

PTZ310/330

Professional PTZ Camera

Control Codes

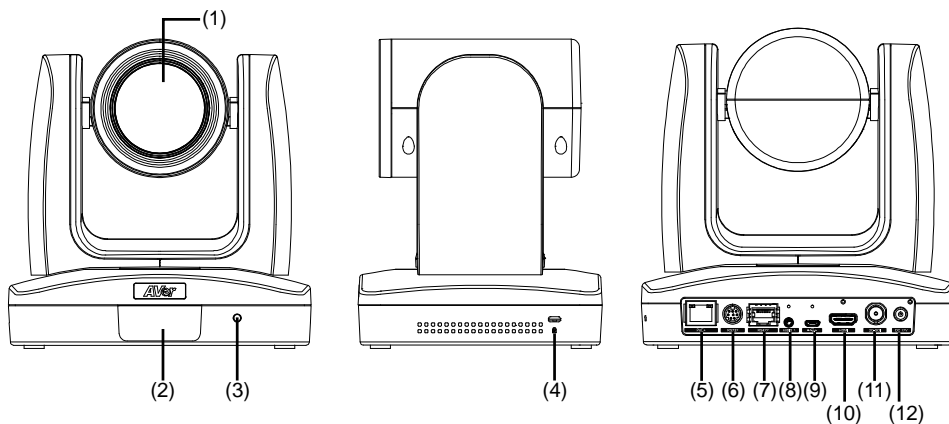


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Product Introduction

Overview



(1) Camera lens	(5) PoE+ port	(9) micro-USB port
(2) IR sensor	(6) RS232 port	(10) HDMI port
(3) LED indicator	(7) RS422 port	(11) 3G-SDI port
(4) Kensington lock	(8) Audio in*	(12) DC Power jack

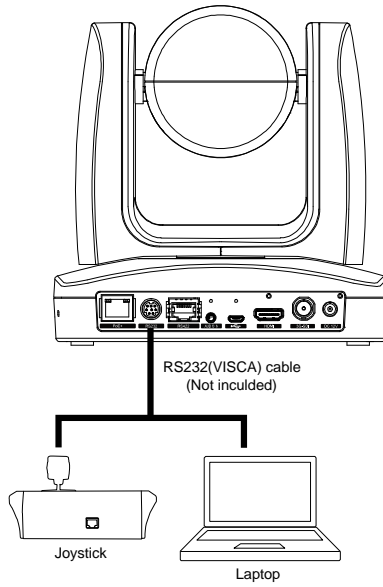
*Line input level: 1Vrms (max.).

*Mic input level: 50mVrms (max.); Supplied voltage:2.5V

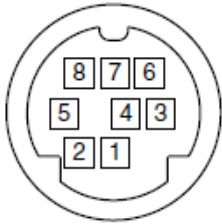
RS232 and RS422 Connection

Connect through the RS232 or RS422 for camera control. For Visca over IP, please see the last section.

■ RS232

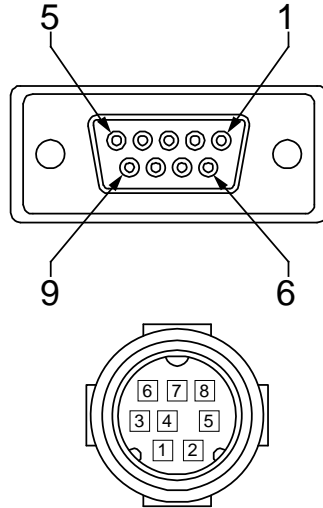


● **RS232 Port Pin definition**

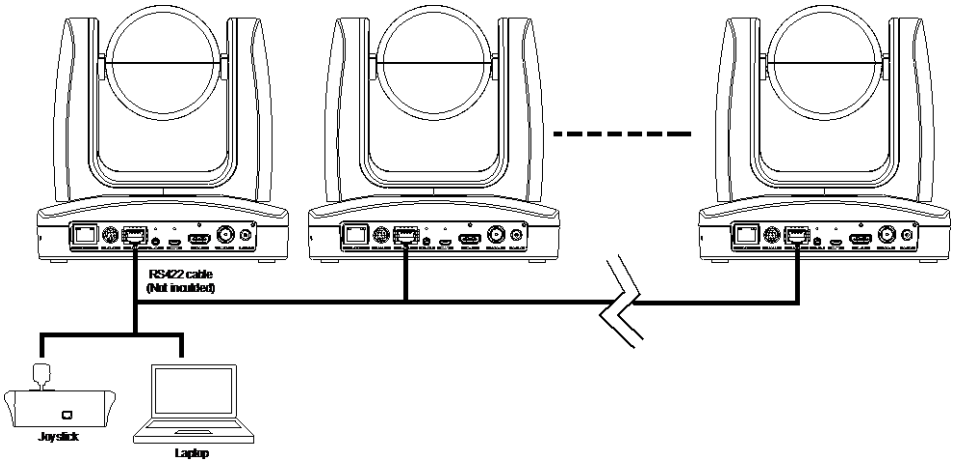


RS232 Pin	
No.	Pin
1	DTR
2	DSR
3	TXD
4	GND
5	RXD
6	GND
7	NC
8	NC

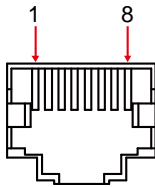
● **Din8 to D-Sub9 Cable Pin definition**



■ RS422

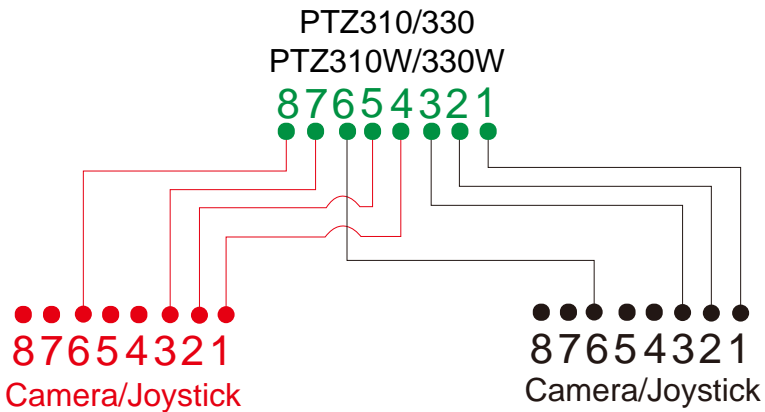


[Note] Use cat5e splitter for multi-camera connection.



RS422 Pin			
No.	Pin	No.	Pin
1	TX-	5	TX+
2	TX+	6	RX+
3	RX-	7	RX-
4	TX-	8	RX+

Cat5e splitter pin assignment:



OSD Tree

Camera

Go to Advanced Setting -> Control. Make sure the Camera Address, Baud Rate setting is correct.

Advanced Setting

Advanced Setting	Audio	
	Input Type	Mic in/Line in
	Auto Gain Control	Off/On
	Noise Suppression	Off/On
	Audio Volume	0 ~ 10
	Control	
	Protocol	VISCA/Pelco D/Pelco-P/AW
	Camera Address	1~7
	Baud Rate	2400/4800/9600/38400
	Smart Framing	Off/On
	Smart Shoot	Off/On
	Number of block	2/3/4
	Initial Position	Preset 6/Preset 7/Preset 8/Preset 9
	Time to back initial position	5s/10s/15s/20s/25s/30s/35s/40s

RS232 Command Table

Command Set	Command	Command Packet	Comments
IF_Clear	Broadcast	88 01 00 01 FF	I/F Clear
CAM_Zoom	Stop	8x 01 04 07 00 FF	Zoom Control
CAM_Zoom	Tele (Standard)	8x 01 04 07 02 FF	
CAM_Zoom	Wide (Standard)	8x 01 04 07 03 FF	

CAM_Zoom	Tele (Variable)	8x 01 04 07 2p FF	p=0 (Low) to 7 (High)
CAM_Zoom	Wide (Variable)	8x 01 04 07 3p FF	
CAM_Zoom	Direct	8x 01 04 47 0p 0q 0r 0s FF	pqrs: Zoom Position · PTZ310: 0x0000~0x6f20 PTZ330: 0x0110~0x5490
CAM_DZoom	On	8x 01 04 06 02 FF	Digital zoom ON/OFF
CAM_DZoom	Off	8x 01 04 06 03 FF	
CAM_Focus	Stop	8x 01 04 08 00 FF	Focus Control
CAM_Focus	Far (Standard)	8x 01 04 08 02 FF	
CAM_Focus	Near (Standard)	8x 01 04 08 03 FF	
CAM_Focus	Direct	8x 01 04 48 0p 0q 0r 0s FF	pqrs: Focus Position · 0x0000(wide) ~ 0x4000(tele) ·
CAM_Focus	Auto Focus	8x 01 04 38 02 FF	AF ON/OFF
CAM_Focus	Manual Focus	8x 01 04 38 03 FF	
CAM_Focus	Auto/Manual	8x 01 04 38 10 FF	
CAM_Focus	One Push Trigger	8x 01 04 18 01 FF	One Push AF Trigger
AF_Sensitivity	Normal	8x 01 04 58 02 FF	AF Sensitivity Normal/Low
AF_Sensitivity	Low	8x 01 04 58 03 FF	
CAM_AFMMode	Normal AF	8x 01 04 57 00 FF	Continous AF
CAM_AFMMode	Zoom Trigger AF	8x 01 04 57 02 FF	Continous AF OFF, only trigger AF after zoom in/out
CAM_ZoomFocus	Direct	8x 01 04 47 0p 0q 0r 0s 0t 0u 0v 0w FF	pqrs: Zoom Position tuvw: Focus Position
CAM_WB	Auto	8x 01 04 35 00 FF	Normal Auto
CAM_WB	Indoor	8x 01 04 35 01 FF	Indoor mode

CAM_WB	Outdoor	8x 01 04 35 02 FF	Out door mode
CAM_WB	One Push WB	8x 01 04 35 03 FF	One Push WB mode
CAM_WB	Manual	8x 01 04 35 05 FF	Manual Control Mode
CAM_WB	One Push Trigger	8x 01 04 10 05 FF	One Push WB Trigger
CAM_AE	Full Auto	8x 01 04 39 00 FF	Automatic Exposure mode
CAM_AE	Manual	8x 01 04 39 03 FF	Manual Control mode
CAM_AE	Shutter Priority	8x 01 04 39 0A FF	Shutter priority Exposure mode
CAM_AE	Iris Priority	8x 01 04 39 0B FF	Iris priority Exposure mode
CAM_SlowShutter	Auto	8x 01 04 5A 02 FF	Auto Slow Shutter ON/OFF
CAM_Shutter	Reset	8x 01 04 0A 00 FF	Shutter Setting
CAM_Shutter	Up	8x 01 04 0A 02 FF	
CAM_Shutter	Down	8x 01 04 0A 03 FF	
CAM_Shutter	Direct	8x 01 04 4A 00 00 0p 0q FF	pq: Shutter Position
CAM_Iris	Reset	8x 01 04 0B 00 FF	Iris Setting
CAM_Iris	Up	8x 01 04 0B 02 FF	
CAM_Iris	Down	8x 01 04 0B 03 FF	
CAM_Iris	Direct	8x 01 04 4B 00 00 0p 0q FF	pq: Iris Position
CAM_Gain	Reset	8x 01 04 0C 00 FF	Gain Setting
CAM_Gain	Up	8x 01 04 0C 02 FF	
CAM_Gain	Down	8x 01 04 0C 03 FF	
CAM_Gain	Direct	8x 01 04 4C 00 00 0p 0q FF	pq: Gain Position
CAM_Gain	AE Gain Limit (Direct)	8x 01 04 2C 0p FF	p: Gain Position (4 to F)
CAM_ExpComp	Reset	8x 01 04 0E 00 FF	Exposure Compensation Amount Setting
CAM_ExpComp	Up	8x 01 04 0E 02 FF	
CAM_ExpComp	Down	8x 01 04 0E 03 FF	

CAM_ExpComp	Direct	8x 01 04 4E 00 00 0p 0q FF	pq: ExpComp (pq: 0x01~0x09 , Value: -4~ +4 , Each value = 0.3EV)
CAM_BackLight	On	8x 01 04 33 02 FF	Back Light Comp ON/OFF
CAM_BackLight	Off	8x 01 04 33 03 FF	
CAM_LR_Reverse	On	8x 01 04 61 02 FF	Mirror Image ON/OFF
CAM_LR_Reverse	Off	8x 01 04 61 03 FF	
CAM_Memory	Reset	8x 01 04 3F 00 pp FF	pp: 0x00 To 0xFF
CAM_Memory	Set	8x 01 04 3F 01 pp FF	pp: 0x00 To 0xFF pp: 0x5A => SmartFrame Enable pp: 0x5B => SmartFrame Disable pp: 0x5C => SmartFrame Trigger pp: 0x5D => SmartShoot Enable pp: 0x5E => SmartShoot Disable pp: 0x5F => Trun on OSD menu
CAM_Memory	Recall	8x 01 04 3F 02 pp FF	
SYS_Menu	On	8x 01 06 06 02 FF	turn on the menu screen
SYS_Menu	Off	8x 01 06 06 03 FF	Erasing menu display(turn off the menu screen/VC-A70H)
SYS_Menu	On/Off	8x 01 06 06 10 FF	turn on/off the menu screen
SYS_Menu	Menu Enter	8x 01 7E 01 02 00 01 FF	menu enter
Pan-tiltDrive	Up	8x 01 06 01 VV WW 03 01 FF	VV: Pan speed setting 0x01 (low speed) to 0x18 (high speed) WW: Tilt speed setting 0x01 (low speed) to 0x18 (high speed)
Pan-tiltDrive	Down	8x 01 06 01 VV WW 03 02 FF	
Pan-tiltDrive	Left	8x 01 06 01 VV WW 01 03 FF	YYYY: Pan Position 8A14 to 762C (CENTER 0000) ZZZZ: Tilt Position 468B to E898
Pan-tiltDrive	Right	8x 01 06 01 VV WW 02 03 FF	

Pan-tiltDrive	UpLeft	8x 01 06 01 VV WW 01 01 FF	(Image Flip: OFF) (CENTER 0000)
Pan-tiltDrive	UpRight	8x 01 06 01 VV WW 02 01 FF	
Pan-tiltDrive	DownLeft	8x 01 06 01 VV WW 01 02 FF	
Pan-tiltDrive	DownRight	8x 01 06 01 VV WW 02 02 FF	
Pan-tiltDrive	Stop	8x 01 06 01 VV WW 03 03 FF	
Absolute Position		8x 01 06 02 VV WW 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	
Pan-tiltDrive	Home	8x 01 06 04 FF	
Pan-tiltDrive	Reset	8x 01 06 05 FF	
Pan-tiltSet SlowPanTilt	On	8x 01 06 44 02 FF	Pan/Tilt Slow Mode On/Off
Pan-tiltSet SlowPanTilt	Off	8x 01 06 44 03 FF	
Firmware	Firmware version	8x 01 02 03 FF	
Factory Reset	System Factory Reset	8x 01 04 3F 03 00 FF	
Preset Speed	Set Preset Speed	8x 01 06 20 0p FF	p: 0 to 2, 0:150/s, 1:250/s, 2: 300/s (Lumens) p:0 to 5, (AVer)
CAM_Power_ON	Power On	8x 01 04 00 02 FF	
CAM_Power_OFF	Power Off	8x 01 04 00 03 FF	

PT_Pos_Inq	Pan/Tilt Position Inquiry	8x 09 06 12 FF	
zoom_Pos_Inq	Zoom Position Inquiry	8x 09 04 47 FF	

Visca over IP Settings

VISCA over IP

PORT

Internet protocol	IPv4
Transport protocol	UDP
Port address	52381

FORMAT

	byte 0	byte 1	byte 2	byte 3	byte 4	byte 5	byte 6	byte 7	byte8 ~~~~	byte23	
func	Payload type		Payload length		Sequence number				Payload (1 to 16 bytes)		
data	Value1	Value2	1~16 (0x0001~0x0010)		0X00000000 ~ 0XFFFFFFF				VISCA Packet (see page VISCA)		

Payload type

Name	Value1	Value2	Description
VISCA command	0x01	0x00	Stores the VISCA command.
VISCA inquiry	0x01	0x10	Stores the VISCA inquiry.
VISCA reply	0x01	0x11	Stores the reply for the VISCA command or VISCA inquiry

Sequence number

