



HIKMICRO AI Series
Acoustic Imaging Camera (V5.5.118)
Release Notes

CONTENTS

1	Introduction	3
1.1	Version Information	3
1.2	How to update to new version	4
1.2.1	Upgrade with HIKMICRO Viewer APP	4
1.2.2	Upgrade with an upgrade file	4
2	New Features.....	6
2.1	Connect acoustic imaging camera and thermal imager.....	6
2.2	Thermal and PIP image modes are available after connecting to a thermal imager (AI76 only).....	6
2.2.1	Live view interface of Thermal and PIP image modes	6
2.2.2	Image adjustment is supported in Thermal image mode	8
2.2.3	Manual image calibration is available in Thermal image mode	8
2.2.4	Measurement tools are supported in Thermal image mode	9
2.3	Format of captured files in three image modes	10
2.3.1	Image formats.....	10
2.3.2	Video formats	10
2.4	Manual and customized frequency ranges are supported in LD mode	10
2.5	Screen lock is available to enhance data security	11
2.5.1	Enable screen lock and set password	11
2.5.2	Change password	11
2.5.3	Reset password	11
2.6	Network Access is required during network connection	12
2.7	Complying with EN 18031 version	12
3	Optimization	13
4	FAQ on Upgrade.....	14
4.1	Why my PC failed to detect the camera as a USB drive?	14
4.2	What should I do when my PC notifies power surge on the USB port?.....	14
4.3	What should I do when my PC notifies USB device not recognized?	14
4.4	What should I do if my PC notifies the USB drive has a problem to be fixed?	15

1 Introduction

The HIKMICRO AI Series acoustic imaging camera is a professional product for sound source localization. With low-noise MEMS microphones and an adjustable bandwidth range from 0 kHz to 96 kHz, the camera provides an easy and effective way to locate gas leaks in industrial environments or detect partial discharge in high-voltage systems. By using a large 4.3" LCD touch screen, the results presented on top of a digital picture allow you to quickly find the source of the problems. The maximum operating distance could reach 150 meters, which can ensure you stay at a safe distance to inspect the high-voltage equipment. By adopting this lightweight and easy-to-use tool, you can discover potential safety risks, minimize troubleshooting, and save extra costs of equipment failures and downtime.

This document introduces new features and optimizations in V5.5.118 of AI series cameras.

For detailed operation guide, please refer to the user manual of AI series acoustic imaging camera, V5.5.118.



- This product is designed to assess gas leakage to achieve cost savings. However, due to potential environmental factors that may affect detection accuracy, the estimations provided are approximate and for informational purposes only. It should be noted that the results presented by the devices are not a guarantee of actual cost savings or a recommendation, and may not accurately reflect the specific situation of your facilities.
 - The images used in this document are for demonstration only. Please refer to the actual product.
-

1.1 Version Information

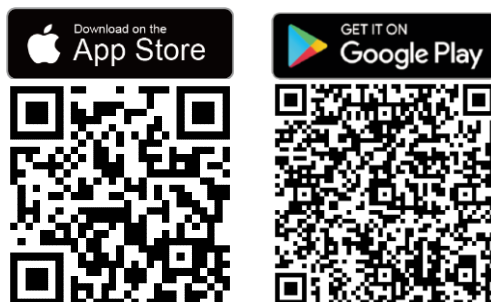
Item	Description
Models	AI56, AI76
Firmware	V5.5.118 build 250703
HIKMICRO Viewer (Mobile APP)	V2.4.3 and newer versions
HIKMICRO Analyzer Acoustic (PC Client)	V1.1.5.3

1.2 How to update to new version

1.2.1 Upgrade with HIKMICRO Viewer APP

Connect your device to HIKMICRO Viewer APP and tap on **Device Upgrade** to check device firmware version and proceed online upgrading.

Download and install HIKMICRO Viewer to your phone. Search the APP name in your APP store, or scan the following QR code.



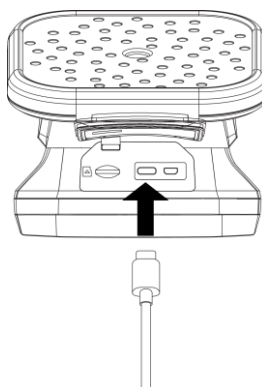
1.2.2 Upgrade with an upgrade file

Before upgrading your device, make sure:

- Device battery is fully charged.
- Auto Power-off function is turned off to avoid accidental suspension during upgrading.
- A memory card has been installed to device.

Steps

1. Download new firmware from our website <https://www.hikmicrotech.com/en/industrial-products/ai56-acoustic-camera/>, and save it to your PC.
2. Use supplied USB cable (USB type C to USB type A) to connect the device to PC.



3. Open the detected disk on your PC.

4. Unzip the firmware and copy the .dav file to the root directory of the disk.
5. Disconnect the device from PC and reboot the device to start upgrading automatically.

2 New Features

2.1 Connect acoustic imaging camera and thermal imager

Before You Start

Check firmware version of the camera. If it is lower than V5.5.118, please upgrade the camera first. See *11.4 Upgrade Camera* in the user manual for instructions.

Steps

1. Connect the acoustic imaging camera's Type-C port to the thermal imager's connector. For detailed installation, see *2.2 Mount Thermal Imager*.



If the thermal imager's firmware is incompatible with that of the acoustic camera, please upgrade the imager according to the instructions on screen.

2. Press  to confirm the upgrade process.



Do not pull out the imager during the upgrade. The imager will automatically reboot and re-connect to the camera after the upgrade is completed.

2.2 Thermal and PIP image modes are available after connecting to a thermal imager (AI76 only)

AI76 supports connecting a thermal imager to display **Acoustic**, **Thermal** and **PIP** (Picture in Picture) image modes



Ensure that the camera firmware is V5.5.118 and later versions.

2.2.1 Live view interface of Thermal and PIP image modes

Thermal Image Mode



Figure 2-1 Live View Interface of Thermal Image Mode

Table 2-1 Live View Interface Description of Thermal Image Mode

No.	Part Name	Function
1	Status Bar	Displays the device working status.
2	Measurement Tools	Marks the highest/lowest/center temperature of the screen.
3	Menu Icon	Taps on the icon to call the main menu.
4	Shortcut Keys	Displays shortcut keys, including Capture shortcut key, Level & Span shortcut key and Palettes shortcut key.
5	Temperature Scale	Displays the corresponding relations between temperature and color.
6	Temperature Reading Zone	Displays the highest/lowest/center temperature of the current observation area.

PIP Image Mode

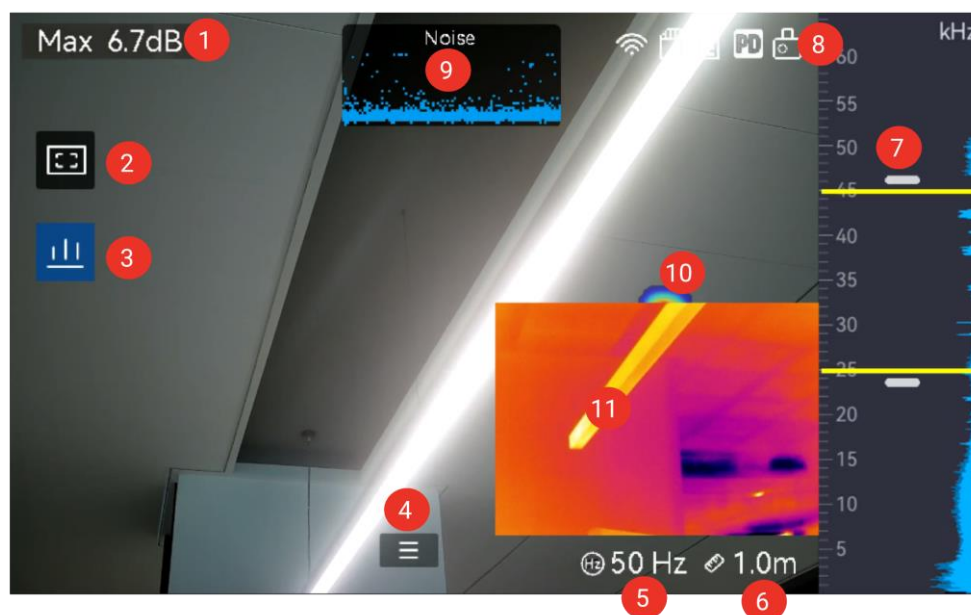


Figure 2-2 Live View Interface of PIP Image Mode

Table 2-2 Live View Interface Description of PIP Image Mode

No.	Description
1~10	See <i>2.9.2 Live View Interface</i> in the user manual for detailed information.
11	Thermal image: Thermal image for the observed scene.

2.2.2 Image adjustment is supported in Thermal image mode

In **Thermal** image mode, users can choose desired palette, adjust thermal image contrast, brightness and color distribution, select auto and manual level & span, etc.

Steps

1. Press **OK** in live view interface to call out the main menu.
2. Choose a desired function with left/right navigation buttons.



Go to **Settings > Display Settings** to adjust **Thermal Image Contrast / Thermal Image Brightness**.

2.2.3 Manual image calibration is available in Thermal image

mode

In **Thermal** image mode, users can manually calibrate the image by pressing  once in live view.



Please wait patiently during the image calibration. It is common to have image freeze in a few seconds.

2.2.4 Measurement tools are supported in Thermal image mode

In **Thermal** image mode, users can set temperature measurement parameters to improve the accuracy of temperature measurement, and set measurement tools, like spot, line, rectangle and circle, to obtain specific temperature of the observed targets.

Before You Start

Set parameters such as **Temperature Range**, **Emissivity**, **Distance**. For detailed explanations, see *7.2.2 Set Temperature Measurement Parameters* in the user manual.

Steps

1. Press  in live view interface to call out the main menu.
2. Select  to call the measurement tool bar.
3. Select a temperature measurement tool.

Table 2-3 Measurement Tools

Tool Name	Descriptions
Spot	For configuring custom spot tools, see <i>Measure by Custom Spot</i> in the user manual.
Line	For the configuring line tools, see <i>Measure by Line</i> in the user manual.
Rectangle	For the configuring rectangle tools, see <i>Measure by Rectangle</i> in the user manual.
Circle	For the configuring circle tools, see <i>Measure by Circle</i> in the user manual.

4. **Optional:** Tap  to clear all the set measurement tools.
5. **Optional:** Set a high temperature alarm. Go to  > **Temp Measurement Settings** > **Alarm Settings**. For detailed instructions, see *7.2.4 Set High Temperature Alarm* in the user manual.

2.3 Format of captured files in three image modes

2.3.1 Image formats



In **Thermal** image mode, users can tap  in the shortcut key bar or press the trigger to capture an image.

The image format in **Acoustic** and **PIP** image mode is .ld.jpeg or .pd.jpeg depending on Detection Mode. The image format in **Thermal** image mode is .jpeg.

Captured images can be viewed in the device albums, and be exported to the compatible PC Client (e.g., HIKMICRO Analyzer) to conduct further analysis.

2.3.2 Video formats



- In **Thermal** image mode, users can hold  in the shortcut key bar or the trigger to record a video. Tap  in the shortcut key bar or release the trigger to stop recording.
 - In **Thermal** image mode, Go to **Settings > Capture Settings > Thermal Video Type**, and Press  to choose .mp4 or .hrv format.
-

The video format in **Acoustic** or **PIP** image mode is MP4 format. Users can play videos on the camera or export to the compatible players to play. The video format in **Thermal** image mode is MP4 or .hrv format.

Videos in .hrv format don't support playing in the device album, and they need to be exported to the compatible players to play (e.g., HIKMICRO Analyzer).

2.4 Manual and customized frequency ranges are supported in LD mode

In this version, the device supports manual frequency and the customized frequency adjustment in LD mode.



2.5 Screen lock is available to enhance data security

In this version, a screen lock is available for users to protect personal data security. When the screen lock is set, users have to input a four-digit password to unlock the screen.

2.5.1 Enable screen lock and set password

Steps

1. Tap , and go to **Device Settings > Screen Lock**.
2. Switch on **Screen Lock** button.
3. Enter a four-digit password with the soft keyboard.
4. Tap  in the top right corner to confirm the setting, and the screen lock is enabled.

2.5.2 Change password

Steps

1. Tap , and go to **Device Settings > Screen Lock**.
2. Tap **Change Password** to set a new password with the soft keyboard.
3. Tap  in the top right corner to confirm the setting, and the password is changed.

2.5.3 Reset password



Password reset will restore the device and clear all data. Be careful to use this function

Steps

1. In **Enter Password** interface when you wake up the device, tap  in the top right corner.
2. Select **OK** in the pop-up conversation box to restore the password. Tap **Cancel** to cancel the operation.

Result

When the restoring is completed, the device will reboot, and users need to set up all the basic information, such as system language, date and time

2.6 Network Access is required during network connection

In this version, enabling Network Access for connection between the camera and the mobile devices via WLAN and Hotspot.

Tap  , and go to **Connections > Network Access** to turn on this function.

2.7 Complying with EN 18031 version

In this version, the acoustic imaging camera complies with EN 18031, and users can browse the current version of EN 18031.

Tap  , and go to **Device Information > EN 18031**.

3 Optimization

- File name: an underscore is added to separate date and time in the file name to make it easier to identify the capturing time. For example, *HM20250714_144142.jpeg*.
- The unit of Air Compressor Specific Power(Y) in Formula One is not selectable. The unit is Kw/(m³/min). See *4.1 Gas Leak Detection Operations* in the user manual for reference.

4 FAQ on Upgrade

4.1 Why my PC failed to detect the camera as a USB drive?

Check the following items:

- Use a good quality type A to type C USB cable to connect your PC to your camera. The supplied cable is recommended. Normally, a cable should be able to charge a camera and transfer data.
- Keep the microSD card inserted and do not remove it during connection.
- Keep the camera powered on.

4.2 What should I do when my PC notifies power surge on the USB port?



Check the following items:

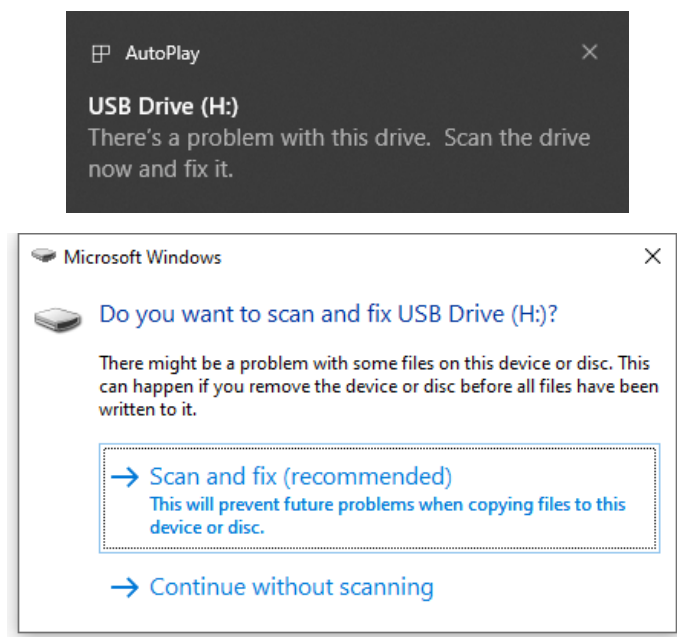
- When you are looking for an adapter of USB type C to USB type A, please choose an unpowered hub. A powered hub such as Surface Dock Station is not compatible.
- If you are using a built-in USB PowerShare in your PC, please try another port.

4.3 What should I do when my PC notifies USB device not recognized?



In most cases, it does not affect use. You can just ignore the prompt and find the detected USB drive in **This PC**. If the USB drive is not found, please try to Restore/Initialize the camera.

4.4 What should I do if my PC notifies the USB drive has a problem to be fixed?



Some Windows computers will scan a USB drive when it is connected, and show the error. Click scan and fix, Windows will confirm the drive is fine and connect to it. You can also skip scanning and find the detected USB drive in **This PC**, which does not affect use in most cases.

Legal Information

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About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the HIKMICRO website www.hikmicrotech.com.

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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