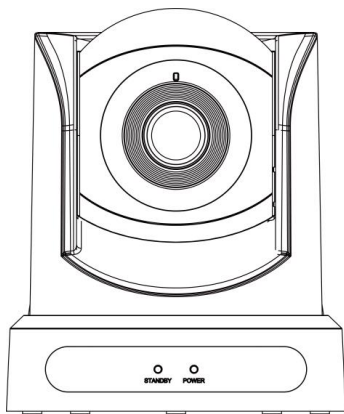


LAIA Cute 10X Black/White

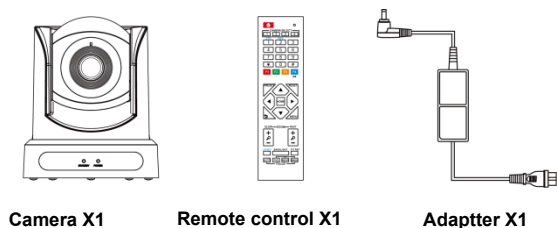
P/N: C10(B/W)

User manual

1 Product overview



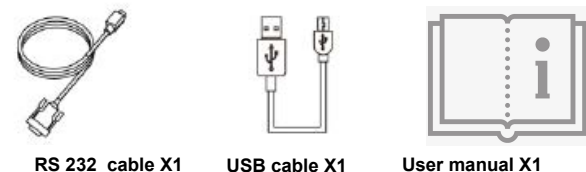
2 Pack



Camera X1

Remote control X1

Adapter X1



RS 232 cable X1

USB cable X1

User manual X1

3 Product features

Full-featured USB Interface

USB 2.0 interface, supports encoded output and UVC 1.0 protocol.

1080P HD

It supports high-quality HD CMOS sensor with 2.07 million effective pixels can achieve high-quality images with maximum resolution of 1920x1080.

Low Light

The application of 2D and 3D noise reduction algorithm greatly reduces image noise. Even under the condition of ultra-low illumination, it still keep the picture clean and clear, and the SNR of image is as high as 55dB.

H.264 Slice/SVC encoded

Output H.264 code stream and support Slice/SVC encoding, which can adapt to high-end USB video conference applications.

Dual Stream

The first stream supports (YUY2, MJPEG, H.264 each of one), and the second stream only supports H.264. It can reduce the host codec pressure.

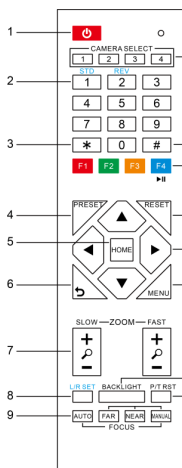
Dual Power Supply

Device supports two power supply methods (USB 5V and DC 12V)

Remote Control

The camera can be controlled via remote control and via the RS232 serial port

4 Remote control



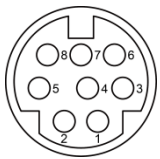
No.	Name	Function Description
1	StandBy Key	StandBy mode when pressing
2	Number Key	Set preset or call preset
3	Key *	To use in combination with others keys
4	Preset Key	Preset: Set Preset+N° key (0-9) (Save camera preset to N° (0-9)
5	Home Key	Confirm menu or PTZ back to middle position after pressed
6	Return Key	Return back to last menu
7	Zoom Key	Slow/fast zoom: Zoom in (+) or Zoom out (-)
8	Left/right setting Key	Simultaneously press the adjustment key left/right +1 (horizontal) to rotate in the same direction. Simultaneously press the adjustment key left/right + 2 (horizontal) to rotate in the opposite direction.
9	Focus Key	Focus adjustment auto/manual/far/near
10	Selection Key	Select the camera to operate
11	Key #	To use in combination with others keys
12	IR Remote control Key	[* + # + F1/F2/F3/F4]: Dirección NO.1/2/3/4
13	Reset Key	Clear preset (clear preset + n° key) or delete all presets [*]+[#]+[CLEAR PRESET]
14	PTZ Control Key	The PTZ moves as the arrow indicates. Press HOME to return to the front
15	Menu Key	Enter or exit OSD menu
16	Backlight Key	Enable backlight compensation
17	PTZ reset Key	PTZ self-test

5 Specifications

Signal System	1080P,720P,540P,480P,360P,240P
Sensor	1/2.9 inch, CMOS, Max pix 2.07M
Lens	10X, f=4.9mm - 47.04mm, F2.36 - F2.4
Minimum illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s - 1/10000s
Noise reduction	>55dB
Vertical angle	35.1° - 3.6°
Horizontal angle	58.5° - 6.5°
RS232 Interface	1 X RS232 IN: 8pin Min DIN. Max dist: 30m, Protocol: VISCA/Pelco-D/Pelco-P
Vertical rotation	-30° - +90°
Horizontal rotation	+/-170°
USB Video protocol	UVC 1.0
Color System/Compression	YUY2 / H.264 / MJPEG
Pan speed	2.7° - 35.7°/s
Tilt Speed	2.7° - 31.5°/s
Operating temp	-10°C - 40° C
Storage temp	-40° C - 60° C
Size/Weight	141.5 x 151 x 168 mm / 1.2KG



6 RS232 Interface

Diagrama del interfaz	No.	Función	No.	Función
	1	DTR	5	RXD
	2	DSR	6	GND
	3	TXD	7	IR OUT
	4	GND	8	NC

7 Use guide

MENU

Press MENU key to display the menu on the screen. Use arrows to move the cursor and select the item to be set. Press HOME key to enter the submenu.

MENU
► Exposure
Color
Image
P/T/Z
Noise Reduction
Setup
Communication Setup
Restore Default
[Home] Enter
[Menu] Exit

EXPOSURE

Move cursor to EXPOSURE and press HOME key to enter.

EXPOSURE
► Mode Auto
ExpCompMode Off
ExpComp +1
Backlight Off
Gain Limit 6
Anti-Flicker 50Hz
Meter Average
DRC 1
▲▼Select Item
◀▶Change Value
[Menu] Back

EXPOSURE
► Mode SAE
Shutter 1/60
Meter Average
DRC 5
▲▼Select Item
◀▶Change Value
[Menu] Back

EXPOSURE
► Mode Auto
ExpCompMode Off
ExpComp +1
Backlight Off
Gain Limit 6
Anti-Flicker 50Hz
Meter Average
DRC 1
▲▼Select Item
◀▶Change Value
[Menu] Back

EXPOSURE
► Mode Manual
Shutter 1/60
Gain 0
DRC 5
▲▼Select Item
◀▶Change Value
[Menu] Back

EXPOSURE
► Mode Bright
Bright 17
Gain Limit 3
Anti-Flicker 60Hz
Meter Average
DRC 5
▲▼Select Item
◀▶Change Value
[Menu] Back

Mode: Values Auto, manual, SAE, bright.

ExpCompMode: Values On/Off.

ExpComp: Values -7 - 7.

Backlight: Valores On/Off.

Bright: Values 0 - 17.

Gain Limit: Values 0 - 15.

Anti-Flicker: Values Off, 50Hz, 60Hz.

Meter: Values Average, Center, Smart, Top.

Shutter: Values 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000.

Gain: Values 0 - 7.

DCR: Values 0 - 8.

COLOR

Move cursor to COLOR and press HOME key to enter.

COLOR
► WB Mode Auto
RG Tuning 0
BG Tuning 0
Saturation 100%
AWB Sens High
▲▼Select Item
◀▶Change Value
[Menu] Back

COLOR
► WB Mode Outdoor
Saturation 100%
▲▼Select Item
◀▶Change Value
[Menu] Back

COLOR
► WB Mode OnePush
RG Tuning 0
BG Tuning 0
Saturation 100%
AWB Sens High
▲▼Select Item
◀▶Change Value
[Menu] Back

COLOR
► WB Mode Indoor
Saturation 100%
▲▼Select Item
◀▶Change Value
[Menu] Back

COLOR
► WB Mode VAR
Color Temp 6500K
RG Tuning 0
BG Tuning 0
Saturation 100%
▲▼Select Item
◀▶Change Value
[Menu] Back

COLOR
► WB Mode Manual
RG Tuning 134
BG Tuning 97
Saturation 100%
▲▼Select Item
◀▶Change Value
[Menu] Back

WB Mode: Values Auto, Indoor, Outdoor, One Push, Manual, VAR.

RG: Values 0 - 255.

BG: Values 0 - 255.

Color Temp: Values 2500K - 8000K.

RG Tuning: Values -10 - +10.

BG Tuning: Values -10 - +10.

Saturation: Values 60% - 200%.

AWB Sens: Values High, Middle, Low.

IMAGEN

Move cursor to IMAGE and press HOME key to enter.

IMAGE
► Luminance 7
Contrast 7
Sharpness 6
Flip-H Off
Flip-V Off
B&W-Mode Off
Gamma EXT
Style Default
▲▼Select Item
◀▶Change Value
[Menu] Back



Luminance: Values 0 - 14.

Contrast: Values 0 - 14.

Sharpness: Values 0 - 15, Auto.

Flip-H: Values On/Off.

Flip-V: Values On/Off.

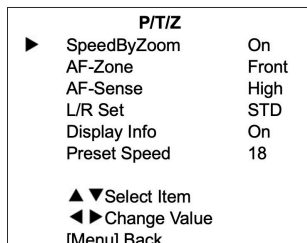
B&W Mode: Values On/Off.

Gamma: Values Ext, Default, 0.45, 0.5, 0.56, 0.63.

Style: Values Default, Norm, Clarity, Soft.

P/T/Z

Move cursor to P/T/Z and press HOME key to enter.



SpeedByZoom: Values On/Off.

AF Zone: Values Low, Normal, High.

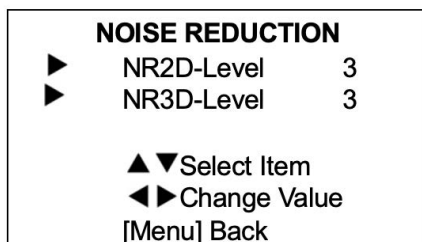
L/R Set: Values On/Off.

Display info: Values On/Off.

Preset Speed: Values 1 - 24.

NOISE REDUCTION

Move cursor to NOISE REDUCTION and press HOME key to enter.



NR2D Level: Values Auto, Off, 1 - 5.

NR3D Level: Values Off, 1 - 8.

SET UP

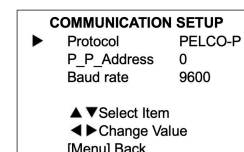
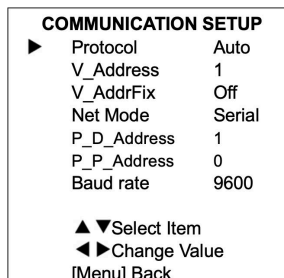
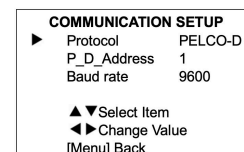
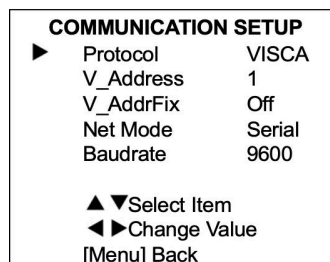
Move cursor to SET UP and press HOME key to enter.

Language: Values English, Chinese, Russian.

ODS Flip: Values On/Off.

COMMUNICATION SETUP

Move cursor to COMMUNICATION SETUP and press HOME key to enter.



Protocol: Values Auto, VISCA, PELCO-D, PELCO-P.

V_Address: Values 1 - 7.

V_AddrFix: Values On/Off, set to On, useless command 88 30 01 FF.

P_D Address: Values 0 - 254.

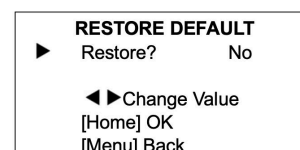
P_P_Address: Values 0 - 31.

Net Mode: Values Serial, Paral.

Baud rate: Values 2400,4800,9600, 38400.

RESTORE DEFAULT

Move cursor to RESTORE DEFAULT and press HOME key to enter.



Restore: Values Yes/No. Press HOME key to confirm.

8 Solve problems/ maintenance

If camera will not be used for a long time period, please turn it off and disconnect it from power supply.

To clean camera cover and lens, use dry cloth or tissues.

Do not use corrosive products for cleaning as this may affect the proper functioning of the device.

Do not shoot extreme bright objects for long periods of time such as sun or light sources.

No operating in unstable lighting conditions, otherwise image will be flickering.

Do not use the device near other devices with electromagnetic radiation such as televisions or radios.



If remote control not working properly:

1. Check and replace the battery.
2. Check the camera working mode is correct.
3. Check the address of remote control.

Serial port cannot control:

1. Check the control line is properly connected.
2. Check camera protocol, address and baud rate have same values.

Image have jitter when camera lens is at maximum:

1. Check camera position to be stabled.
2. Check for vibrating machinery/objets near the camera.

