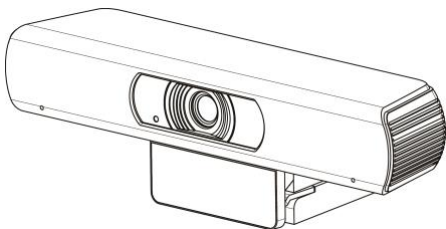**‹i›infobit**

iCam

4K Ultra HD Camera with Auto Framing

User Manual: Model iCam 200H

www.infobitav.com info@infobitav.com

iCam 200H

4K Ultra HD Camera

User Manual

English (V1.0)

Copyright Notice

All contents of this manual, whose copyright belongs to INFOBIT AV cannot be cloned, copied or translated without the permission of the company. Product specifications and information which were referred to in this document are for reference only. We may change, delete, or update any content at any time and without prior notice.

⚠ Warning

This is class A production. Electromagnetic radiation at specific frequencies may affect the image quality of TV in home environment.

⟨i⟩infobit

Catalogue

⟨i⟩ infobit

1 Note

● **Electric Safety**

Installation and operation must accord with electric safety standard.

● **Use Caution to Transport**

Avoid stress, vibration or soakage in transport, storage and installation.

● **Careful Installation**

The product should be placed on smooth desktop. The shell of product is an organic material and is strictly prohibited from contact with any liquid, gas or solid material that may cause corrosion to the shell.

● **Do not Unauthorized Disassemble**

This product has no parts which can be repaired by the user. The damage caused by the user's own disassembly is not covered by warranty.

⚠ Warning

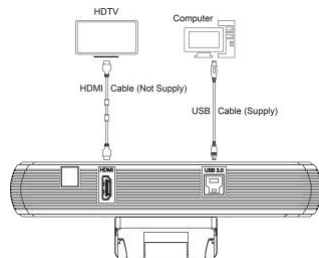Specific frequencies of electromagnetic field may affect the image of the camera!

2 Supplied Accessories

When you unpack, check that all the supplied accessories are included:

Name	Quantity
Camera	1
USB Cable	1
Remote Control	1
User Manual	1

3 Quick Start

Please check connections are correct before starting.

4 About Product

4.1 Features

● **4K Ultra High Definition**

Support 4K ultra high definition, ultra high definition with ultra high resolution, the maximum can provide 4K@30fps/25fps image output, while down compatible with 1080p, 720p and other resolutions.

● **USB 3.0**

Full function USB 3.0 interface, power supply, video, audio in one, it also can support two channels of USB video signal source and one channel audio source.

● **Wide Angle without Distortion Lens**

Wide angle field of view up to 120 degrees, small lens, wide vision.

At the same time support EPTZ, with

‹i›infobit

unmovable brake, more larger, more clear.

● **WDR**

It supports WDR, easy to cope with different lighting environments, no matter how harsh the environment can restore the most real you.

● **Built-in Microphone**

With a built-in microphone array, you can pick up a full range of sounds, and pick up the sound distance up to 12 meters. The unique noise suppression algorithm makes your voice perfect.

● **Low Light**

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

● **Easy Installation**

Standard damping rotary shaft support, suitable for market 100% monitor, easy installation, stable and reliable.

4.2 Product Specification

Model	iCam 200H
Name	4K Ultra HD Camera
Camera	
Sensor	1/2.5", CMOS, Effective Pixel: 8.0M
Scanning Mode	Progressive

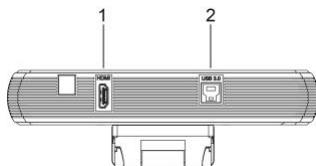| Lens Mount	M12
Lens 1 (optional)	NA
Lens 2	Lens Focus: f=2.8mm, Wide Angle: 120°
Minimal Illumination	0.05 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Digital Noise Reduction	2D, 3D digital noise reduction
Backlight Compensation	Support
USB Features	
Operate System	Windows XP / 2003 / VISTA/7/8/10, Linux, Mac OS
Color / Compression	YUY2/MJPEG/H.264/ NV12
Resolution	● YUY2: 640x480 (default), 640x360, 960x540, 1280x720, 1920x1080 ● MJPEG: 3840x2160 (default), 160x120, 176x144, 320x240, 352x288, 640x480, 720x576, 1600x896, 1280x720,

Resolution	1024x768, 1024x576, 960x540, 848x480, 800x600, 800x448, 640x360, 480x272, 424x240, 320x180, 1920x1080 • H.264: 1920x1080 (default), 320x240, 352x288, 640x480, 720x576, 1600x896, 1280x720, 1024x768, 1024x576, 960x540, 848x480, 800x600, 800x448, 640x360, 480x270, 424x240, 320x180, 3840x2160 • NV12: 1920x1080 (default), 640x480, 1280x720, 640x360
USB Protocol	UVC 1.0 ~ UVC 1.5
UVC PTZ	Support (EPTZ)
Input/Output Interface	
HDMI Interface (optional)	1 x HDMI: Version 1.3
USB Interface	1 x USB 3.0: Type B, female

Physical Parameter	
Input Voltage	5V (USB Power Supply)
Current Consumption	0.5A (Max)
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)
Storage Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Power Consumption	3W
Size	194 x 34 x 42mm (without bracket)
Net Weight	0.34 Kg
MTBF	＞30000h

4.3 Interface and Button

Item	Name
1	HDMI Interface (optional)
2	USB 3.0 Interface

‹i›infobit

4.4 Dimension

194

34
60

64

93

42

9

UNC 1/4"-20

4.5 Remote Control

1	(standby)
10	CAMERA SELECT 1 2 3 4
2	STD REV 1 2 3 / 4 5 6 / 7 8 9
3	* 0 #
11	#
12	F1 F2 F3 F4 ▶II
4	PRESET ▲
13	RESET
5	◄ HOME ▶
14	▶
6	↩ ▼
15	MENU
7	SLOW—ZOOM—FAST + - / + -
16	BACKLIGHT
8	L/R SET
17	P/T RST
9	AUTO FAR NEAR MANUAL FOCUS
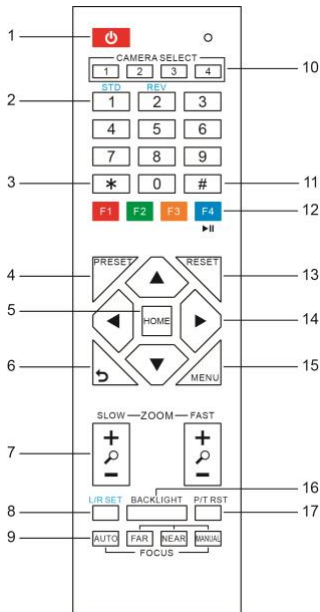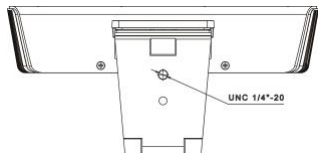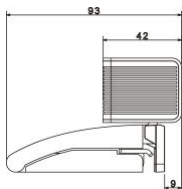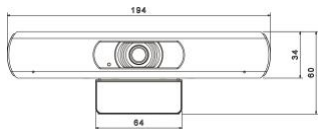
Key Description

1. Standby Key

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. Number Key

To set preset or call preset.

3. *Key

Used with other buttons.

4

‹i›infobit

4. Preset Key

Set preset: Store a preset position.

[SET PRESET] + Numeric button (0-9): Setting a corresponding numeric key preset position.

5. HOME Key

Confirm menu, enter the submenu or lens will back to the middle position after pressed it

6. Return Key

Return back the last level menu

7. Zoom Key

- Slow Zoom: Zoom In [+] or Zoom Out [-] slowly
- Fast Zoom: Zoom In [+] or Zoom Out [-] fast

8. Left/Right Setting Key

Press with 1 buttons and 2 buttons setting the direction of the Pan-Tilt.

- Simultaneously press L/R Set +1 [STD]: set the Pan-Tilt turn the same direction as the L/R Set.
- Simultaneously press L/R Set +2 [REV]: set the Pan-Tilt turn the opposite direction as the L/R Set.

9. Focus Key

Used for focus adjustment.

Press [AUTO] adjust the focuses on the center of the object automatically. To adjust the focus manually.

Press [MANUAL] adjust the focus on the center of the object manual.

MANUAL button, and adjust it with [Far] (Focus on far object) and [NEAR] (Focus

on near object).

10. Selection Key

Press the button corresponding to camera you want to operate with the remote control.

11. # Key

Used with other buttons.

12. IR Remote Control Key

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

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

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

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

13. Reset Key

Clear preset: Erase a preset position.

[CLEAR PRESET] + Numeric button (0-9)

14. Direction Control Key

After zoom, the lens moves in the direction indicated by the arrow. Press [HOME] button to face the camera back to front.

15. Menu Key

MENU: enter or exit OSD MENU.

16. BLC (Backlight Compensation) Key

BLC ON/OFF: Press this button to enable the backlight compensation. Press it again to disable the backlight compensation.

NOTE:

- Effective only in auto exposure mode.
- If a light behind the subject, the subject will become dark. In this case, press the backlight ON/OFF button.
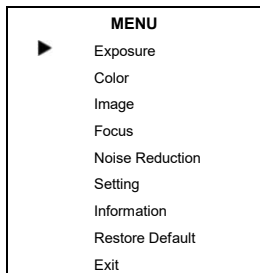
To cancel this function, press backlight ON/OFF button.

17. PTZ Reset Key

This function is only applicable to the PTZ cameras.
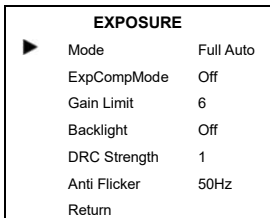
‹i›infobit

5 Menu Settings

5.1 MENU

Press [MENU] button to display the main menu on the normal screen, using arrow button to move the cursor to the item to be set. Press the [HOME] button to enter the corresponding sub-menu.

```
                MENU
    ►   Exposure
        Color
        Image
        Focus
        Noise Reduction
        Setting
        Information
        Restore Default
        Exit
```

5.2 EXPOSURE

Move the main menu cursor to [EXPOSURE], and press [HOME] key enter the exposure page, as shown in the following figure.

```
            EXPOSURE
    ►   Mode            Full Auto
        ExpCompMode     Off
        Gain Limit      6
        Backlight       Off
        DRC Strength    1
        Anti Flicker    50Hz
        Return
```

Mode: Optional items: Full Auto, Shutter Priority, Bright.

Shutter: Optional items: 1/30s, 1/60s, 1/90s, 1/100s, 1/125s, 1/200s, 1/250s, 1/350s, 1/500s, 1/725s, 1/1000s, 1/1500s, 1/2000s, 1/3000s, 1/4000s, 1/6000s, 1/10000s (Effective only in Shutter Priority mode).

ExpCompMode: Optional items: On, Off (Effective only in Full Auto mode).

ExpComp: Exposure compensation value, optional items: -7 ~ 7 (Effective only in ExpCompMode item to On).

Gain Limit: Maximum gain limit, optional items: 0 ~ 15 (Effective only in Full Auto, Bright mode).

Backlight: Optional items: On, Off (Effective only in Full Auto, Bright mode).

Bright: Optional items: 0 ~ 17 (Effective only in Bright mode).

DRC Strength: Optional items: 0 ~ 8.

Anti Flicker: Optional items: Off, 50Hz, 60Hz (Effective only in Full Auto, Bright mode).

5.3 COLOR

Move the main menu cursor to [COLOR], and press [HOME] key enter the color page, as shown in the following figure.

```
            COLOR
    ►   WB Mode         Auto
        AWB Sens        High
        Saturation      100%
        Hue             7
        Return
```
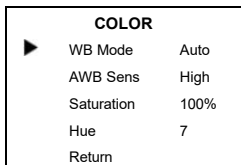
WB-Mode: White balance mode, optional items: Auto, Indoor, Outdoor, One Push, Manual, VAR.

AWB Sens: The white balance sensitivity, optional items: Low, Normal, High.

R Gain: Red gain, optional items: 0 ~ 255 (Effective only in Manual mode).

B Gain: Blue gain, optional items: 0 ~ 255 (Effective only in Manual mode).

colortemp: Optional items: 2500K ~ 8000K (Effective only in VAR mode).

RG Tuning: Red gain fine-tuning, optional items: -10 ~ +10 (Effective only in Auto, One Push, VAR mode).

BG Tuning: Blue gain fine-tuning, optional items: -10 ~ +10 (Effective only in Auto, One Push, VAR mode).

Saturation: Optional items: 60% ~ 200%.

Hue: Optional items: 0 ~ 14.

5.4 IMAGE

Move the main menu cursor to [IMAGE], and press [HOME] key enter the image page, as shown in the following figure.

```
                IMAGE
    ▶   Luminance      7
        Contrast       9
        Sharpness      3
        Flip-H         Off
        Flip-V         Off
        Gamma          0.45
        Style          Clarity
        LDC            10
        Return
```

Luminance: Brightness adjustment, optional items: 0 ~ 14.

Contrast: Contrast adjustment, optional items: 0 ~ 14.

Sharpness: Sharpness adjustment, optional items: Auto, 0 ~ 14.

Flip-H: Image flipped horizontally, optional items: On, Off.

Flip-V: Image Flip Vertical, optional items: On, Off.

Gamma: Optional items: Default, 0.45, 0.5, 0.56, 0.63.

Style: Optional items: Norm, Clarity, Bright, PC, Clarity (LED), Face.

LDC: Optional items: Off, -10 ~ 10.

5.5 FOCUS

Move the main menu cursor to [FOCUS], and press [HOME] key enter the focus page, as shown in the following figure.

```
                FOCUS
    ▶   AF Sense       Low
        Focus Area     Middle Area
        Return
```

AF Sense: Optional items: Low, Medium, High.

Focus Area: Optional items: Bottom Half, Middle Area, Upper Half, All.

5.6 NOISE REDUCTION

Move the main menu cursor to [NOISE REDUCTION], and press [HOME] key enter the noise reduction page, as shown in the following figure.

NOISE REDUCTION

▶	2D NR	Close
	3D NR	2
	Return	

2D NR: 2D noise reduction, optional items: Close, Auto, 1 ~ 5.

3D NR: 3D noise reduction, optional items: Close, 1 ~ 8.

5.7 SETTING

Move the main menu cursor to [SETTING], and press [HOME] key enter the setting page, as shown in the following figure.

SETTING

▶	Language	English
	EPTZ	On
	Zoom Limit	3x
	DVI Mode	DVI
	HDMI Format	1080P30
	Tracking	Off
	Return	

Language: Optional items: English, Chinese.

EPTZ: Optional items: On, Off.

Zoom Limit: Optional items: 1.5x, 2x, 3x, 4x, 8x (Effective only in EPTZ item to On).

DVI Mode: Optional items: DVI, HDMI (Effective only when the camera support HDMI Interface).

HDMI Format: Optional items: 1080P30, 1080I60, 4K@30 (Effective only when the camera support HDMI Interface).

Tracking: Optional items: On, Off.

5.8 INFORMATION

Move the main menu cursor to [INFORMATION], and press [HOME] key enter the information page, as shown in the following figure.

INFORMATION

	Version	8.1.49
	Model	O11.V
	AF	0.2.16
	Date	2018-09-27
▶	Return	

5.9 RESTORE DEFAULT

Move the main menu cursor to [RESTORE DEFAULT], and press [HOME] key enter the restore default page, as shown in the following figure.

RESTORE DEFAULT

▶	Yes
	No
	Return

Yes: Confirm restore factory settings.

No: Cancel restore factory settings.

Note: Press [HOME] button to confirm, all parameter restore default, include IR Remote Address.

6 Maintenance and Troubleshooting

Camera Maintains

- Use soft cloth or tissue to clean the camera cover.
- Please use the soft dry cloth to clean the lens. If the camera is very dirty, clean it with diluted neuter detergent. Do not use any type of solvents, which may damages the surface.

Unqualified Application

- No shooting extreme bright object for a long period of time, such as sunlight, light sources, etc.
- No operating in unstable lighting conditions, otherwise image will be flickering.
- No operating close to powerful electromagnetic radiation, such as TV or radio transmitters, etc.

Troubleshooting

Image

- Image have jitter when the camera lens at max multiple
1) Check whether the camera installed position be stabled.
2) Check whether have vibrating machinery or object near the camera.

Control

Remote control cannot control the camera
1) Check and replace the new battery for the remote control.
2) Check whether the working mode of the camera is correct.
3) Check whether the address of remote control can match the camera.

Contact Us

INFOBIT AV PTE. LTD

www.infobitav.com

info@infobitav.com