

# HDMI Industrial Camera

## User Manual

HY-2307Q Industrial Camera V1.3 ( English Version )



## Camera Function Instruction

1. 37MP Japanese Panasonic CMOS sensor.
2. This product has 37MP snap shot image and 1080P video recording. One button switches snap shot & video mode. The default mode is shot image, press the "MODEL" button to turn to video mode, press again come to preview mode. Press on the "MODEL" button the camera will switch among shot image, video mode and preview mode.
3. When the image ratio is 4:3 mode the photo's resolution is 4320\*3240 (37MP); when it is 16:9 mode the photo's resolution is 4320\*2432(11MP). There are two preview modes as 4:3 and 16:9. The photo's format is JPG. The video recording's resolution is 1920\*1080 frames and the format is MP4.
4. The camera provides 8 times digital zoom, press the "UP" or "DOWN" button to zoom in and zoom out, long press to quickly zoom in or zoom out.
5. This product provides HDMI and TF card video output and the output is 1080P 60FPS.
6. The product provides free drive 1080P 30FPS HD USB video output.
7. This product supports one-key freeze/unfreeze image, when power on, press the ON/OFF button to achieve these functions.
8. This product supports cross cursor function, there are up to 5 lines on horizontal and vertical which can be selected and movable, also, its color and size can be set, meanwhile it provides the center cross cursor display.
9. Support auto & manual exposure; support auto & manual white balance; support colors & Black-and-White monitor mode.
10. Support EV ( exposure compensation ) adjust.
11. Support English /Francais /Espanol /Portugues /Deutsch /Italiano /Chinese/Pyccknn/ Japanese language setting.
12. Support 50Hz, 60Hz light source frequency setting.
13. Support HCSD TF card ( Class 4 ), max 64GB.
14. Support to save setting function after power off.

## Security Instruction

1. When installing the equipment, please read the user manual carefully and follow the installation instruction, please kindly keep the manual for your reference.
2. The camera power voltage is AC100V — 240V@50-60Hz, please kindly make sure the parameters of your power supply is in this range.
3. The standard setting of the power supply comes with the camera is 12V 1A, we recommend that you use the power adapter which comes together with the camera.
4. The camera should be stored under the temperature of 0 °C to 50 °C , using with the humidity under 90%, prevent foreign object from entering the machine, do not spill liquid on the machine to prevent danger.
5. Prevent knock against and violent vibration, to prevent from water in the process of transportation, storage and installation.
6. Do not attempt to disassemble the camera, there are no user serviceable parts inside.
7. When clearing the camera's shell, please use dry soft cloth, if there is too much dirt, please use a neutral detergent to wipe gently.
8. If there is a gray shadow on the image, use the dust blower to blow off the dust on the optical filter, do not use the detergent.

## Package Include

HY-2307 camera x 1	power supply x 1	Remote x 1
User manual x 1	Camera dust cover x 1	USB line x 1

## Button Instruction

1.  : ON / OFF ( Freeze / Unfreeze ) button
2.  : Menu
3.  : Up / Zoom+
4.  : Down / Zoom-
5.  : Snap Shot / Video / OK(confirm)
6.  : Model / AE(switch mode)

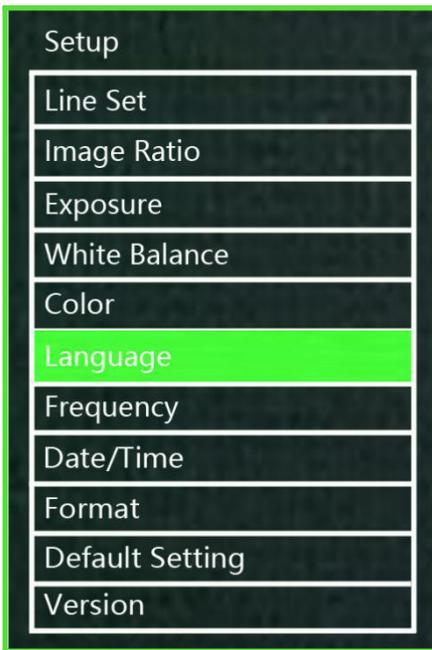


## Operation Instruction

1. Preparatory work
  - 1.1: Twist the cover off and install the lens.

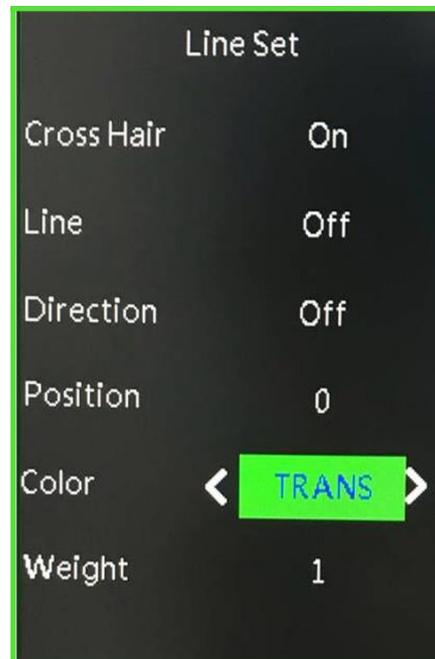
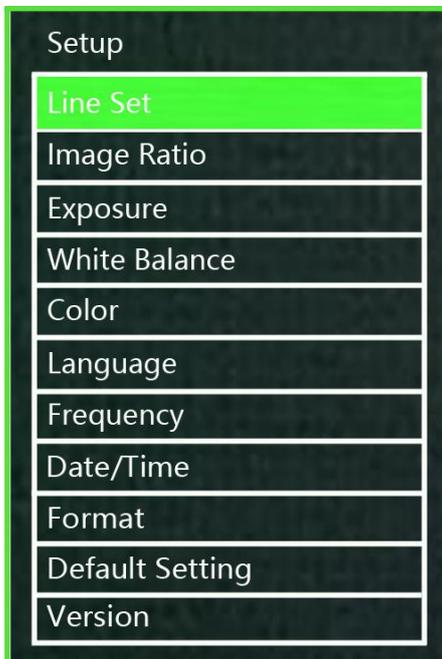
**△Noting: tear off the dust protection in front of the sensitive film before installing the lens, otherwise the image will be vague!!!**
  - 1.2: Inset the HDMI cable and DC power, when the LED light turns to blue the camera is on.
  - 1.3: **When connecting the camera with the computer, just plug the USB line is OK ( no need to use the power supply since USB line can power as well)**
2. Language choose( take Chinese as example )
  - 2.1: Press the “MENU” button to enter the main menu, then press the “DOWN” button till the language setting is highlight, press the “OK” button to enter the language setting and press

the “DOWN” button to choose the Chinese, then press the “OK” button to return to the main menu.

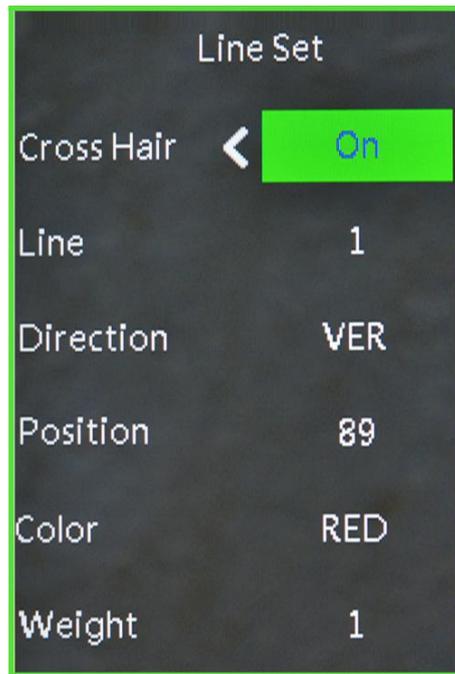
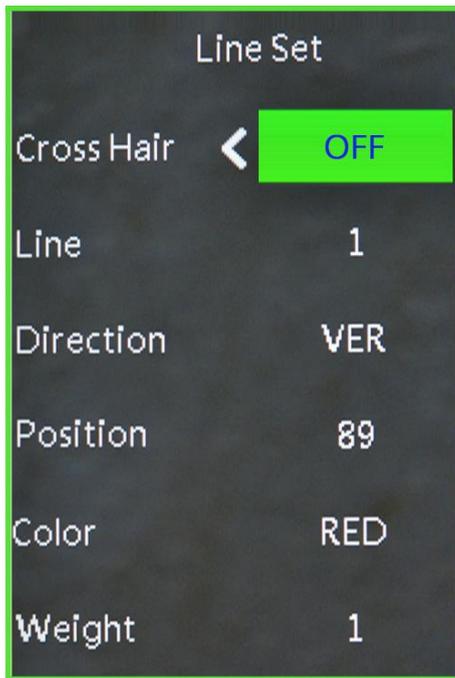


### 3. Line setting

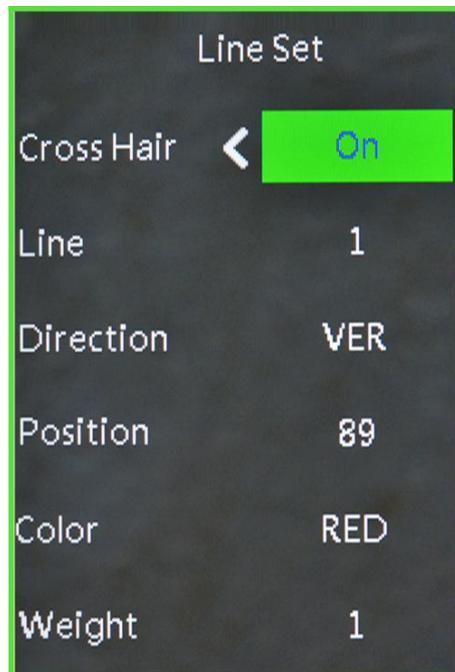
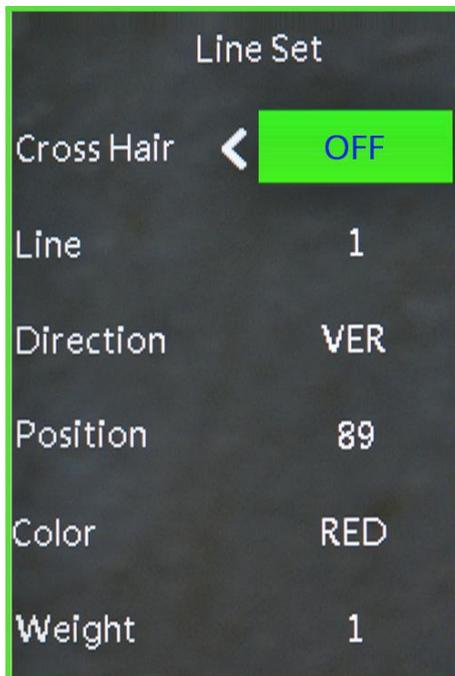
3.1: Under the main menu, select the line setting, press the “OK” button to enter the line setting menu.



3.2: Press the “DOWN” and “UP” button to choose the setting selection you need.



3.3: When the cross hair is highlight, press the “OK” button to open or close the cross hair.



### 3.4: Cross Hair Setting

(1) Cross Hair

Press the “OK” button to open the Cross Hair setting, the Cross Hair will be displayed on the

middle part of the screen, press the "OK" button to switch ON and OFF, ON means display the cross hair and OFF means hide it.

(2) Line

Press the "OK" button, it will decrease from 10-1-OFF, 1 means the first line, and so on.

(3) Direction

Press the "OK" button, it will cycle among HOR-OFF-VER, HOR means horizontal line, VER means vertical line and OFF means turn off the line.

(4) Position

Press the "OK" button, it will decrease from 959-0. Long press on the "OK" button it will decrease rapidly and long press the "MODE" button it will increase rapidly. The value of the HOR smaller it will site more to left and when it increases it will site more to right, the value of VER smaller it will site more upward and when it increases it will site more downward.

(5) Line Color

Press the "OK" button, there are 7 colors to choose :

GREEN-RED-WHITE-BLACK-TRANS-ORANGE-BLUE.

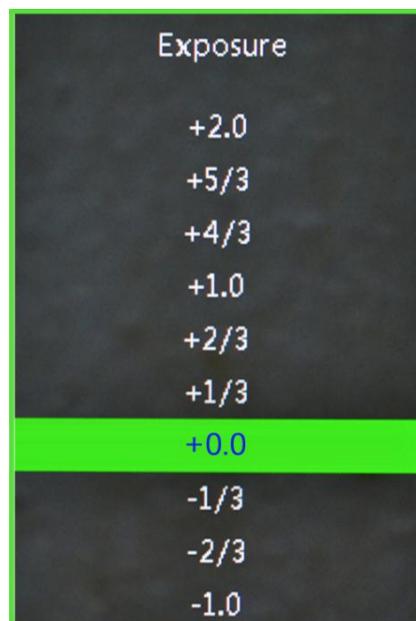
(6)Line Weight

Press the "OK" button, it will cycle among 5-4-3-2-1, 1 means the minimum line and 5 means the thickest line.

4. Exposure

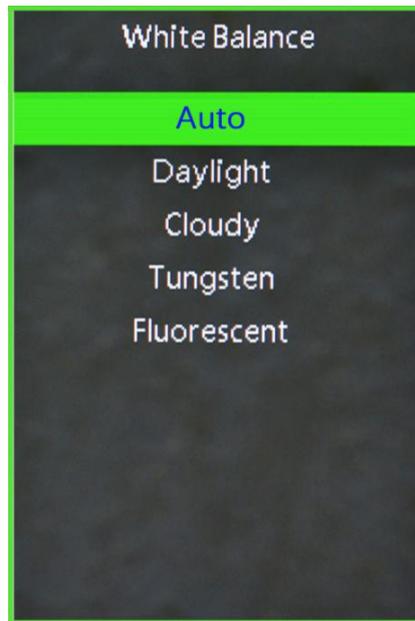
+2.0 +5/3 +4/3 +1.0 -2/3 +1/3 +0.0 -1/3 -2/3 -1.0 -4/3 -5/3 -2.0.

press the "UP" or "DOWN" button to choose the exposure option then press the "OK" button to enter the exposure setting.



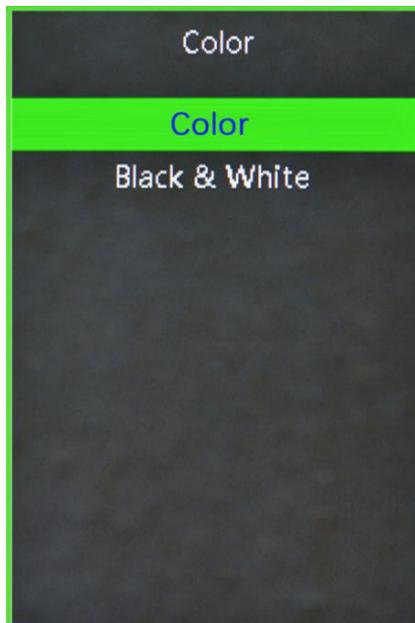
5. White Balance Setting

Press the "MENU" button to open the main menu, press the "DOWN" button to choose the white balance, then press "OK" button to enter the white balance setting, press the "OK" or "MODEL" button to set white balance you want.



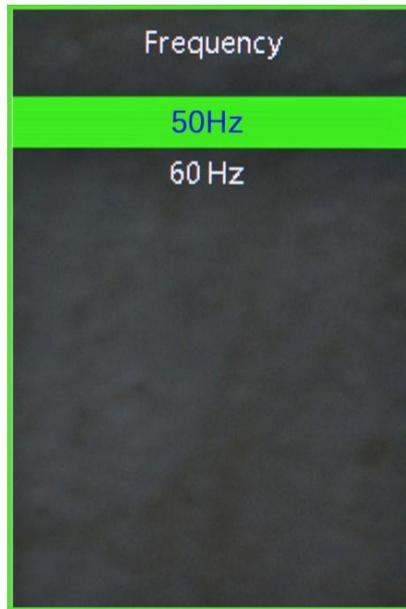
#### 6. Color Setting

Press the "MENU" button to open the main menu, press the "DOWN" button when it goes to the color option and press the "OK" button to enter the color setting menu, press the "UP" or "DOWN" button to switch color mode and black & white mode, press "OK" button when you are sure. Press the "MENU" button you can turn back to the main menu.



#### 7. Frequency

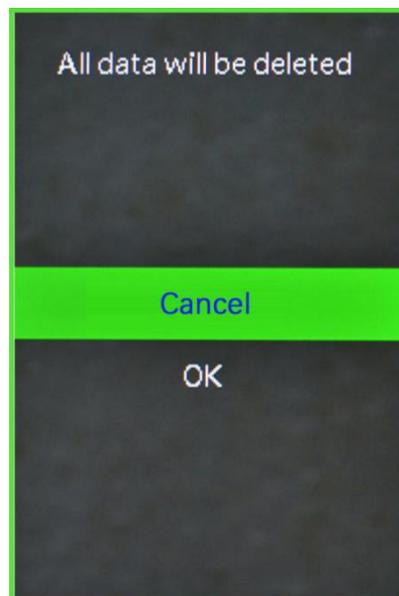
Press the "MENU" button to open the main menu, press the "DOWN" button to choose the frequency option then press "OK" button to enter the frequency, press the "UP" or "DOWN" button to switch 50Hz or 60Hz, press the "OK" button when you are sure. Press the "MENU" button to turn back to the main menu.



8. Format TF card

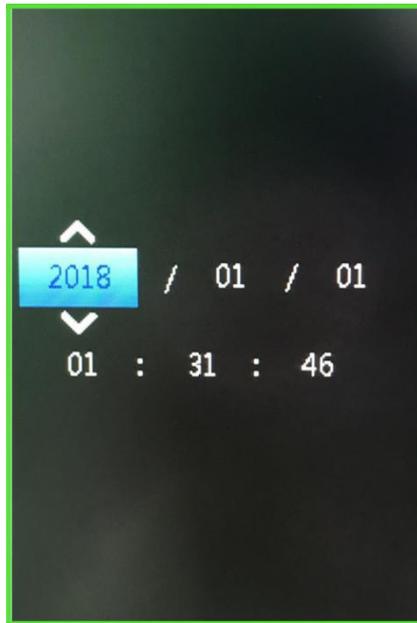
Press the "MENU" button to open the main menu, then press the "DOWN" button, when it goes to Format, press the "OK" button to select it. Press the "UP" or "DOWN" button to select cancel or confirm. When select confirm and press "OK" button the TF card will be formatted.

**Noting: all data will be deleted after the TF card been formatted, please make sure there is a copy before you do it.**



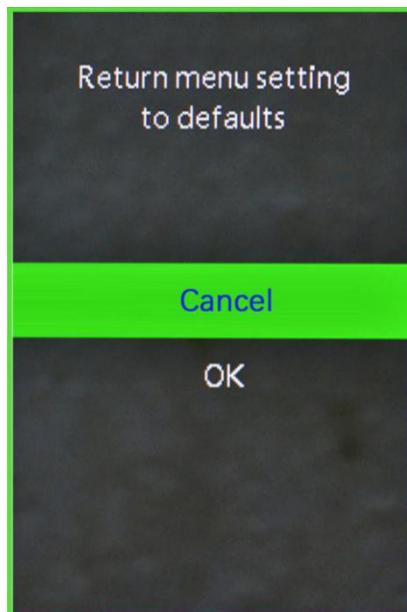
9. Date and Time setting

Press the "MENU" button to open the main menu, press the "DOWN" button to the data and time setting option and press "OK" button to select . press the "OK" button to switch the item you need to set( eg: year, month and day), when the changed item turns on red, press the "UP" or "DOWN" button to adjust, after adjustment press the " MENU" button to save and turn back to main menu.



10. System setting

Press the "MENU" button to open the main menu, press the "DOWN" button to the default setting option and then press "OK" button to enter the setting page. Select the confirm it will return menu setting to defaults. Select cancellation it will exit.



11. Freeze/Unfreeze



Press on the ON/OFF button, the image will freeze, and there is a signal in the left down corner of the image( as shown above), press again it will unfreeze and the signal will disappear.

12. ON/OFF

Long press on the ON/OFF button to turn on when the camera is off.  
Long press on the ON/OFF button to turn off when the camera is on.

### 13. Electronic amplification and reduction

13.1: Press the "UP" button the image will get electronic amplification, the multiple will be shown on the left of the image, the maximum multiple up to 8 times and image will be vague during magnification.

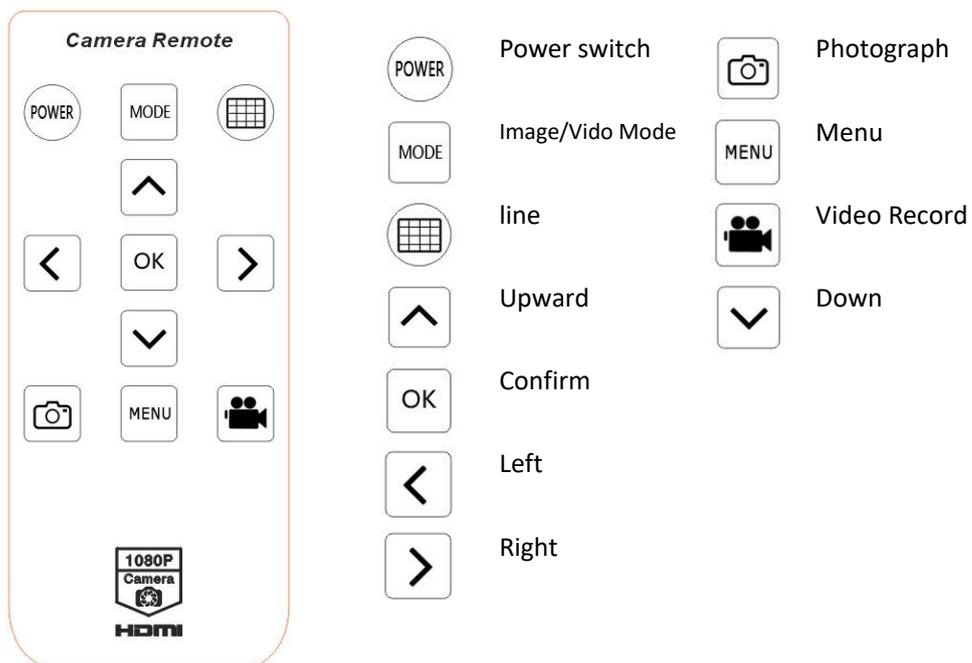
13.2: After electronic amplification, press on the "DOWN" button the image will get reduction, the multiple will be shown on the left of the image and it can reduce to the original size.

### 14. Switch photo and video mode

14.1: The system default is photo mode, press the "OK" button to take photo.

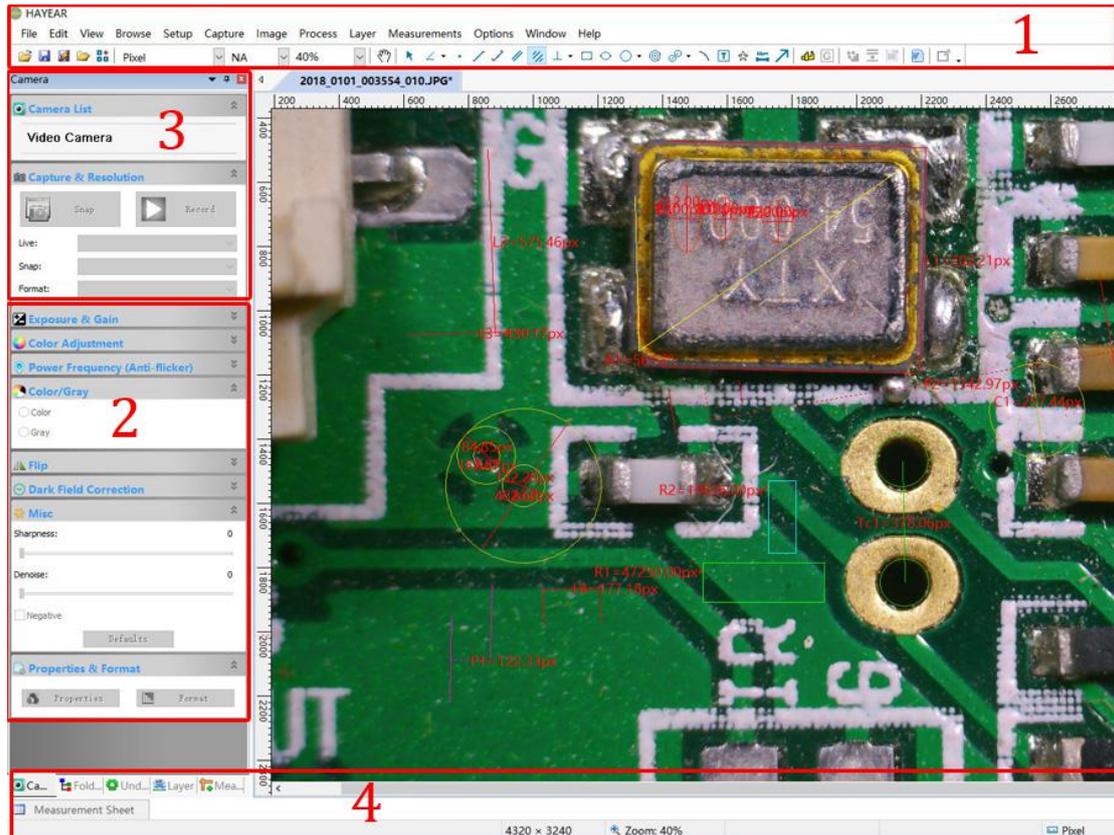
14.2: Press the "MODEL" button to switch video mode, press the "OK" button to start capturing and press "OK" button again to stop recording.

## Remote Control and Key Operation Instruction



# USB output

## HAYEAR User Manual



### Overview

HAYEAR is an application for imaging a dynamic image processing , has the following characteristics:

### User Interface

1. Toolbar: Take pictures/Recording video/Browse files.
2. Sidebar tab: Switching the rightmost control panels, currently provides camera control and measurement functions.
3. Control panel: Specific camera control and measurement operations.
4. Status bar: Display camera information, Change user interface view, Toggle measure result panel.

5. Main menu: Open setting dialog, show software information, etc.

## Capture Images

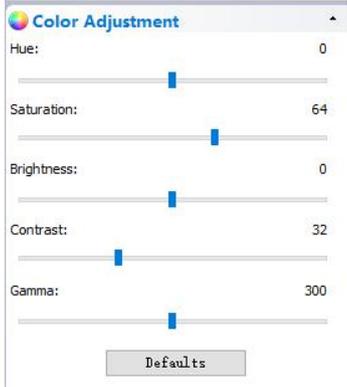
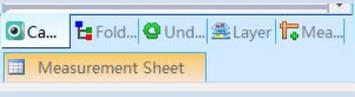
You can capture pictures and videos:

1. Take a picture: Click “Snap” button to take a picture. Click the right arrow beside the “Snap” button to set picture file format and resolution.
2. Recording: Click “Record” button to start video recording, Click again to stop recording. When recording ,there will be an animation indicator over the image.
3. Browse: Click “Browse” button to open the folder where pictures and video stored.



## Camera Control

	<p>Device Control:</p> <ul style="list-style-type: none"> <li>● Support different cameras, preview resolution and output format.</li> <li>● The highest resolution is 1920x1080.</li> </ul>
	<p>Exposure and Gain:</p> <p>If the connected camera can not support some functions such as brightness target value, then the corresponding parameter can not be set up</p>
	<p>White balance:</p> <p>If the connected camera can not support some functions such as brightness target value, then the corresponding parameter can not be set up</p> <p>Red, Green and Blue gain:</p> <p>If the connected camera can not support some functions such as brightness target value, then the corresponding parameter can not be set up</p>

	<p>Normal camera parameter adjustment.</p>
	<ul style="list-style-type: none"> <li>● Reset camera parameters.</li> <li>● Open camera property dialog, generally supported by the DirectShow cameras</li> </ul>

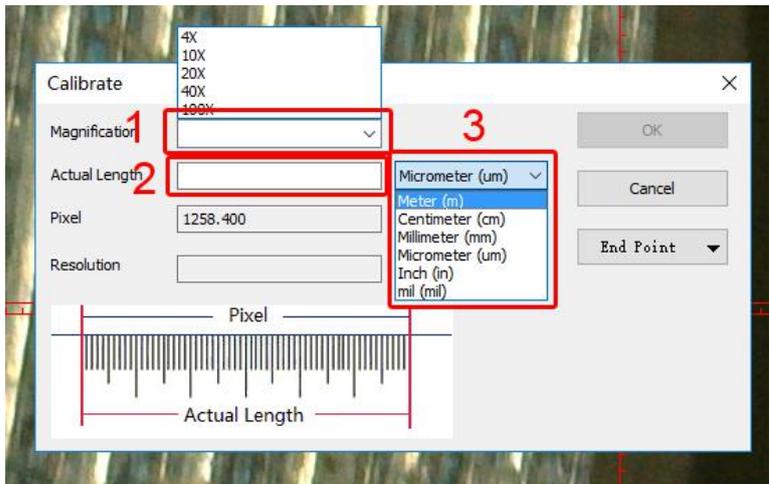
## Measurement

Icon	Function	Description
	Move	Move or adjust the measurement tool.
	Point	Setup > Video Overlay > Marker
	Line	Measure length of a line.
	Vertical	
	Rectangle	Measure perimeter and acreage of a rectangle.
	Polygon	Measure perimeter and acreage of a polygon.
	Circle	Measure a circle, the circle is determined by center point and radius.
	Two Points Circle	Measure a circle, the circle is determined by two points.
	Three Points Circle	Measure a circle, the circle is determined by three points.
	Arc	Measure length of arc.
	Angle	Measure angle.
	Calibrate	
	Scale Bar	

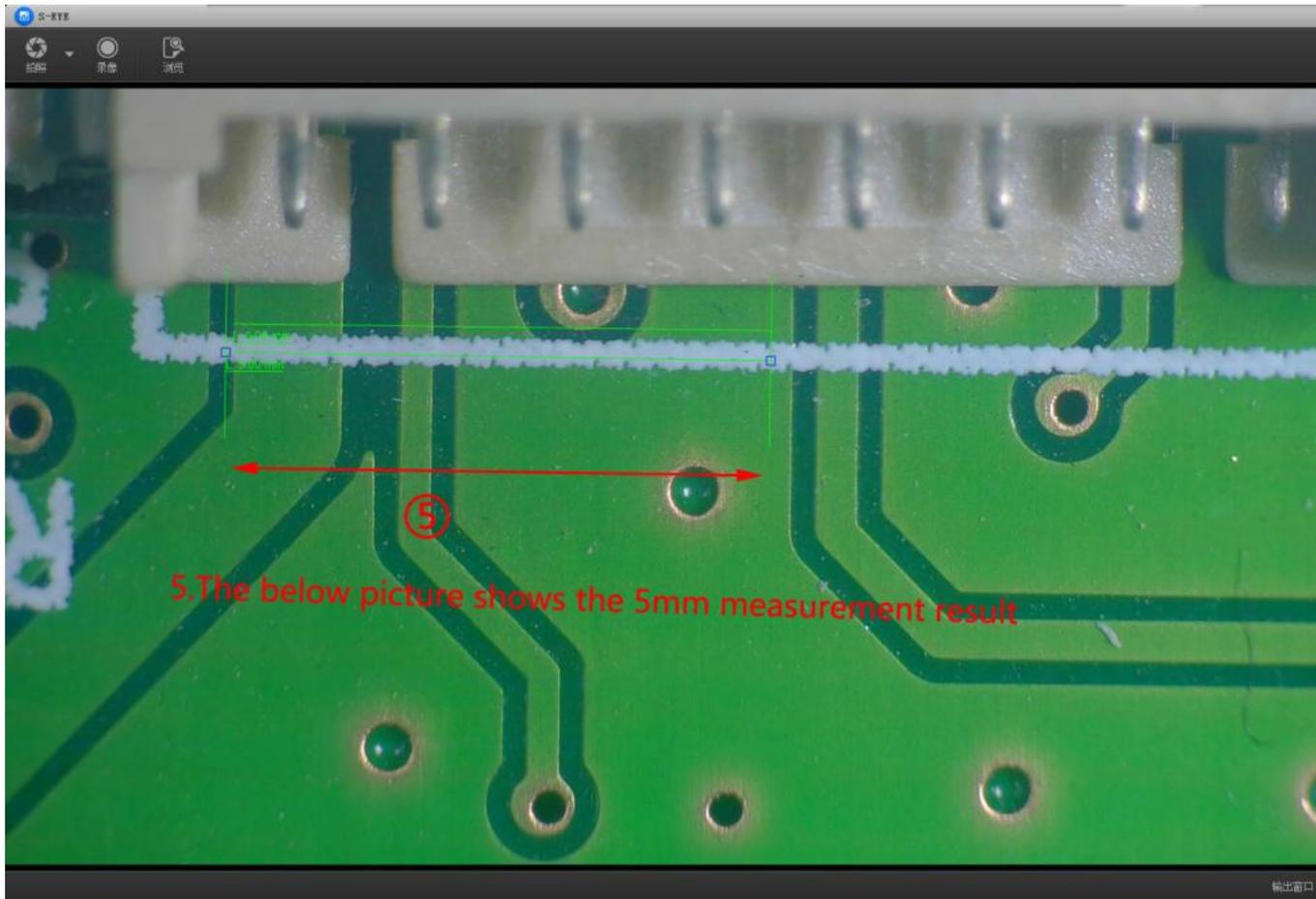
	Text	Delete all measurement tools.
	Stitch	

## How to define the measurement

Take a 5mm measurement as example



1. Fill in a custom name
2. Fill in the actual size on the scale
3. Choose the scale base (such as: px, cm, mm, um, in, uin)
4. Complete the setting
5. The picture below is the 5mm measurement result



## Software Installation

Download the software:

<http://www.hayear.com>

The “S-EYE” can support only the Windows system, the users can also download by the link in the official website.

The operating systems:

Windows XP SP3、Windows 7、Windows8、Windows10

The operating environment:

Microsoft.Net Framework 4.0 , Microsoft Visual C++ 2010

If there is no the two complete runtime library, there will be an error when installing the software.

If you are unable to enter the link or download the files, please contact with the customer service.

After downloading successfully, open the zipped files and install the software.

Warranty		
User's name :	Address :	
Phone number :	Post code :	email :
Model name :	Purchase date :	
Fault feedback :		
Date :	Fault :	
Notice :		
Our warranty doesn't cover:		
1	If users can not provide the purchase proof or the Warranty.	
2	If users use it in an improper environment, such as incompatible power supply, high temperature environment etc.	
3	If the fault caused by accident, oversight, misoperation or natural disasters etc.	
4	If the fault caused by people who are not belong to authorized organizations of our company during repacking, repair, dismantle, Or if users repack, repair or dismantle the device not following our advice.	
5	Out of warranty period.	

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