



22X Color All-in-one Camera

Operation Manual

22X-ZoomAF

Thank you for your purchasing this product. Before attempting to connect or operate this product, please read these instructions carefully and **PRINT** this manual for future use.



DESCRIPTION

22X-ZoomAF employs 1/4" Super HAD CCD and advanced digital signal image processing technology. 500+ Horizontal Pixels. Built-in 3.9~85.8mm Motorised Automatic-Focus 22X Lens. Minimum illumination ~ 1 LUX. OSD menu allows for various settings including Brightness, Contrast, Saturation and other parameters to improve image quality. Multi-area BLC, Digital Noise Reduction, White Balance, AGC, Mirror and other functions for differing environments.

COMPARISON



Ordinary Camera



Camera with 20X Zoom

PRECAUTIONS

1. Use Correct Power Supply
Power requirements are 12 VDC Regulated. **Be sure to connect to correct power. Wrong Voltage or Polarity will damage video camera.**
2. Do not attempt to disassemble the camera.
To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Ask a qualified service person for servicing.
3. Handle the camera with care.
Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.
4. Do not expose the camera to rain or moisture or operate it in wet areas.
Do not place the camera in the following locations:
 - ① Locations where temperature is lower than -10° C or higher than 50° C;
 - ② Locations where humidity is higher than 95%;
 - ③ Locations where there are large amounts of water vapor and steam.
5. Do not use strong or abrasive detergents when cleaning the camera body.
Use a dry cloth to clean the camera when dirty. In case the dirt is hard to remove. Use a mild detergent and wipe gently.
6. Do not attempt to clean CCD Image Sensor or Lens
7. Do not aim the camera at the Sun
Do not aim the camera at extremely bright objects that cause smear to appear irrespective of whether the camera is operating or not. This can damage the CCD (Charge Coupled Device).
8. Do not put the camera in a place with electrical or electromagnetic interference.
When camera is installed near the equipment like wireless communication device which emits strong electromagnetic field, some irregularity such as noise on monitor screen may happen.

FEATURES

1/4" Super HAD CCD is Employed

This camera employs SONY Super HAD CCD.

New Generation DSP

This camera uses advanced digital signal processing technology.

Resolution

500 + H-Pixels

22 Zoom Lens

Built-in 3.9—85.8mm Professional Lens, 22X Optical Zoom

Day/Night suppress low-light Colour-noise

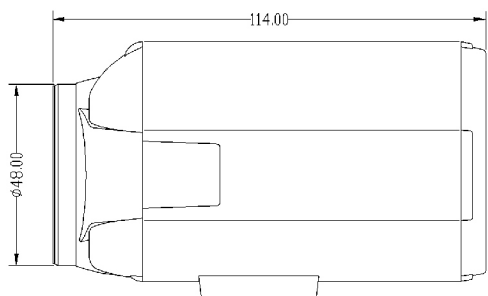
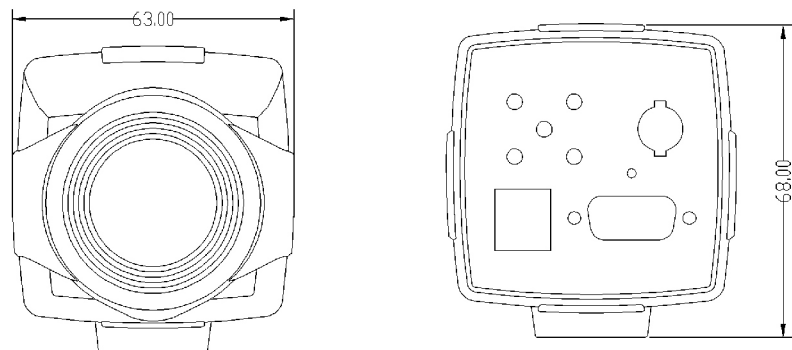
There are two modes: Color and Auto.
And the minimum illumination is ~ 1LUX.

OSD Menu

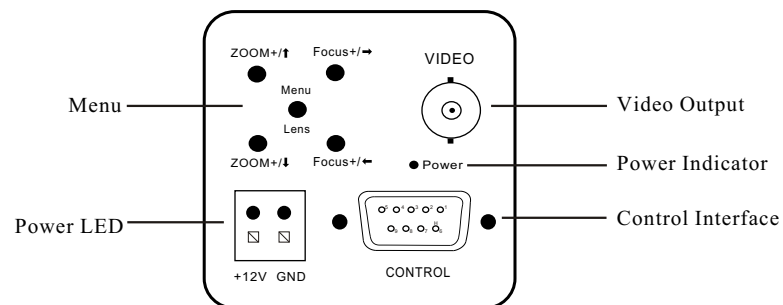
OSD menu with powerful function allows for various settings including Brightness, Contrast Saturation Adjustments, Day/Night, Multi-area BLC, Digital Noise Reduction, White Balance, AGC, Mirror, etc.

PARTS INSTRUCTION

Usage Method



Dimensions



- 3-1) Connect 12VDC Regulated power supply, Observe Polarity. Power indicator turns red.
- 3-2) Menu/Enter button: Press MENU button for two seconds to enter menu setting.
ZOOM+ / ↓ : move the cursor downward
ZOOM- / ↑ : move cursor upward
FOCUS+ / → : move cursor rightward
FOCUS- / ← : move cursor leftward
Lens Control Mode, do not enter the menu setting
ZOOM+ / ↓ : zoom in
ZOOM- / ↑ : zoom out
FOCUS+ / → : focus+
FOCUS- / ← : focus-
- 3-3) CONTROL: Remote Control

1	GND	6	+12V
2	TXD	7	Lens COM
3	RXD	8	ZOOM
4	GND	9	Focus
5	MENU		

3-4) VIDEO: Video Output

MENU OPERATION

MENU OPERATION

1. MAIN MENU

Press "Menu" button for two seconds to access to OSD menu. Press ↑ and ↓ button to position cursor; **press** button to enter the sub-menu.

→ English MAIN MENU Page 1	MAIN MENU Page 2
AES Auto ↵	→ Picture Adjust ↵
BLC Off	Mirror Off
Day Night Auto	Title ↵
Motion Detection Off	Focus ↵
AGC ---■---	ID ↵
White Balance AWB	Exit ↵
Next Page	Previous Page

2. AES

This is to control lens electronic shutter.

2.1 "AES" : to set AES to AUTO or FIX mode.

[Auto] [1/50] [1/120] [1/250] [1/500]
[1/2000] [1/5000] [1/10000] [1/100000]

→ English MAIN MENU Page 1	
→ AES Auto ↵	
BLC Off	
Day/Night Auto	
Motion Detection Off	
AGC ---■---	
White Balance Auto	
Next Page	

When select "AUTO", press confirm button to access to sub-menu and set the exposure value of electronic shutter.

AES
→ Level ---■---
Return

3. BLC

This is to set BLC to On or Off.

3.1 ON: BLC is on.

3.2 OFF: BLC is off

→ English MAIN MENU Page 1	
AES Auto ↵	
→ BLC On ↵	
Day Night Auto	
Motion Detection Off	
AGC ---■---	
White Balance AWB	
Next Page	

There are two options when BLC is ON.

"Area" An image is divided into 64 zones, which can be activated (shielded) respectively. Thus a figure of BLC area is created. That is to say, the shielded area is BLC area. The camera adjusts value of iris and speed of AES according to the intensity of shielded signal.

"Gain" : used to set BLC intensity.

BLC
→ Area ↵
Gain ---■---
Return

4. Day/Night

Day/Night: Auto and Color (to eliminate colour-noise in low light)

In Auto mode, Colour sub-carrier automatically switches on when scene brightness is sufficient.

In Colour mode, Colour sub-carrier remains on regardless of scene brightness.

→ English MAIN MENU Page 1	
AES Auto ↵	
BLC On ↵	
→ Day Night Color	
Motion Detection Off	
AGC ---■---	
White Balance AWB	
Next Page	

5. Motion Detection

This is to set Motion Detection to On or Off - **this function is not supported.**

5.1 ON: Motion detection is on.

5.2 OFF: Motion detection is off.

→ English MAIN MENU Page 1	
AES Auto ↵	
BLC On ↵	
Day Night Auto	
→ Motion Detection Off	
AGC ---■---	
White Balance AWB	
Next Page	

There are two options when Motion Detection is ON.

"Area" An image is divided into 64 zones, which can be activated (shielded) respectively. Thus a figure of motion alarm area is created. That is to say, the shielded areas are motion alarm areas. The camera adjusts sensitivity of motion alarm according to the intensity of shielded signal.

"Sensitive" : used to set the sensitivity of motion alarm.

Motion Detection
→ Area ↵
Sensitive ---■---
Return

6. AGC

This is to adjust AGC's dB value.

→ English MAIN MENU Page 1	
AES Auto ↵	
BLC On ↵	
Day Night Auto	
Motion Detection On ↵	
→ AGC ---■---	
White Balance AWB	
Next Page	

7. White Balance

This is to control color's white balance and gain value of red and blue.

Three settings are optional to adjust white balance:

"AWB" : automatic white balance

"ATW" : auto tracing white balance

"Manual" : manual white balance, to adjust gain value of red and blue.

→ English MAIN MENU Page 1	White Balance
AES Auto ↵	→ RED ---■---
BLC On ↵	BLUE ---■---
Day Night Auto	Return
Motion Detection On ↵	
AGC ---■---	
→ White Balance AWB	
Next Page	

Next Page: to enter the next page of menu.

8. Picture Adjust

This is to adjust picture quality.

There are four options:

"Contrast" is to adjust picture contrast.

"Saturation" is to adjust picture saturation.

"Brightness" is to adjust picture brightness.

"Sharpness" is to adjust picture sharpness.

MAIN MENU Page 2	
→ Picture Adjust ↵	
Mirror Off	
Title Auto	
Focus Auto	
ID ↵	
Exit ↵	
Previous Page	

Picture Adjust
→ Contrast ---■---
Saturation ---■---
Brightness ---■---
Sharpness ---■---
Return

9. Mirror

This is to set image mirror.

"Off" : mirror is off.

"On" : mirror is on.

MAIN MENU Page 2	
Picture Adjust ↵	
→ Mirror Off	
Title Auto	
Focus Auto	
ID ↵	
Exit ↵	
Previous Page	

10. Title

This is to set camera name and color (eight colors optional).

MAIN MENU Page 2	
Picture Adjust ↵	
Mirror On	
→ Title ↵	
Focus Auto	
ID ↵	
Exit ↵	
Previous Page	

Title Setup
→ Title 1 2 3 4 5 6 7 8 9 0
Color ■
Return

11. Focus

This is to set the mode of lens focus.

There are three options:

"Auto" : auto focus;

"Kctl" : to trigger auto focus through left/right button;

"Manual" : manual focus; to focus through FOCUS+/- and FOCUS+/- after zooming

MAIN MENU Page 2	
Picture Adjust ↵	
Mirror On	
Title Auto	
→ Focus Auto	
ID ↵	
Exit ↵	
Previous Page	

12. ID

This is to set camera communication address and baud rate.

There are two options:

Address: to set camera address

Baud rate: to set camera baud rate

MAIN MENU Page 2	
Picture Adjust ↵	
Mirror On	
Title Auto	
Focus Manu	
→ ID ↵	
Exit ↵	
Previous Page	

Machine ID
→ Address 64
Baud Rate 2400
Return

13. Exit

There are three options:

"Save Change and Exit"

"No Save and Exit"

"Reset Default and Exit"

MAIN MENU Page 2	
Picture Adjust ↵	
Mirror On	
Title Auto	
Focus Manu	
ID ↵	
→ Exit ↵	
Previous Page	

Exit
→ Save Change and Exit
No Save and Exit
Reset Default and Exit

Specifications

Model Number		22X-ZoomAF	
Sensor	Sensor	1/4 SONY CCD	
	Video Format	PAL	
		500 + H-Pixels	
	Min Illumination	~1 Lux @ F1.2	
	S/N Ratio	~48 dB	
Menu Operation	Gain Control	Auto (Max 18 dB)	
	BLC	64 zone BLC	
	Electronic Shutter	Auto/Manual	
	Electronic Shutter Speed	1/50~1/100000 second	
	White Bal	Mode	ATW/AWB/FIX
		Range	3200~9600 K
Mirror	Horizontal		
Motion Detection	no		
Power	Sync Mode	Internal	
	Voltage	DC12V Regulated	
	Current	~250mA	
Lens	Focal Length	3.9~85.8mm	
	Zoom	Zoom Multiple	
	Focus	Auto/Manual/Key Control	
Operating Temp/Humidity		-10°C~50°C (<95%RH)*	
Storage Temp/Humidity		-10°C~50°C (<95%RH)*	
Dimension		61*71*114mm	
Weight		~350g	