LW Scientific

# MegaVID WiFi

## Instruction Manual





## Notes and Safety Requirements

### Cautions and Notes

1. To avoid danger or damage incurred to the lens, do not touch the lens or sensor directly with your fingers.
2. To avoid failure or electric shock hazard and so on, do not disassemble or modify the internal structure of the device.
3. Do not plug in or unplug the USB port or the HDMI port when hands are wet.
4. Do not use alcohol and other organic solvents to clean.
5. If the lens or sensor is dirty or damp, please use dry and non-linen fabric or professional lens tissue to wipe them. Wipe the lens or sensor lightly.
6. The products are not specifically designed for an outdoor use. Do not expose it to outdoor environment without any protection. Excessive temperature and humidity will damage the lens. Please avoid using the product under the following environment: high temperature or high humidity environment, places with direct sunlight, dirt or vibration and places near heat source.
7. Please use and store in the following environment:
   Operating temperature ：0℃ ~ 40℃;
   Storage temperature：-10℃ ~ 60℃;
   Operating Humidity ：30 ~ 60%RH;
   Storage Humidity：10 ~ 80%RH.

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8 If water or liquid enters the device by accident, disconnect the USB cable immediately. Please send it to the maintenance center and do not use the hair dryer to dry it by yourself.

9 To prevent microscope from being tripped over or dropped, please put away the device's USB cables when not in use.

10 Please power off microscope before you move your Windows PC or laptop to avoid any electrical damage.

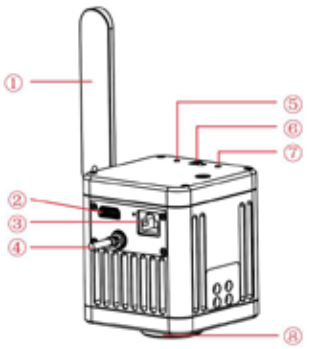
11 The cleanliness of the device lens will directly affect clarity degree of contents from the computer screen during preview. Problems like various circles or spots on the screen may mostly be incurred by dirt on the lens. When cleaning, please use professional lens tissue or other professional detergent to clear the dirt on the lens

## Contents List

**The MegaVID Wi-Fi comes with the following parts.** If any parts are missing, please contact your distributor or LW Scientific.

[1] - MegaVID Wi-Fi Camera Body: for use on C-Mount trinocular microscope
[1] - HDMI Cable
[1] - Ethernet Cable
[1] - USB Power Block
[1] - Software CD

## Hardware Introduction




1 5G Wi-Fi antenna:
Enhance 5G WiFi signal transmission to realize wireless network connection to the camera for image acquisition.

2 HDMI output interface (only for 12MP camera):
Through HDMI cable, connect with external monitor with HDMI interface to realize video, signal transmission, etc.

3 Ethernet Connection Port:
The MegaVID can be connected to the router and access the LAN so Windows, iOS, smart phones and tablets in the local area network can share the microscopic screen; it can also be directly connected to the Internet.

4 Power supply:
**Turn to USB**: connects to Windows PC for data transfer, and the Windows PC side can image acquisition through software.
**Turn to Wi-Fi**: connects to adapter to enable powering the camera, and wireless devices can connect to the camera WiFi to image acquisition.

5 Power Indicator (PWR):
**Switching to OFF**: the indicator light will turn red.
**Switching to USB or Wi-Fi**: the indicator light flashes green.

6 USB / OFF / WiFi working mode switching:
**USB**: when the USB cable connected to the computer, it can image acquisition through the computer software.
**OFF**: turn off the power, the camera stops working at this time.
**Wi-Fi**: the wireless devices connect to the camera WiFi to image acquisition.

7 ACT indicator:
**Turn to Wi-Fi**: the indicator light is blue.
**Turn to other gears**: the indicator light does not light up.

8 Standard C-mount:
Connect to any trinocular microscope via C-mount.

## Installing to a Trinocular Microscope

### Installation Method

1 Remove the dust cover of microscope standard C-mount, as shown in ***Figure 1*** (next page).

2 Screw the microscope camera onto the standard C-mount of the microscope, oriented as in ***Figure 2***; tighten the fastening screws on the dovetail slot of the microscope, fix the camera on the microscope.

**Note:** To remove the camera from the microscope, reverse the order of the installation.

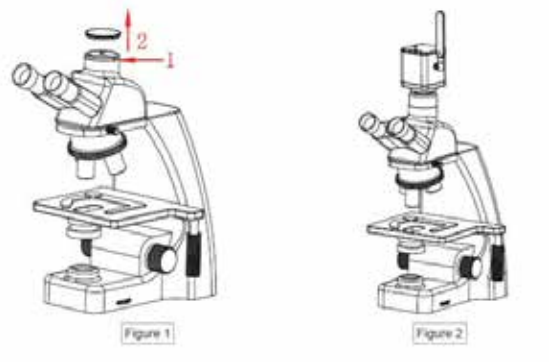


Figure 1 Figure 2

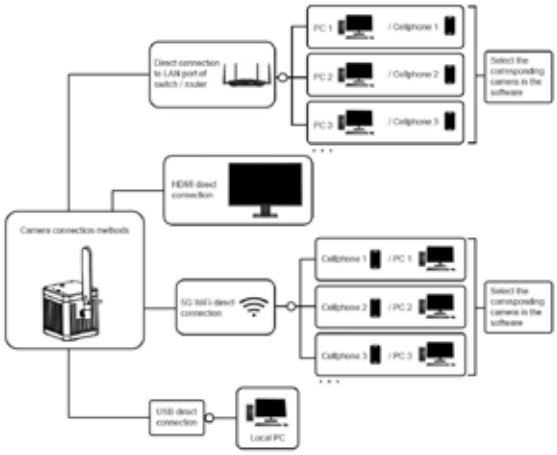
## Connection Methods

### USB connection

1 Take the camera USB cable and connect to the USB port of a Windows PC.

2 Toggle switch to USB gear.

3 Install the LW Scientific Capture Pro app from the software CD and run .
***Please refer to the "LW Scientific Capture Pro Software User Manual" for details.***



Recommended System Requirements:
- Microsoft Windows 10 (64 bit) or later
- CPU: i5 10th generation or later version
- Hard drive: 512GB or more
- RAM: 16GB or more
- Graphics card: Core graphics

### HDMI connection (only for 12MP camera)

1 Switch to USB gear when the camera is powered on with the HDMI cable connected to the monitor. Images can be viewed straight out of the microscope screen.

2 Switch to Wi-Fi gear when the camera is powered on with the HDMI cable connected to the monitor. Images can be viewed straight out of the microscope screen.

3 When connecting HDMI to an external monitor you should select the appropriate HDMI output resolution ratio in the LW Scientific Capture Pro settings according to the aspect ratio of the monitor otherwise the image display of the external monitor will be stretched and distorted.

**Note**: The external monitor is connected to the camera via HDMI. The external monitor only transmits images without any operation software and menu. Make any adjustments to the image parameters through the Windows PC software LW Scientific Capture Pro or the mobile version of the LW Scientific Wi-Fi Lab app. The MegaVID supports simultaneous HDMI and 5G Wi-Fi output.

### 5G Wi-Fi connection

1 Desktop computers, cell phones, tablets, and laptops can be connected to the camera via 5G Wi-Fi , supports up to 13 desktop computers, cell phones, tablets and laptops can realize microscopic view on the same microscope screen.

Windows System Requirements
- Microsoft Windows 10 (64 bit) or later version operating systems.
- CPU: i5 10th generation or later version
- Hard drive: 512GB or more
- Memory: 16GB or more
- Graphics card: Core graphics
- Wireless NIC supports 5G Wi-Fi

Android System Requirements
- Android System 7.0 or later version
- CPU dual-core 1.7Ghz or later version
- Memory RAM 3GB or more
- Support wireless protocol 5G Wi-Fi

iOS System Requirements
- iOS System 11.0 or later version
- CPU dual-core 1.8Ghz or later version
- Memory RAM 2GB or more
- Support wireless protocol 5G Wi-Fi

2 Download and install the app:

**2a** Use the software CD to begin installing the app.

**2b** Choose LW Scientific Wi-Fi Lab for Android or for iOS to download and install according to your phone and tablet system.

**2c** You can search and download LW Scientific Wi-Fi Lab from Google Play App store or the Apple App Store.

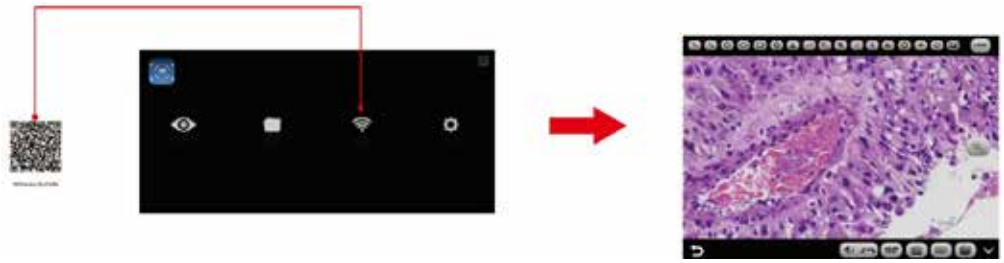
**3** Connection steps:

**3a** Set the camera to Wi-Fi gear. After about 20 seconds, the camera's Wi-Fi working signal indicator stops flashing and remains on.

**3b** Search for the camera's Wi-Fi SSID: ***WiFi5Camera_xxxxxx*** on the desktop computers or laptops; default connection password ***12345678***, running the Windows software LW Scientific Capture Pro to start image acquisition.

**3c** Cell phones, tablets scan QR code to get the images automatically.

**3d** Run the App LW Scientific Wi-Fi Lab; Click the button on the navigation interface, scan the QR code on the camera body to connect to the microscope screen, no need to enter password, realize the same screen view.



**3e** Manually connect cell phones and tablets to get images. Search for the camera's Wi-Fi SSID: ***WiFi5Camera_xxxxxx*** in the WLAN of cell phones or tablets. Use the default connection password "***12345678***". Run the App LW Scientific Wi-Fi Lab, enter the Wi-Fi Lab navigation interface and click the button to connect to the microscope screen manually. Wi-Fi connection is recommended for short distance transmission and ethernet connection is recommended for long distance transmission.

## Connecting the camera to a Local Area Network (LAN)

Once the camera is connected to a local area network, it can be changed to a network camera. Up to 13 desktop computers, cell phones, tablets and laptops on the same local area network allow real-time preview.

**1** Switch to Wi-Fi gear when the camera is powered on

**2** Plug one end of the network cable into the wide area network (WAN) port of the camera and the other end into the LAN port of the local area network router.

**Notes:** The local area network must support 5G Wi-Fi, otherwise it cannot be displayed in the list. If the local area network opens the internet function, the camera can also access the internet.

## Retrieving images via LAN from a Windows PC on the same local area network

**1** Connect a Windows PC or laptop that supports 5G Wi-Fi to the same local area network as the camera.

**2** Install and run the software LW Scientific Capture Pro on the Windows PC or laptop.

**3** When there is only one network camera in the local area network, the software can automatically get the live image from the camera.

**4** When there are multiple network cameras in the same local area network, click the icon in the upper right corner of LW Scientific Capture Pro (***Figure 1***, next page), the list automatically shows all cameras in the current local area network (***Figure 2*** next page), select a camera as needed.

Figure 1

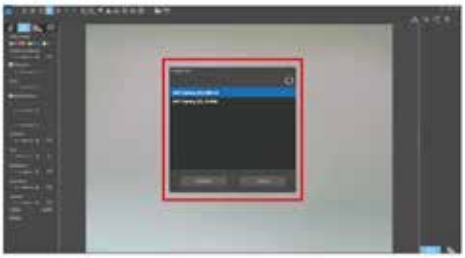


Figure 2

**Notes**: When a Windows PC or laptop computer accesses the camera microscope images, it does not affect the computer's ability to access the Internet. If that local area network is open to the Internet, the Windows PC or laptop can also access the Internet.

### Retrieving images via LAN from a from cell phones and tablets in the same local area network

1. Connect the cell phones or tablets that supports 5G Wi-Fi to the same local area network as the camera.
2. Install and run the LW Scientific app on your mobile device, enter the navigation interface and click the button.
3. When there is only one network camera in the local area network, the app can automatically get the live image from the camera.
4. When there are multiple network cameras in the same local area network, click the icon in the navigation interface (***Figure 1***), pop-up menu (***Figure 2***). The list automatically shows all cameras in the current local area network (***Figure 3***), select a camera as needed and switch between cameras at any time.

Figure 1

Figure 2

Figure 3

## Troubleshooting & FAQs

### USB image acquisition problems

1. Make sure the image is visible through the eyepiece and the microsope light is functioning properly.
2. Ensure that the USB port of the computer is working properly.
3. Ensure the computer can recognize the camera (you can find the "USB Camera" in the "Device Manager" of the computer), if the camera is still not recognized after re-plugging the USB cable, please go to support.lwscientific.com to submit a ticket.
4. If the computer can recognize the camera but can not acquire an image, please reinstall the software "LW Scientific Capture Pro" by downloading the software from the included software disc.
5. If the fault cannot be eliminated after restarting the camera, please go to support.lwscientific.com to submit a ticket.

### Wi-Fi image acquisition problems

1. Ensure the mobile device can pair with the camera's Wi-Fi. If the camera's Wi-Fi cannot be paired please go to support.lwscientific.com to submit a ticket.
2. Ensure the LW Scientific Wi-Fi Lab software on your mobile device can scan the QR code on the camera body and connect to the camera's Wi-Fi. If the software prompts "Wi-Fi cannot be connected" you need to allow the LW Scientific Wi-Fi Lab software to modify the system settings in your phone's settings.

### Image acquisition failure or large delay

1. Ensure the USB gear displays an image.
2. Ensure the LW Scientific Wi-Fi Lab software on your mobile device can scan the QR code on the camera body and connect to the camera's Wi-Fi. If the software prompts "Wi-Fi cannot be connected", you need to allow the LW Scientific WiFi Lab software to modify the system settings in your phone's settings.
3. If issues persist, please go to support.lwscientific.com to submit a ticket.

### No image displayed while connected via Wi-Fi

1. Ensure that the microscope light is turned on and the image is visible to the eyepiece.
2. Ensure that the camera and the mobile device are under the same local area network.
3. If issues persist, please go to support.lwscientific.com to submit a ticket.

### External HDMI monitor does not display / display exceptions

1. Ensure the HDMI cable can be used normally.
2. Ensure the HDMI monitor can be used normally.
3. Ensure that the external HDMI monitor can support: 3840x2160 @30Hz / 1920x1080@60Hz / 1920x1080 @30Hz / 1280x720 @60Hz

## Disclaimer

1. In order to protect the legitimate rights and interests of users, please carefully read the instructions, disclaimers and safety instructions provided with this product before using it. The company reserves the right to update the above documents. Please operate the product according to the instructions and safety instructions.
2. Once you begin to use the product, you shall be deemed to have read, understood, recognized and accepted all terms and contents of the product's instructions, disclaimers and safety instructions. Users assume responsibility for their actions and all consequences. User agree to use the product only for legitimate purposes and agrees to these terms and any relevant policies or guidelines that the company may establish.
3. In the process of using this product, please strictly abide by and execute the requirements including but not limited to the instructions and safety instructions. All personal injuries, accidents, property losses, legal disputes and other adverse events that cause conflicts of interest caused by violation of the safety instructions or irresistible factors shall be borne by users themselves, and the company shall not assume any responsibility.
4. Safety instructions:
   - Please do not use wet hands to plug and unplug the power supply of the equipment.
   - Please be sure to use a regular brand power socket, and make sure the grounding is well grounded to prevent electric shock.
   - Please be sure to do regular safety checks on sockets and plugs to avoid potential electrical safety hazards caused by aging and short circuit.
   - Please be sure not to use the product in a humid or hot environment to ensure the safety of the product.
   - Please be sure to loosen bundle cords of the power cable before using, to avoid electromagnetic induction and heating, thus increasing the heat dissipation speed.
   - Please be sure not to use the product equipment or socket or other places in high or easy to fall, so as to avoid damage.
   - Before opening the socket power supply, please be sure to turn off the load power switch of the product equipment.
   - The company reserves the rights to improve product, upgrade technology and change parameters without prior notice.



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