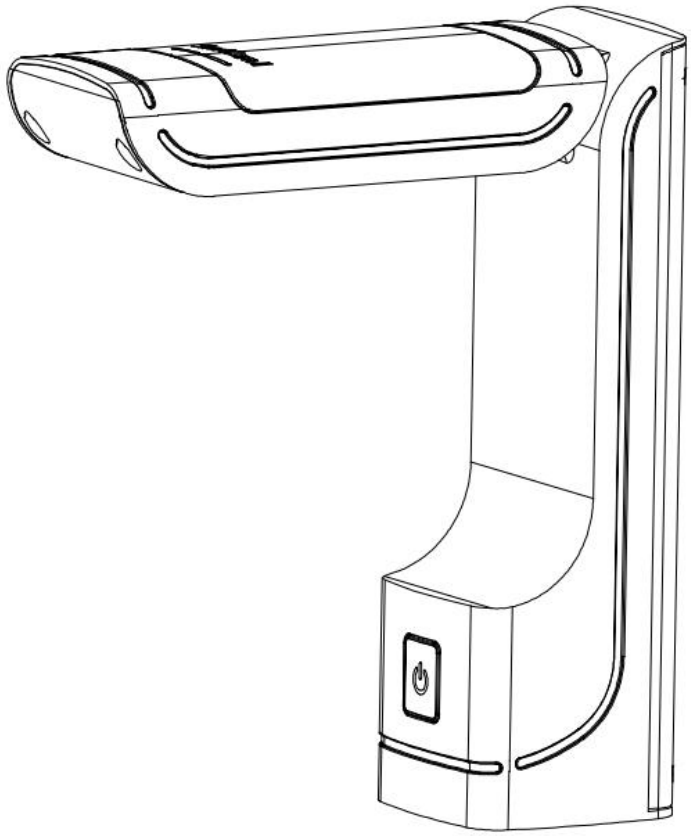
朗 驰 红 外

User Guide for ShortCam II



Shenzhen Launch Digital Technology Co., Ltd

Model: LC-AD15

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Leading Smart Infrared Solutions Provider

一、 Product Overview and Features

(1) Product Overview

ShortCam II is the industry's innovative infrared thermal imaging folding rapid diagnosis instrument for motherboard maintenance. It has a 256*192 high-definition thermal imaging sensor and a 4MP high-definition visual camera. It is equipped with a Type-C interface, plug-and-play with the software installed, making the operation more convenient. Through the intelligent dual-spectral positioning algorithm, it can display the temperature data of the detected motherboard chips, resistors, capacitors and other components in real time on the software interface, and diagnose the operating status of the motherboard through the temperature data.

The software can realize “One-click quick check” of current leakage, and locate the fault in PCB promptly. By comparison and analysis of normal and faulty PCB, the software can quickly find out where the problem is, and realize a great efficiency improvement to PCB maintenance service.

(2) Product Features

- The industry's innovative "One-click quick check" function, and instant fault locating to greatly reduce clients′ waiting time and improve your store operating efficiency;
- Accurate fault screening to professionally eliminate minor current leakage and short circuit faults, and greatly reduce the probability of fault misjudgment;
- Plug-and-play environment-friendly process instead of using the traditional rosin screening means, the influence of lead and other toxic compounds on personal health will no longer exist;
- Simplified cleaning process and no rosin, so no PCB cleaning needed after maintenance.

(3) Product Specifications

Specifications of Infrared Thermal Imaging Camera	
Detector Type	Uncooled VOx detector
Resolution	256*192
Wavelength range	7.5~13.5 um
FOV	25°*18°
Specifications of Visual Camera	
Resolution	2568*1448
Interface & Display Function	
Display mode	Vision/Thermal Imagery/Quick Check
Connection method	Type-C
Image storage format	JPG
Video storage format	MP4
Physical Properties	
Dimension	48mm*48mm*154mm

Weight	0.45kg
Installation	Plug and play, no assembly required
Power Supply	
Input voltage	5V DC
Power consumption	2.5W
Operating Conditions	
Storage temperature range	-20℃~60℃
Operating temperature range	3℃~45℃
Humidity	95% (relative humidity)
Temperature Measurement Performance	
Temperature Measurement Function	Global temperature measurement/ Frame temperature measurement
Temperature Measurement Distance	13cm
Temperature Measurement Accuracy	±5℃ or ±5%(whichever is greater)
Temperature Measurement Range	-20℃~550℃

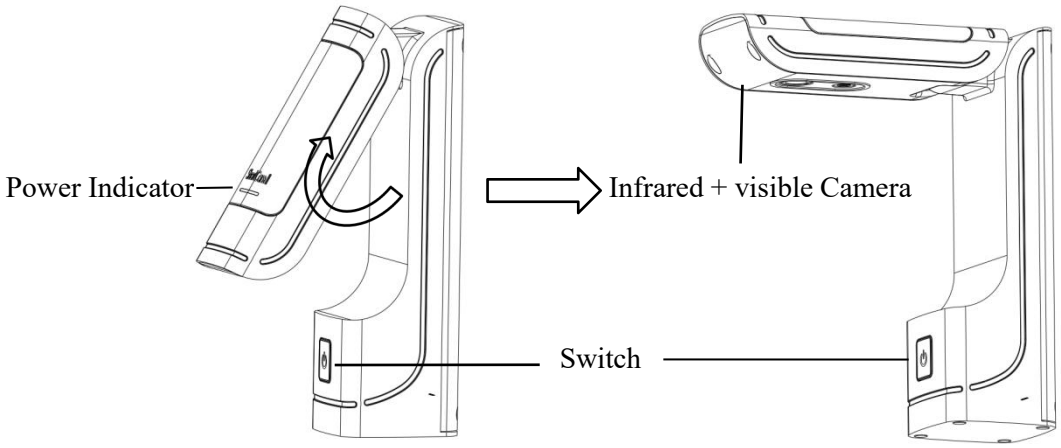
二、Equipment Instructions

1. Unpack the ShortCam II and check the components according to the packing list(The components in the packing list are the device and the Type-C cable).

2. Assemble the device according to the product composition diagram, and open the ShortCam II main unit upwards.

3. Use the Type-C data cable to connect the computer and the ShortCam II, the power indicator turns on red, the power indicator turns from red to blue in 11s, and the image can be displayed normally on the ShrotCam II software in about 15s.

Product is composed of the following:



三、ShortCam II Installation and Function Interface

Required PC environment for the software running:

The following requirements shall be met to run the software smoothly.

CPU: Intel ® I3 7th or above

RAM: 8G or more

OS: Windows 7/Windows 10

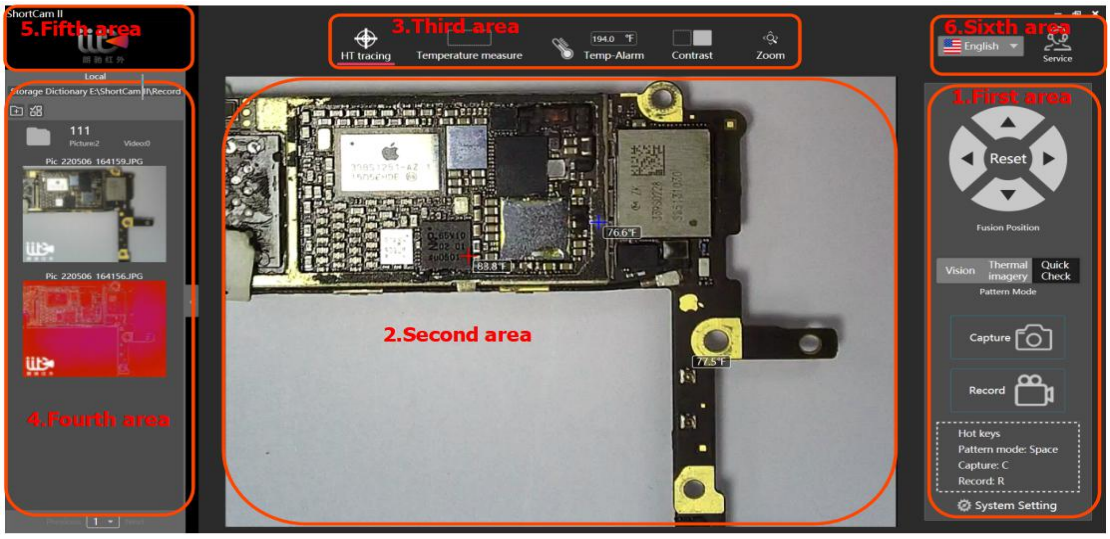
Software Installation and Function Interface

1. The software is available at http://www.launchdigital.net/, by clicking on Service and Support > Download Center, and then choosing "LC_ShortCam II".

2. After unzip the installation package, execute the installation software of the ShortCam II, and click the next step according to the prompts. After the installation is completed, it can be used normally.

3. After the installation, double-click the desktop shortcut 

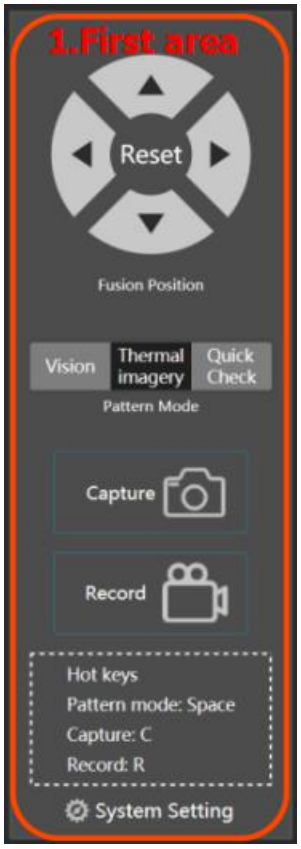
to run it. The whole interface is composed of six function areas, as shown below.



Area	Software area description
1.First area	System parameter configuration and main function menu area
2.Second area	PCB imaging and display mode adjustment area
3.Third area	Optional diagnostic mode function menu area
4.Fourth area	Media Library
5.Fifth area	System software name and company Logo area
6.Sixth area	Language setting and customer service assistance area

Software function areas and menu:

(1) System parameter configuration and main function menu area



[Reset] This menu item is presented in the software interface as a circular adjustment knob. The visual image offset position of the detected PCB can be adjusted by pressing the four buttons on the knob - Up, Down, Left, and Right. Click the "Reset" button in the center to reset the visual image offset position.

[Display Mode] The image display modes of "Vision", "Thermal Imagery", and "Quick Check" can be selected respectively through the computer hot key Space or the left mouse button, and the temperature width can be manually adjusted in quick check modes to screen out the highest temperature in the area.

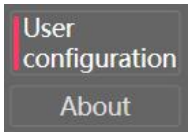
[Snapshot] Click the 

button in the software to take a snapshot of the current PCB tested for future reference, or by using hot key **C**.

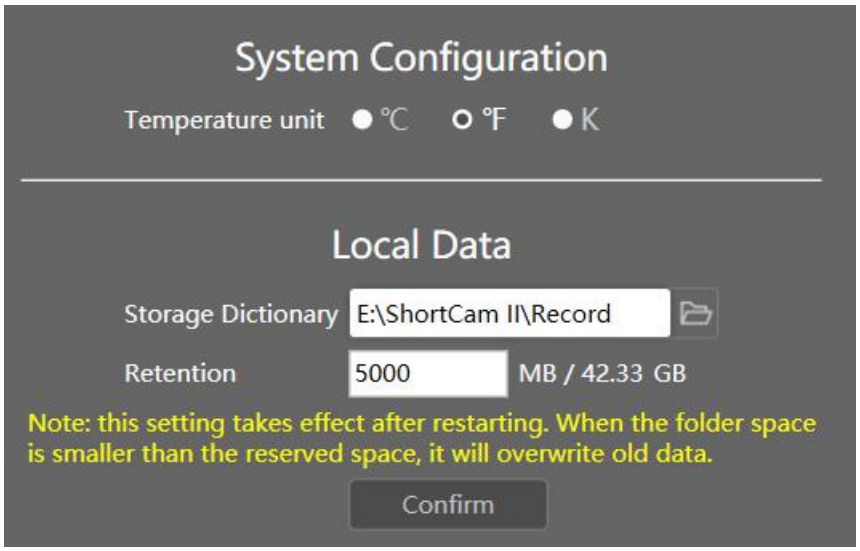
[Video recording] Click the 

button in the software to record a video of the current PCB tested for future reference, or by using hot key **R**.

[System Settings] The system settings menu contains two directory items, "User Configuration" and "About", as shown in the figure below:

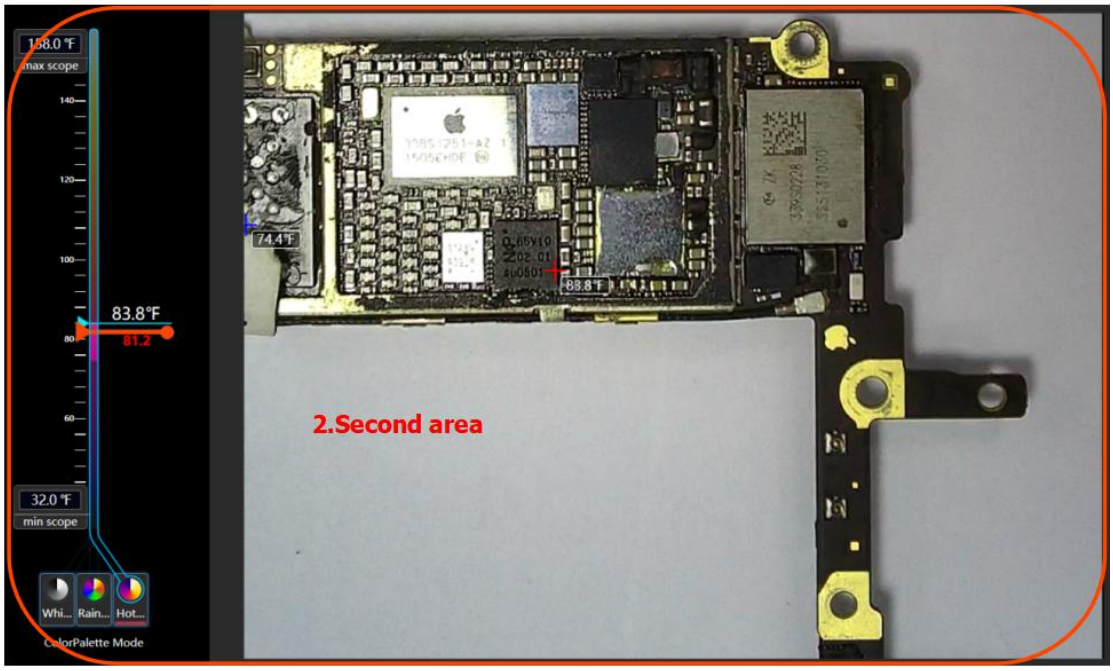


User configuration The temperature unit can be switched, Celsius (°C), Fahrenheit (°F), and Kelvin (K) can be selected respectively, the location of data storage can be set, and the data retention size can be set. The configuration interface is shown in the figure below.



About Can view the company logo, company name, product name, software version, firmware version and Launch Digital official website address, the interface is shown below.

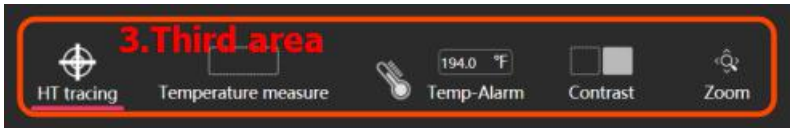
(2) PCB imaging and display mode adjustment area



Place the faulty PCB to be repaired on the test bench (the screen cover needs to be removed, if applicable). The image of the PCB can be viewed in this area. If there are a number of high-temperature areas in the picture, you can pull the vertical temperature width bar at the left of this area to screen out the highest temperature in the area.

[Thermal Imaging Display Mode] By selecting the **"Thermal Imaging Display Mode"** at the bottom of the vertical temperature width bar, you can change false colors in the infrared picture display, for which three colors are available - hot white, rainbow and iron red.

(3) Optional diagnostic mode function menu area



[High/Low Temperature Tracking] Click this button to track the high and low temperature points in the infrared image with the cursor in real time, and the temperature measurement value will be displayed near the cursor in real time.

[Framed Area Temperature Measuring] Click this button to select the target area for temperature measurement in "Real-time Diagnosis" or the "Real-time Sample" frame area for temperature measurement in "Contrast Analysis", synchronize the position of the frame area to "Contrast Sample", and display the maximum temperature value of the area in "Contrast Sample".

[High Temperature Alarm] The temperature setting window of this button can preset the high temperature alarm threshold. Click this button to enable the high temperature alarm function. When the highest temperature on the screen of the diagnosed PCB board exceeds the preset alarm maximum temperature value, the client software will sound a prompt. Alarm,

the frame of the screen flashes red, after confirmation, manually click the **[High Temperature Alarm]** button to cancel.

[Sample Comparison] Click this button to enable the sample comparison and detection function. By calling the normal sample pictures in the media library and comparing with the PCB diagnosed currently, the troubleshooting time will be shrunk, the fault will be accurately located and the probability of fault misjudgment will be minimized.

[Zoom] Click this button, and then long press the left mouse button to select the visible light or infrared picture in the picture, which can realize the partial magnification observation of the heating components to meet the maintenance details.

(4) Media Library

[Local Library] The user can save the snapshot and video files in this path during inspection and diagnosis. Click the * button to create a new folder to store the snapshot pictures or video files. Right-click the picture and choose to add it to the new folder, or Perform sample comparison; click * to select in batches to move the captured pictures or video files to the new folder.

(5) System software Name and company logo area

It contains system software name and company logo and name.

(6) Language setting and customer service

[Language Setting]

Click the Language Settings drop-down box to choose a language from "Simplified Chinese", "English" and "Espanol" as you like.

[Customer Service]

User can click this button to connect to customer service for help in either of two ways:：

1. Directly scan the WeChat QR code to add customer service and after-sales service WeChat.

2. Customer call for emergency assistance at: 4001-386-389 turn 2.

四、Instructions for PCB Diagnosis Operations

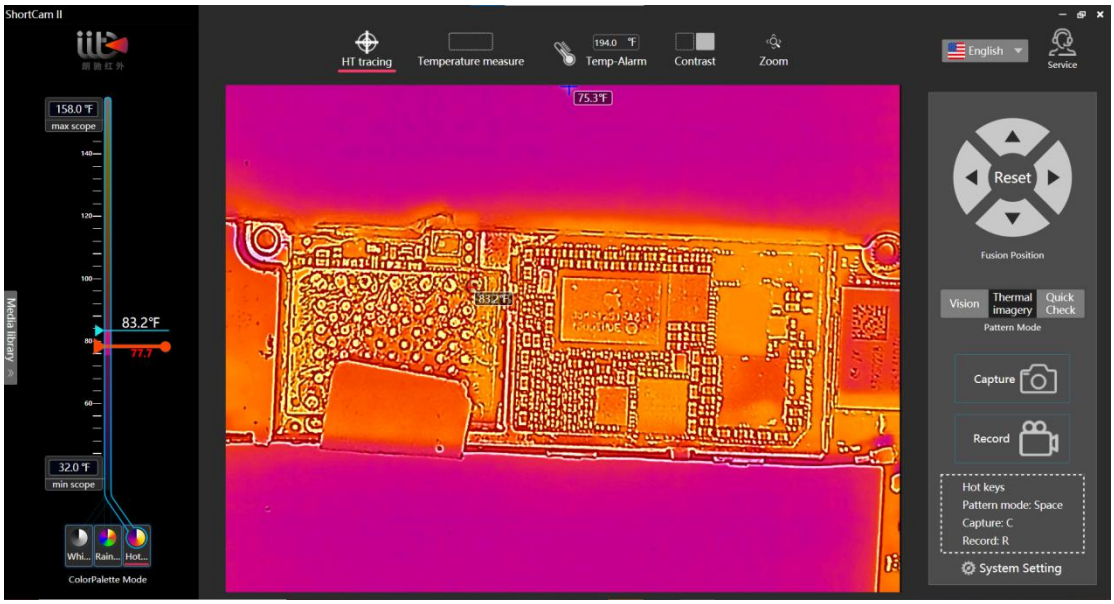
After completing equipment assembly, network connection and software installation properly in accordance with the procedure above, user can perform PCB diagnosis, as shown below.

（1）Switch on the ShortCam II, and operate the equipment through the PC software.

（2）Click the "Quick check" button on the software interface, and the screen will locate the high temperature area on the PCB.

（3）Drag the temperature width bar at the left side with mouse to locate the fault.

A normal diagnosis image is shown below.



五、Packing List

SN	Name	Quantity
1	Device	1
2	Type-C data cable	1
3	Warranty Card	1
4	Certificate of quality	1

六、Product Upgrade and Technical Support

Contact number: 4001-386-389 turn 2

Software and firmware version upgrades are available at: http://www.launchdigital.net/

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