configuration Tool from the respective sites listed as follows:

PC: <u>https://www.microsoft.com/en-us/p/dvip-network-</u> config/9p6gtz839k6s?activetab=pivot%3Aoverviewtab

Android:

https://play.google.com/store/apps/details?id=com.datavideo.dvipnetconfig &hl=en_US

iOS: <u>https://itunes.apple.com/tw/app/dvip-network-</u> config/id1177895983?mt=8

After you've installed the DVIP Network Configuration Tool, follow the steps outlined below to scan for online DVIP devices and configure their corresponding settings.

Step 1: Open the DVIP Network Configuration Tool and then select the connected Ethernet option from the "Network interface" pop-up window. After that please press the "OK" button



Step 2: After the Network interface is selected, the DVIP Network Configuration Tool interface will be shown as following diagram.



Step 3: Please press "PTC-305T" and then the network settings pop-up window will be shown.

DVIP Network Configuration Tool v1.1.6 Settings	- (×
datavideo		
Number of Devices: 1		
ptc305 [192.168.100.100] [00:07:36:A5:6D:A5]		

Host Name	ptc305
Model Name	PTC-305 (VID:0103, PID:3019)
MAC address	00:07:36:A5:6D:A5
	192.168.100.100
Using Fix	ed IP Mode
	255.255.255.0
	192.168.100.1
	8.8.8
	8.8.8.8
	Default Save

Step 4: users can click "Host Name" column for changing the device name. Users can also click each setting column for changing value if it is needed. After that, please press "Save" for saving those settings. Users can also press "Default" for resuming those settings to factory default value.

Host Name	ptc305
Model Name	PTC-305 (VID:0103, PID:3019)
MAC address	00:07:36:A5:6D:A5
IP address	192.168.100.100
Using Fixe	ed IP Mode
Mask	255.255.255.0
Gateway	192.168.100.1
Primary DNS	8.8.8.8
Secondary DNS	8.8.8.8
	Default Save

7. How to Use PTC-305T's AI Auto Tracking

The Datavideo PTC-305T is a 4K Tracking PTZ camera. There are two tracking modes for the PTC-305T's AI Auto-Tracking function including "Presenter" and "Zone" Modes. Please refer to the following sections for operating the Auto-Tracking function of the PTC-305T.

7.1 How to turn on the AI Auto-Tracking Function by the remote controller

Please follow the following steps for turning on PTC-305T's AI Auto-Tracking function.

1. Please use PTC-305T's remote controller to turn on the AI Auto-Tracking

function. Please press the "AT" button of the remote controller.

2. At this time, PTC-305T's AI Auto-Tracking function will be turned on. There is a reminder "Start Tracking" that will be shown on the OSD of the external monitor which is connected to the PTC-305T. This means that the AI Auto-Tracking function is turned on successfully.

7.2 How to turn off the AI Auto-Tracking Function by the remote controller

Please follow the following steps for turning off the PTC-305T's AI Auto-Tracking function.

1. Please use PTC-305T's remote controller to turn off the AI Auto-Tracking

function. Please press the "AT" button of the remote controller.

2. At this time, PTC-305T's AI Auto-Tracking function will be turned off.

7.3 How to set the AI Auto-Tracking function by the OSD Menu

The PTC-305T allows you to use the remote controller to open the OSD menu for setting the AI Auto-Tracking function. Please follow the steps below to set the AI Auto-Tracking related settings.

1. At first, please press the "Menu" button from the remote controller to open the PTC-305T OSD menu on the connected monitor.

2. After that, please use the micro joystick to select "Tracking Config>Tracking" in order to turn on or turn off the AI Auto-Tracking function. Moreover, you can use the micro joystick to select "Tracking Config>Tracking Area" to select your desired Auto-Tracking mode from "Presenter" Mode or "Zone" Mode. You can also use the micro joystick to select "Tracking Config>Figure Size" to select your desired automatic zooming settings from "Full", "Half Body" and "Close Up".

7.4 How to set the AI Auto-Tracking (Presenter Mode) by the Web UI

You can also use the PTC-305T Web UI to set the AI Auto-Tracking function. Please follow the steps below to set the Auto-Tracking function by the Web UI.

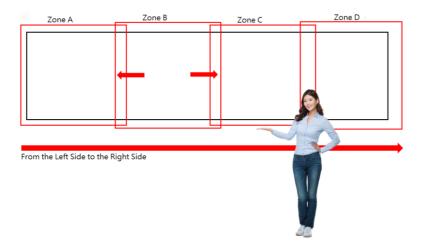
1. The factory default of the PTC-305T is the DHCP mode. Please connect your PTC-305T and laptop or PC to a router and please make sure that they are set within the same IP range.

2. Please use Datavideo DVIP Network Configuration Tool to get the IP address of your PTC-305T and then please use the web browser to open the PTC-305T Web UI. After that, please click the "AT" option and then you can see that there are two tabs including "Presenter" and "Zone". You can select "Current Location" or "Preset 1" from the drop-down menu of the "Presenter" tab to be the initial position of the camera lens for Auto-Tracking. The "Auto Zoom" and "Auto Tilt" are checked by default. You can also set the automatic zooming level of the camera lens by selecting "Full", "Half Body" or "Close Up" from the "Figure Size" option.



7.5 How to set the AI Auto-Tracking by the Web UI (Zone Mode)

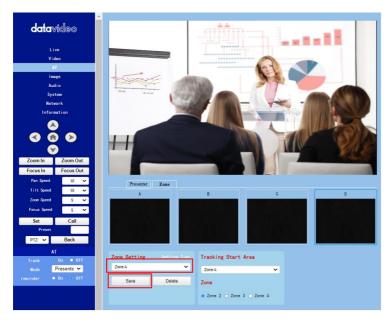
The "Zone" Mode for the PTC-305T Auto-Tracking allows you to set 1 to 4 tracking areas (Zone A/Zone B/Zone C/Zone D). You have to set at least 2 tracking zones and the maximum is up to 4 tracking zones. Please pay attention that for setting the tracking zone in "Zone" Mode, you have to set your desired tracking zones "from the left side to the right side" and the edge for each zone must be overlapped.



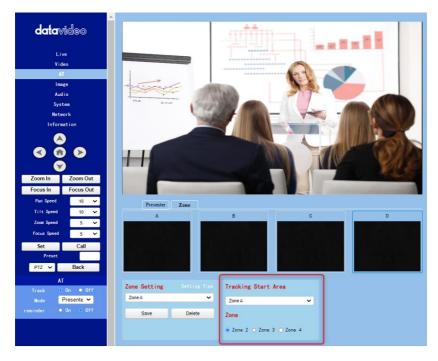
This section will take the settings for "Zone A" as an example. The way for setting Zone B to Zone D is the same as Zone A. Please refer to the steps below to set the related settings of the Zone Tracking Mode.

1. At first, please click "AT>Zone" to enter the "Zone" interface.

2. Please set your desired camera settings and camera lens angle in advance and then please click the "Zone Setting" drop-down menu. After that, please select "Zone A" and then press the "Save" button.



3. Please select your desired tracking start area from the "Tracking Start Area" drop-down menu's Zone A, Zone B, Zone C and Zone D. After that, please select "Zone 2", "Zone 3" or "Zone 4" from "Zone" option. For example, if the Zone 2 is set, the zone tracking area will from "Zone A" to "Zone B".



8. Web User Interface

The web based user interface allows you to set and control your PTC-305T devices.

8.1 Live

Live option allows users to preview the image which is shot by the PTC-305T in a real-time basis. Please click the "Live" option and then users can preview the image which is shot by the PTC-305T camera from the preview window.



8.2 Video

"Video" option allows users to set various parameters including Video Format and Encode Level. Moreover, it also allows users to set the Encode Protocol, Resolution, Bit Rate, Frame Rate, I Key Frame Interval and Bit Rate Control for the First stream and Second stream. The main interface for the Video option is shown in the following diagram.

data	video	▲ Video Settings		
		Video Format	Dial Priority	~
Li	ive	Encode Level	mainprofile	~
Vi	deo	First stream		
ļ	AT	Encode Protocol	H264	~
Im	age			-
	dio	Resolution	1920×1080	Ť
Sys	stem	Bit Rate	4096	_
	work	Frame Rate	30	✔ fps
Infor	mation	I Key Frame Interval	30	
		Bit Rate Control	CBR	~
		Second stream		
		Encode Protocol	H264	~
Zoom In	Zoom Out	Resolution	320×240	~
Focus In	Focus Out	Bit Rate	1024	
Pan Speed	10 🗸	Frame Rate	30	✔ fps
Tilt Speed	10 🗸	l Key Frame Interval	30	
Zoom Speed	5 🛩	Bit Rate Control	CBR	~
Focus Speed	5 🗸			
Set	Call		Apply Cance	1
Preset				
PTZ 🗸	Back			
A	π			
Track C	0 0n 💿 0ff			
Mode	Presente 🗸			
reminder 🕻	0n o Off			

Please see the following section for realizing the descriptions for each item for the Video option.

Items	Descriptions		
Video Format Dial Priority	Video Format		
50Hz Encode Level 60Hz	It can support three video		
Dial Priority	formats including 50Hz(PAL),		
	60Hz(NTSC) and Dial Priority.		
• 50Hz (PAL): If you select this option, the	maximum frame rate per		
second (FPS) for the streaming video will	be 50.		
• 60Hz (NTSC): If you select this option, the	•		
second for the streaming video will be 60			
• Dial Priority: If you select this option, the	-		
second will be 30, and it is possible that t	-		
video format and frame rate will be affec	cted by the camera OSD menu		
settings.			
Note:	annaat ta sama Datavidaa		
 If you want to use the PTC-305Tcamera to co switchers which support the interlace format co 			
	-		
MU and SE-650, please remember to select the "Dial Priority" option as your video format.			
2. If the 50Hz or the 60Hz is selected for the PT	C-305Tweb UI. the SDI or the		
HDMI output format of the PTC-305Tcamera w	-		
Encode Level mainprofile	Encode Level		
mainprofile	It allows users to select		
highprofile	needed Encode Level from		
	two Encode Levels including		
	mainprofile and highprofile.		
First stream			
Encode Protocol H264	Encode Protocol (First		
HZC4 Resolution HZC5	Stream & Second Stream)		
MJPEG	It allows users to select three		
	Encode Protocols including		
	H.264, H.265 and MJPEG for		
	the "First Stream" and		
	"Second Stream".		

	Items	Descriptions
Resolution for the first stream		Resolution (First Stream &
Resolution Bit Rate Frame Rate me Interval ate Control Resolution Bit Rate Frame Rate me Interval	1920x1080 ✓ 3840x2160 ✓ 1280x720 1024x576 720x480 ✓ 720x480 ✓ 640x360 ✓ 720x480 ✓ 720x480 ✓ 720x480 ✓ 640x360 ✓ 720x480 ✓ 720x400 ✓	Second Stream) There are two drop-down menus including the resolution for the First Stream and the resolution for the Second Stream for users to select different resolution. When the resolution is higher, the image will become clearer. However, it will occupy more network bandwidth.
Bit Rate	4096	Bit Rate (First Stream &
Bit Rate	1024	Second Stream) It allows users to determine the Bit Rate range by themselves. The range for the Bit Rate for the first stream is from 32-51200kbps. The range for the Bit Rate for the second stream is from 32- 20480kbps. Note: If the network bandwidth is too narrow and the Bit Rate setting is too high, it will cause that the video streaming can not be transferred normally and it will cause a poor visual effect for viewers.

Items	Descriptions
Frame Rate 30 🗸 fps	Frame Rate (First Stream &
	Second Stream) Users can set the Frame Rate from the drop-down menu by themselves. The range is from 1 to 60. When the Frame Rate value is higher, the image will be smoother. When the Frame Rate value is lower, it will cause an unsmooth image.
I Key Frame Interval 30	I Key Frame Interval (First Stream & Second Stream) It allows users to set the interval between two I frames. When the interval is larger, the response speed from the viewing window will be lower.
Bit Rate Control CBR	Bit Rate Control (First
am VBR	Stream& Second Stream)
	There are two ways for Bit Rate Control including the CBR and VBR. CBR: The video encoder will encode the video according to the default speed. VBR: The video encoder will encode the video by adjusting the encoding speed according to the default value in order to achieve best image quality.
Apply	Apply Key After all of the options are set, please click the "Apply" key and then all of the changes will be effective.

	Items	Descriptions
Cancel		Cancel Key If the "Cancel" key is pressed, all of the changes will not take
		effect.

8.2.1 How to Connect the PTC-305T to a Datavideo Switcher after a 60FPS/50FPS Video Streaming (Take the HS-1300 as an example)

When you select the 50Hz or the 60Hz option from the $[Video] \rightarrow [Video]$ Settings] drop-down menu in the PTC-305T web UI for streaming videos, the PTC-305T HDMI/SDI output will be fixed at 1080p 50/60. However, the Datavideo HS-1300 switcher supports the 1080i video format only rather than the 1080p video format. So, when you want to connect the PTC-305T to the HS-1300 switcher, it is necessary for you to set the PTC-305T again in order to make sure that the video formats for the PTC-305T and the HS-1300 are consistent. Moreover, it can assure that the input screen that is received by the HS-1300 can be displayed correctly. Please follow following steps for setting the PTC-305T and the HS-1300.

• Take the adjustment to 1080i59.94 as an example

Step 1. At first, please press the "MENU" button which is located on the PTC-305T remote controller to open the OSD menu.

Step 2. After the OSD menu is opened, please move down the "Microjoystick"

to select the "Setup" option, and then please press the "Microjoystick"

to enter the "Setup" option.

Step 3. In "Video Format" option, please move the "Microjoystick" to the left or right side to select 1080i60, 1080i59.94 or 1080i50 video format.

Step 4. Please press the "MENU" button which is located on the control panel of the HS-1300 switcher to open its OSD menu.

Step 5. Please use the down arrow button to select the "Setup" option.

Step 6. Please use the right arrow button to select "Standard" 1080i59.94", and then please press the "Enter" button to enter this option for further adjustment.

Step 7. If the format for the "Standard" is not 1080i59.94, please use the up

arrow button and down arrow button **1** / **1** which are located on the control panel to adjust the video format to 1080i59.94.

Step 8. Please select your desired "Standard" value and then press the "ENTER" button again to confirm your selection.

Step 9. Please press the right arrow button Lagain to select the "Save Setup" option.

Step 10. Please use the left arrow button and the right arrow button to select the "Yes" button and then press the "ENTER" button again to save the setting.

Step 11. After the setting is saved, please press the "MENU" button exit to the previous menu and to exit the OSD menu of the HS-1300. The "Standard" option setting for the HS-1300 is finished until this step.

Step 12. Please open the web UI of the PTC-305T.

Step 13. Please click the "Video" option, and then please select "Dial Priority" from the "Video Format" drop-down menu.





datavideo	Video Settings		
	Video Format	Dial Priority 🗸	
Live	Encode Level	mainprofile 🗸	
Video	First stream		
AT Image	Encode Protocol	H264 🗸	
Audio	Resolution	1920x1080 🗸	
System	Bit Rate	4096	
Network	Frame Rate	30 🗸 fp	
Information	I Key Frame Interval	30	
	Bit Rate Control	CBR 🗸	

Step 14. Please click the "Apply" button .

Step 15. Please click the "Reboot" button in the "System" option to reboot the PTC-305T.

Step 16. After the PTC-305T is rebooted, please use an SDI cable to connect from the 3G-SDI interface which is located on the rear panel of the PTC-305T to the SDI IN interface which is located on the rear panel of the HS-1300, or you can use an HDMI cable to connect from the HDMI interface which is located on the rear panel of the PTC-305T to the HDMI IN interface which is located on the rear panel of the PTC-305T to the HDMI IN interface which is located on the rear panel of the HS-1300. After that, you can see the image which is shot by the PTC-305T is displayed in the MULTIVIEW window of the HS-1300 correctly.

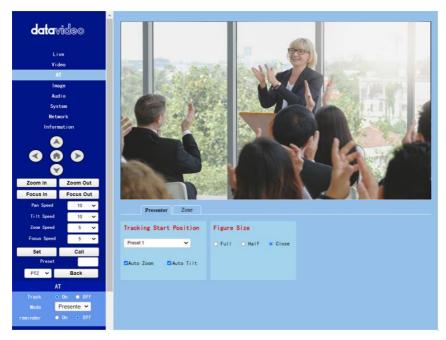
For SDI: The SDI IN 1 to SDI IN 4 interfaces which are located on the rear panel of the HS-1300 represent the MULTIVIEW window's Input 1 to Input 4.

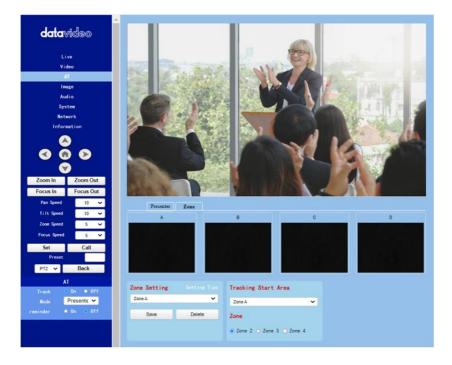
For HDMI: The HDMI IN 1 to HDMI IN 2 interfaces which are located on the rear panel of the HS-1300 represent the MULTIVIEW window's Input 5 to Input 6.

Note: Datavideo's SE-650, HS-1200 MU and HS-1300 switchers support 1080i video format only. So, the 1080p video format is not supported by the abovementioned switchers. If you want to connect the PTC-305Tcamera to the SE-650 or the HS-1200 MU switcher, please remember to select the "Dial Priority" item from "Video → Video Format" in the PTC-305T web UI. Moreover, please use the OSD menu of the PTC-305T camera and the OSD menu of the abovementioned switchers to adjust them in the same video standard before connecting to prevent the video format incompatible issue and the issue that the video that is shot by the PTC-305T can not be displayed normally in the MULTIVIEW window of the above-mentioned switchers.

8.3 AT(Auto-Tracking)

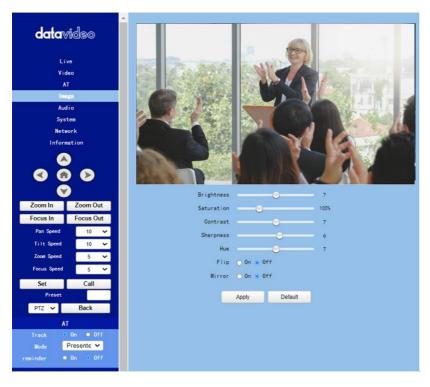
The "AT" option allows you to set detailed settings for PTC-305T's two tracking modes including "Presenter" and "Zone" modes. For the "**Presenter**" mode, the "Tracking Start Position" drop-down menu allows you to set the start position of the auto-tracking. The "Figure Size" option allows you to select "Full", "Half Body" or "Close Up". For the "**Zone**" mode, the "Zone Setting" allows you to set 2 to 4 auto-tracking areas. The "Tracking Start Area" allows you to set the start area of the zone tracking. The "Zone" option allows you to set the tracking area within 2 areas to 4 areas. For details of the auto-tracking function, please refer to **Chapter 7 How to Use PTC-305T's Al Auto Tracking**.





8.4 Image

The "**Image**" option allows users to see the image that is shot by the PTC-305T from the preview window. Moreover, users can adjust many parameters including Brightness, Saturation, Contrast, Sharpness and Hue from this interface by using sliders. The main interface of the Image option is shown as following diagram.



Brightness: This option allows users to adjust the Brightness. Please use the slider for adjusting the Brightness.

Saturation: This option allows users to adjust the Saturation. Please use the slider for adjusting the Saturation. After the adjustment is finished, please click the "Apply" button and then it is set successfully.

Contrast: This option allows users to adjust the Contrast. Please use the slider for adjusting the Contrast. After the adjustment is finished, please click the "Apply" button and then it is set successfully.

Sharpness: This option allows users to adjust the Sharpness. Please use the slider for adjusting the Sharpness. After the adjustment is finished, please click the "Apply" button and then it is set successfully.

Hue: This option allows users to adjust the Hue. After the adjustment is finished, please click the "Apply" button and then it is set successfully.

Flip: Please check the checkbox of the "Flip On" option Flip On and then please click the "Apply" button for flipping the image that is shot by the camera.

Mirror: Please check the checkbox of the "Mirror On" option Mirror On and then please click the "Apply" button for mirroring the image that is shot by the camera.

Default: Please click the "Default" button for restoring the settings in this page to factory default value.

8.5 Audio

The Audio option allows users to set the audio related parameters. The main interface of the audio option is shown as following diagram.

datavideo	•	Audio Settings		
		Audio Switch	On	~
Live		Audio Type	AAC	~
Video		Sample Rate	48K	~
AT		Bit Rate	96K	~
Image		Input Type	LINE IN	~
Audio		ADTS Options	Off	~
System				
Network			Apply	Cancel
Information				
8 8 8 8 8 8 8				

Please see following section for realizing the descriptions for each item for the Audio option.

Items	Descriptions
Audio Settings Audio Switch On ~ Audio Type Off	Audio Switch This option allows users to turn on or turn off the input of the audio source.
Audio Type AAC ~	Audio Type This allows users to select the encoding format of the input audio. The default audio type is the AAC format.
Sample Rate 48K 44.1K Bit Rate 48K	Sample Rate This drop-down menu allows users to select desired sample rate for the input audio source. There are two sample rate including 44.1K and 48K for users to select.
Bit Rate 96K ✓ put Type 128K 256K	Bit Rate This drop-down menu allows users to select their desired Bit Rate.
Input Type LINE IN LINE IN UTS Options MIC IN	Input Type This option allows users to select the audio signal input way. Users can input the audio by external connected MIC or by LINE IN.
ADTS Options Off On Off Off Off Off Off Off Off Off Off	ADTS Option This drop-down menu allows users to turn on or turn off the ADTS.

Items	Descriptions
Apply	Apply Key After all of the options are set, please click the "Apply" key and then all of the changes will be effective.
Cancel	Cancel Key If the "Cancel" key is pressed, all of the changes will not take effect.

8.6 System

This System option allows users to select functions including Reboot, Factory default, User/Guest Name and Password. The main interface of the System option is shown as following diagram. Please pay attention that the "Factory Default" option resumes the OSD menu rather than the Web UI to its factory default settings.

datavideo	Initialize		
	Reboot	Re	boot
Live	Factory Default	Factory	/ Default
Video			
AT	User		
Image	UserName	admin	
Audio	Passwd		۲
System			_
Network	Guest	guest	_
Information	Passwd		۲
000	-	Apply	Cancel

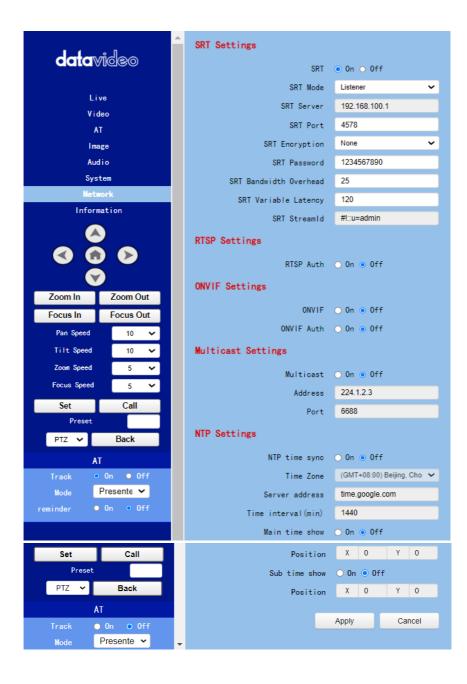
Please see following section for realizing the descriptions for each item for the System option.

	Items	Descriptions
Cancel		Cancel Key If the "Cancel" key is pressed, all
		of the changes will not take effect.

8.7 Network

The Network option allows users to set many network related functions. The main interface of the Network option is shown as the following diagram.

	<u> </u>		
datavideo	Lan Settings		
	IP Configuration Type	Dynamic IP Address 🗸	
Live	IP Address	192.168.100.100	
Video	Subnet Mask	255.255.255.0	
AT	Gateway	192.168.100.1	
Image	DNS Address	8.8.8	
Audio	MAC Address	00:07:36:A5:6D:A5	
System	DHCP timeout	30 sec	
Network Information	Static fallback address	192.168.100.100	
mormación	Static fallback Subnet Mask	255.255.255.0	
		Apply Cancel	
Zoom In Zoom Out	Port Settings		
Focus In Focus Out	HTTP Port	80	
Pan Speed 10 🗸	RTSP Port		
Tilt Speed 🛛 🗸 🗸	TCP Port		
Zoom Speed 5 🗸	UDP Port		
Focus Speed 5 🗸			
Set Call	Sony Visca	52381	
Preset	RTMP(S) Settings		
PTZ V Back	First Stream	🔾 On 💿 Off 🗖 Video 🗖 Audio	
AT	MRL	rtmp://192.168.100.138/live/stream0	
Track ● On ● Off	Second Stream	o On ● Off 🗆 Video 🗆 Audio	
Mode Presente 🗸	MRL	rtmp://192.168.100.138/live/stream1	



Please see following section for realizing the descriptions for each item for the Network option.

	Items	Descriptions
Lan Settings IP Configuration 1 IP Addr	Dynamic IP Address	IP Configuration Type This drop-down menu allows users to select the Static IP or DHCP mode. If the "Fixed IP Address" is selected, it will operate in static IP mode. If the "Dynamic IP Address" is selected, it will operate in DHCP mode.
Subnet Mask 25 Gateway 19 DNS Address 8.	22.168.100.88 55.255.255.0 02.168.100.1 8.8.8 4:E0:8E:55:FD:60	IP Address/Subnet Mask/Gateway/DNS Address If the fixed IP address is selected, users can set related parameters manually. After the settings are finished, please click the "Apply" button and then those settings will take effect. MAC Address This is the MAC Address and it can not be changed by users.
DHCP timeout	30 sec	DHCP timeout This option allows you to set the DHCP timeout seconds. If the DHCP mode can not be detected by the PTC-305T within 30 seconds, it will change to static IP mode automatically.

Items	Descriptions
Static fallback address 192.168.100.100	Static fallback address This is the default backup static IP address "192.168.100.100". When the DHCP address can not be detected within default seconds, it will change to this IP address automatically.
Static fallback Subnet Mask 255.255.255.0	Static fallback Subnet Mask This is the backup Subnet Mask "255.255.255.0". When the DHCP mode can not be detected within default seconds, it will change to this Subnet Mask automatically.
HTTP Port 80	HTTP Port This is the HTTP Port and the default port No. is 80.
RTSP Port 554	RTSP Port This is the RTSP Port and the default port No. is 554.
TCP Port 5678	TCP Port This is the TCP Port No. and the default port No. is 5678.
UDP Port 1259	UDP Port This is the UDP Port No. and the default port No. is 1259.

Items	Descriptions
Sony Visca 52381	Sony Visca This is the Sony Visca Port No. and the default No. is 52381.
First Stream On Off Video Audio MRL rtmp://192.168.100.138/Nve/StreamO	First Stream This option allows users to determine whether they want to turn on/turn off the First Stream streaming. Moreover, this option can turn on/turn off the streaming of video and audio separately.
	MRL Please copy the RTMP server address and streaming key from the streaming platform and then paste them into this MRL column. After that, please press the "Apply" button for starting the streaming successfully.
Second Stream On Off Video Audio MRL rtmp://192.168.100.138//lve/stream1	Second Stream This option allows users to determine whether they want to turn on/turn off the Second Stream streaming. Moreover, this option can turn on/turn off the streaming of video and audio separately.
	MRL Please copy the RTMP server address and streaming key from the streaming platform and then paste them into this MRL column. After that, please press the "Apply" button for starting

Items	Descriptions
	the streaming successfully.
SRT • On • Off	SRT On/Off This allows users to turn on or turn off the SRT streaming function.
SRT Mode Listener V Caller RT Server Listener	SRT Mode When the SRT ON/OFF is turned on, you can select "Caller" or "Listener" mode from this drop- down menu.
SRT Server 192.168.100.1	SRT Server This SRT server provides an IP address for you to enter into your SRT streaming software when you are using the SRT streaming function and the PTC- 305T camera is set as Listener mode and the SRT streaming software such as the Vmix is set as the Caller mode.
SRT Port 4578	SRT Port This is the SRT port and the default port No. is 4578.

Items	Descriptions
SRT Encryption None SRT Password AES-128 AES-128 AES-192 dwidth Overhead AES-256	SRT Encryption When the SRT function is turned on, this option allows users to select their desired SRT Encryption way. There are three encryption ways including AES- 128, AES-192 and AES-256 for users to select.
SRT Password 1234567890	SRT Password When the SRT encryption way is set, it is needed for users to use this password. The default value is 1234567890 and this password can change by users.
SRT Bandwidth Overhead 25	SRT Bandwidth Overhead The Bandwidth Overhead is a percentage which is set according to the network link. You can multiply this percentage value by the encoder-encoded video and audio total bitrates to get the maximum overhead which is allowed by the Bandwidth overhead. This value plus the total value of the video and audio bitrates is the maximum value of the current SRT transmission bandwidth, which is the maximum bandwidth of this SRT channel. The purpose of the bandwidth overhead is to transfer the control message data packet which accompany the SRT streaming. Moreover, it also includes the retransmission for all of the media packets. If the network link condition is worse,

	Items	Descriptions
		more exchanges for the control message data packets and more retransmissions for the media data packets will be needed. And you need to set a higher Bandwidth Overhead value.
SRT Variable Late	ency 120	SRT Variable Latency
		This column allows you to set the transmission latency of the SRT streaming. You can set the latency within the range of 20 to 8000.
SRT Streamld	#!::u=admin	SRT Stream ID
RTSP Auth	0 On) Off	This option allows you to turn on or turn off the SRT Stream ID. The Stream ID is an information which can be exchanged between the SRT Caller and the SRT Listener when the SRT connection is established. This Stream ID information allows the SRT Listener to determine whether the connection from a certain SRT Caller should be accepted or not. RTSP Auth This option allows users to turn on or turn off the authentication of the RTSP streaming.
ONVIF O C	Dn • Off	ONVIF This option allows users to turn on or turn off the ONVIF function.

Items	Descriptions
ONVIF Auth 🔾 On 💿 Off	ONVIF Auth This option allows users to turn on or turn off the ONVIF authentication.
Multicast On Off	Multicast This option allows users to turn on or turn off the Multicast function.
Address 224.1.2.3	Address This option is the address of Multicast. The default value is 224.1.2.3
Port 6688	Port This is the Port No. of the Multicast. The default No. is 6688.
NTP time sync O On O Off	NTP Time Sync This option allows users to turn on or turn off the NTP Time Sync function.
Multicenst (007422.00) Herses. Pretoria Address (007423.00) Herses. St. Flerenburg. Volgoprad (00743.00) Herses. St. Flerenburg. Volgoprad (00743.00) Seadel (00743.00) Herses. Port (00743.00) Herses. (007442.00) Herses. (00743.00) Herses. (00743.00) Herses. (00743.00) Herses. (00744.00) Herses. (00744.00) Herses. (00744.00) Alar, Delay. (10744.00) Herses. (00744.00) Alar. (10744.00) Alar. (00744.00) Alar.<	Time Zone This option allows users to select their time zone.

Items	Descriptions
Server address time.google.com	Server Address This option allows you to set the time calibration server when doing the time calibration and the server can be changed by users.
Time interval(min) 1440	Time Interval This option allows users to set the time interval for the time calibration.
Main time show On Off Position X O Y O	Main Time Show/Position This option allows users to open or close the time display function for the main time. Moreover, users can enter different X coordinate and Y coordinate positions to determine the position for showing the time on the screen. (The allowable setting range is from 0 to 100).
Sub time show On Off Position X O Y O	Sub Time Show/Position This option allows users to open or close the time display function for the sub time. Moreover, users can enter different X coordinate and Y coordinate positions to determine the position for showing the time on the screen. (The allowable setting range is from 0 to 100).
Apply	Apply Key After all of the options are set, please click the "Apply" key and then all of the changes will be effective.

	Items	Descriptions
Cancel		Cancel Key If the "Cancel" key is pressed, all of the changes will not take effect.

8.8 Information

In the "Information" option, users can change the device name by themselves. Moreover, users can also see the messages including software version and webware version. The main interface of the Information option is shown as the following diagram.

datavideo	Information	
	Device ID	UHD Camera
Live	Software Version	SOC v1.1.28 - ARM 7.0.19SD
Video	Webware Version	v1.5.5
AT		
Image		Apply Cancel

Please see following section for realizing the descriptions for each item for the information option.

Items	Descriptions
Device ID UHD Camera	Device ID This column allows users to determine the device ID by themselves. What they have to do is to enter their desired device ID and then click the "Apply" button.
Software Version SOC v1.1.06 - ARM 7.0.06SD	Software Version This option can show current software version.
Webware Version v1.5.5	Webware Version This is the version of the web- based control UI.
Apply	Apply Key After all of the options are set, please click the "Apply" key and then all of the changes will be effective.

	Items	Descriptions
Cancel		Cancel Key If the "Cancel" key is pressed, all of the changes will not take effect.

8.9 The PTZ Control Area of the Web UI

PTC-305T camera's PTZ control area in the Web UI allows users to control the directions, Zoom-In, Zoom-Out, Focus Near and Focus Far parameters for the PTZ camera lens. Moreover, users can also adjust the panning, tilting speed, preset setting and preset calling functions. The PTZ control area is shown as following diagram.



Items	Descriptions
	UP/Down/Left/Right/Home Keys Users can click the up, down, left and right keys and the PTZ camera lens will rotate to assigned direction. If the Home key for is pressed, the camera lens will return back to the initial position automatically. If this Home key is used with the "Back" key, when the "OSD" is selected and the Back key is clicked, the OSD menu will be shown on the external connected screen and users can use the up, down, left and right keys on the Web UI to control the camera.
Zoom In Zoom Out Focus In Focus Out	Zoom In/Zoom Out/Focus In/Focus Out Click "Zoom In" or "Zoom Out" for zooming in or zooming out the camera lens. Click the "Focus In" or "Focus Out" for Focusing Near or Focusing Far the camera lens.
Pan Speed 10 🗸	Pan Speed The "Pan Speed" allows users to adjust the rotation speed of the PTZ camera lens. The allowable setting range is from 1 to 24. The larger the number, the faster the PTZ camera lens will rotate.
Tilt Speed 10 ✔	Tilt Speed The "Tilt Speed" allows users to adjust the vertical rotation speed of the camera lens. The allowable setting range is from 1 to 20. The larger the number, the faster the PTZ camera lens will rotate.
Zoom Speed 5 🗸	Zoom Speed The "Zoom Speed" allows users to adjust the Zoom In/Zoom Out speed of the PTZ camera lens. The allowable setting range is from 0 to

	7. The larger the number, the faster the PTZ camera lens will rotate.
Focus Speed 5	Focus Speed The "Focus Speed" allows users to adjust the "Focus Near" and "Focus Far" speed of the PTZ camera lens. The allowable setting range is from 0 to 7. The larger the number, the faster the PTZ camera lens will rotate.
Set Call Preset	Set and Call Presets The PTC-305T provides 255 presets (0-254) for users to set. Users can use "Set" button to set the preset position and users can use the "Call" button to recall the pre-saved presets.
PTZ Y Back	OSD/PTZ Drop-Down Menu Press the OSD option from the web UI allows camera to call the OSD menu immediately. If the PTZ is selected after the OSD menu is shown, the OSD menu will disappear and the screen will go back to the scene that is shot by the camera.
Language English 🗸	Language Drop-Down Menu Users can use this drop-down menu for selecting four different languages including Traditional Chinese, русский, English and Simplified Chinese.

9. How to Use the Web UI to Set and Call Presets

Please follow following steps for setting and recalling the presets.

How to Set Preset

1. Please adjust your desired camera parameters and camera lens positions in advance.

2. Please enter your desired preset number in the "Preset" column

Preset

3. Please click the "Set" button and then the preset is set successfully.

• How to Recall Preset

1. Please enter the preset number that you want to recall into the "Preset"

2. Please click the "Call" button and then the preset is recalled successfully.

10. Quick Setting Area for the Auto-Tracking

The quick setting area of the Auto-Tracking function is located below the PTZ control area for you to turn on or turn off the Auto-Tracking function rapidly. Moreover, it also allows you to select the "Presenter" or "Zone" tracking mode from the drop-down menu. You can also turn on or turn off the "reminder". If the "reminder" is turned on, there is a green frame that will appear when the Auto-Tracking function is activated. If the "reminder" is turned off, the green frame will not be shown. The interface of the Auto-Tracking quick setting area is shown in the following diagram.

	AT
Track	● On ● Off
Mode	Presente 🗸
reminder	● 0n ● 0ff

11. Control the Camera by the PTZ View Assist App

Datavideo provides PTZ View Assist App for you to control up to 4 PTC-305T cameras by using Android or iOS handset. What you have to do is to set your handset or tablet in the same LAN with the PTZ View Assist App by the static IP address, and then you can control various functions of the camera by the Wi-Fi connection. Please download the PTZ View Assist App for the Android or iOS platform by using the following addresses.

Note: The Datavideo PTZ View Assist App can be operated only in DVIP mode. So, please remember to adjust the PTC-305T camera to the DVIP mode before using the Datavideo PTZ View Assist App. Please note that you need to turn off the "Multicast" function from the Web UI to prevent the control issue due to the network congestion.

For the Android device: Please go to "Google Play" and then search for the "PTZ View Assist". Finally, please download and install it.

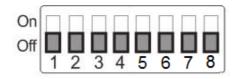
For the iOS device: Please go to "App Store" and then search for the "PTZ View Assist". Finally, please download and install it.



12. DIP Switch Settings

12.1 DIP Switch SW1

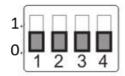
The DIP Switch SW1 can be found at the bottom of the camera, where the user is allowed to set the camera's VISCA ID, enable remote control, select the video resolution, and configure how the video mode can be selected.



DIP SW 1/2/3	VISCA ID
(1,2,3) = (ON,OFF,OFF)	VISCA-ID 1
(1,2,3) = (OFF,ON ,OFF)	VISCA-ID 2
(1,2,3) = (ON ,ON ,OFF)	VISCA-ID 3
(1,2,3) = (OFF,OFF,ON)	VISCA-ID 4
(1,2,3) = (ON ,OFF,ON)	VISCA-ID 5
(1,2,3) = (OFF,ON ,ON)	VISCA-ID 6
(1,2,3) = (ON ,ON ,ON)	VISCA-ID 7
DIP SW 4	Remote Control Protocol
(4) = (ON or OFF)	System will detect automatically
DIP SW 5/6/7	Resolution
(5,6,7) = (OFF,OFF,OFF)000	1920 x 1080i 59.94
(5,6,7) = (ON,OFF,OFF)100	1920x1080i50
(5,6,7) = (OFF,ON,OFF)010	1920 x 1080p 59.94
(5,6,7) = (ON,ON,OFF)110	1920 x 1080p 50
(5,6,7) = (OFF,OFF,ON)001	3840 x 2160p 29.97
(5,6,7) = (ON,OFF,ON)101	3840 x 2160p 25
(5,6,7) = (OFF,ON,ON)011	3840 x 2160p 59.94
(5,6,7) = (ON,ON,ON)111	3840 x 2160p 50
DIP SW 8	Video Mode Selection Method
ON	Video mode selectable by DIP switch only
OFF	Video mode selectable by menu

12.2 DIP Switch SW2 (IRID)

The IRID DIP Switch can be found on the rear panel of the PTC-305T camera. This DIP switch allows the user to assign an ID number to the camera so that the user can navigate between the cameras by pressing the **CAMERA SELECT** buttons.



DIP SW 1/2	Camera Select Function (IR Remote Control) – Camera ID Assignment			
(1,2) = (0,0) CAM1 (IR)				
(1,2) = (1,0)	CAM2 (IR)			
(1,2) = (0,1)	CAM3 (IR)			
(1,2) = (1,1)	CAM4 (IR)			
* DIP SW 3/4 should be always OFF.				

13. How to Play the RTSP Stream by the VLC Player

Please follow following steps for playing the RTSP streaming by using the VLC Player.

1. Please open the VLC Player.

4	VLC	media pla	yer					—		×
Me	dia	Playback	Audio	Video	Subtitle	Tools	View	Help		
Þ	Ор	en File			Ctrl+	0				
Þ	Ор	en Multiple	Files		Ctrl+	Shift+O				
▶	Ор	en Folder			Ctrl+	F				
٠	Ор	en Disc			Ctrl+	D				
**	Ор	en Network	c Stream.		Ctrl+	N				
•	Ор	en Capture	Device		Ctrl+	С				
	Ор	en Location	from cli	pboard	Ctrl+	V				
	Ор	en Recent M	/ledia							
	Sav	e Playlist to	o File		Ctrl+	Y				
	Cor	nvert / Save	÷		Ctrl+	R				
((*))	Stre	eam			Ctrl+	S				
	Qui	t at the end	d of playl	ist						
C	Qui	t			Ctrl+	Q				
:-										;
	ŀ		0.0 tH	II:	\sim				• =	

- 2. Please click "Media-> Open Network Stream".
- 3. Please enter the RTSP address.

rtsp://ip address: port No./1 (first stream).

rtsp://ip address: port No./2 (second stream).

🛓 Open Media	-		×
🖻 File 🛭 🚱 Disc 👫 Network	💷 Capture Device		
Network Protocol			
Please enter a network URL:			
rtsp://192.168.100.100:554/1			\sim
http://www.example.com/steam.avi rtp://will.234 mms:/fmms.etamples.com/steam.avi rttp://www.example.og/a00/bets.sbp http://www.yourtube.com/watch?v=gg64x			
Show more options			
	Play	- Ca	ncel

4. Please click "Play" button.

Note: The default port No. of the RTSP is 554, if the default http port of the camera is 80, it is no need for users to enter the port No.

🖻 File 🛛 🗞 Disc	🚏 Network	🍯 Capture I	Device	
Network Protocol				
Please enter a network	URL:			
rtsp://192.168.100.100	/1			\sim
rams://mms.examples.oz rtsp://server.example.org http://www.yourtube.cor	:8080/test.sdp			

14. How to Play the Multicast by the VCL Player

The RTP Multicast allows users to view the camera image remotely by specific video player such as the VLC Player.

Multicast Settings	
Multicast	● On ○ Off
Address	224.1.2.3
Port	6688

Please follow following steps for playing the RTP Multicast in the VLC Player.

- 1. Download VLC media player from the link <u>https://www.videolan.org</u>.
- 2. Open VLC, click "Media" \rightarrow "Open Network Stream" then enter **rtp://224.1.2.3:6688** to view the video streaming.

File Sold States File Sold States File	Disc 🛛 🚼 Network	🍯 Capture	Device	
Please enter a ne	-			
rtp://224.1.2.3:				\sim
rtp://@:1234				

3. Click the "Play" button to start viewing the video stream.

15. How to Stream to Facebook

Please follow following steps for streaming to Facebook Streaming platform.

• Use Facebook Live Producer for Streaming

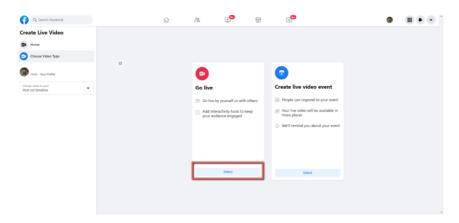
1. Please go to Facebook Live website

https://www.facebook.com/formedia/solutions/facebook-live, and then please click "Go Live Now" button which is shown in the following diagram.



Note: Facebook Live limits each stream to 8 hours.

2. Please click the "Select" button from the "Go live" option which is shown in the following diagram.



3. Please select the "Streaming Software" option, and then please enter the title and description of your live-streaming video in the "Title" and "Description" columns. Moreover, you can determine whether you want to share your live-streaming video to your Facebook Story.

G Search Facebook	ଜ	ës 💌		9		ø	• •
Create Live Video ?	Select a vi	deo source 🔘	_	Add live video details Share to story	,		
Connect video source Complete post details		• 0		Your live video will also be added to your story.			
Go live	Webcam	Streaming Software		Title (optional) Description			
Host - Your Profile	Copy and software.	paste the stream key into your stream	ng		0 0 2		
Choose where to post Post on timeline	Stream FB-10208	(ey 102208590202-0-AbwFgk48bMHH6b48	Сору	5			
â Only me	preview the b	ry is valid until you log out of Facebook. Once you s roadcast you have up to 5 hours to go live.	tart to				
Stream Setup	Advance	d Settings	×				
Dashboard	Video		_				
:• Interactivity ~							
		Connect streaming software to go live					
Back Di Go Live							

4. Please select "Advanced Settings", and then you can see the "Server URL". You need the "Server URL" and the "Stream Key" which are on the page for live-streaming videos on the Facebook page.

Q, Search Facebook	ନ	28	. 	6	G ⁰⁰	6
eate Live Video ?	Select a	video source 🔞			Add live video details	
Connect video source		0	0		Share to story Your live video will also be added to your story.	
Complete post details	Webcam		Streaming Software		Title (optional)	
	Copy an	g Software Setup I paste the stream ke	ry into your streami	ng	Description O	
Host - Your Profile	Stream			<u> </u>	₽ 0 ©	
sose where to post at on timeline		8902208590202-0-Abw		Сору		
nly me	This stream preview the	key is valid until you log out broadcast you have up to 5	it of Facebook. Once you s 5 hours to go live.	set to		
Stream Setup	Advan	ed Settings		^		
Dashboard	Persistent	Stream Key				
Settings ~	This can be one live vid	reused every time you go liv to at a time with your persis	ve. You can only broadcast stent stream key.			
Interactivity ~	Backup St Once a bac removed. It	ream sig stream is added to your will not affect your stream it	live video, it cannot be If you choose not to use it.			
	Server UF					
k Di Go Live		live-api-s.facebook.com referred to as "URL" or "Ac		Copy software.		

5. Please click the "Copy" buttons which are located next to the "Server URL" and "Stream Key" columns respectively. After that, please paste them to the "First Stream MRL" column in the "Network" option of the PTC-305T web UI.

Q. Search Facebook	ŵ ²⁸	<mark>.</mark>		5		G	
Create Live Video ?	Select a video source 🔞			Add live video deta	nils		
Connect video source	٥			Share to story Your live video will als	o be added to your story.		
Complete post details	Webcam	Streaming Software		Title (optional)			
Go live	Streaming Software Setup			Description			
💮 Host - Your Profile	Copy and paste the stream ke software.	ey into your streaming			2	• •	
Choose where to pool Post on timeline	Stream Key F8-10208902208590202-0-Abw	CordShMUMihaB	.opy				
a Only me	This stream key is valid until you log or preview the broadcast you have up to t						
C Stream Setup	Advanced Settings		^				
III Dashboard	Persistent Stream Key						
Settings ~	This can be reused every time you go is one live video at a time with your persi	ive. You can only broadcast sternt stream key.					
 Interactivity 	Backup Stream Once a backup stream is added to your removed. It will not affect your stream	five video, it cannot be if you choose not to use it.					
	Server URL rtmps://live-api-s.facebook.com	_	ору				
Back Di Go Live	rtmps://ive-api-s.facebook.com This may be referred to as "URL" or "A		ору				
•							
datavideo	Lan Settings						
Galavierso	LP. Con	figuration T	vne	Dynamic IF	Address 🗸		
		IP Addr		192.168.1			
Live				255.255.2			
Video AT		Subnet M		_			
Al		Gate	way	192.168.1	00.1		
Audio		DNS Addr	ess	8.8.8.8			
System		MAC Addr	ess	00:07:36:4	\5:6D:A5		
Network		DHCP time	out	30 sec			
Information	Static f	allback addr	ess	192.168.1	00.100		
	Static fallb	ack Subnet M	ask	255.255.2	55.0		
				Apply	Cancel		
Zoom In Zoom Out	Port Settings						
Focus In Focus Out				80			
Pan Speed 10 🗸		HTTP P					
Tilt Speed 10 🗸		RTSP P	ort	554			
Zoom Speed 5		TCP P	ort	5678			
Focus Speed 5		UDP P	ort	1259			
		Sony Vi	sca	52381			
Set Call Preset	RTMP(S) Setti	ngs					
PTZ V Back							
		First Str			ff 🗌 Video 🗌 /		
AT			MRL	rtmps://live	e-api-s.facebook.co	m:443/rtmp/	

Note: Please make sure that the "ON" is selected for the First Stream MRL . Moreover, please make sure that the "Video" and "Audio" checkboxes are checked.

6. Please click the "Apply" button	Apply
o. Please click the Apply button	

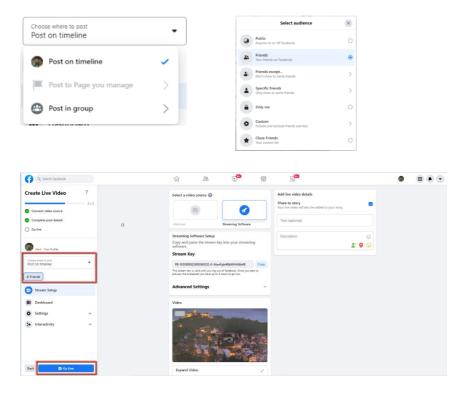
7. Please click the "Reboot" button in the "System" option to reboot the PTC-305T.

datavideo	Initialize Reboot	Reboot
Live Video AT	Factory Default	Factory Default
Image Audio	UserName Passwd	admin
System Network Information	Guest Passwd	guest
0 0 0 0		Apply Cancel
Notice ? Please pres the camera.	s OK to reboot Cancel	3

8. After the PTC-305Tis rebooted, you can see the real-time preview which is shot by the PTC-305T camera from the "Video" option of the Facebook Live page.

🞧 🔍 Search Facebook			ଜ ଥ 🕫 🖶	G ^D	
Create Live Video	? 2/3		Select a video source ()	Add live video details Share to story that fee video will also be added to your story.	
Complete post details		•	Wolcom Streaming Softmane	Title (optional)	
Rat - Your Profile			Streaming Software Setup Copy and paste the stream key into your streaming software. Stream Key	Description	
Churse where to past Post on timelike	•		Restand to the second sec		
Stream Setup			Advanced Settings ~		
III Dashboard Settings Interactivity	*		Vde		
Back Bi Ge Live	-		Espand Video		

9. Please set related settings including "Choose where to post" and "Select audience". After that, please press the "Go Live" button for live-streaming the real-time image which is shot by the PTC-305T immediately.



10. And then you can see that the live-streaming is done successfully. If you want to stop the live-streaming, please click the "End Live Video" button for stopping the live-streaming immediately.

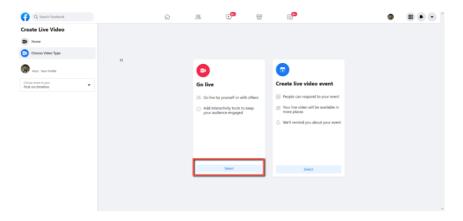
Q. Search Facebook	r 😤 🕫	8	59		
Live Dashboard 2 Row Bury And Bayes can be support and a support of and a support of the support of the support of the Row Bayes and Support of the Row	Video		Comments	0 *	
Dahboard Dahboard Settings C Dahboard Dahboard C	Epand Video				
	Insights		Witte & commert Polis Create a poli Question Question		
End Une Video	€ 10-00-00-00000000000000000000000000000	4.1 Mbps Video Otrate	Option	0.1	

• Use the Personal Facebook Page or the Facebook Fan Page for Streaming

1. Please click "Live Video" from your Facebook Personal Page or Facebook Fan Page.



2. Please click the "Select" button from the "Go live" option which is shown in the following diagram.



3. Please select the "Streaming Software" option, and then please enter the title and description of your live-streaming video in the "Title" and "Description" columns. Moreover, you can determine whether you want to share your live-streaming video to your Facebook Story.

G Search Facebook	r 2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Create Live Video ? Center Unite Source 1/1 Center Video Source 1/1 Center Video Source 0 Complete post details General Center C	Select a vidros source
test: Non helik	Streaming Software Setup Crypt and patie the dreams key inits your dreaming Crypt and patie the dreams key inits your dreaming Stream Key The member by valid and obtained. One you for the The member by valid and obtained. One you for the
Stream Setup	Advanced Settings ~
III Dashboard	Video
Settings v	िः Cannet internet to go he
Back Di Go Live	

4. Please select "Advanced Settings", and then you can see the "Server URL". You need the "Server URL" and the "Stream Key" which are on the page for live-streaming videos on the Facebook page.

Q. Search Facebook		ŵ &	•••		5 ⁹⁹		۵	H
Create Live Video	?	Select a video source 🔞			Add live video details			
O Connect video source	1/3	0	0		Share to story Your live video will also be added to your story.			
Complete post details		Webcam	Streaming Software		Title (optional)			
J Go iive		Streaming Software Setu Copy and paste the strea			Description			
🛞 Host - Your Profile		software.				* 9 😉		
Choose where to post Post on timeline	•	FB-10208902208590202-0		Сору				
a Only me		This stream key is valid until you i preview the broadcast you have u	log out of Facebook. Once you st up to 5 hours to go live.	Ht to				
Stream Setup		Advanced Settings		^				
Dashboard		Persistent Stream Key This can be neused every time you one live video at a time with your	u go live. You can only broadcast					
 Settings Interactivity 	ž	Backup Stream Once a backup stream is added to removed, it will not affect your sh	p your live video, it cannot be					
		Server URL rtmps://live-api-s.facebool	k.com:443/rtmp/	Сору				
Back Di Go Live		This may be referred to as "URL"	or "Address" in your streaming s	oftware.				

5. Please click the "Copy" buttons which are located next to the "Server URL" and "Stream Key" columns respectively. After that, please paste them to the "First Stream MRL" column in the "Network" option of the PTC-305Tweb UI.

Q. Search Facebook		ŵ ²⁸	9 9		G ⁹⁹		(• •
Create Live Video ?		Select a video source @			Add live video details Share to story Your live video will also be added to your story.	۵		
Connect video source Complete post details Go live	•	Webcam	Streaming Software		Title (optional)			
Host - Your Profile		Streaming Software Setup Copy and paste the stream key software.	y into your streaming		Description	ः २ २ २		
Choose where to post Post on timeline		Stream Key F8-10208902208590202-0-AbwF This stream key is valid until you log out preview the broadcast you have up to 51	of Facebook. Once you start to	Сору				
Stream Setup		Advanced Settings		^				
III Dashboard		Persistent Stream Key This can be reused every time you go live one live video at a time with your persist	ve. You can only broadcast (tant stream key.	3				
> Interactivity ~		Backup Stream Once a backup stream is added to your if removed, it will not affect your stream if Server URL	live video, it cannot be you choose not to use it.					
Back DI Go Live		rtmps://live-api-s.facebook.com This may be referred to as "URL" or "Add		Сору				

data⊎	rideo	Lan Settings			
		IP Conf	iguration Type	Dynamic IF	Address 🗸
Liv	/e		IP Address	192.168.1	00.100
Vid	eo		Subnet Mask	255.255.2	55.0
A	r -		Gateway	192.168.1	00.1
Ima	ge		DNS Address	192.168.0	.1
Aud			MAC Address	D4:E0:8E	55:FD:60
Syst			DHCP timeout	30 sec	
Netw NDI® (Static fa	llback address	192.168.1	00.100
Inform		Static fallba	ck Subnet Mask	255.255.2	55.0
				Apply	Cancel
		Port Settings			
Zoom In	Zoom Out		HTTP Port	80	
Focus In	Focus Out		RTSP Port	554	
Pan Speed	10 🗸		TCP Port	5678	
Tilt Speed	10 🗸		UDP Port	1259	
Zoom Speed	5 🗸			52381	
Focus Speed	5 🗸		Sony Visca	32361	
Set	Call	RTMP(S) Settir	ngs		
Preset			First Stream	● 0n ○ 0	ff 🗌 Video 🗌 .
PTZ 🗸	Back		MRL	rtmps://liv	e-api-s.facebook.co

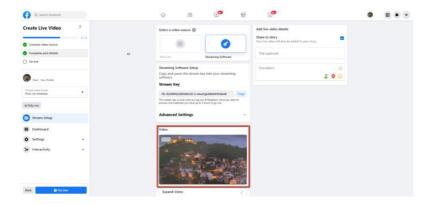
Note: Please make sure that the "ON" is selected for the First Stream MRL . Moreover, please make sure that the "Video" and "Audio" checkboxes are checked.

6. Please click the "Apply" button Apply

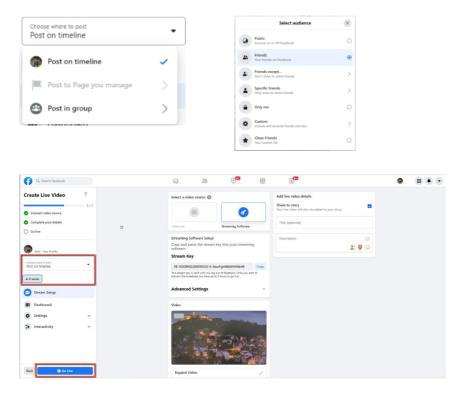
7. Please click the "Reboot" button in the "System" option to reboot the PTC-305T.

datavideo	Initialize	Rebot
Live	Factory Default	Factory Default
Video AT	User	
Image	UserName	admin
Audio	Passwd	••••
System	Guest	guest
Information	Passwd	••••
0 0 0 0 0	-	Apply Cancel
Notice	X	3
Please press the camera.	BOK to reboot	

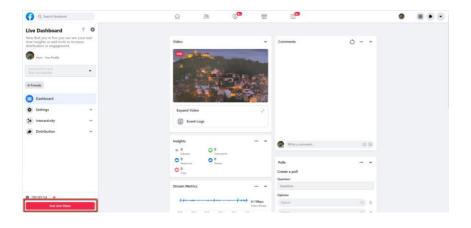
8. After the PTC-305T is rebooted, you can see the real-time preview which is shot by the PTC-305T camera from the "Video" option of the Facebook Live page.



9. Please set related settings including "Choose where to post" and "Select audience". After that, please press the "Go Live" button for live-streaming the real-time image which is shot by the PTC-305T immediately.



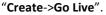
10. And then you can see that the live-streaming is done successfully. If you want to stop the live-streaming, please click the "End Live Video" button for stopping the live-streaming immediately.

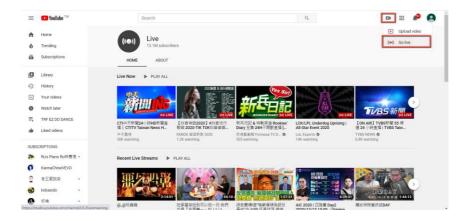


16. How to Stream to Youtube

Please see following steps for realizing how to stream to Youtube streaming platform.

1. Please go to Youtube website <u>www.youtube.com</u> and then click





2. Users will enter "Youtube Live Control Room" page, please click the "START" button from the "Right Now" option.

=	🕨 Studio	8
((+))		
۵		Schedule your stream ahead of time and lat
		ccs
		Welcome to the new YouTube Live Control Room When do you want to go live?
		Right now Cet set up to live steam now. Don't (ive) wany, you'n have a chance to review settings before you're live. Learn more
		Later date Schedule a stream for a later time. You can even set it up alwaid of time. Later more
P		

3. Please click "Go" button from the "Streaming Software" option.

4. Users will see the main page of the "Youtube Studio". Please click the "EDIT" button for setting detail information of your streaming activity. After you finish filling out those information, please click the "SAVE" button.

=	▶ Studio		A 🗢 K
(**) •	Connect encering software to go her Verware will be able to that your ensem now you go her STIELAM SCIUP HCLP	Tale Test Category Education Pressy © Public Versens setting 0 U	EPT
р	STREAM SETTING ANALYTICS STREAM HEAL Stream key Stream key (Variable) Default stream key (Variable) Default stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable) Stream key (Variable) Image: Stream key (Variable) Image: Stream key (Variable)	Additional settings Enable DVR 	
-		thefiet fire evelope encode	
=	> Studio	the End Size and because all more and be	A 🔅 K
	Edit settings Edit settings Details Correct sites Une Dat	Title (required) (3). Test	A COT
	Edit settings Details		

5. Users can see the Stream Key and Stream URL that are provided by the Youtube streaming platform. Please copy the stream key and stream URL and then paste them into the "**First Stream MRL**" within the "**Network**" option of the PTC-305T Web UI. Please click "**On**" and please check the checkboxes of "**Audio**" and "**Video**".

= 🕨 Studio						A 🔅 K
)		Test				EDIT
Connect streaming soft	tware to go live	Education				
Viewers will be able to find your		Privacy S Public				
	IP HELP	Aewers waiting Likes D O				
Excellent connection						
STREAM SETTINGS ANAL	YTICS STREAM HEALTH					
Stream key		Addition	al settings			
Select stream key Default stream key (Variable)		Enable D	WR		••	
Stream key (paste in encoder)	RESET	COPY 360* vide	eo		•	
		COPY None				
rtmp://a.rtmp.youtube.com/lin Backup server UR rtmp://b.rtmp.youtube.com/lin		Closed c	aptions		•	
rtmp://b.rtmp.youtube.com/liv	ve2?backup=1	1-64 F				
م الم ہے جب الم	La	an Settings				
datavide	0	ID Confi	guration Type	Dynamic IP	Address 🗸	1
		TP CONTI	IP Address	192,168,1		
Live						
Video AT			Subnet Mask	255.255.2		
			Gateway	192.168.1	00.1	
Image Audio			DNS Address	8.8.8.8		
System			MAC Address	00:07:36:A	\5:6D:A5	
Network			DHCP timeout	30 sec		
Information		Static fal	Iback address	192.168.1	00.100	
		Static fallbac	k Subnet Mask	255.255.2	55.0	
	_					
				Apply	Cancel	
Zoom In Zoon	n Out Po	ort Settings				
Focus In Focu	s Out		HTTP Port	80		
Pan Speed	10 🗸		RTSP Port	554		
Tilt Speed	10 🗸					
Zoom Speed	5 🗸		TCP Port	5678		
Focus Speed	5 🗸		UDP Port	1259		
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Preset		MP(S) Settin	gs			
PTZ 🗸 Bac	:k		First Stream	● 0n ○ 0	ff 🗌 Video 🗌	Audio
AT			MRL	rtmp://a.rtr	np.youtube.com/liv	re2

6. Please click the "Apply" button.



7. Please reboot the PTC-305T camera and then users can see the streaming is started on the Youtube Live page. If you want to stop the live streaming, please click the "END STREAM" button for stopping the live streaming.

=	▶ Studio		📖 🗏 🏕 💠 <mark>End</mark>	STREAM
0	tor ear tor ear tor ear tor ear tor ear tor ear tor tor tor tor tor tor tor to	tiles 0		EDIT
	STREAM SETTINGS ANALYTICS STREAM HEALTH			
	Stream key Seleci stream key Default stream key (Variable)	Additional settings Enable DVR		
	Denem kay (pase in exception)	360* video 	••	
p	rtmp://a.rtmp.youtube.com/live2 findue.mmt PR rtmp://b.rtmp.youtube.com/live2?backup=1 COPY	Closed captions	•	

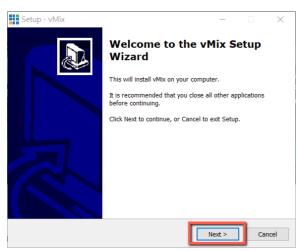
17. How to do the SRT Streaming by the vMix Software

How to install the Vmix Software

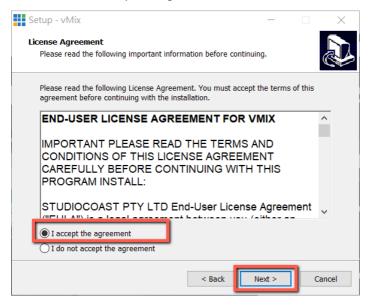
Please install the vMix software according to following steps. 1. At first, please go to vMix official website and then download the vMix 60day free-trial. This section will use vMix free-trial as an example to demonstrate the operation steps. Please click the "DOWNLOAD FREE TRIAL" button for downloading.



- 2. Please double-click the vmix23.exe ^{wmix23}.
- 3. Please click the "Next" button.



4. Please click "I accept the agreement" and then click the "Next" button.



5. Please click the "Next" button.

Setup - vMix	—		\times
Select Destination Location Where should vMix be installed?			ð
Setup will install vMix into the following folder.			
To continue, click Next. If you would like to select a different fol	der, cli	ick Brows	e.
C:\Program Files (x86)\vMix		Brows	e
At least 841.3 MB of free disk space is required.			
< Back	lext >		Cancel

6. Please click the "Next" button.

Setup - vMix	_		×
Select Start Menu Folder Where should Setup place the program's shortcuts?			
Setup will create the program's shortcuts in the followir	ıg Star	t Menu fo	lder.
To continue, click Next. If you would like to select a different fol	der, cli	ck Browse	e.
Mix		Browse	·
< Back	lext >		Cancel

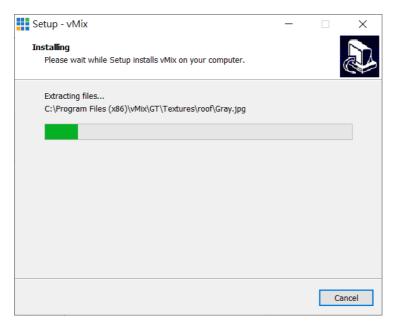
7. Please click the "Next" button.

Setup - vMix	_		×
Select Additional Tasks Which additional tasks should be performed?			
Select the additional tasks you would like Setup to perform while i click Next.	installing	vMix, th	en
Additional icons:			
✓ Create a desktop icon			
	_		
< Back Nex	xt >	Ca	ncel

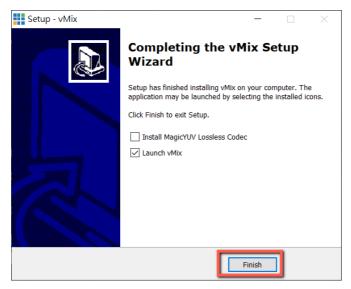
8. Please click the "Install" button.

Setup - vMix	_		×
Select Additional Tasks Which additional tasks should be performed?			<u>F</u>
Select the additional tasks you would like Setup to perform wh click Next.	ile installin	g vMix, tl	hen
Additional icons:			
✓ Create a desktop icon			
< Back	Next >	с	ancel

9. The installation will be started.



10. Please click the "Finish" button to finish the installation.



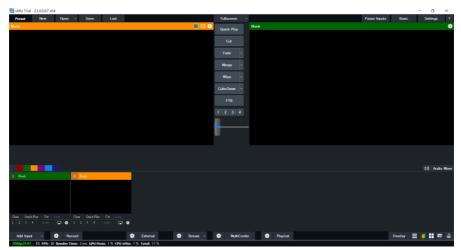
11. Please select "Register for a fully functional 60 Day Trial" to fill out your Email Address. After that, please click the "OK" button to open the vMix software.

vMix Registration				
	Registration Internet access required to complete Registration			
◯ I have a Registration	a Key			
Кеу				
Visit	http://www.vmix.com/ to purchase a Registration Key			
Visit https://register.vmix.com/ to register for the FREE Basic Edition.				
Register for a fully f	functional 60 Day Trial			
Email Address	kevinwang@datavideo.com			
	OK Cancel			

12. Please select the initial resolution and frame rate that you want to use and then please click the "OK" button.

vMix Configuration	
vMix	
Select a starting configuration for vMix below. These settings can be customised later by clicking the Settings button.	
HD 1080 29.97p (1920x1080, 29.97 fps) ~	
ок	

13. After opening vMix, the software interface is shown as following diagram.



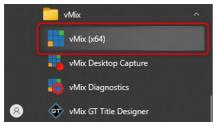
How to do the SRT Stream by Using the PTC-305T Camera and

vMix Software

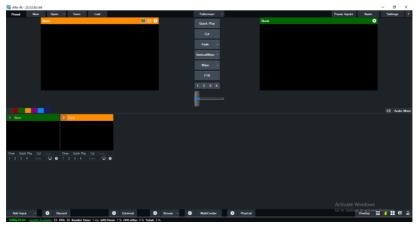
There are two modes for the SRT streaming including the Caller Mode and the Listener Mode. Please see following steps for realizing operation steps for the vMix.

If the PTC-305T is set in Listener Mode

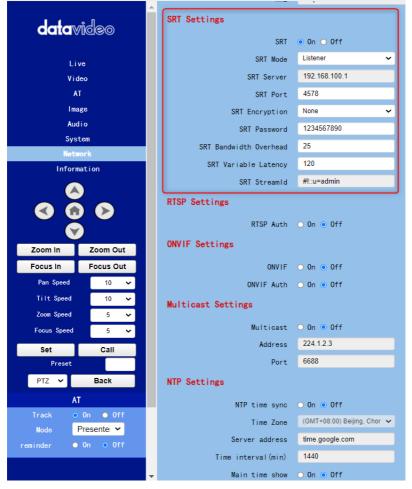
1. At first, please click the "Vmix(x64)" from the Start Menu to open the Vmix software.



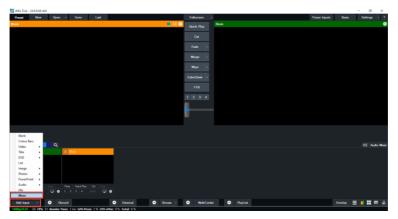
2. After that, you will see the Vmix main interface which is shown in the following diagram.



3. Please go back to the PTC-305T interface to make sure that the "SRT" option in the SRT Settings is "ON". Moreover, the default value of the "SRT Port" is "4578". The "SRT Encryption" drop-down menu allows you to select your desired SRT Encryption way including AES-128, AES-192 and AES-256. The default value of the "SRT Encryption" option is "Off". In this section, we will take AES-256 as an example. If you need to set an SRT password, please enter your desired SRT password in the "SRT Password" column, it needs a 10-digit or above number. The default SRT Password is "1234567890". After the setting for the SRT Password is finished, please press the "Apply" button which is located on the bottom side of the Web UI to apply the new setting.



4. Please go back to the main interface of the Vmix software and then press the "Add Input" button. After that, please select the "More" option from the drop-up menu.



5. After the "Input Select" option is opened, please select the "Stream/SRT" option and then you can see the "Stream/SRT" interface which is shown in the following diagram.

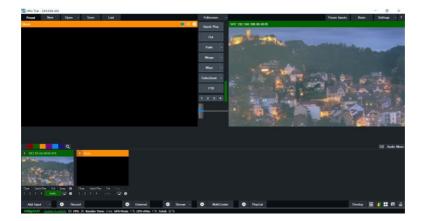
inp	ut Select							×
	Video	Stream Type	RTSP over UDP			~		
	DVD	URL						
D	List	Buffer		300 milliseco	nds 🗆	Low Latency Mode		
	Camera							
Ţ	NDI / Desktop Capture							
4 <u>8</u> 4	Steem / SRT							
Image: AImage: A								
	Image Sequence / Stinger							
Ü	Vileo Delay							
R	Image							
	Photos							
	PowerPoint							
	Colour							
Ŧ	oibrA							
Ŧ	Audio Input							
Т	Title / XAML							
п	Virtual Set							
	Web Browser							Clear
	Video Call					_		
					Number 1	~	ок	Cancel

6. Please select the "SRT Caller" option from the "Stream Type" drop-down menu. After that, please enter the default static IP address "192.168.100.100" of the PTC-305T into the "Hostname" column. Moreover, please enter the default SRT port number "4578", which is provided by PTC-305T web UI's "SRT Port" column into the "Port" column. After that, please enter your SRT Password which is set in the PTC-305T web UI into the "Passphrase" column.

The default password is "1234567890". For the "Key Length", please select "32" from the drop-down menu. After all of the values are entered, please press the "OK" button.

in In	put Select						×
	∀ideo	Stream Type	SRT (Caller)			~	
0	DVD	Hostname	192.168.100.88	Port	4578		
D		Latency (ms)			1234567890	Use Hardw	vare Decoder
	Camera	Decoder Delay (ms)	0	Key Length	32	~	
	NDI / Desktop Capture	Stream ID					
4	Stream / SRT						
R	Instant Replay						
	Image Sequence / Stinger						
Ü	Video Delay						
	Image						
	Photos						
匣	PowerPoint						
	Colour						
Ŧ	Audio						
Ŧ	Audio Input						
Т	Title / XAML						
	∀irtoal Set						
	Web Browser						Clear
	Video Call				Number 1 🗸	0 14	front
					Number 1 🗸	ок	Cancel

7. After that, you can see that the image which is shot by the PTC-305T is streamed to the vMix software by the SRT Listener Mode successfully.



If the PTC-305Tis set in Caller Mode

1. At first, please click the "Vmix(x64)" from the Start Menu to open the Vmix software.



2. After that, you will see the Vmix main interface which is shown in the following diagram.

vMix 4K - 23.0.0.60 x64					– ø ×
Preset New Open - Save Last		Fullscreen +		Pause Inputs Basic	Settings ?
Bark		Quick Play	Bark		•
		Cu .			
		VerticalWipe •			
		ETR			
		1234			
1 Bark 2 Bark					(1) Audio Mixer
Cose Quick Play Cut Loss Cose Quick Play Cut Loss					
1 2 3 4 Ado 🖵 🕸 1 2 3 4 Ado 🖵 🕸					
Add Input - 🗢 Record	🗘 External 🔕 Stream - 🕻	MultiCorder 🚯 PlayList		Go to Settings to active Overlay	"≌" <mark>"</mark> ∎ ∝ ≞
1000p59.94 Update Available EX FPS: 60 Render Time: 1 ms GPU Her		ф тауса			

3. At first, please go back to the PTC-305T web UI and then please click "ON" from the "SRT" option.



4. Please select "Caller" from the "SRT Mode" drop-down menu.



5. Please enter the static IP address of your device which is used to install the vmix software. In this example, it is the static IP address "192.168.100.30" of the PC which is used to install the Vmix software. Please pay attention that

the static IP address of the device must be within the same LAN as the static IP address of the PTC-305T.

SRT Server	192.168.100.30
SRT Port	4578

6. The SRT port is "4578", which is the default SRT port number of the PTC-305T.

7. Please select your desired SRT Encryption way from the "SRT Encryption" drop-down menu. In this example, we will take the AES-256 as an example.

SRT Encryption	None	~
	None	
SRT Password	AES-128	
	AES-192	
dwidth Overhead	AES-256	
		_

8. Please enter your desired SRT password in the "SRT Password" option. Please pay attention that the password must be a 10-digit or above number. In this example, we will take "1234567890" as an example.

SRT Encryption	AES-256	~
SRT Password	1234567890	

9. Please press the "Apply" button.



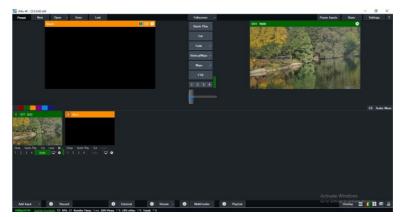
10. Please press the "Reboot" button from "System-> Reboot" from the PTC-305Tweb UI.



11. Please go back to the Vmix interface, press the "More" option by pressing the "Add Input" option. After that, please select the "Stream/SRT" option. Please select "SRT Listener" from the "SRT Type" option. After that, please enter the default port number "4578" which is provided by the PTC-305T web UI into the "Port" column. Moreover, please enter your SRT password which is set in the PTC-305T web UI into the "Passphrase" column. In this example, we will take "1234567890" as an example. After that, please select "32" from the "Key Length" drop-down menu. If you have an SRT Stream ID which is provided by your cloud streaming platform, please enter your SRT Stream ID in the "Stream ID" column. After all of them are entered, please press the "OK" button.

Input Select							×
Video	Stream Type	SRT (Listener)			\sim		
• DVD			Port	4578			
List	Latency (ms)		Passphrase	1234567890		Use Hardware Decode	r
Camera	Decoder Delay (ms)	0	Key Length	32	~		
NDI / Deskto	p Capture						
Stream / SRT							
R Instant Repla	y .						
Image Seque	nce / Stinger						
🕲 Video Delay							
Image							
Photos							
PowerPoint							
Colour							
💻 Audio							
进 Audio Input							
Title / XAML							
hylli Flash							
Virtual Set							Clear
Web Browser							
Video Call				Number 1 🗸 🗸		ок	Cancel

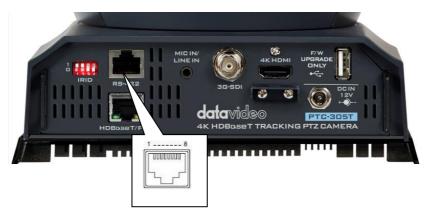
12. You can see that the image which is shot by the PTC-305T is shown in the Vmix software by Caller Mode.



18. Remote Control Port Pinouts

In addition to using the Ethernet port for remote control, you can also connect your PC or any keyboard controllers to the RS-422 remote port to control PTC-305T. Use an Ethernet cable to connect the external RS-422 controller to PTC-305T. You can make your own cable using the pinout information provided in this chapter.

Remote Control Port



The RS-422 pinouts are described below.

RM	RMC-180 Controller			PTC-305TCamera		
	(RJ-45 Port)			(RS-422 Port)		rt)
GND	1	White/Orange	GND	White/Orange	1	GND
NC	2	Orange		Orange	2	NC
ТХ-	3	White/Green	├	White/Green	3	RX-
RX-	4	Blue	◀	Blue	4	TX-
RX+	5	White/Blue]◀────	White/Blue	5	TX+
TX+	6	Green	├	Green	6	RX+
NC	7	White/Brown		White/Brown	7	NC
NC	8	Brown		Brown	8	NC
	1 8			1 [[[[]]] []] []] []] []]		

19 Firmware Update

Datavideo usually releases new firmware containing new features or reported bug fixes from time to time. Customers can either download the firmware as they wish or contact their local dealer or reseller for assistance.

This section outlines the firmware upgrade process which should take *approximately few minutes to complete*.

The existing settings should persist through the *firmware upgrade process, which should not be interrupted once started* as this could result in a non-responsive unit.

19.1 Firmware Update by the PTC-305T Firmware Update Tool Requirements

- PTC-305T Unit
- PC/Laptop
- Latest Firmware
- Download from: <u>https://www.datavideo.com/product/PTC-305T</u>
- Ethernet Cable

Procedure

1. At first, please confirm that the IP address of your laptop is set within the same LAN as the PTC-305T camera. Please use an Ethernet cable to connect from the RJ-45 Ethernet port of your laptop to the DVIP port which is on the rear panel of the PTC-305T.

2. Please download the PTC-305Tfirmware

"VXXXDA_Axx.D_Vx.x.xx_xxM_yyyymmdd.img" and firmware update tool "upgrade vx.x" from Datavideo official website.

3. Please unzip the downloaded firmware and firmware update tool to the hard disk of your laptop.

4. Please double-click the firmware update tool upgrade.exe 💿 upgrade .

5. Please select the LAN IP address which is set by your laptop from the "Interface" drop-down menu. After that, please press the "Search" button.

Interface 乙太網路:192.168.100.5 區域連線* 2:169.254.187.22 區域連線* 4:169.254.183.113 Wi-Fi:192.168.10.113

6. Users can see that the interface of the firmware update tool is shown as following diagram, please click the searched IP Address.

UPGRADE v2.9					-		×
Search Upgrade	Preview						
Devices: 1	BatUp	grade	Interface	Ethernet:192.168.10	0.5	• Se	arch
			MAC Address				
1 192.168.100	255.255.255	192.168.100	00:07:36:A5:6D.	. 4Day 03:04:	1.1.35	A10.D	8.8.8
4							
							,
Config Backup							
Mode Manual	•	Snap	sho				
IP Address							
NetMask							
GateWay							
First DNS							
MAC Addres D4 : E0	: 8E : :	: Chang	6				
Set	Rese	t l					
Language English 🔹						Т	′PE1 ▼

7. Please select the "Upgrade" option and then users can see the interface which is shown as following diagram.

O UPGRADE v2.9		-		×
Search Upgrade Preview				
Type MTD -	192.168.100.100		Query	/
Load File			Open	
	0%		Upgrad	le
Status disconnect disconnect				
				Ŧ
Language English -			TYPE	1 -

8. Please click the "Open" button and select the downloaded latest firmware.

Search Upgrade	Preview				
ype MTD			• 192.168.100.100		Query
oad File D:/VX20D/	_A10.D_V1	.1.35_24M_20	230525.img		Open
			0%		Upgrad
Status disconnect	disconnect				

9. Please click the "Upgrade" button for starting the firmware upgrading. At this time, the external connected monitor will show the wording" **Upgrading!** Please Wait! "

Search Upgrade Preview		
Type MTD	• 192.168.100.100	Query
Load File D:/VX20DA_A10.D_V1.1.	35_24M_20230525.img	Open
	85%	Upgrade
Status connected file verify succeed	upgradeing	
SOC: v1.1.35 ARM: v7.0.24SD AF: v3.4.42 MODEL: A10.D UPGRADE: v1.1		
MTD INFO Dev Size Erasesiz 179 0 7634944 mmcblk0 179 1 128 mmcblk0p1 179 2 1024 mmcblk0p2 179 3 896 mmcblk0p3 179 4 1024 mmcblk0p4	e Name	

10. After the firmware upgrading is finished, the PTC-305T camera will reboot automatically, please click the "**OK**" button and then the firmware upgrade procedure is completed.

UPGRADE v2.9 -	
Search Upgrade Preview	
Type MTD • 192.168.100.100	Query
Load File D:/VX20DA_A10.D_V1.1.35_24M_20230525.img	Open
100%	Upgrade
Status disconnect file verify succeed upgradeing	
Upgrade Success	•
anguage English -	TYPE1 -

19.2 Firmware Update by the USB Flash Drive Requirements

- PTC-305TUnit
- USB 2.0 or USB3.x USB Flash Drive x 1
- Laptop
- Latest firmware files

Download from: <u>https://www.datavideo.com/product/PTC-305T</u>

• Ethernet Cable

Procedure

1. At first, please format your USB flash drive in FAT32 format.

2. Please download the latest PTC-305T firmware file from Datavideo official website's PTC-305Tproduct page <u>https://www.datavideo.com/product/PTC-305T</u> and then save it to the hard disk of your laptop.

3. Please unzip the downloaded firmware file and then save the latest firmware file "VXXXDA_Axx.D_Vx.x.xx_xxM_yyyymmdd.img" into the root directory of your USB flash drive.

VX20DA_A10.D_V1.1.35_24M_20230525

4. Please insert your USB flash drive with the latest firmware file into the "F/W UPGRADE ONLY" USB interface which is located on the rear panel of the PTC-305T.



5. Please press the "MENU" button controller to open the OSD menu.

from the PTC-305T remote

6. Please move down the PTC-305T remote controller's "Microjoystick"



to the "Setup" option in the OSD menu.

7. After the "Setup" option is selected, please press the "Microjoystick"



from the PTC-305Tremote controller to enter the "Setup" page.

MENU Exposure Color Image P/T/ZNoise Reduction Setup Communication Setup Infomation Restore Default [Home] Enter [Menu] Exit

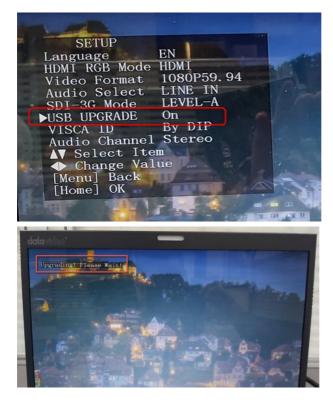
8. Please move down the "Microjoystick" of the PTC-305T remote controller to the "USB Upgrade" option in the "Setup" page.

SETUP
Language EN HDMI RGB Mode HDMI
Video Format 1080P59.94 Audio Select LINE IN
SDI-3G Mode LEVEL-A USB UPGRADE Off
VISCA ID By DIP Audio Channel Stereo
Av Select Item
◆ Change Value [Menu] Back

9. Please move the "Microjoystick" of the PTC-305T remote controller to the left side or right side to set the "USB Upgrade" option as "On". After

that, please press the "Microjoystick" from the PTC-305T remote controller for confirmation. And then the PTC-305T will start the firmware update procedure automatically. During the process of the firmware update procedure, the reminder "**Updating! Please Wait!**" will be shown on the screen. When the firmware update procedure is done, the PTC-305T will reboot automatically and the firmware update is done successfully.

Note: Please do not turn off your computer during the firmware update process to prevent it from crashing. Moreover, there is a period of time that there is no image that will be shown on the monitor. At this moment, please do not turn off the power of the PTC-305T camera. The camera will reboot automatically after the whole firmware update procedure is done.



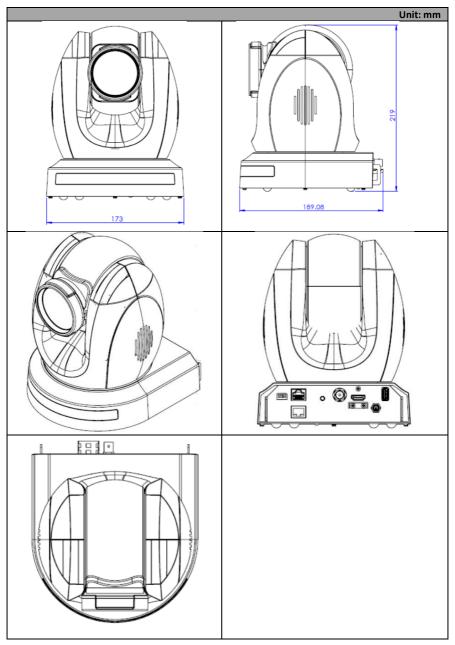
20. Frequently-Asked Questions

This section describes problems that you may encounter while using PTC-305T. If you have any questions, please refer to related sections and follow all suggested solutions. If problem still exists, please contact your distributor or the service center.

No.	Problems	Solutions
1.	What are important points for product maintenance?	 If the camera will not be used for a long time, please unplug the 12V DC power plug, and remove AC power adapter from AC outlet. Use soft cloth or tissue to clean the camera. After washing the camera lens, dry it with a soft dry cloth. Use a neutral detergent rather than acidic or corrosive detergents to clean the lens.
2.	There is no output video.	 Check that your power is properly connected. This is indicated by the power LED. After you reboot the camera, please check that whether the camera can do the self-test normally or not. Please check that the camera is connected correctly to the external connected monitor.
3.	I have seen image jitter while zooming in or out.	 Make sure the camera is properly mounted. Make sure that machines that could cause vibration are not in proximity of the camera.
4.	There is no image by using the IE browser.	Please go the the VLC website (<u>http://www.videolan.org/vlc</u>) to download the 32-bit VLC media player. After it is installed, the screen will be shown normally when connecting to the camera.

5.	The camera can not be accessed by using the IE browser.	 Use PC to access the internet to see whether it can operate normally or not. At first, please solve the network failure that is caused by the computer virus until the PC and the camera can ping each other. Please remove the Ethernet cable and then connect the PC to the camera directly. After that, please reset the IP address of the PC.
6.	The remote control is not working.	 Try setting the camera to CAM1 and try again. Make sure the remote control's battery is fully charged. Check your device working mode. Make sure the OSD menu is closed. The remote control cannot be used if the OSD menu is opened.
7.	The serial port is not working properly.	 Make sure your baud rate and device addresses are correct. Check your device working mode. Make sure the OSD menu is closed. The remote control cannot be used if the OSD menu is opened.
8.	Can not login to the Web control interface.	 Please check your Ethernet cable. Please check your Ethernet setting such as the IP address.

21. Dimensions



22. Specifications

	Camera Parameters	
Product Name	4K HDBaseT Tracking PTZ Camera	
Video Format	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	
Image Sensor	1/1.8" CMOS	
Effective Pixels (approx.)	8.51Mega Pixels	
S/N Ratio	≥55dB	
Min. Illumination	0.5 Lux @ (F1.8, AGC ON)	
Electronic Shutter	1/30s ~ 1/10000s	
Zoom Ratio	20x Optical Zoom, 16x Digital Zoom	
Iris Control	Auto / Manual	
Digital Noise Reductions	3D	
On-Screen Display (OSD)	English/Simplified Chinese/Traditional Chinese	
White Balance	Auto, Indoor, Outdoor, OnePush, Manual, VAR	
AGC / Gain Control	Yes	
Mirror / Flip Image	Yes	
Focus Mode	Auto / Manual	
Panning / Tilting Range	Pan: 300 degrees, Tilt: +130 to -15 degrees	
Panning / Tilting Speed	Pan: 0.876°/s~43°/s Tilt: 0.693°/s ~21.32°/s	
Preset	255 Position	
Focal Length	20x, f=6.7 to 125 mm F1.58 to F3.95	
Field of View	60°	

(Horizontal, Wide)	
Image Compensation	Back light compensation
	Input /Output Interfaces
Video Output	HDMI 2.0 x1 3G-SDI x1
Audio Input	10/100/1000M RJ-45 (PoE) x1 3.5 mm x1 (mic in/line in) switch from Web UI
Tally LED	Yes
Lens Filter	N/A
Control Protocol	Pelco-D, Pelco-P, VISCA, VISCA over IP, DVIP
Remote Control Interface	IR Web GUI RS-422 DVIP HDBaseT(RJ-45)/Serial control on Receiver Box: Transmit up to 100m
Video Compression Format	H.264/H.265/MJPEG
Audio Compression Format	AAC
Audio Bitrate	96Kbps, 128Kbps, 256Kbps
Streaming Protocols	RTSP, RTMP(S), Onvif, Multicast, SRT
First Stream Supported Resolution	3840x2160 1920x1080 1280x720 1024x576 960x540 640x480 640x360
Second Stream Supported Resolution	720x480 640x360 480x270 320x240
Video Bitrate	32Kbps ~ 50Mbps (Single Stream)

Video Bitrate Mode	VBR, CBR
Encoding Frame rate	50Hz: 1-50fps 60Hz: 1-60fps
POE	IEEE 802.3at
F/W Update	Via Web UI or USB 2.0
IR Control	Yes
Camera Control Unit	RMC-180 series/RMC-300 series/PTZ View Assist APP
Tripod Mount	1/4-20 UNC
Optional Accessories	WM-1/ WM-10/ WM-11
Color	Dark Blue/White
Dimension (LxWxH)	173 (W) x 219 (H) x 189.08 (D) mm
Weight	2.6kg
Operating Temp. Range	0~40 °C
Power	DC 12V 21W

Service & Support

It is our goal to make your products ownership a satisfying experience. Our supporting staff is available to assist you in setting up and operating your system. Please refer to our web site www.datavideo.com for answers to common questions, support requests or contact your local office below.

> Please visit our website for latest manual update. www.datavideo.com/product/PTC-305T





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