

PTZ OPTICS® 12X USB (GEN 2)



Model Number:
 PT12X-USB-GY-G2 (gray)
 PT12X-USB-WH-G2 (white)
<http://ptzoptics.com/12x-usb/>

PTZOPTICS Video Conferencing Camera

The PTZ Optics 12X-USB is a 1080p camera with 12X optical zoom for capturing both wide angles and long shots. With support for USB 3.0, HDMI & IP Streaming (H.264 & H.265) this camera is ideal for broadcasting high definition video signals for broadcast or video conferencing applications.

KEY FEATURES

- 72.5 degree wide-angle lens.
- Wide Dynamic Range
- High performance in low illumination situations.
- Full 1920x1080p HD Resolutions up to 60 frames per second.
- 2D and 3D noise reduction with our latest “low noise CMOS sensor”.
- Conforms to UVC 1.0 IP Control Protocols
- RJ-45 H.264 & H.265 Streaming port (Control Software is open source)
- HDMI, USB 3.0, IP Streaming (All Simultaneous)

WHAT'S IN THE BOX

- 12X Zoom USB 3.0 Camera
- Power Adapter + Cord
- IR Remote Control
- USB 3.0 Cable
- RS-232C Cable
- User Manual

Camera & Lens

Video CMOS Sensor	1/2.7" CMOS, 2.12 Mega Pixels
Frame Rate	1080i/60 & 50, 1080p/60 & 50, 1080p/30 & 25, 720p/60, 50, 30 & 25
Lens	12x, F3.5mm-42.3mm, F1.8-F2.8
Lens Zoom	12x
Field of View	72.5°
Min Lux	0.5 Lux at F1.8, AGC ON
Shutter Speed	1/30s - 1/10000s
SNR	≥55dB
Vertical Flip & Mirror	Supported
Horizontal Angle of View	6.9° (tele) to 72.5° (wide)
Vertical Angle of View	3.9° (tele) to 44.8° (wide)
Working Environment	Indoor

Pan & Tilt Movement

Pan Movement	±170°
Tilt Rotation	Up: 90° Down: 30°
Presets	10 IR Presets (Up to 255 via RS-232 & UVC)

Rear Board Connectors

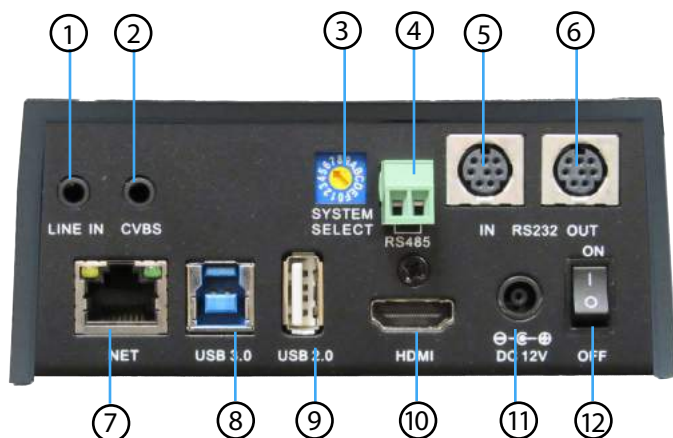
Video Output Interface	USB 3.0, HDMI, IP Streaming, CVBS
Network Interface	RJ45
Audio Interface	Line In, 3.5mm (IP Stream Only)
Communication Interface	RS-232, RS485
Baud Rate	2400/4800/9600 bits
Power Supply Interface	JEITA Type Power Adapter (DC IN 12V)
USB 3.0 Interface	USB 3.0 *(requires quad core processor)
USB 2.0 Interface	Future Use

Electrical Index

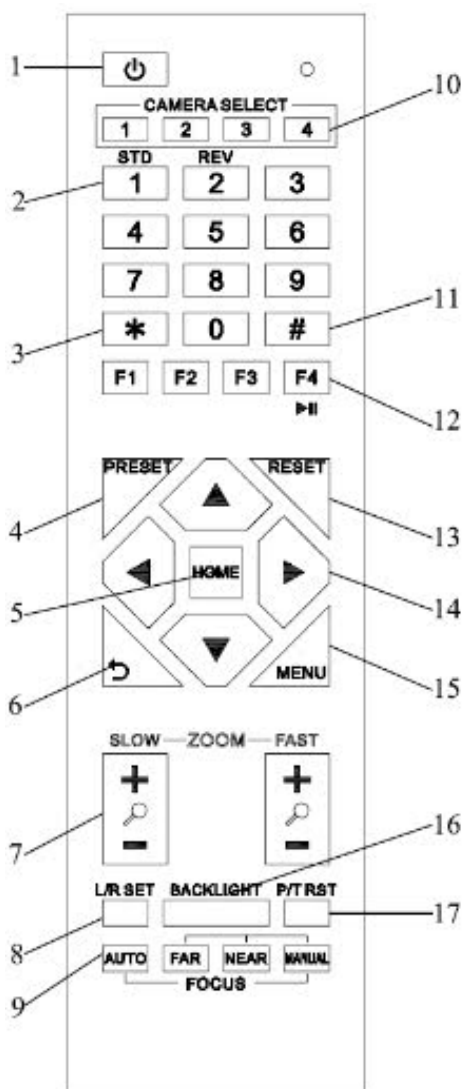
Power Supply	12W (Max)
Input Voltage	12V DC (10.8 - 13.0V DC)

Physical Specifications

Dimension (in.)	5.56W x 6.88H x 5.88D (8" H w/ Tilt up)
Dimensions (mm)	142W x 175H x 150D (204H w/ Tilt up)
Box Dimensions	9"x9"x10" 229mmx254mmx229mm
Camera Weight	3.05 lbs. (1.38 kg)
Boxed Weight	5.4 lbs. (2.45 kg)



- 1. Audio LINE IN Interface
- 2. CVBS Interface
- 3. System Select Switch
- 4. RS485 Jack
- 5. RS232 IN jack
- 6. RS232 OUT Jack
- 7. RJ45 Interface
- 8. HDMI Interface
- 9. USB 3.0 Interface
- 10. DC 12V Jack
- 11. Power Switch



1. Standby Button

Press this button to enter standby mode. Press it again to enter normal mode. NOTE: Power consumption in standby mode is approximately half of the normal mode.

2. Position Buttons

To set preset or call preset.

3. * Button

For multiple function.

4&13. Set/Clear Preset Buttons

Set preset: Store a preset position [PRESET] + Numeric button (0-9): Setting a corresponding numeric key preset position NOTE: Preset 0 - 9 via remote control and the rest from web, keyboard and the serial port. Clear preset: Erase a preset position [RESET] + Numeric button (0-9), or: [*] + [#] + [RESET]: Erase all presets

5&14. Pan/Tilt Control Buttons

Press the arrow buttons to perform panning and tilting. Press the [HOME] button to face the camera back to front.

6. Return Button

Press the button to back previous menu.

7. Zoom Buttons

Zoom+: Zoom In (Slow and fast speed)
Zoom-: Zoom Out (Slow and fast speed)

8. L/R Set Button

Set the left & right direction of remote control.
[L/R Set] + [1]: Normal direction.
[L/R Set] + [2]: Left and right direction will be reversed.

9. Focus Buttons

Used for focus adjustment. Press [AUTO] to adjust the focus on the center of the object automatically. To adjust the focus manually, press the [MANUAL] button, and adjust it with [Far] (focus on far object) and [Near] focus on near object).

10. Camera Address Select Buttons Press the button corresponding to the camera which you want to operate with the remote controller.

11. # Button

For multiple function

12. Multiple Function Buttons

Function 1. Set camera IR address: Press 3 keys contiguously can set camera IR address as follow:

[*] + [#] + [F1]: Address 1

[*] + [#] + [F2]: Address 2

[*] + [#] + [F3]: Address 3

[*] + [#] + [F4]: Address 4

Function 2. Image freezing function Press [F4] to start the freeze function. The word "Freeze" displays on the upper left corner. After five seconds, the display disappears automatically (though the freeze feature continues). To cancel the freeze, press the [F4] key the word "Unfreeze" displays on the upper left corner. After five seconds, the display disappears automatically.

15. Menu Setting

Menu button: Press this button to enter or exit the OSD menu.

16. Backlight Button

Backlight button: Press this button to enable the backlight compensation. Press it again to disable the backlight compensation. NOTE: Effective only in auto exposure mode. NOTE: If there is a light behind the subject, the subject will appear dark. In this case, press the backlight ON / OFF button. To cancel this function, press the backlight ON / OFF button.

16. 17. P/T RST Button

Press the button to self-calibrate pan and tilt once again.

Shortcut Set Function

[*] + [#] + [1]: Display OSD menu in English

[*] + [#] + [3]: Display OSD menu in Chinese

[*] + [#] + [4]: Show IP address

[*] + [#] + [6]: Quickly restore the default settings

[*] + [#] + [8]: Show the camera version

[*] + [#] + [9]: Quickly set mount mode

(flip / normal)