Pocket Thermal Camera
Quick Start Guide

IRay Technology Co., Ltd.

Cautions

- External Power Operation: DC 5V.
- Do not exceed the maximum angle of 90° when rotating the lens to avoid damage to the camera.
- Please do not make the objects fall onto the camera or vibrate the camera violently, and keep the camera far away from magnetic applications.
- In order to avoid damage to lens or detector, do not aim the lens to the strong heat light sources, such as the sun.
- Please do not use the camera under the environment of extremely cold or hot, high humidity or dusty atmosphere; The recommended working temperature is -10℃~+50℃.
- The camera should be placed in dry environment without corrosive gas and avoid direct sunlight.
- Please keep all packaging materials, so you can send the camera to the agent or the manufacturer with the original packaging in case it can not work normally.
- If the camera can not work properly, please contact the agent or after-sales services. Do not disassemble or modify the camera. The company does not undertake any responsibility for problems caused by unauthorized modification or maintenance.
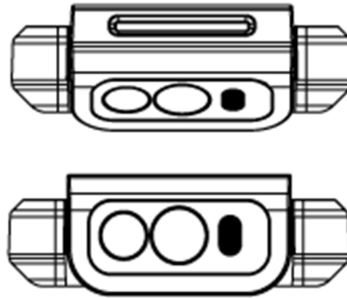
1. Camera Appearance
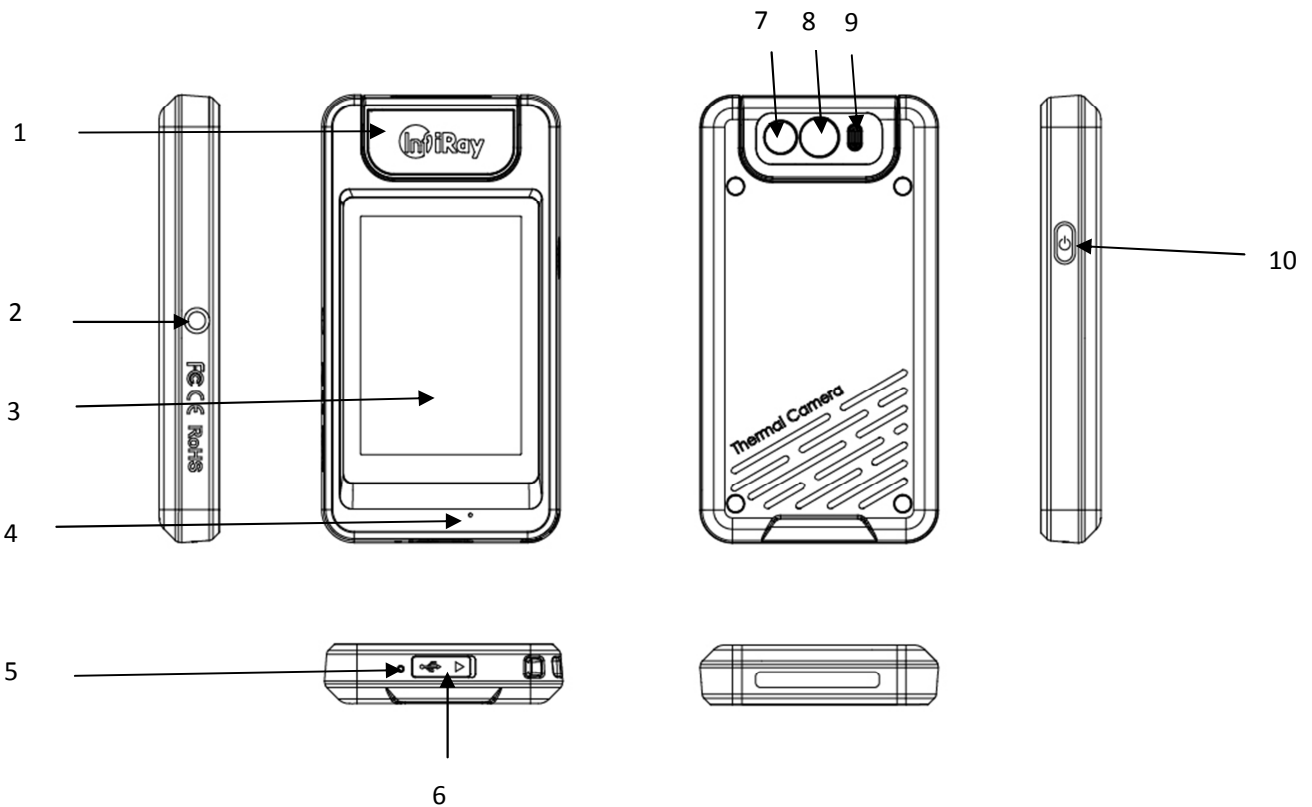
1. Lens rotation module
2. Tripod mount
3. Touch screen
4. Microphone
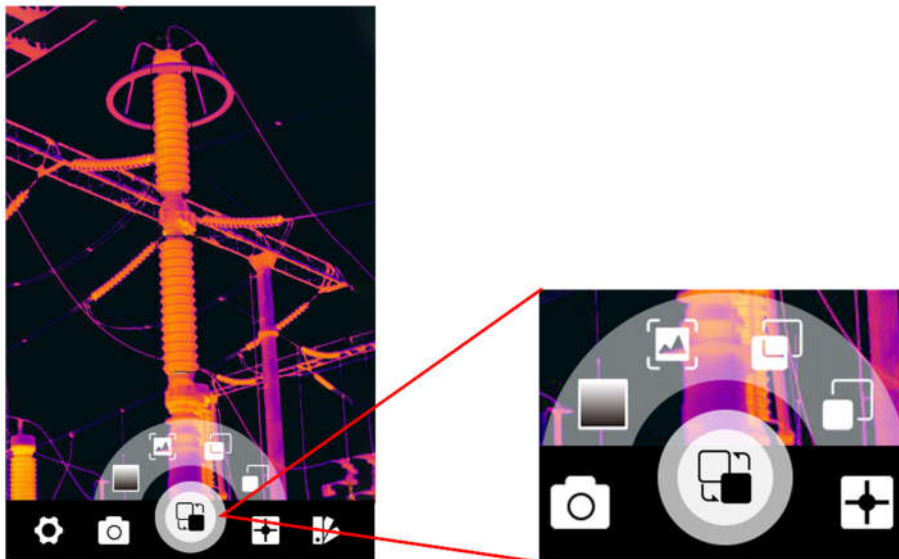5. Power indicator
6. USB-C connector

7. Digital camera

8. Infrared lens

9. LED lights

10. On/off button

11. Lanyard attachment point

2. Lens Rotation

The lens module can be rotated at angles of 0°, 30°, 60° and 90°.

3. Main Interface

The picture on the left shows the main interface, and the lower part is the main menu. There are 5 icon buttons, which can be selected by sliding left or right or click to enter the secondary fan-shaped menu; The picture on the right shows the fan-shaped secondary menu, containing 3-7 icon buttons. 4 icon buttons are displayed by default, and other icons can be displayed by sliding the secondary menu clockwise or counterclockwise on the touch screen.

4. Basic Operations

4.1 Switching and Charging

Long press the power button to turn on or turn off the camera, and short press the button to turn on/off the screen display.

The camera can be charged by USB cable no matter it is turned on or off. The light at the bottom will light up during charging. Red indicates not fully charged, and green indicates fully charged.

4.2 Measuring Mode

On the main interface, tap the icon button ⊞ on the main menu bar to enter the secondary fan-shaped menu, which contains six icons, and four are displayed by default. The remaining icons can be displayed by sliding the secondary fan-shaped menu clockwise or counterclockwise. Six measurement modes can be set: center spot, highest temperature, lowest temperature, spot, line and region. Click anywhere on the screen to hide and exit the menu.

4.3 Image Mode

On the main interface, tap the icon button ⊡ on the main menu bar to enter the secondary fan-shaped menu which contains four icons. Four image modes can be set: thermal, fusion, PIP and visible. Click anywhere on the screen to hide and exit the menu.

4.4 Image Capturing and Image Viewing

On the main interface, tap the icon button ◉ on the main menu bar to captue image or enter the secondary fan-shaped menu, which contains four icons: capturing images, entering the gallery, turning on/off the fill light and performing shutter correction. Click anywhere on the screen to hide and exit the menu.

4.5 Palettes

On the main interface, tap the icon button 🎨 on the main menu bar to enter the secondary fan-shaped menu, which contains seven icons, and four are displayed by default. The remaining icons can be displayed by sliding the secondary fan-shaped menu clockwise or counterclockwise. Seven palettes can be selected: blackhot, whitehot, iron red, lava, rainbow, rainbow HC, black red. Click anywhere on the screen to hide and exit the menu.

4.6 Other Settings

On the main interface, tap the icon button ⚙ on the main menu bar to enter other settings. Eight setting items are included: measuring parameters, measuring mode, below/above alarm, Wi-Fi, image capturing, auto power-off, screen rotation, and system settings. You can select and set the relevant setting options through the touch screen. Click the icon ‹ in the top left corner to return to the main interface after setting.

The system settings include nine secondary settings: device information, date and time, language, unit settings, screen brightness, formatting the SD card, USB mode, restoring factory default, and upgrading software. After setting, click the icon ‹ in the top left corner to return to the first-level interface.

FCC Caution.

§ 15.19 Labeling requirements.

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.

§ 15.21 Information to user.

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

§ 15.105 Information to the user.

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.

SAR Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of **1.0 cm** must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

Appendix: Emissivity of Common Materials

Material	Emissivity
Human Skin	0.98
Printed Circuit Board	0.91
Cement Concrete	0.92
Ceramics	0.92
Rubber	0.95
Wood	0.90
Pitch	0.96
Brick	0.93
Sand	0.90
Soil	0.92
Cardboard	0.90
White Sticky Membrane Paper	0.93
Water	0.96
Snow	0.85
Marble	0.94
Polished Glass	0.94
AAO	0.55
Oxidized Iron	0.64
Oxidized Steel	0.79
Oxidized Stainless Steel	0.85

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