



HIKMICRO AI Series
Acoustic Imaging Camera (V5.5.138)
Release Notes

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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 V5.5.138 of AI series cameras.

For detailed operation guide, please refer to the user manual of AI series acoustic imaging camera, V5.5.138.



- 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.
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1.1 Version Information

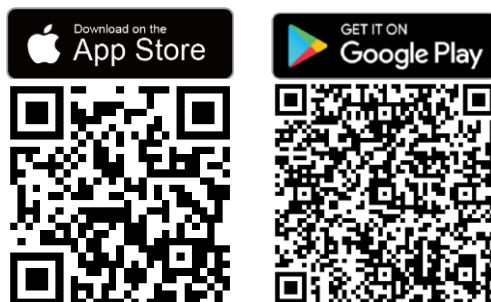
Item	Description
Models	AI56, AI56L, AI76
Firmware	V5.5.138 build260709
HIKMICRO Viewer (Mobile APP)	V2.4.3 and newer versions
HIKMICRO Analyzer (PC Client)	V2.1.1 and newer versions

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.



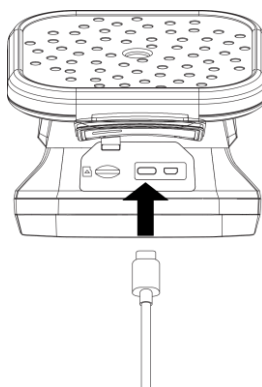
1.2.2 Upgrade with an upgrade file

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 Frequency button function programmable

The frequency button  can be set to perform functions other than the default modifying the manual or custom frequency ranges.

- For AI56 and AI56L, it can also be set to control the ON/OFF status of ROI frame or multiple sound sources.
- For AI76, it can also be set to control the ON/OFF status of ROI frame or multiple sound sources, switch image modes (PIP, thermal or acoustic), or manually correct the thermal image (the latter two functions require the integration with a thermal imager).

Go to **Settings > Device Settings > Programmable Buttons** to change the bottom function.

2.2 New application: mechanical fault detection (AI56 and AI76 only)

Mechanical Fault Detection (MD) is used to identify faults in industrial machinery operating scenarios, such as determining whether a bearing is defective in bearing rotation conditions.



During the detection process, the acoustic camera captures sound from the target environment and provides three key indicators—Sound Pressure Level (SPL), Kurtosis, and Crest Factor—to help users assess potential abnormalities.

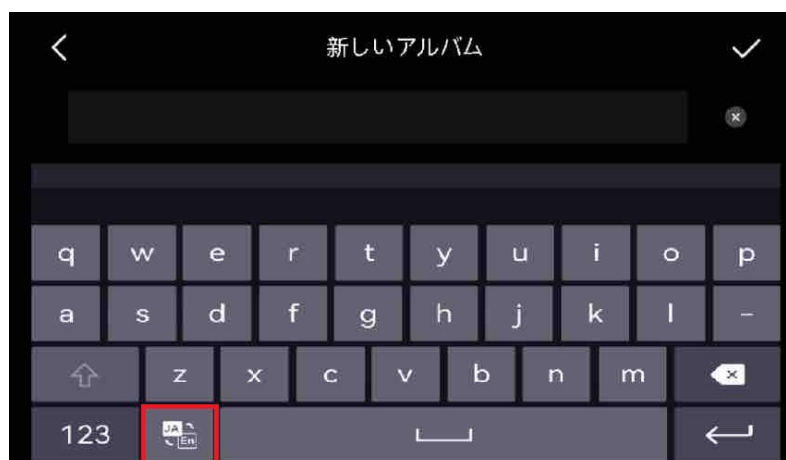


See the user manual (V5.5.138) for more operation and data interpretation instructions.

2.3 New localization features

2.3.1 Japanese keyboard supported

When the system language is Japanese, Japanese keyboard is supported for typing.



2.3.2 More currency options: Vietnamese Dong (VND) and Indonesian Rupiah (IDR)

When setting the currency for gas leak detection, Vietnamese Dong (VND) and Indonesian Rupiah (IDR) are available.



2.4 New inspection modes for scanning and locating purposes

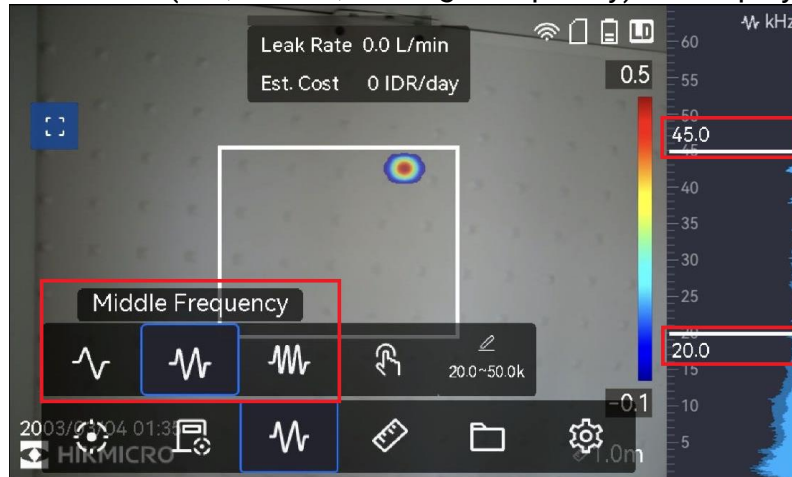
Scanning and Locating mode are available in PD and LD to serve different detection purposes. Switch the mode from  in the main menu.



- **Scanning** : Ideal for rapid, large-area inspections. By sweeping the acoustic imager across the equipment or area, it helps quickly identify potential leak sources or partial discharge sites for further investigation.
- **Locating** : Used for pinpointing the leak or discharge source spot once a general area of interest has been identified.

3 Optimization

- For the AI76, when a thermal imager is inserted and manual level and span is active, pressing left and right navigation buttons switches image modes among PIP, thermal and acoustic.
- User interface improved for image tag note editing.
- Starting from version 5.5.138, the estimated gas leak cost is written into the images captured by the cameras. This allows the data to be read and displayed in later versions of HIKMICRO Analyzer.
- Algorithm improved: Small gas leak signals are more easily and accurately detected under locating mode (inspection mode).
- The upper and lower values of the frequency range in auto frequency selection modes (low, middle, and high frequency) are displayed.



- A screen message is added to notify users that the first startup after device firmware update may take a while.

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:

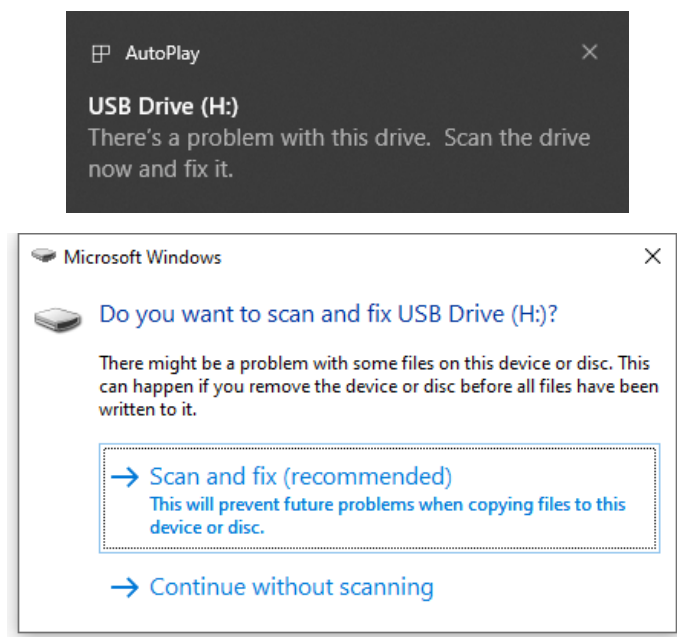
- When you are looking for an adapter of USB type C to USB type A, please choose an unpowered hub. A powered hub such as Surface Dock Station is not compatible.
- If you are using a built-in USB PowerShare in your PC, please try another port.

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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