



**HIKMICRO SP Series**  
**Handheld Thermal Camera (V5.5.85)**  
**Release Notes**

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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](http://www.hikmicrotech.com) ).

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

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# 1 Introduction

The handheld Thermal cameras 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 V5.5.85 of SP series cameras.

## 1.1 Version Information


| Item             | Description              |
|------------------|--------------------------|
| Firmware Version | V5.5.85 Build 241012     |
| FPGA Version     | V1.00.30 Build 20240904  |
| Models           | SP40, SP40H, SP60, SP60H |

## 1.2 How to Update to New Version

### 1.2.1 Upgrade with PC

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.

1. Connect the device to your PC with cable.
2. Select USB Drive on the pop-up USB Mode window of the device.  will be displayed on the device status bar, and a notice for detected disk will pop up in your PC.
3. Click the disk on your PC to open it.
4. Select and copy the upgrade file, and paste it to the root directory of the device.



Make sure that the upgrade file pasted to the root directory is extracted.

5. Disconnect the device from your PC.

6. Reboot the device and then it will upgrade automatically. The upgrading process will be displayed in the main interface.



After upgrading, the device reboots automatically. You can view the current version in **Device Settings > Device Information**.

## 1.2.2 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.



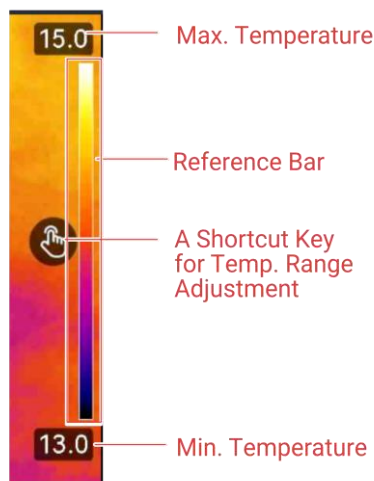
Make sure that you download and install the latest version of HIKMICRO Viewer.

# 2 New Features

## 2.1 Added Shortcut Keys for Temperature Scale

It is available to show or hide the palettes bar in live view. Tap > **Display Settings > Reference Bar**.



In Manual Level and Span mode, press on the left side of temperature scale to quickly adjust the temperature range.



## 2.2 Set Auto-Rotation

The device supports display auto-rotation where the status bar, shortcut bar and main menu shift from the horizontal direction to the vertical direction.

Switch on the auto-rotation function as follows:

- In live view, swipe down 1/3 area on the top of the screen to enter the swipe-down menu, and tap .
- Tap  > **Device Settings** > **Auto-Rotation**.



In the vertical direction, tap  in live view, and the main menu appears.

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## 2.3 Export Files via Bluetooth

It is available to export snapshots in the device **Albums** to the local album of your phone after the Bluetooth connection.



ONLY mobile phones with Android system are supported to receive images from the device via Bluetooth connection.

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1. Turn on your phone Bluetooth.
2. Turn on the device Bluetooth. Select , and go to **Connections > Bluetooth** to enable the device Bluetooth.
3. Refresh the available Bluetooth list on the device, and pair the device Bluetooth with your phone Bluetooth.



- You can also press or OK to quit pairing.
  - When pairing successfully, “Paired” is displayed on the Available Devices list of the device, and “Connected” on the phone.
- 

4. Send snapshots in the device **Albums** to your phone.

- Send only one snapshot:
    - 1) Tap the required snapshot, and enter to the detailed page.
    - 2) Tap on any part of the screen to call the menu.
    - 3) Tap > , and choose the paired phone Bluetooth.
    - 4) Tap OK to confirm the settings.
  - Send no more than 16 snapshots:
    - 5) Tap to select more than one snapshots.
    - 6) Tap to select a Bluetooth device.
    - 7) Choose the paired phone Bluetooth.
    - 8) Tap OK to confirm the settings.
- 



- Videos are NOT supported to send to the phone via Bluetooth.
  - Tap in the upper right corner to refresh the available Bluetooth list.
- 

## 2.4 Cast Screen on HIKMICRO Analyzer

The device supports casting screen to HIKMICRO Analyzer PC client. You can connect the device to your PC via a Type-C cable or by network, and cast the real-time live view of the device to your PC, and perform video recording or snapshots via Analyzer.



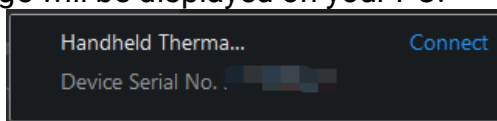
Live view function is ONLY supported in HIKMICRO Analyzer v1.7.0 and the newer versions. Please download or update to v1.7.0 and the newer versions.

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### 2.4.1 Cast Device Screen to PC via USB Cable

1. Download and open HIKMICRO Analyzer on your PC. Please visit our website [www.hikmicrotech.com](http://www.hikmicrotech.com) or contact technical support or customer service teams for installation packages.
2. Connect the device with your PC via a supplied Type-C cable.
3. Select **USB Cast Screen** on the pop-up USB Mode interface of the device.  
 will be displayed on the upper left corner on the device status bar.
4. Click **Refresh** in the Analyzer Live interface, and the reminder **New Device Detected** will appear.

- Click **Connect** in the drop-down box in the Analyzer Live interface, and the real-time image will be displayed on your PC.



## 2.4.2 Cast Device Screen to PC via Network

You can connect a thermal camera by wired or wireless network to start live view, record videos, etc.



Only one thermal camera can be connected at a time in this way.

### Prepare for Streaming

- Connect your camera and PC to the same local network in wired or wireless way. Use a software with device searching function (for example, SADP, download available in our website <https://www.hikmicrotech.com/en/support/download-center/tool/>.) to get the IP address and port of your camera.
- Get the user name and password of your camera. For camera connecting to a network in the first time, admin password should be set to activate it. You can use SADP to complete activation, see the user manual of the software for instructions.

### Start Streaming on Client

- In the top-left corner, click  > **Net** > + .
- Input **IP Address**, **Port**, **Username**, and **Password**. Click **OK**.

- Check Auto-Login to save the parameters in the client. When the client restarts, it will search for the camera and auto log in to it if it is online.
- After logging in, device model displays in the device connection area. The green dot in front of device model means logging in normally. For the meanings of dot in other colors, refer to the screen information.



- If you use a different computer account to run the client, the client will not auto log into the camera remembered by other computer accounts.

3. Click **Connect** to start streaming. Click **Disconnect** to stop live view

## 2.5 Protocol Related Updates

### 2.5.1 UVC Protocol Updates

Added new UVC protocols to support auto focus control (SP60/SP60H are supported), auto-calibration control and temperature range adjustment.

### 2.5.2 RTSP Protocol Updates



RTSP was supported to obtain real-time temperature matrix for the use of the third party applications.

## 3 Optimization

HIKMICRO SP series handheld thermal cameras have been optimized to improve your experience.

### 3.1 Added QR Code Note When Editing Images

This version added the QR code note when editing images.

1. Tap  and aim at the target to automatically add a new Asset ID, or change the existed Asset ID.
2. **Optional:** Press OK button or tap any part in the QR code frame to input the Asset ID.
3. Press  to save the settings.



### 3.2 Others

- **Drop-Down Menu:** Swipe down the 1/3 area on the top of the screen to call the menu.
- **File Details:** When editing images, you can browse the last modified time of the image.
- **Level & Span:**
  - There are **Level Only** and **Level or Span** modes are selectable. Level and Span mode was renamed Level or Span.
  - In **Manual** mode, the interface for setting parameters is optimized.
- **F1/F2 Programmable Buttons:** Auto focus, taking snapshots and level & span switching are available in this version.
- **Device Information:** 21-digit serial number for the camera lens is available (ONLY SP60/60H are supported).

## 4 FAQ on Upgrade

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

Check the following items:

- Use the supplied 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 SD card inserted and do not remove it during connection.
- Keep the camera powered on.

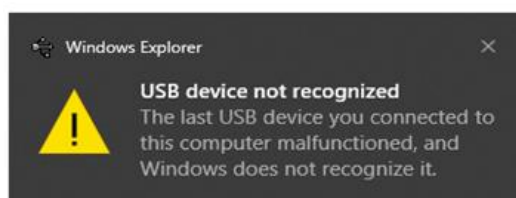
### 4.2 What should I do when my PC notifies power surge on the USB port?



Check the following items:

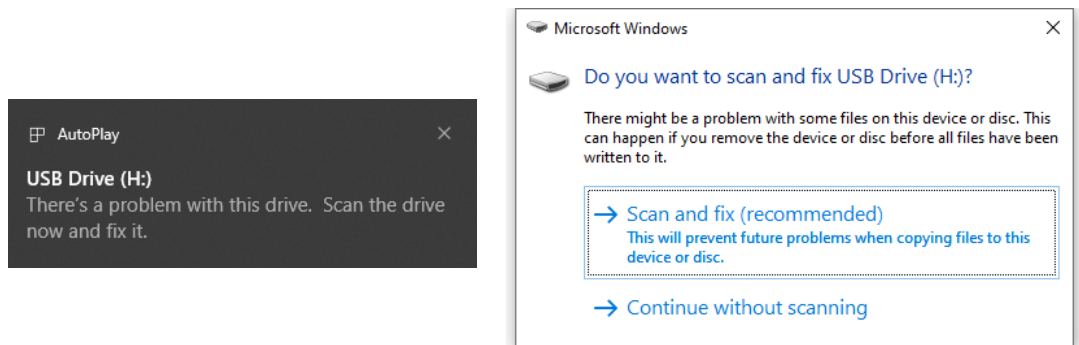
- When you are looking for an adapter of the supplied USB cable, please choose an unpowered hub. A powered hub such as Surface Dock Station is not compatible.
- If you are using a built-in USB PowerShare port in your PC, please try another port.

### 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**.

## 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.



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