HIKMICRO G Series Handheld Thermal Camera (V5.5.54)

Release Notes

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

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Chapter 1 Introduction

The handheld thermal camera is an ideal solution which provides accurate touch-free temperature measurement and heat distribution image display for electrical predictive maintenance, building inspection, HVAC inspection, manufacturing monitor, etc. HIKMICRO's handheld thermal cameras have been used widely in detecting temperature anomalies before detecting radiator efficiency for HVAC inspection, searching for heat loss in buildings, finding hot spots and invisible defects on mechanical or electrical systems that could indicate a potential problem. They are also used for surveying areas that are hard to reach with conventional measurement tools.

This document introduces new features and optimizations in V5.5.54 of Gx0 and Gx1 Series (hereinafter referred to as G Series) cameras.

1.1 Version Information

Item	Description
Firmware Version	V5.5.54 build 230926
FPGA Version	G40, G60: V2.04.05 BUILD20230908 G31, G41, G61, G41H, G61H: V1.00.16 BUILD20230907
Algorithm Version	V2.1.6 build 20230908
Models	G40, G60, G31, G41, G61,G41H, and G61H
Mobile Client	HIKMICRO Viewer, the latest version
PC Client	HIKMICRO Analyzer: V1.5.0_231017 HIKMICRO Inspector: V1.2.1.4 build230626

1.2 Upgrade Device with USB

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.
- USB Cast Screen function is turned off.

Step 1 Download new firmware from our website, and save it to your PC.

Gx0 Series: https://www.hikmicrotech.com/en/industrial-products/gx0-series-handheld-thermal-imager/

Gx1 Series: https://www.hikmicrotech.com/en/industrial-products/gx1-series-handheld-thermal-imager/

Step 2 Use supplied USB cable (USB type C to USB type A) to connect the device to PC.

Step 3 Open the detected disk on your PC.

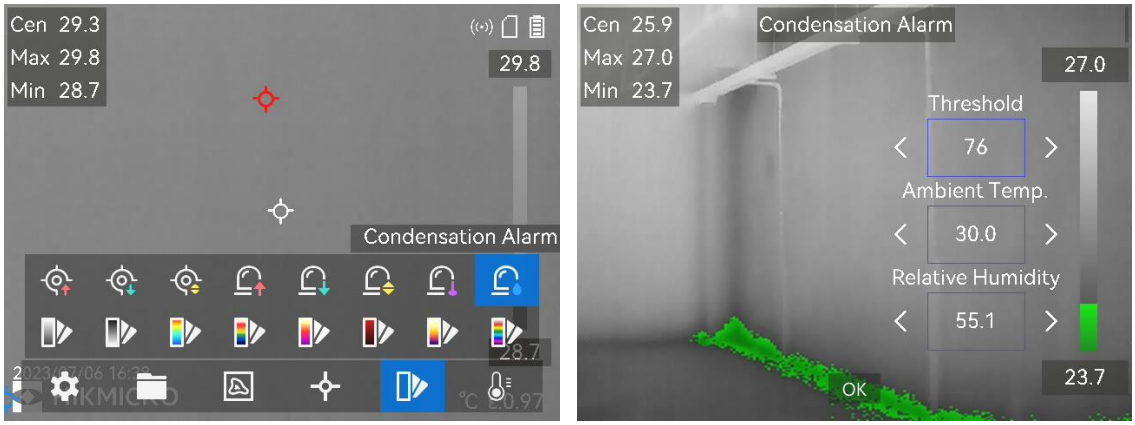
Step 4 Unzip the firmware, and copy and paste the .dav file to the root directory of the disk.

Step 5 Disconnect the device from PC and reboot the device to start upgrading automatically. The upgrading lasts several minutes, please wait for the process to complete.

Chapter 2 **New Features**

2.1 Condensation alarm for surface moisture detection

Condensation alarm helps to find areas with potential moisture problems by marking the surface where the relative humidity exceeds the set threshold with green.



Step 1 Select **Palettes** from the main menu.

Step 2 Tap on .

Step 3 Adjust ambient temperature, air relative humidity and humidity threshold for the alarm.

- **Threshold:** The surface humidity threshold. Anywhere with higher humidity in the scene is marked with green.
- **Ambient Temp.** and **Relative Humidity:** The ambient temperature and relative humidity of the environment around the target. The parameters help the device calculate target humidity more accurately.

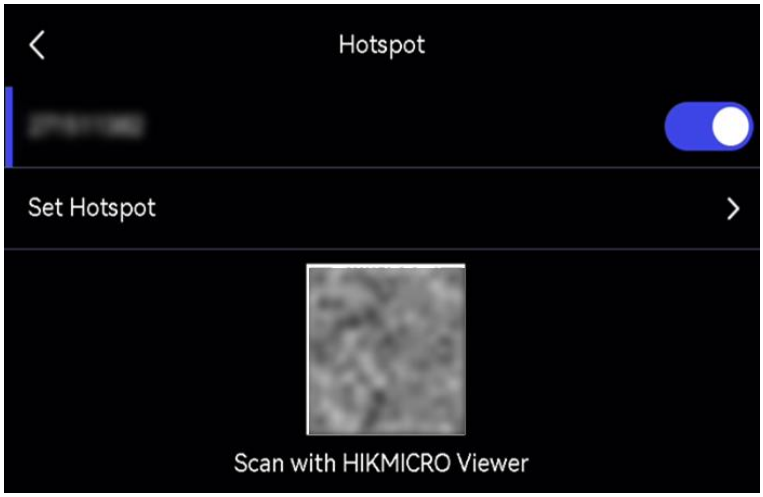
Step 4 The ambient temperature and relative humidity change as your location and weather condition change. Check and reset the parameters every time of using.

2.2 Connect to HIKMICRO Viewer by QR code scanning

G Series cameras of V5.5.54 can quickly connect to HIKMICRO Viewer by scanning an embedded QR on device, saving your time of discovering, setting and inputting password of the hotspot.

Step 1 To use the function, you should first upgrade your HIKMICRO Viewer to the latest version (V2.0.0 and newer version) that supports QR code scanning.

Step 2 Tap and hold from swipe-down menu or go to **Settings** > **Connections** > **Hotspot to** enable the function and show the hotspot QR code.



Step 3 Run the HIKMICRO Viewer, and scan the QR code with its scanning function.

Note

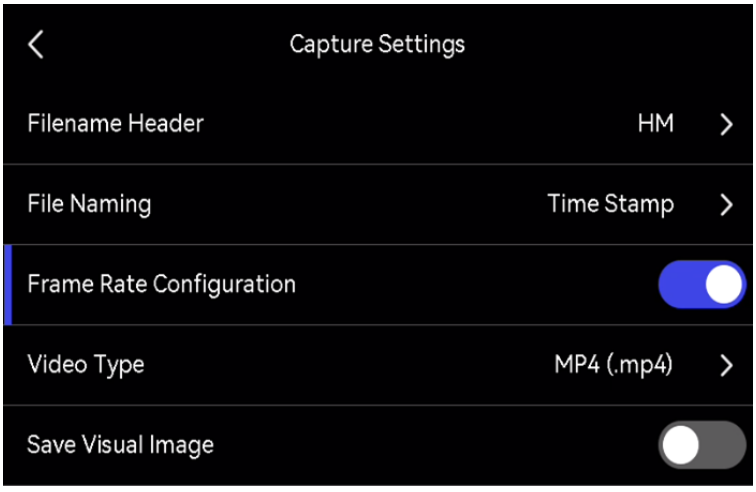
If scanning fails, follow the APP instruction to try other methods.

2.3 Customize high-frame rate videos

G Series cameras of V5.5.54 allow you to customize the frame rate of videos (ranging from 1 fps to 30 fps) beforehand. The high-frame rate videos are smoother with more details for watching, especially when motion occurs, but consume more storage space.

You can follow the steps to set the video frame rate:

Step 1 Go to **Settings** > **Capture Settings** to enable **Frame Rate Configuration**.



Step 2 Go to **Settings** > **Capture Settings** > **Video Type** to select **Frame Rate**, and scroll to set a desired value.

Step 3 Press **OK** button.

Note

When **Frame Rate Configuration** is enabled, the camera's visual channel will be turned off, and the display mode will switch to **Thermal**. Therefore, you cannot change display modes or save the corresponding visual image when capturing a snapshot.

2.4 UVC live videos via HIKMICRO Analyzer

G Series cameras of V5.5.54 provide live videos on HIKMICRO Analyzer.

Step 1 Go to **Settings** > **Connections** > **USB Cast Screen** to enable **USB Cast Screen**.

Step 2 Connect the camera with PC using the supplied USB type-C to USB type-A cable.

Step 3 Run HIKMICRO Analyzer and view the live videos.

Note

Frame Rate cannot be configured on camera when you are viewing live videos via HIKMICRO Analyzer.

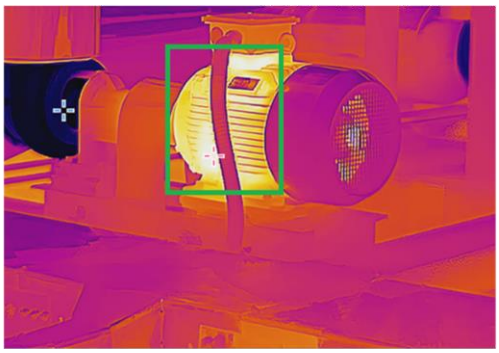
Chapter 3 Optimizations

HIKMICRO G Series handheld thermal cameras have been optimized to improve your experience.

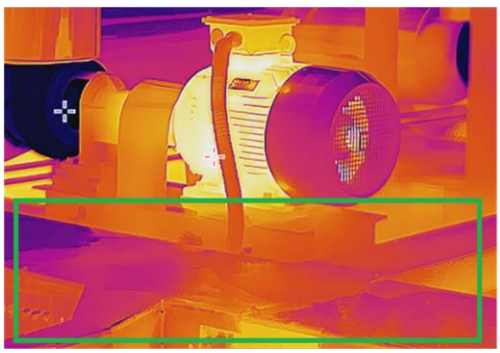
3.1 Linear or histogram color distribution in auto level & span

Linear and histogram are two color distribution modes that emphasize colors on different temperature range and target types.

- **Linear**: Linear mode is used to detect small high temperature targets in low temperature background. Linear color distribution enhances and displays more details of high temperature targets, which is good for checking small high temperature defective areas such as cable connectors.
- **Histogram**: Histogram mode is used to detect temperature distribution in large areas. Histogram color distribution enhances high temperature targets and remains some details of low temperature objects in the area, which is good for discovering small low temperature targets such as cracks.



Linear



Histogram

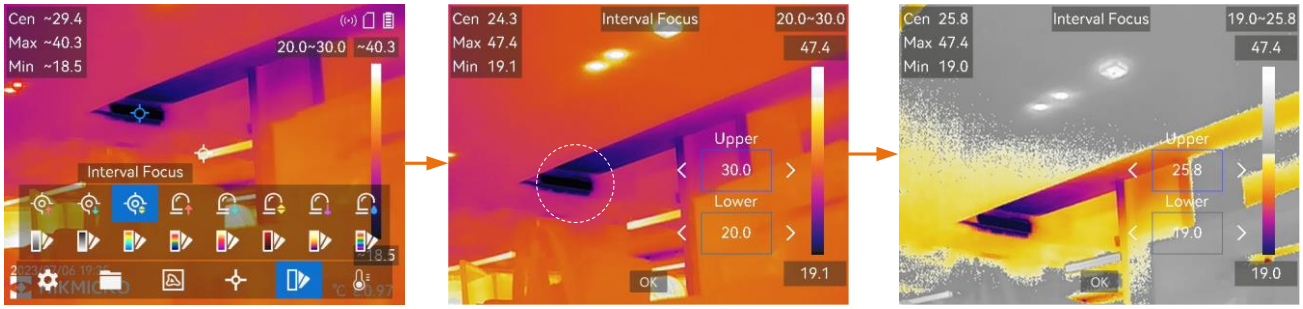
Step 1 Select **Auto** for Level & Span.

Step 2 Go to **Settings > Measurement Settings > Color Distribution** to switch modes.

3.2 One-tap temperature settings for focus mode palette

In this version, when setting focus mode palette, you can tap on an area of interest on the screen, and the camera can read and input the temperature threshold. The camera analyzes temperature of the selected area and returns a temperature range to best display its details.

To set the focus mode palette quickly, it is recommended to 1) tap on an area of interest; 2) fine-tune the upper and/or the lower temperature threshold.



Step 1 Select **Palettes** from the main menu.

Step 2 Tap the icons to select a palette type.

Step 3 Tap on the screen to select an area of interest. The camera automatically adjusts the upper and lower temperature limit of the selected scene.

Step 4 Press △ and ▽ to select between upper limit and lower limit. Press ◁ and ▷ to fine-tune the temperature.

3.3 Quick settings in manual level & span

G Series cameras of V5.5.54 allow you to change display modes and color palettes by tapping or in manual level & span settings interface.

Note

In the manual level & span interface, the visual display mode cannot be switched on, and the size and position of PIP view are not configurable.

3.4 New shortcut bar and real-time temperature range display in live view

G Series cameras of V5.5.54 offer a brand-new shortcut bar for quick settings and real-time temperature range display.

You can capture snapshots, record videos, and set temperature measurement parameters in live view via the shortcut bar. Refer to Table 3-1 for details.

You can also see the real-time temperature range on the left in live view. The display changes as you switch to different temperature ranges.

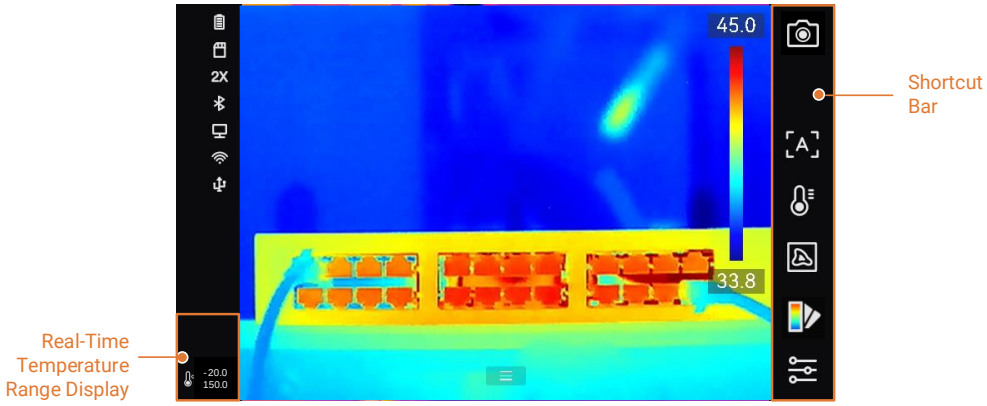


Figure 3-1 Live View of V5.5.54

Table 3-1 Description of Shortcut Functions

Icon	Description
	Tap to capture a snapshot, and hold to start recording. Tap to stop recording.
	Tap to switch focus mode.
	Tap to switch manual and auto level & span.
	Tap to switch display mode.
	Tap to switch palettes.
	Tap to set temperature measurement parameters such as humidity, emissivity, distance, and temperature.

3.5 New file naming rules

G Series cameras of V5.5.54 allow you to set the file naming rules. The files can be named after **Time Stamp** or **Numbering** (filename header + sequence number).

Go to **Settings** > **Capture Settings** > **File Naming** to set file naming.

3.6 Manually input Asset ID

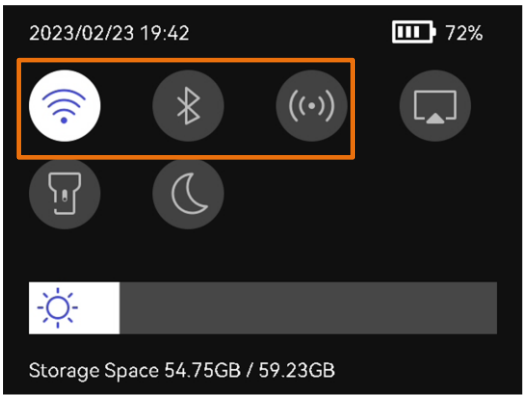
Except for scanning the asset's QR code, G Series cameras of V5.5.54 allow you to input the asset ID by typing on-screen keyboard. You can view the asset ID of the snapshot on HIKMICRO Analyzer.

3.7 Collect operation logs

G Series of V5.5.54 can collect the camera's operation logs for troubleshooting. You can turn on/off this function in **Settings** > **Device Settings** > **Save Logs**.

3.8 More optimizations

- Freezing image after capturing: The image will freeze after capturing. You can adjust the snapshot or measurement rules and parameters.
- Save Visual Image: The default visual image resolution is adjusted to 8 MP in this version.
- Swipe-down menu: Tap and hold Wi-Fi, Hotspot, and Bluetooth icon in swipe-down menu to enter corresponding configuration interface.



Chapter 4 Important Notice

4.1 Previous Versions of Firmware

With this update to Version 5.5.54, it will not be possible to reinstall previous versions of firmware. If you need assistance with the update, please contact our service center (https://www.hikmicrotech.com/en/contact-us/) and we will help you through the process.

Chapter 5 FAQ on Upgrade

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

Check the following items:

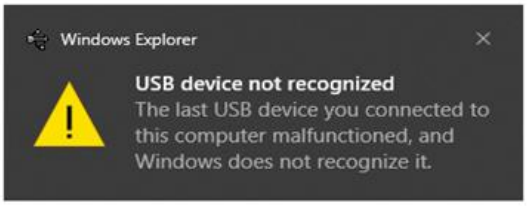
- Use a good quality type A to type C USB cable to connect your PC to your camera. The supplied cable is recommended. Normally, a cable should be able to charge a camera and transfer data.
- Keep USB Cast Screen function off.
- Keep the microSD card inserted and do not remove it during connection.
-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

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

Check the following items:

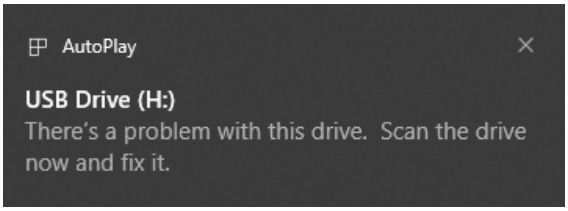
- When you are looking for an adapter of USB type C to USB type A, please choose an unpowered hub. A powered hub such as Surface Dock Station is not compatible.
- If you are using a built-in USB PowerShare port in your PC, please try another port.

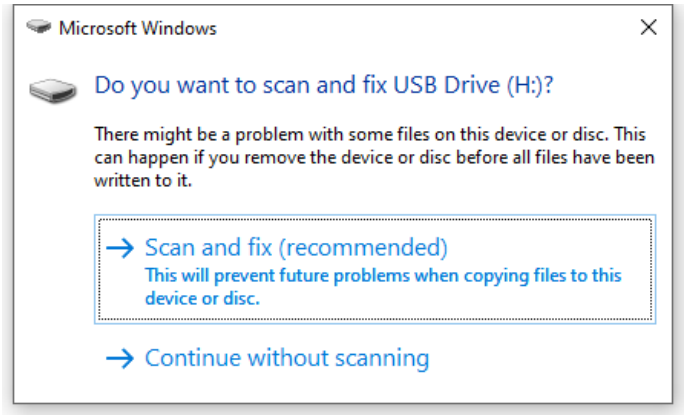
5.3 What should I do when my PC notifies USB device not recognized?



In most cases, it does not affect use. You can just ignore the prompt and find the detected USB drive in **This PC**.

5.4 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.

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