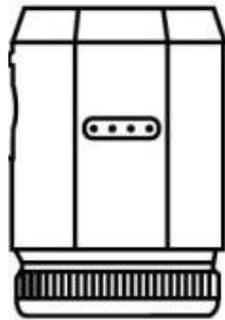




ShortCam Mini User Guide



Model: LC-AS21 Mini

Manufacturer: Shenzhen Launch Digital Technology Co.,Ltd

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1、Product Overview and Features

1.1. Product Overview

ShortCam Mini is a single-light infrared thermal imaging inspection tool for cell phone motherboard repair, can quickly locate the PCBA short circuit, leakage of faulty components, can efficiently solve the traditional leakage detection methods with low efficiency, operational difficulties and other issues.

1.2. Product Features

- High-definition thermal imaging, details are more clear, support one-key speed check function, fast and accurate positioning of high-temperature device location;
- Infrared camera is removable, can be mounted on the microscope through a special bracket, simple operation, multi-purpose;
- Bracket can be flexibly telescoped to adjust the height, easy to store, comprehensively enhance the user experience, to meet the needs of different scenarios.

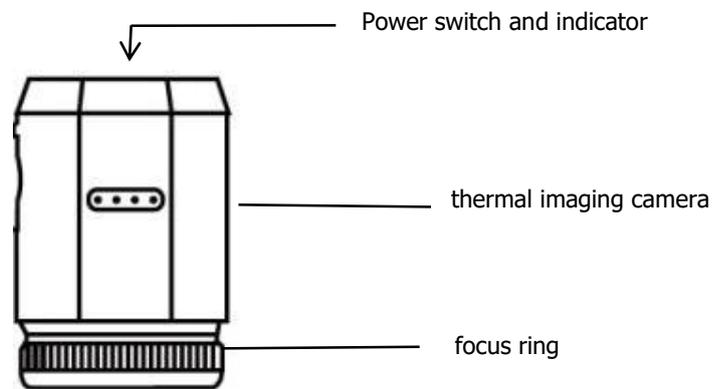
Product Specifications

Specifications of Infrared Thermal Imaging Camera		ShortCam Mini
Detector type	Uncooled VOx detector	
Resolution	256*192	
Wavelength range	7.5~13.5 um	
FOV	25°*18°	
Temperature Measurement Range	-20°C~550°C	
Temperature Measurement Distance	5cm~25cm	
Temperature Measurement Accuracy	±5°C or ±5% (take maximum)	
Interface and Display Functions		
Display mode	Whitehot/Hotmetal/Rainbow	
Connection Methods	Type-C USB2.0	
Image Storage Formats	JPG	
Physical property		
Product Size/Weight	47.5*34*31mm/36.1g	
Installation	Plug and play, no installation required	
Input supply voltage	5V DC	
Power wastage	2.5W	
Storage temperature range	-20°C~60°C	
Working environment	3°C~45°C, 95% relative humidity	

2、Equipment Instructions

- 1, Unpack the ShortCam Mini, and count the components according to the packing list (the components mainly include the host device and stand&cable);
- 2, Use the Type-C cable to connect the computer and ShortCam Mini, the blue light of the power indicator flashes, the indicator stabilizes to a constant state in about 25s, and the image can be displayed normally on the ShortCam Mini software.
- 3, According to the different heights, you can turn the focus ring for clarity adjustment, if you need to use with a microscope, you can directly remove the thermal imaging camera from the stand, use the Type-C cable power supply can be used on the microscope.

The product schematic is as follows:



3、 Software Installation and Functional Interface Description

3.1 PC client operating environment requirements:

ShortCam Mini software has certain requirements for computer configuration, ShortCam Mini client software can run smoothly if the following requirements are met

Computer CPU processor: I3 5th generation or above.

Memory size: 8G and above

Operating system: Windows 7/Windows 10/Windows 11

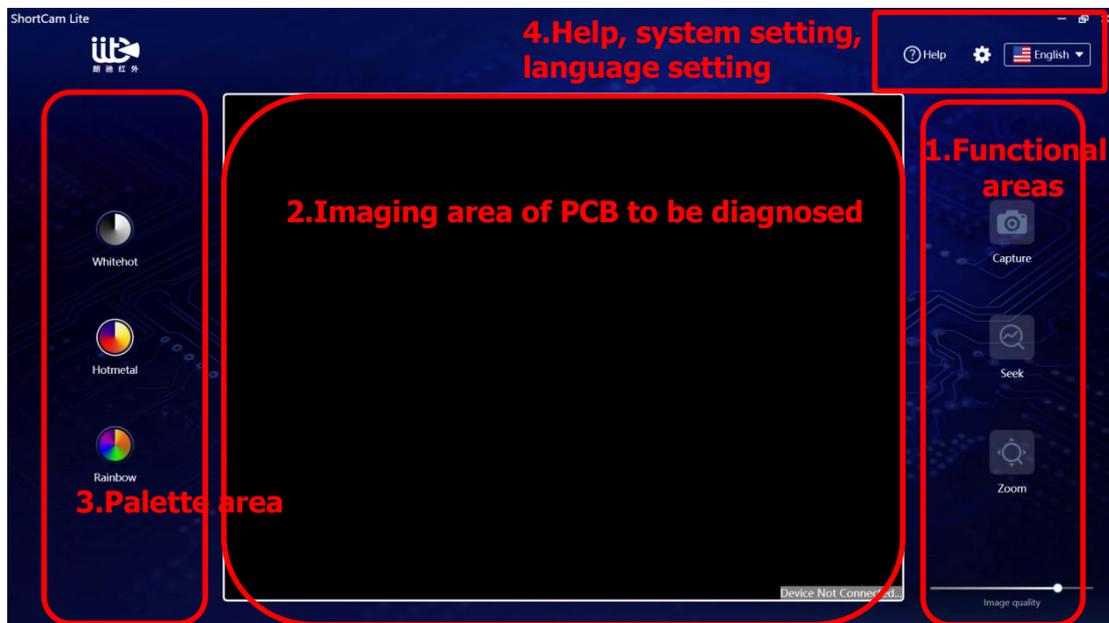
3.2 PC client download and installation

1. The PC client software can be downloaded by opening the official website of Lancel (<http://www.launchdigital.net/>), clicking "Service and Support" -> "Download Center", and then selecting Click "Service & Support"->"Download Center" and select "ShortCam Mini PC Client Software" to download;

2, Decompression of the installation package, the implementation of ShortCam Mini client installation software, according to the prompts in turn click on the next step, after the installation is complete can be used normally;

3.3 PC client function interface description

Client software installation is complete, double-click the desktop shortcut  can be opened, the overall interface of the software in accordance with the functional areas are divided into four areas, the overall interface and functional menu layout area is shown below:



(1) Functional areas

[Snapshot] Click the client software button , you can snap a picture of the current inspection of the motherboard, retaining the maintenance data for future maintenance reference use, you can use the shortcut key C, the captured photos are saved in C:\ShortCam Mini\Record by default.

[Quick Check] Click on the client software button , the image is automatically switched to white hot mode, and the screen will be the highest temperature location display highlights yellow, quickly locate the location of the motherboard heat, you can also manually adjust the temperature width, screening out the area of the highest temperature.

[Enlargement] Client software  button, and then long press the left mouse button to frame the infrared real-time screen, you can realize the local zoom observation of the heating components to meet the maintenance details processing.

[Image Effect] Drag the temperature width bar to display the image effect corresponding to the temperature width range as desired.

(2) Imaging area of PCB to be diagnosed

The PCB motherboard to be repaired will be powered on and placed in the center of the image (if there is a screen cover to remove the screen cover), you can view the image of the PCB board to be diagnosed in this area, if the screen has more than one high-temperature area, you can pull the vertical temperature width bar on the left side of the area to screen out the area with the highest temperature.

(3) Palette area

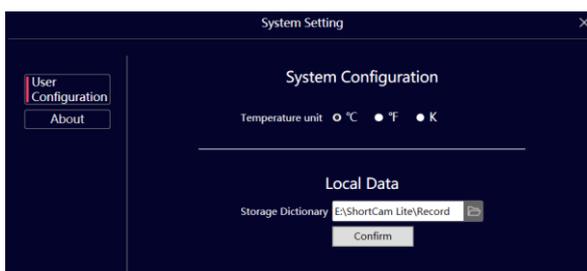
There are three color palettes to choose from in the palette area, and you can select White Hot, Iron Red, and Rainbow palette modes according to your usage habits.

(4) Help, system setting, language setting

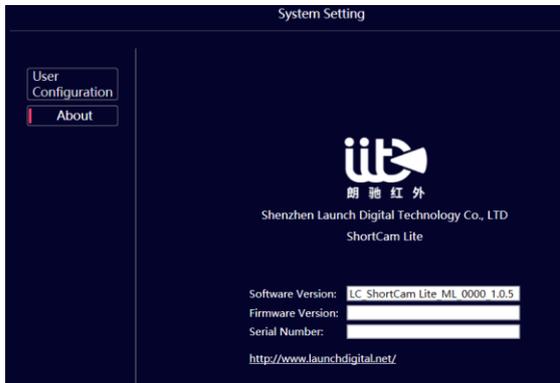
【Help】

Click this button to read the help of common problems of device use, such as how to deal with the device not connected. If you have any other technical advice, you can contact the after-sales customer service hotline to deal with it.

【system setting】



The user configuration field of the system settings allows you to switch the temperature unit, and you can select Celsius (°C), Fahrenheit (°F), and Kelvin (K), respectively, and you can set the location of the data storage, as well as set the data retention size.



The user field of the system settings allows you to check the software version and firmware version, and you can visit the official website of Lancaster to check for software version updates.

【language setting】



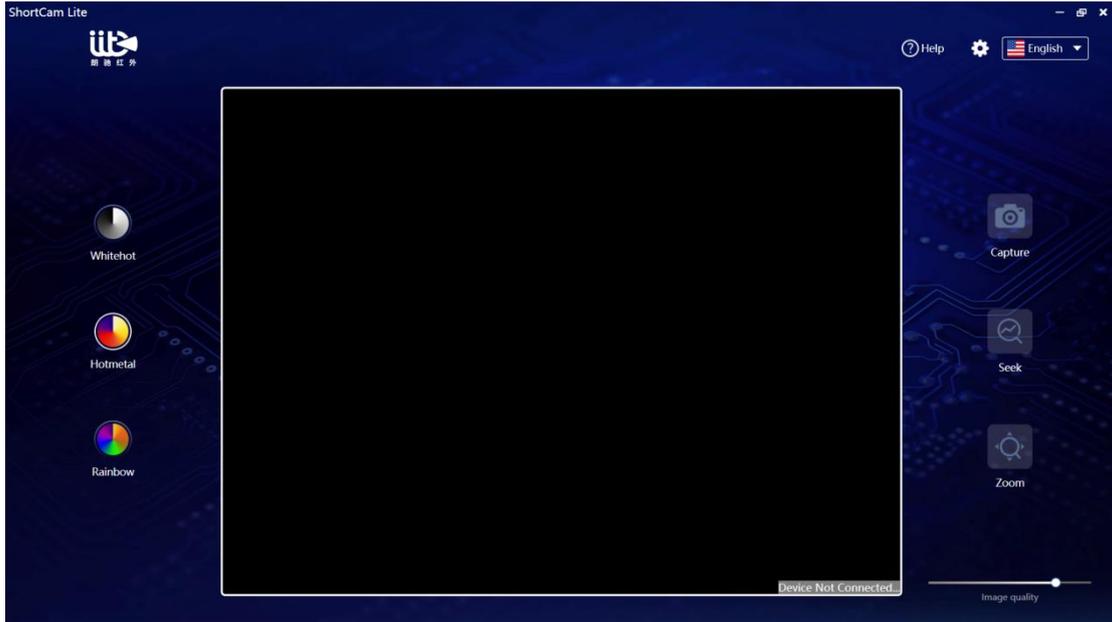
Click on the Language Settings drop-down window, it shows that you can choose "Simplified Chinese", "English (English)", "Español (Spanish)".

4、PCB Diagnostics Detailed Operating Instructions

After the whole machine is connected to the computer and the software is installed normally according to the above steps, you can start the normal use of PCB diagnostic function. The specific operation steps are as follows:

- (1) Power on the ShortCam Mini device and operate the device through the ShortCam Mini client.
- (2) Click on the software interface of the "quick check" button, the screen that is positioned out of the problem motherboard high temperature region.
- (3) Use the mouse to drag the right side of the temperature width bar, you can screen out the failure point.

Normal diagnostic imaging screen is as follows:



5、 Packing List

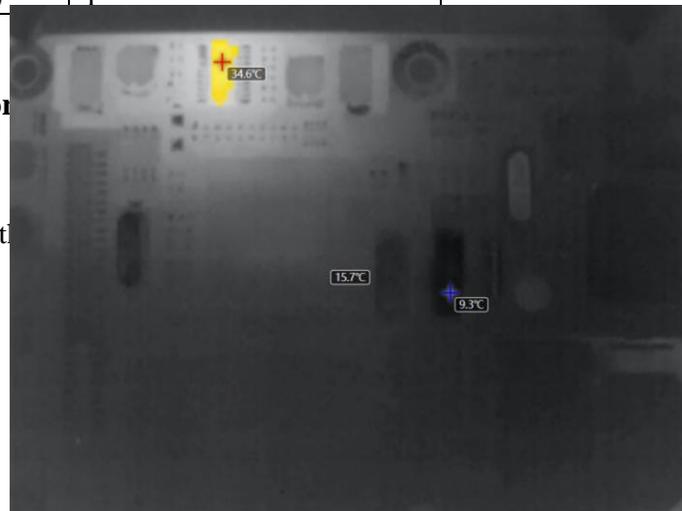
Number	Name	Quantities
1	infrared camera	1
2	Bracket & data cable integrated	1
3	Warranty card	1
4	Certificate of Conformity (CoC)	1

6、 Product Version Upgrade & Technical Support

Tel: 4001-386-389 turn 2

Please get the latest software and firmware version from the

<http://www.launchdigital.net/>



7、FCC warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.