T256
CAMERA

Руководство по эксплуатации

Catalog

Catalog

1、Product Features

- Using a detector with a resolution of 256x192
- Android smart operating system
- Qualcomm 8-core processor, stronger processing power and lower power consumption
- Ultra-long use time and large-capacity storage space, intuitive and fast temperature test function, small and beautiful appearance

2、Notes

■ **Avoid injury to eyes.**

Do not point the laser pointer at the eyes of people or animals. The laser light emitted by the laser pointer may cause damage to the eyesight.

■ **Do not use alcohol, benzene, thinner or gaseous organic solvent to clean the camera case, otherwise it may damage the camera case.**

Please refer to the "Maintenance" chapter.

■ **Avoid damaging the camera's detectors.**

Do not point the camera directly at the sun or other strong heat sources exceeding 1500 degrees Celsius, otherwise, the detector of the camera may be damaged.

■ **Avoid problems caused by condensation.**

Taking the camera from high temperature to low temperature, or from low temperature to high temperature, may cause condensation (water droplets) on the casing and inside of the machine.

In this case, you can put the camera in the attached carrying case, let the camera gradually adjust to the ambient temperature before use, and then take the camera out for operation.
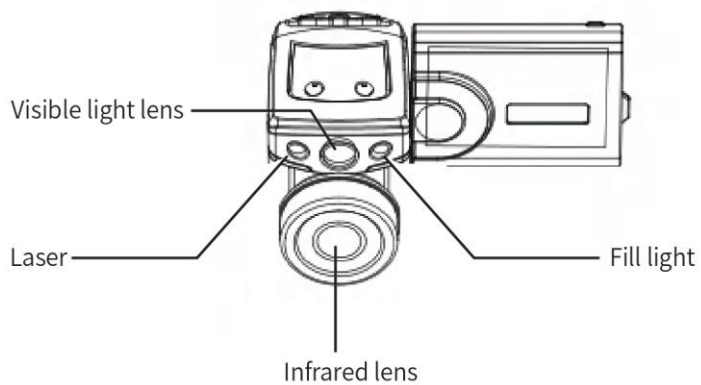
■ **If condensation has formed inside the camera.**

If condensation has occurred, please turn off the device immediately, otherwise it may damage the device. After turning off the camera, wait until the condensation has completely disappeared before proceeding.

■ **Long term storage.**

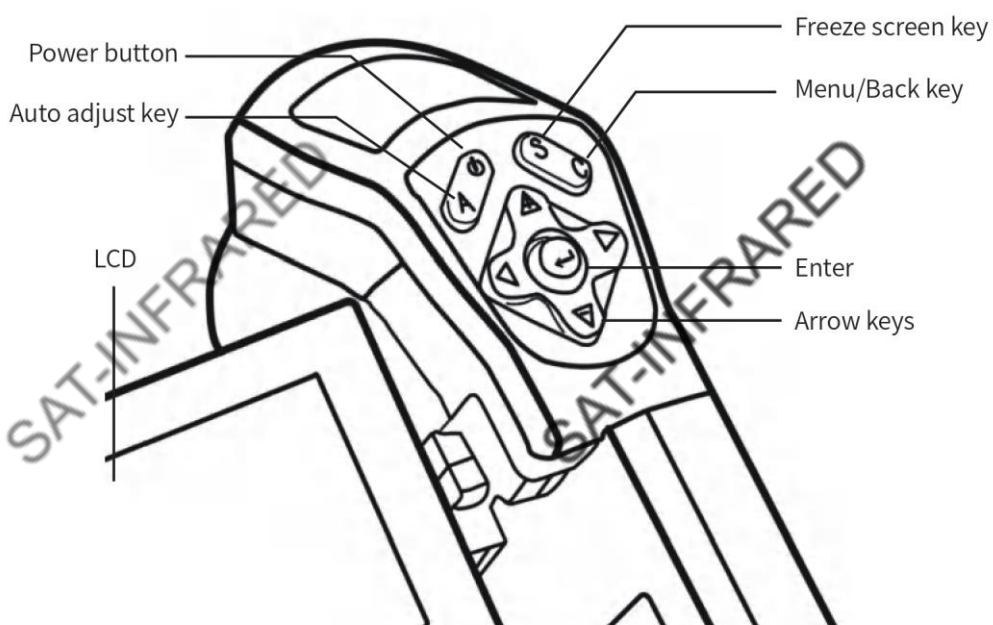If the camera is not going to be used for a long time, place the camera in a cool, dry environment.

3.1 Lens part

Visible light lens

Laser

Fill light

Infrared lens

3.2 Key part

Freeze screen key

Power button

Menu/Back key

Auto adjust key

LCD

Enter

Arrow keys

3.3 Bottom part

Battery compartment

Battery clip

Memory card

HDMI video output cable

Type-C Charging Cable

Power supply
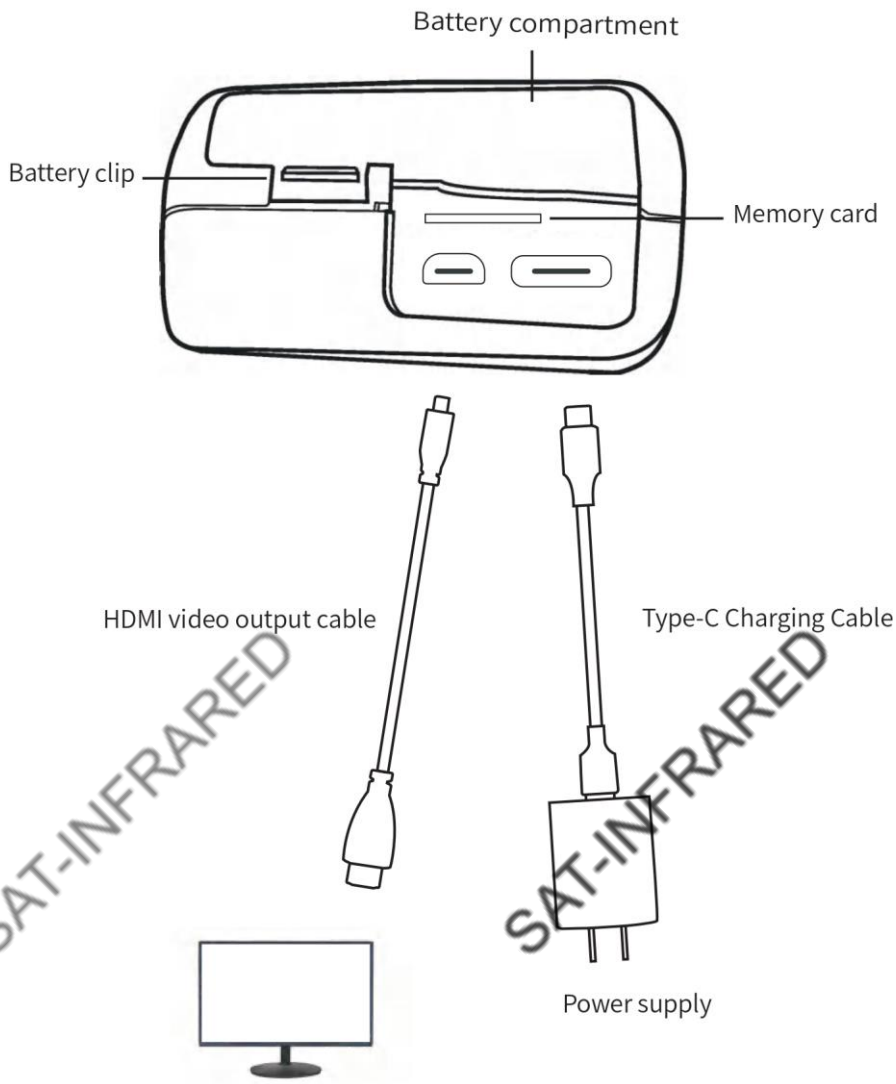
Note: The monitor is not included
in the product package

4.1 On/Off

Power on	Press and hold the power button ⏻ ,until the screen lights up.
Power off	Press and hold the power button ⏻ ,select Power off.
Restart	Press and hold the power button ⏻ ,select Restart.

4.2 Open the software

After launching the camera, click "Camera" on the system desktop.

4.3 Main interface information

Temp range   Emissivity

Analysis tools

Pseudo color

Capture/ Video

Photo album

Settings

Low range   1.0   Battery

°C   Temp unit
38.3

Capture
Video

CAMERA   IR   MIX

Color scale

31.3

Fill light   Laser   Freeze   Adjust

4

Image mode

After clicking on the interface, "swipe left or right" to switch the image mode.
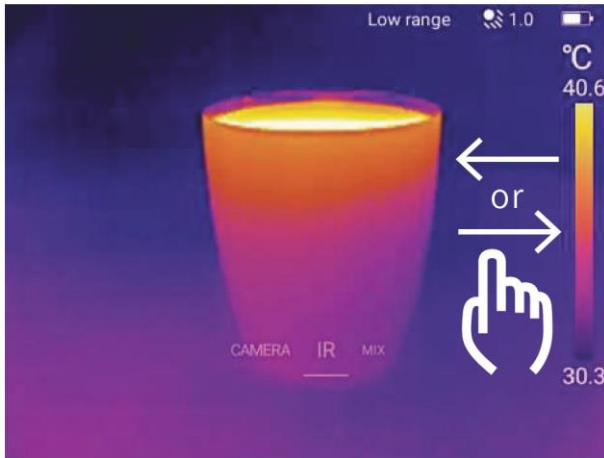
Three picture modes

| CAMERA | IR | MIX |

6.1 Capture / Video

Capture

Video

Toggle: Swipe text up and down

Start recording

Click to shoot

Low range   1.0

00:07

℃
39.5

Recording

End recording

30.8

Video saved!

Browse albums

Recording is complete
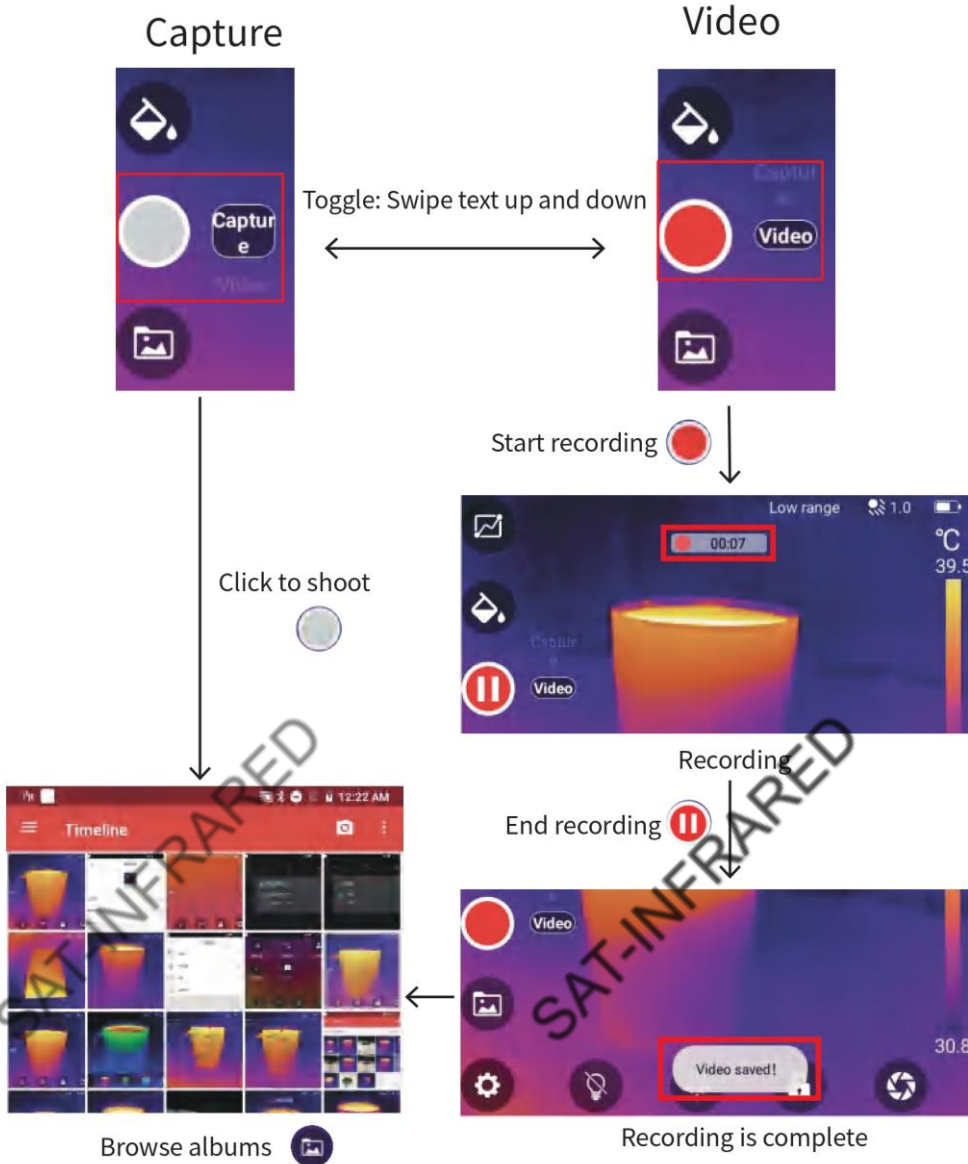
6.2 Zoom in/out

In the main interface, click the "Up Arrow" or
"Two Points Out" to enlarge the screen 1~3 times.
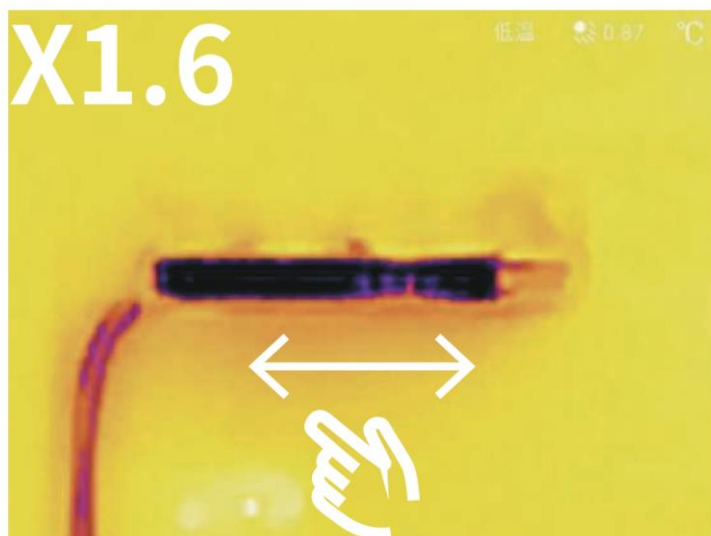
In the main interface, click the "Down Arrow " or
" Two Points Inward" to reduce the screen by 1~3 times.

6.3 Analysis tools

In the main interface, click ⊡ to select the analysis tool.

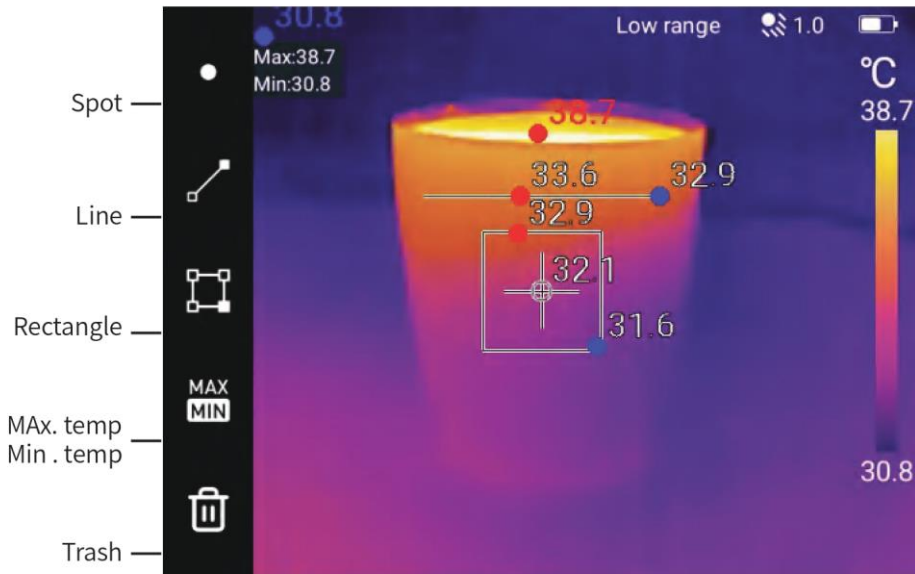| Name	Quantity	Instruction	Deformation
Spot	3	Displays the temperature at the current coordinates	/
Line	2	Display the highest and lowest temperature points on the line	Click one of the straight line to expand and rotate
Rectangl	3	Display the highest and lowest temperature points in the rectangle	Click on any side to resize
MAX,MIX	1	Display the highest temperature and lowest temperature in the screen	/
Trash	1	Delete all temperature measurement tools in the screen	/

Add multiple identical analysis tools: Click the icon multiple times.

Clear a single analysis tool: Click an analysis tool to move it to the trash 🗑 .
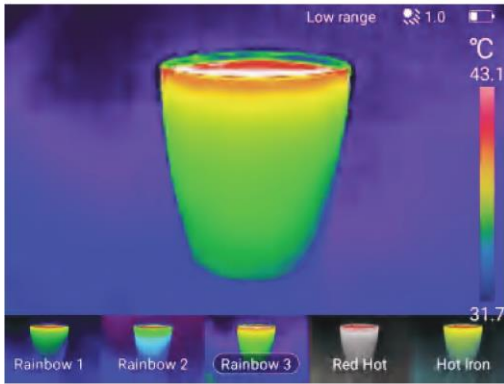
Clear all analysis tools: click on the trash 🗑 .

6.4 Pseudo-color

In the main interface, click to switch the pseudo-color.

Choose a color by swiping and tapping options.

Tap the center of the screen/press the C key to
save the settings and return to the menu.

6.5 Fill light

In the main interface, click to turn on the fill light.
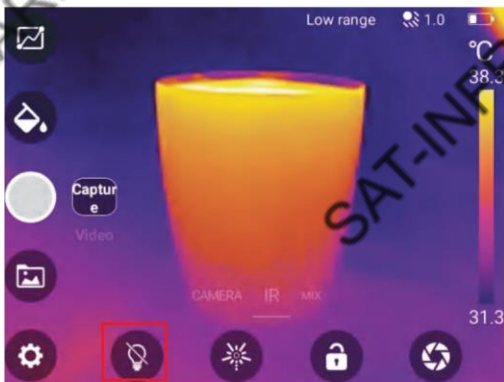
Click to turn off the fill light.

6.6 Laser

In the main interface, click ⊛ to turn on the laser.
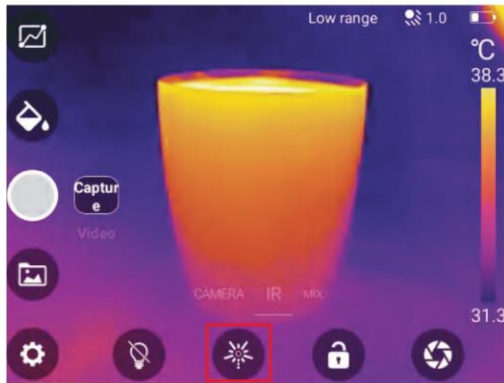
Click ⊛ to turn off the laser.

6.7 Freeze screen

In the main interface, click 🔒 to freeze the screen.

Click 🔓 to unfreeze the screen.

6.8 Automatic adjustment

In the main interface, click to adjust the screen automatically.
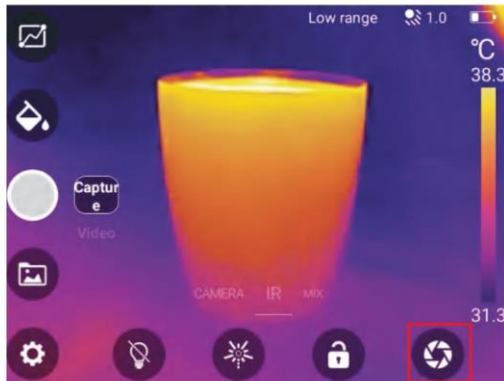
6.9 MIX adjustment mode

In the main interface, switch the image mode to "MIX" and click to enter the adjustment mode.
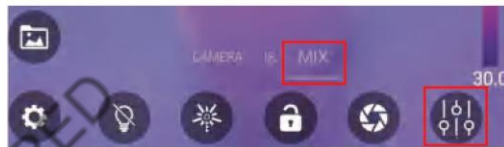
Steering wheel ——— MIX ratio

By moving the steering wheel to make the infrared and visible images overlap, adjust the MIX ratio to the best state.

7、Setting menu

7.1 Open the settings menu

On the main interface, click ⚙ to enter the settings menu.
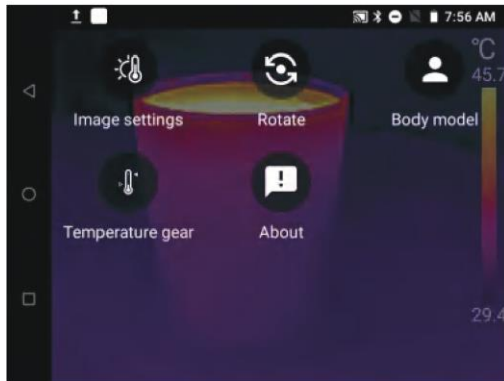
7.2 Image settings

In the setting menu interface, click 🌡 to enter the image setting.
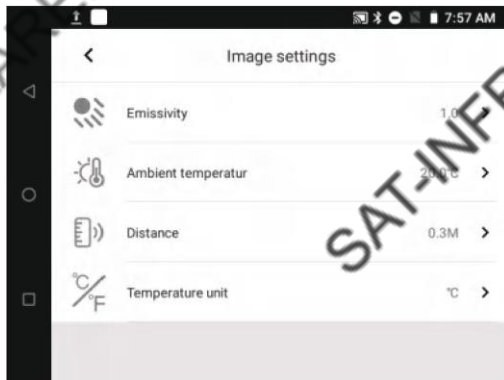
7.2.1 Emissivity

In the image setting interface, click ![icon] to enter the emissivity setting.

Slide the scale bar to set the value, and click "CONFIRM" to save the setting.

Or click ![icon] / "Press C" to cancel the setting and return.

7.2.2 Ambient temperature

In the image setting interface, click ![icon] to enter the ambient temperature setting.

Slide the scale bar to set the value, and click "CONFIRM" to save the setting.

Or click ![icon] / "Press C" to cancel the setting and return.

　
7.2.3 Distance

In the image setting interface, click 🔊 to enter the distance setting.
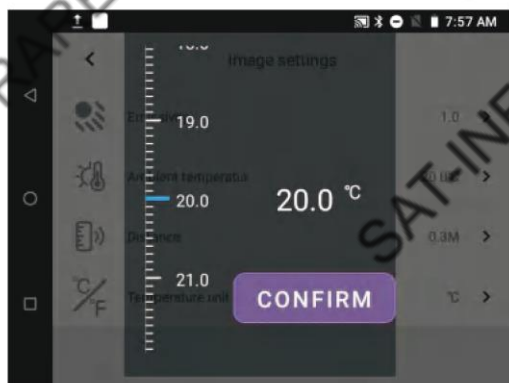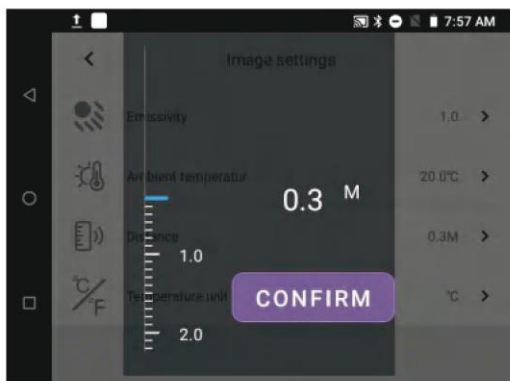
Slide the scale bar to set the value, and click "CONFIRM" to save the setting.

Or click ◁ / "Press C" to cancel the setting and return.

7.2.4 Temperature unit

In the image setting interface, click ℃/F to select the temperature unit.
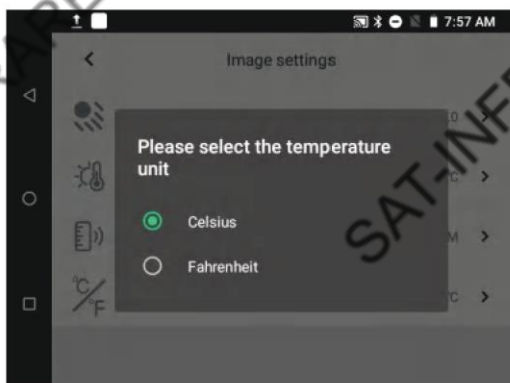
7.3 Rotate

In the setting menu interface, click
or "long press the A key" to rotate the image.
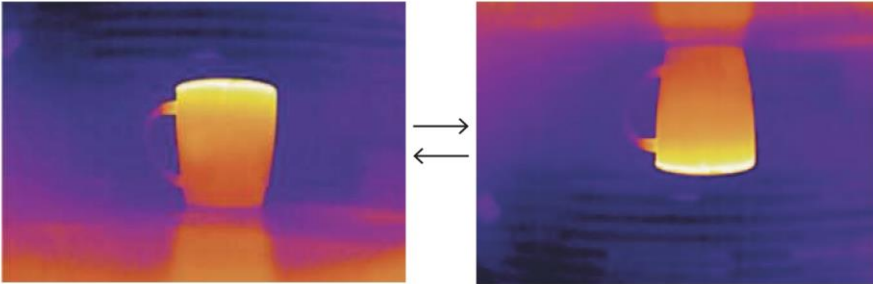
7.4 Body model

In the setting menu interface, click to turn on
or off the body temperature measurement mode.
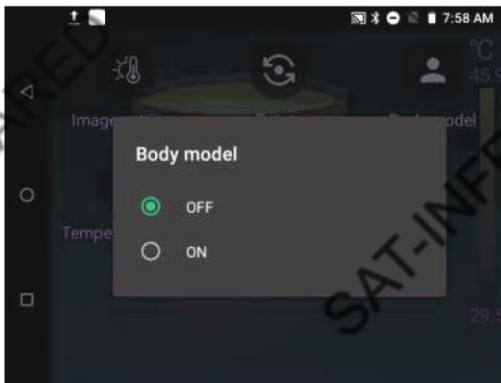
When an epidemic situation is encountered and the body temperature
is used as a characterization, the Body model can be turned on to
perform non-contact rapid screening of the body temperature of the
crowd, and it can also be used for home temperature monitoring.

7.5 Temperature gear

In the setup menu interface, click ⬤
to select the temperature measurement gear.

Before measuring the temperature of an object, please select
the appropriate temperature measurement gear.

7.6 Software info

In the setting menu interface, click ⬤
to view the software information.
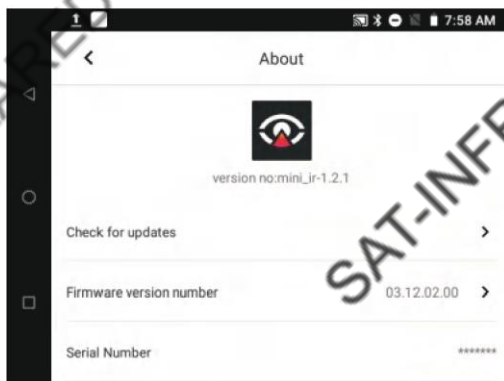
It is recommended to regularly check the software version
and connect to the Internet to update to the latest version.

8、Troubleshooting

Troubleshooting the Camera

Question	Cause	Solution
Long press the power button no response	Insufficient battery	Charge the battery.
Storage exception	Storage is full	External memory card: After backing up the data, clean up the files of the memory card. Built-in memory card: After backing up the data, clean up the files, and select " Erase all data(factory reset) " in the system settings if necessary.
	Internal memory card not recognized	After backing up your data, select "Erase all data(factory reset)" in the system settings.
		After " Erase all data(factory reset)", it still cannot be used normally, the built-in memory card may be damaged, please contact our after-sales service for maintenance.
Power consumption is accelerated	Use a non-original adapter	Use the original adapter.
	Exceeded battery life	Contact our after-sales service for replacement.
Can't charge	Damaged adapter or battery	

9、Maintenance

Camera maintenance

- Do not use alcohol, benzene, thinner, gaseous organic solvent or water to clean the camera to avoid damage to the camera.

Camera Body	Wipe the body clean with soft cloth or eyeglass lens wiper.
Lens	First use a lens blower to remove dust and dirt, then remove any remaining dirt by wiping the lens lightly with soft cloth. • Never use synthetic cleaners on the camera body or lens.
LCD Display	Use a lens blower brush to remove dust and dirt. If necessary, gently wipe the LCD Display with soft cloth or an eyeglass lens wiper to remove stubborn dirt. • Never rub or press forcefully on the LCD Display. These actions may damage it or lead to other problems.

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（°C）	Emissivity approximation
Metal		
Aluminum		
Polished aluminum	100	0.09
Commercial aluminum foil	100	0.09
Electrolytic chromeplate alumina	25～600	0.55
Mild alumina	25 ~ 600	0.10 ~ 0.20
Strong alumina	25 ~ 600	0.30 ~ 0.40
Brass		
Brass mirror (highly polished)	28	0.03
Brass oxide	200 ~ 600	0.61 ~ 0.59
Chrome		
Polished chrome	40 ~ 1090	0.08 ~ 0.36
Copper		
Copper mirror	100	0.05
Strong copper oxide	25	0.078
Cuprous oxide	800 ~ 1100	0.66 ~ 0.54
Liquid copper	1080 ~ 1280	0.16 ~ 0.13
Gold		
Gold mirror	230 ~ 630	0.02

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（°C）	Emissivity approximation
Iron		
Polished cast iron	200	0.21
Processed cast iron	20	0.44
Polished tempered Iron	40 ~ 250	0.28
Polished steel ingot	770 ~ 1040	0.52 ~ 0.56
Raw welded steel	945 ~ 1100	0.52 ~ 0.61
Surface ferric oxide	20	0.69
Completely rusty surface	22	0.66
Rolled iron plate	100	0.74
Oxidized steel	198 ~ 600	0.64 ~ 0.78
Cast iron (Oxidizing at 600°C)	198 ~ 600	0.79
Steel (Oxidizing at 600°C)	125 ~ 520	0.78 ~ 0.82
Electrolytic ferric oxide	500 ~1200	0.85 ~ 0.89
Iron plate	925 ~ 1120	0.87 ~ 0.95
Cast iron, heavy ferric oxide	25	0.80
Tempered iron, ferric oxide	40 ~ 250	0.95
Melting surface	22	0.94
Melting cast iron	1300 ~ 1400	0.29
Melting mild steel	1600 ~ 1800	0.28
Liquid steel	1500 ~ 1650	0.42 ~ 0.53
Pure liquid iron	1515 ~ 1680	0.42 ~ 0.45

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（°C）	Emissivity approximation
Lead		
Pure lead (Non-oxidization)	125～225	0.06～0.08
Mildly oxidized	25 ~300	0.20 ~ 0.45
Magnesium		
Magnesia	275 ~ 825	0.55 ~ 0.20
Magnesia	900 ~ 1670	0.20
Hg	0 ~ 100	0.90 ~ 0.12
Nickel		
Electroplate polishing	25	0.05
Electroplate	20	0.01
non-polishing		
Nickel wire	185 ~ 1010	0.09 ~ 0.19
Nickel plate	198 ~ 600	0.37 ~ 0.48
Nickel oxide	650 ~ 1255	0.59 ~ 0.86
Nickel alloy		
Nickel-chrome (heat-resistance) alloy wire (shining)	50～1000	0.65～0.79
Nickel-chrome alloy	50 ~ 1040	0.64 ~ 0.76
Nickel-chrome (heat resistance)	50～500	0.95～0.98
Nickel-silver alloy	100	0.14
Silver		
Polished silver	100	0.05

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（°C）	Emissivity approximation
Stainless steel		
18-8	25	0.16
304(8Cr,18Ni)	215 ~ 490	0.44 ~ 0.36
310(25Cr,20Ni)	215 ~ 520	0.99 ~ 0.97
Tin		
Commercial tin plate	100	0.07
Strong oxidization	0 ~ 200	0.60
Zinc		
Oxidizing at 400°C	400	0.01
galvanized shining iron plate	28	0.23
Ash zinc oxide	25	0.28
Non-metal materials		
Brick	1100	0.75
Fire brick	1100	0.75
Graphite(lamp black)	96 ~ 225	0.95
Porcelain enamel (white)	18	0.90
Asphaltum	0 ~ 200	0.85
Glass (surface)	23	0.94
Heat-resistance glass	200 ~ 540	0.85 ~ 0.95
Calcimine	20	0.90
Oak	20	0.90

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（°C）	Emissivity approximation
Carbon piece		0.85
Isolation piece		0.91～0.94
Sheet metal		0.88 ~ 0.90
Glass pipe		0.90
Loop type		0.87
Porcelain enamel products		0.90
Porcelain enamel designs		0.83～0.95
Solid materials		0.80 ~ 0.93
Ceramics (vase type)		0.90
Film		0.90 ~ 0.93
Mica		0.94 ~ 0.95
Flume mica		0.90 ~ 0.93
Glass		0.91 ~ 0.92
Semiconductor		0.80 ~ 0.90
Transistor (plastics sealed)		0.30～0.40
Transistor (metal) Diode		0.89～0.90
Transmitting loop		
Pulse transmission		0.91 ~ 0.92
Level chalkiness layer		0.88 ~ 0.93
Top loop		0.91 ~ 0.92

10、Emissivity table

Common Material Emissivity Table

Material	Temperature（℃）	Emissivity approximation
Electric materials		
Epoxy glass plate		0.86
Epoxy hydroxybenzene plate		0.80
Gilded sheet copper		0.30
Solder-coated copper		0.35
Tin-coated lead wire		0.28
Brass wires		0.87 ~ 0.88
Block talcum terminal		0.87

11、Specification

Infrared	T256
Detector type	UFPA
Spectral range	8～14 um
Resolution	256×192
Pixel pitch	12um
NETD	＜50mK @25℃
Thermal time constant	＜10ms
Frame rate	≤25Hz
Nonuniformity Correction	Auto Shutter Correction
Focus	Fixed focus
Focus length	3.2mm F1.1
FOV	56°× 42°
Image display	
Image mode	IR/CCD/MIX
CCD	16MP
LCD	2.8 inch with touch （640×480）
Image output interface	HDMI
Save image format (IR/CCD)	JPG
Video format	MP4
Temperature measurement	
Measurement range	-15℃～500℃
Accuracy	±2℃ or ±2% of readings
Power	
Removable battery	3.7V 3020mAh
Charge interface	5V 3A Type-C

11、Specification

Environment	
Encapsulation	IP54
Shock/Vibration Resistant	25g， 11ms
Pollution level	2
Working altitude	2000m
Operating humidity	85%
Operation temperature range	-10℃～50℃
Storage temperature range	-45℃～85℃
Barometric conditions	Standard atmospheric pressure 101.325kPa
Scenes to be used	Indoor, outdoor can be used in wet environment
Other function	
Illuminator	Yes
External TF card	128G Byte
Interface	Type-C、HDMI
Speaker	Yes
Microphone	Yes
Video recording	Yes
WiFi	Yes
Bluetooth	Yes
Infrared sensor	Yes
Software	
Operation system	Android8.0

Please download quick user guide, user manual and SatIrReport Software from SATIR websiteif you need.

Download Link: www.satir.com

Manufacturer information

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