



# **Instruction Manual**



# **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
- 2 HDMI output interface
- 3 Ethernet connection port
- 4 Power cable
- 5 Power Indicator LED
  - a. When OFF the indicator light will turn red.
  - **b.** When in USB or Wi-Fi mode, the indicator light flashes green.
- 6 USB / OFF / WiFi selection
- 7 Wi-Fi indicator: When Wi-Fi is selected, the indicator light is blue; otherwise, 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 lens cover of the microscope's standard C-mount, as shown in Figure 1.
- 2 Screw the microscope camera onto the C-mount of the microscope, oriented as in Figure 2; tighten the fastening screws on the dovetail slot of the Microscope and fix the camera on the microscope.



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

# **Connection Methods**

#### **USB** connection

- Take the camera USB cable and connect to the USB port of a 1 Windows PC.
- Toggle switch to USB mode. 2
- 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 araphics



# **HDMI** connection

- 1 You can view the camera's output by connecting an external monitor via HDMI to the camera's built-in HDMI port. If you are also connected via WiFl or USB, you can control settings such as brightness and contrast. However some features of the LW Scientific Capture Pro software, such as on screen measurements, will not be available in this configuration. If you want to use the full functionality of the software on an external monitor you must complete the following steps:
  - **a.** Connect the camera via USB to a laptop or PC.
  - **b.** Connect the laptop or PC via the HDMI port to the external monitor.
- 2 When using an external monitor, select the appropriate HDMI output resolution ratio in the LW Scientific Capture Pro software settings to correspond to the aspect ratio of the monitor; otherwise, the image display of the external monitor may be 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 LW Scientific Capture Pro software 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**

Up to 13 mobile devices can be connected to the camera via 5G Wi-Fi to simultaneously view the camera's image.

#### 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

#### Download and install the app:

- **a.** Use the software CD to begin installing the app.
- b. Choose LW Scientific Wi-Fi Lab for Android or for iOS to download and install according to your phone or tablet operating system.
- c. You can search and download the LW Scientific Wi-Fi Lab app from the Google Play or Apple App Store.

### 3 Connection steps:

- a. Set the camera to Wi-Fi mode. After about 20 seconds, the camera's Wi-Fi working signal indicator stops flashing and remains on.
- b. Search for the camera's Wi-Fi SSID: WiFi5Camera\_xxxxx on the desktop computers or laptops. The default connection password is "12345678". Run the LW Scientific Capture Pro software to start image acquisition.
- c. For cell phones and tablets, scan the QR code to get the images automatically.
- d. Run the LW Scientific Wi-Fi Lab app; Click the " 🛜 " button on the navigation interface and scan the QR code on the camera body to connect to the viewing screen. There is no need to enter a password.



e. Manually connect cell phones and tablets to get images. Search for the camera's Wi-Fi SSID: WiFi5Camera\_xxxxxx in the WLAN setting of cell phones or tablets. Use the default connection password "12345678". Run the LW Scientific Wi-Fi Lab app. Enter the Wi-Fi Lab navigation interface and click the button to connect to the viewing 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 laptops or desktops, when connected via the Local Area Wi-Fi or hard wired, can simultaneously view the camera's image through the included software.

- 1 Switch to Wi-Fi mode 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.

**Note**: 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 With camera set to "Wi-Fi", 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 LW Scientific Capture Pro software on the Windows PC or laptop.
- 3 When there is only one network camera in the local area network, the software can automatically receive 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). The list automatically shows all cameras in the current local area network (Figure 2). Select a camera as needed.



**Note**: When a Windows PC or laptop computer accesses the camera 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.

#### LAN Image acquisition problems

1 If the computer can recognize the camera but cannot acquire an image, please check if the software resolution is too high by opening the "Preview Resolution" dropdown and selecting 3840x2160 or lower.

#### USB image acquisition problems

- 1 Make sure the image is visible through the microscope eyepiece and the microscope light is functioning properly.
- 2 Ensure that the USB port of the computer is working properly.
- 3 Ensure the computer can recognize the camera (make sure you can find the "USB Camera" in the "Device Manager" of the computer). Unplug the USB cable and then re-plug it.
- 4 If the computer can recognize the camera but cannot acquire an image, please reinstall the LW Scientific Capture Pro software by downloading the software from the included software disc.
- 5 Restart the camera by turning it off and then on.

#### Wi-Fi image acquisition problems

- 1 Ensure the mobile device can pair with the camera's Wi-Fi.
- 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," 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 mode 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," allow the LW Scientific WiFi Lab software to modify the system settings in your phone's settings.

#### 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.

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

Note: If the above remedies do not resolve the issue, navigate to support.lwscientific.com to open a support ticket.

## **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, 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.
- Do not use alcohol and other organic solvents to clean. 4
- 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 5 sensor lightly.
- This product is not specifically designed for outdoor use. Do not expose it to an outdoor environment without any protection. 6 Excessive temperature and humidity will damage the lens. Avoid using this product in direct sunlight or near a heat source.
- 7 Please use and store in the following environment:
  - Operating temperature : 0°C ~ 40°C;
    Storage temperature : -10°C ~ 60°C;
    Operating Humidity : 30 ~ 60%RH;
    Storage Humidity : 10 ~ 80%RH.
- If water or liquid enters the device by accident, disconnect the USB cable immediately. Please contact the LW Scientific Service 8 Center and do not attempt to dry the unit.
- 9 To prevent a tripping hazard please put away the device's USB cables when not in use.
- 10 To avoid electrical damage, please power off the camera before you move your Windows PC or laptop.
- 11 The cleanliness of the device lens will directly affect image clarity. Problems like circles or spots on the screen may be caused by dirt on the lens. When cleaning, please use professional lens tissue and lens cleaning solution.

MKT-7.5.3-L-328 | Rev 0