FOTRIC

Acoustic Imager

User Manual

FOTRIC INC.

May, 2024

Preface

Symbols

Warnings	Caution
Potential death or serious injury inducing hazards	Potential danger of injury or property damage

Safety Information

The purpose of this content is to ensure that the user uses this product properly to avoid danger or property damage. Before using this product, please read this instruction manual carefully and keep it in a safe place for future reference.

Warning:

- Do not disassemble or modify the product battery. The battery is equipped with safety and protective devices which, if tampered with, may cause the battery to overheat or even result in explosion or combustion. If the battery is leaking and the leakage gets into your eyes do not rub it, wash it with water and go to a hospital immediately.
- The product uses a laser pointer. Do not stare at the laser beam directly. It can cause eye irritation.
- If the unit is not working properly, please contact your dealer or our company and do not disassemble or modify the unit in any way (unauthorized modifications or repairs cause problems at your own risk).

Attention:

- Avoid using the product in humid, dusty, extremely hot or cold environments, see the product's data sheet for specific temperature and humidity requirements.
- Do not touch the sensor or lens part directly to avoid stain and damage from oil and various chemicals. If cleaning is necessary, moisten a clean cloth slightly and gently wipe off the dust. Close the lens cap when the camera is not in use.
- Once the thermal camera is turned on, a warm-up process of approximately 5-10 minutes may be required before accurate readings can be taken.
- Avoid focusing on or prolonged exposure to the sun or objects with extremely high temperatures, as this may result in reduced sensor life span or temporary dark spots (minor cases can be resolved after conducting the NUC, severe cases may result in irreversible damage

to the detector).

- Avoid selecting the inappropriate temperature range. It may damage the sensor.
- It is strongly recommended to use the original power adapter, the specific requirements of the power adapter are shown in the product parameter table.
- To prevent the potential danger of data loss, always copy (back up) your data to your computer.
- When storing the product, it is strongly recommended to use the original box and place it in a cool, dry, ventilated environment free from strong electromagnetic fields.
- When shipping the camera, it is highly recommended that it be shipped and protected in factory packaging.

Table of Content

Safety Information

This product complies with the limits for a Class B digital device pursuant to Chapter 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.

define

! WARNING > Represents a dangerous situation or behavior that could result in personal injury or death.

! CAUTION > Represents situations or behaviors that could result in damage to the sound camera or permanent loss of data.

! Note > represents prompt messages that are useful to the user.

Important information - read before using the instrument

! WARNING > Never disassemble or modify the sonar battery. The battery is equipped with safety and protective devices which, if tampered with, may cause the battery to overheat and may result in explosion or combustion. If the battery is leaking and the leakage gets into your eyes, do not rub it, wash it with water and go to a hospital immediately.

! CAUTION > The original box must be used during transportation. Do not strongly impact the sonar during use and transportation.

! CAUTION > When storing the camera, it is recommended to use the original box and place it in a cool, dry, ventilated area free from strong electromagnetic fields.

of the environment.

! CAUTION > Avoid staining and damaging the lens surface with oil and various chemicals. Close the lens cap after use.

! CAUTION > To prevent the potential danger of data loss, copy (back up) your data to your

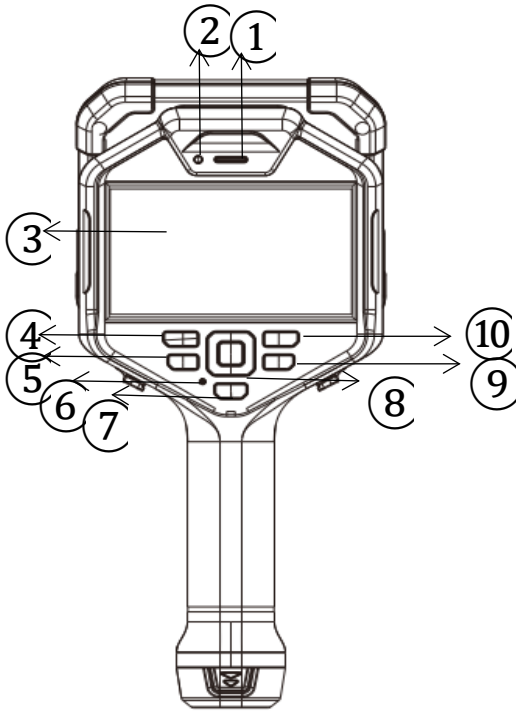
computer on a regular basis.

! CAUTION > Do not open the case or make modifications without authorization. Repairs should only be performed by our authorized personnel.

! NOTE > Every microphone is calibrated at the factory.

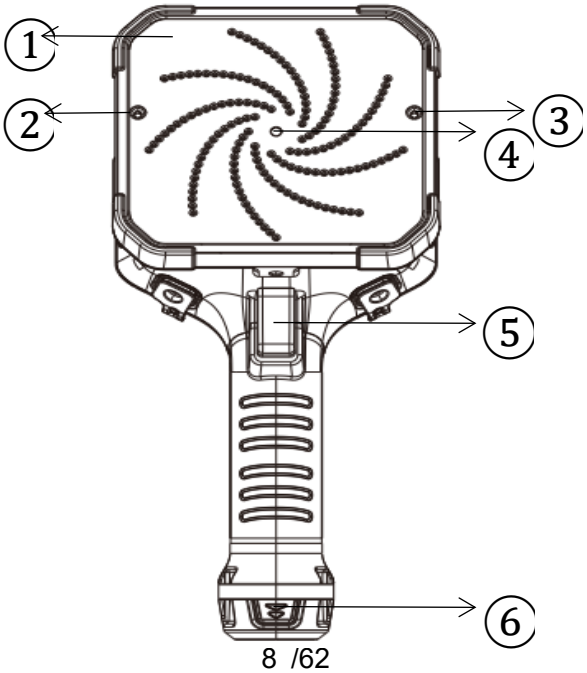
1 Camera Components

1.1 Front View



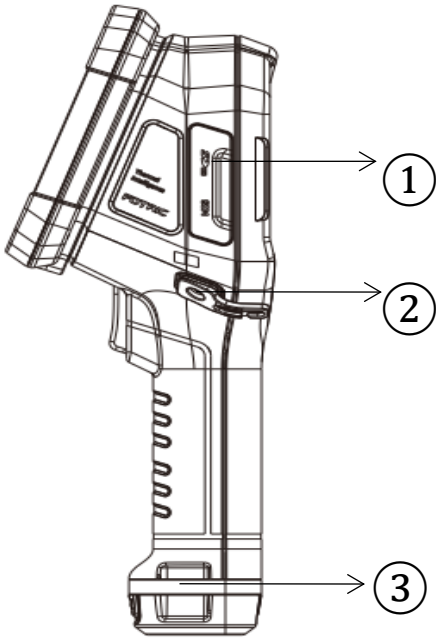
① Speaker ② Status Light ③5'' LCD Screen④ Power Button ⑤LED Button ⑥Microphone ⑦AI Button ⑧ Confirm Key and Arrow Keys⑨ Back Button ⑩Gallery Button

1.2 Rear View



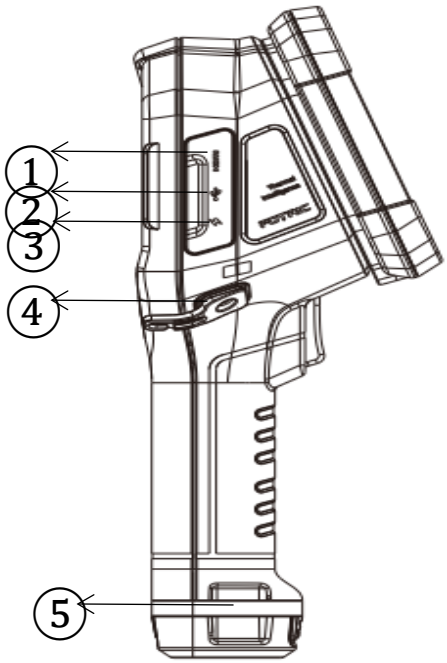
①Acoustic Module ② LED Flash Light ③ LED Flash Light④ Digital Camera⑤ Capture Button ⑥Battery

1.3 Left View



① SD Card Socket ② Wrist Strap Bracket Fixing Point ③ Wrist Strap

1.4 Right view



① Micro-HDMI Interface ② USB Type-C Interface ③ Power Supply Interface ④ Wrist Strap Bracket Fixing Point ⑤ Wrist Strap

2 Operation Guide

2.1 Battery charging

Individual Battery Charger LED Indicator

Signal Type	clarification
LED blinks green/stays on red	Battery is charging.
LED is always green	The battery is fully charged.

2.2 Turning the sound camera on and off

- Press and hold the "Power button"  to turn on the imager;
- Press and hold the "Power Button" at  (about 5 seconds) to bring up the selection menus "Shutdown" and "Reboot", which allow the imager to shut down and reboot the imager respectively;
- Press the "Power Button" at  in the power-on state, and the indicator light is always on when the imager powers on and rests on the screen;
- When the screen is off, press the "Power Button"  to wake up the screen.

2.3 3.7 Transferring Data to a Computer with SD Card

When saving images or video clips in the acoustic imager's gallery, the files are stored on a SD memory card. With SD card reader, the files can be transferred to a computer.

Take out the SD memory card from the socket;

Insert the SD card into the card reader, and then insert the card reader into the USB interface of the computer;

Open the Gallery folder from the SD card on PC;

Import the files into AnalyzIR for professional analysis;

Remove the SD card and insert it back into the acoustic imager, the memory card LED indicator lights up..

! Attention:

Do not eject the memory card while this LED is blinking;

Do not connect the camera to the computer while this LED is blinking.

2.4 Data Transfer through USB Connection

When saving images or video clips in the camera's gallery, the files are stored on a memory card. The camera can be connected to a computer using a USB cable. Once the connection is established, image and video files can be transferred from the memory card to the computer.

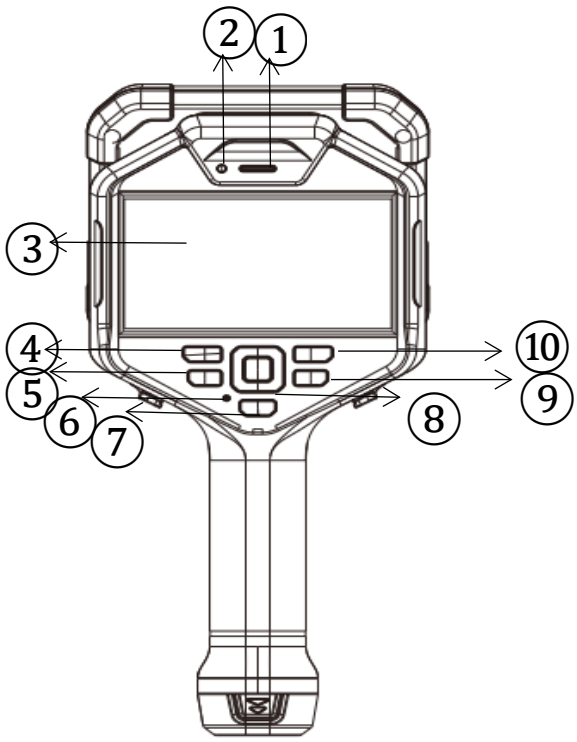
Operating Procedure:

1. Turn on the acoustic imager;
2. Go to Settings->Device Set->USD Mode, and make sure it’s MTP mode;
3. Open the flap of the connection interface cover and and plug the USB cable to the USB Type-C interface. Connect the other end of the USB cable to the computer;

4. In File Explorer, open the Gallery folder and move the desired files to your computer;

! Note: Moving a file using a drag-and-drop operation will not delete the file from the sound camera.

2.5 AI Button (Programmable Key)



Number ⑦ in the picture above is the AI button function.

The AI button can be assigned different functions. For example, the AI button can be used to easily switch between two frequently used settings, or you can choose to define two different settings for Save and Preview.

AI function operation is divided into two cases, light press operation will execute the function bound to the corresponding AI key, if the function is not bound then the default defined function will be executed. Long press AI key operation, long press > (2 seconds), then the function selection dialog box will pop up, the user can select the corresponding function to operate.

- Main interface can set the function

Main interface AI key can set contents: palette preview, switch detection mode, switch sound source mode, switch mode.

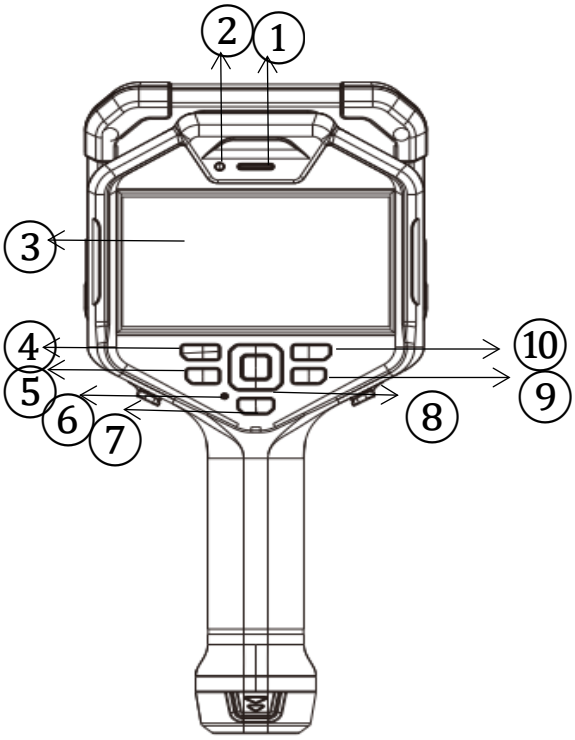
- Freeze screen can set the function

Freeze interface AI key can set the content: favorite, voice note, text note, label, OCR label, QR code label.

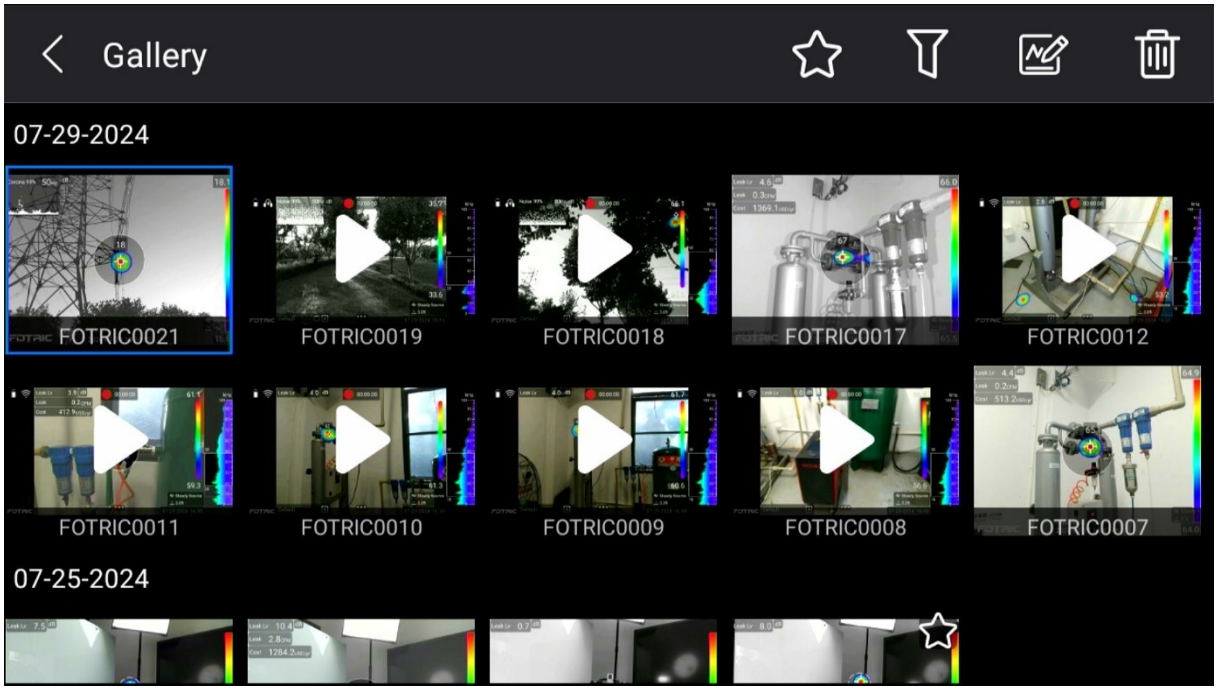
- Gallery interface, Gallery interface AI key function to enable or disable favorites filtering.
- Gallery Analysis Interface Functional Options

Image analysis interface AI key can set the content: Favorites, voice annotation, text annotation, tags, OCR, palette preview, switch sound source mode.

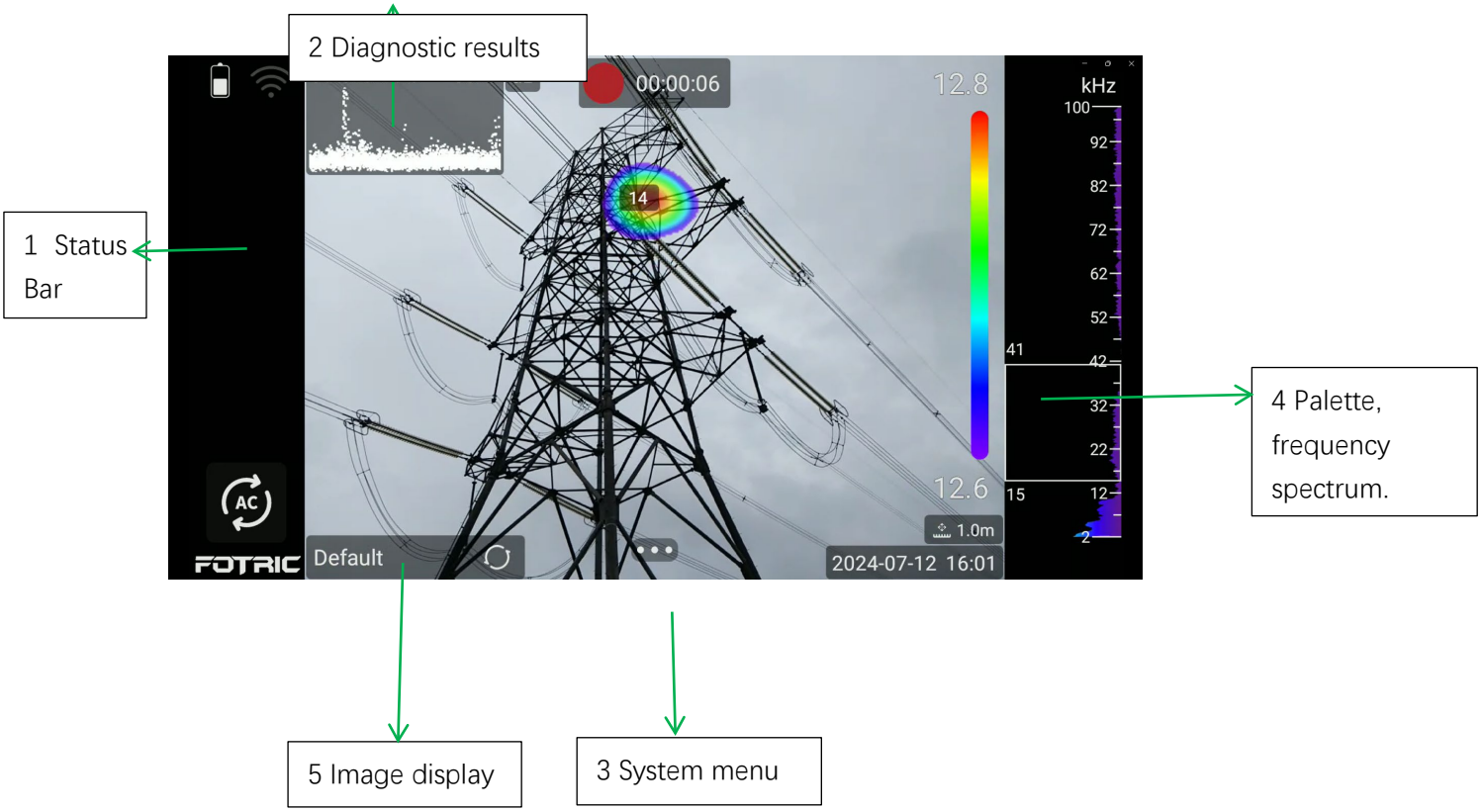
2.6 Gallery



Press the Gallery button #10 to enter the Gallery as shown below. The functions are detailed in chapter 6 Gallery.



3 Main Interface



1. Status bar

Status bar is on the left side of the screen and contains all read-only information, including: logo, time, battery, Bluetooth, WiFi, compass, current temperature range, SD card capacity low reminder icon and more.

Description:

Top position: battery, memory warning (displayed when SD card capacity is less than 100MB), Bluetooth headset, laser status display (displayed when the laser is illuminated, otherwise it is not displayed), WiFi, current temperature range;

Bottom position: logo.

Display Instructions:

LOGO;

Time: Displays the full date and time in the format: 2019-04-19 12:00:00;

Battery: Battery level is indicated by an icon. Charging status can be displayed;

SD Card Capacity Low Warning Icon: The icon is displayed when the SD card storage is below 100MB;

Laser status icon: When the laser is activated, the icon is displayed and vice versa;

Bluetooth headset, showing that the Bluetooth headset is connected;

WIFI icon, this icon is displayed when WIFI is on, otherwise it is not displayed;

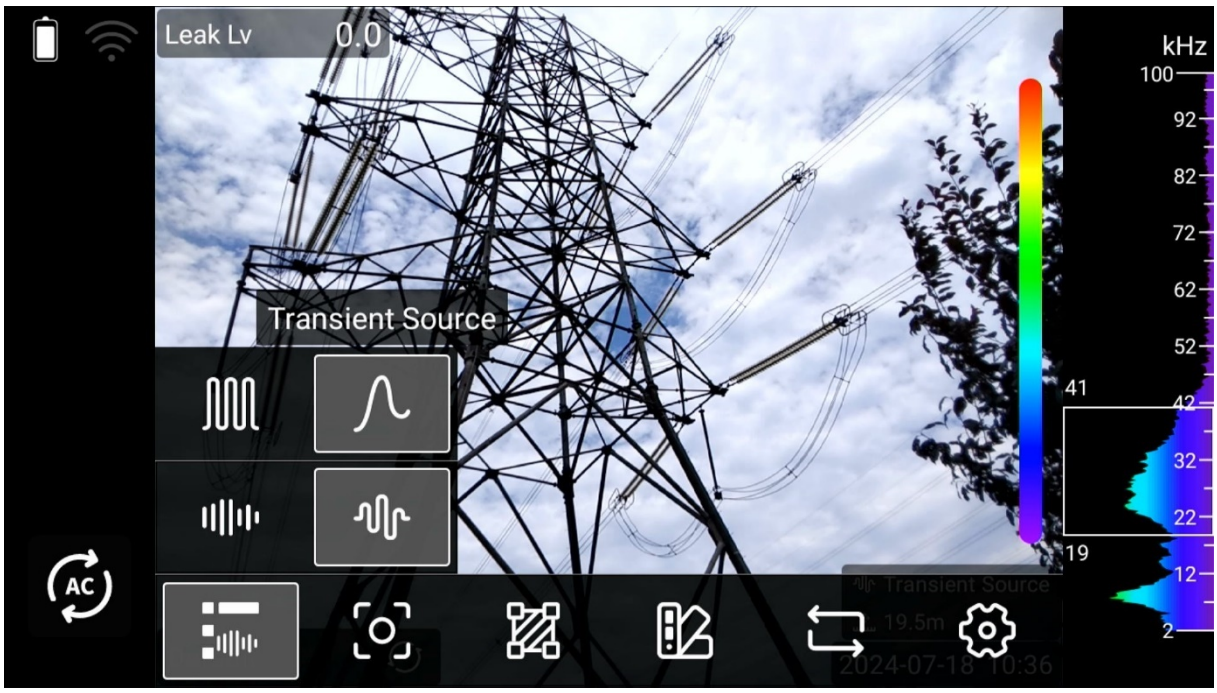
2. Diagnostic result

The top left corner is the diagnostic result, all read-only information. Contains: PRPD chart, diagnostic type, severity, AC frequency, distance, global units (dB), compass, leakage, leakage level, cost, and more.

3. System Menu

System menu include: acoustic parameters, focus mode, measurement tool, palettes, detection mode, settings

Acoustic parameters

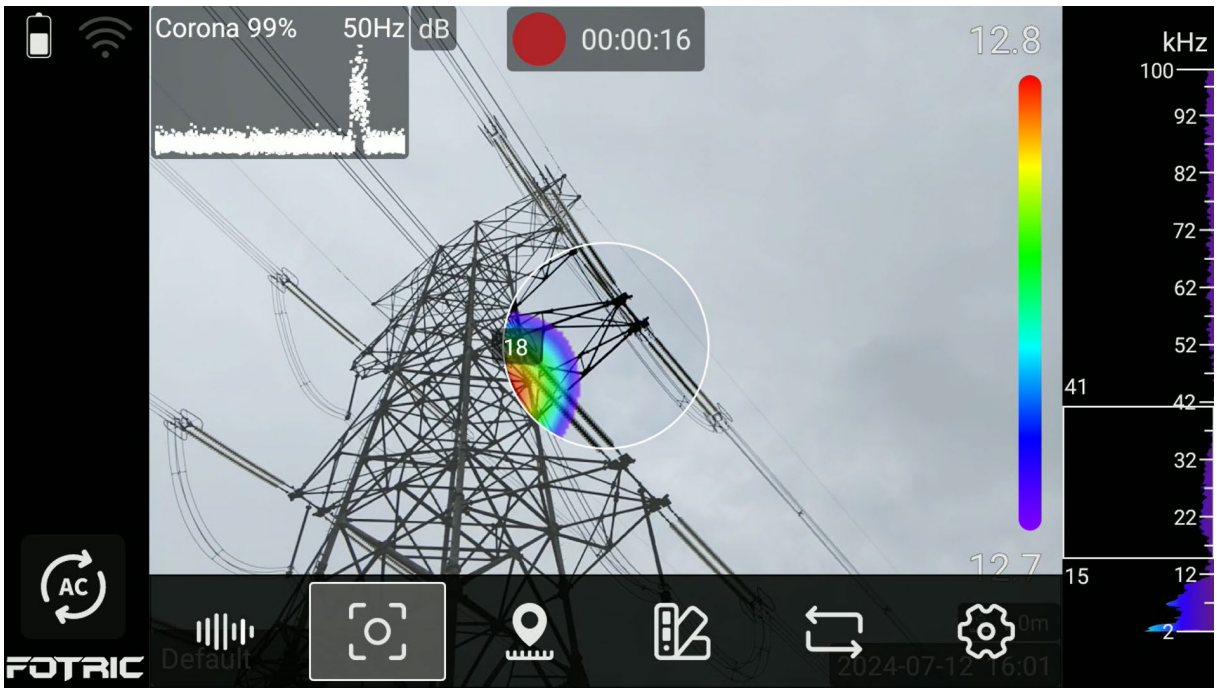


1. Sound source modes: single source, multi-source, and hologram; For detailed illustrations, please refer to section 5.2.1
2. T-FFTD (signal linger mode): steady source, transient source.

Steady source mode is the default mode, the camera display will response promptly when the signal appears or fades away.

Transient source mode will extrapolate the presence of signals to make sure even transient signals will linger long enough to grasp the user's attention.

Acoustic image focus



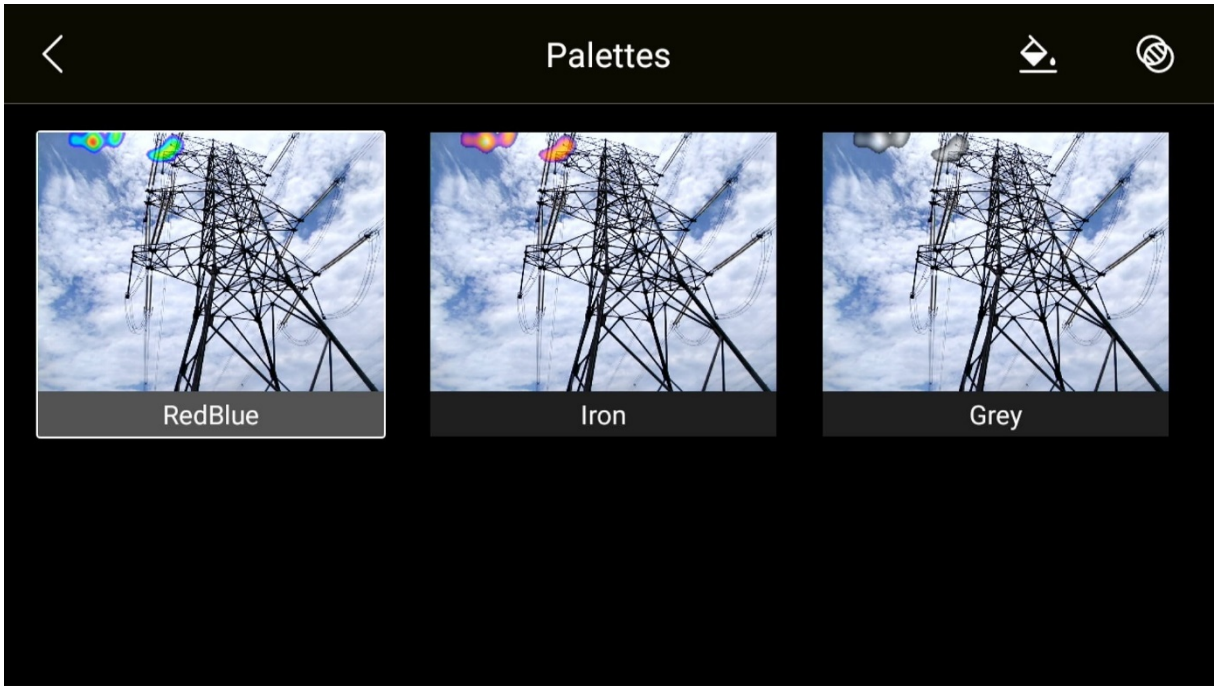
Focus Mode: Turn on Focus Mode and the sound image screen will only detect sound sources within the focus frame;

Measurement tools

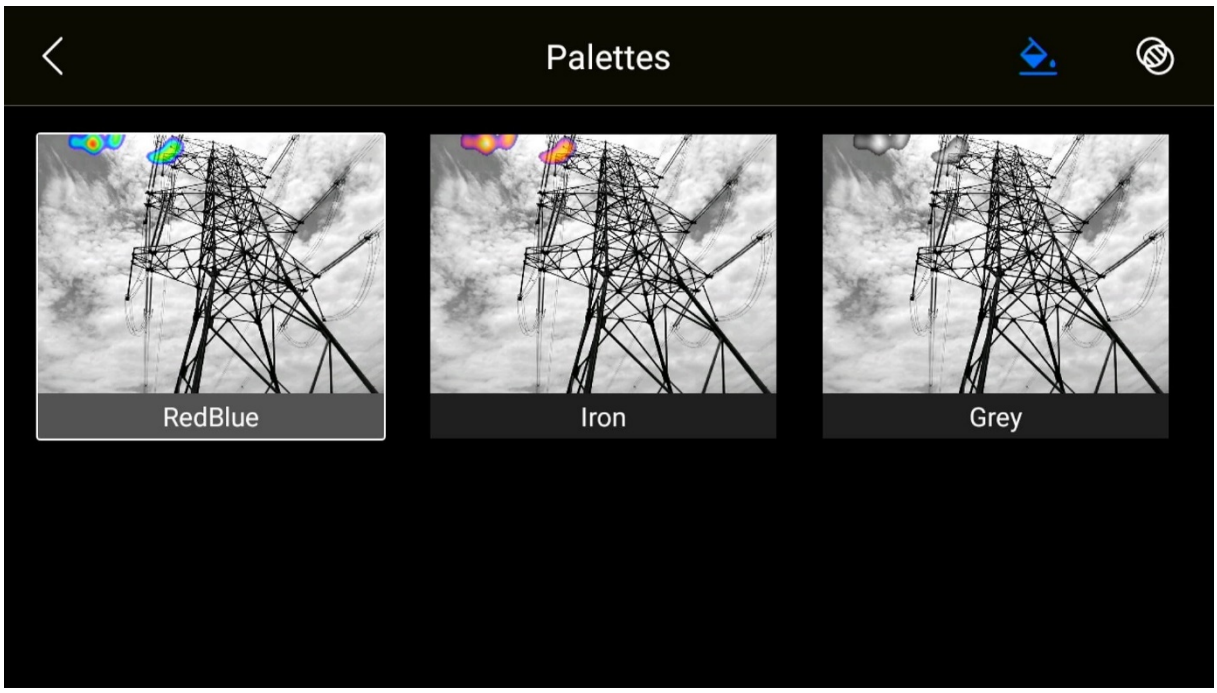
Measurement tools include: apply spot and circle, set distance.

Palette

Palette: red-blue, iron-red, gray-white, more (grayscale, transparency)



Gray scale: off

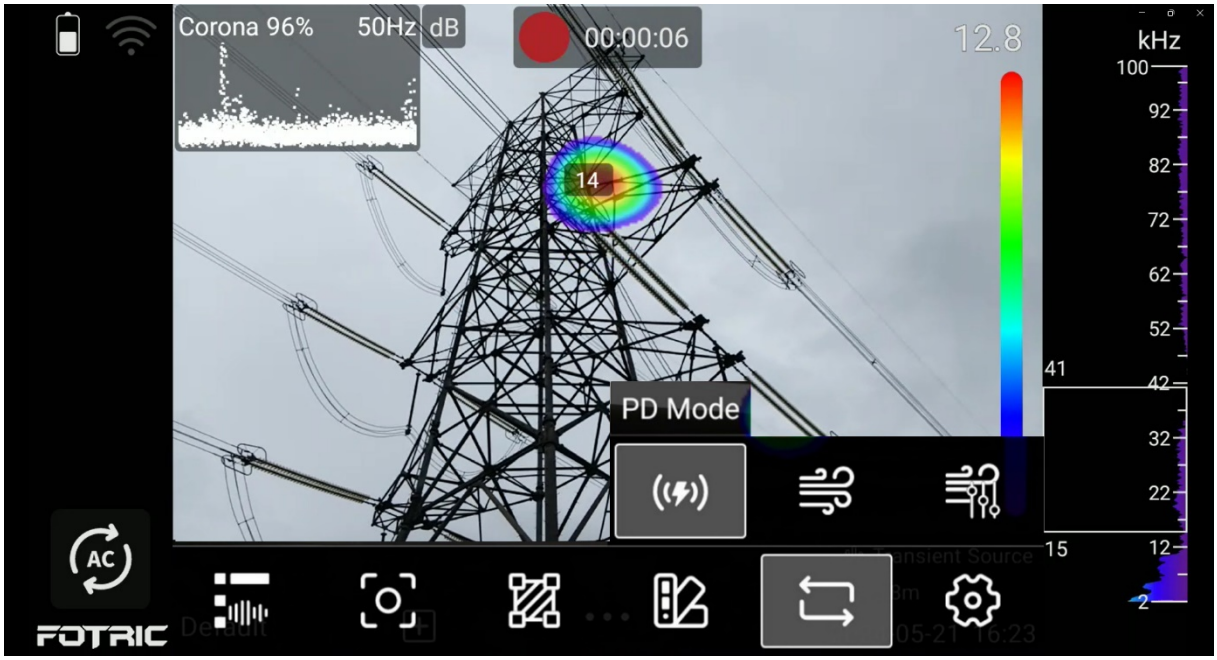


Gray scale: on

Detection mode

Detection mode include:

Partial discharge detection mode:



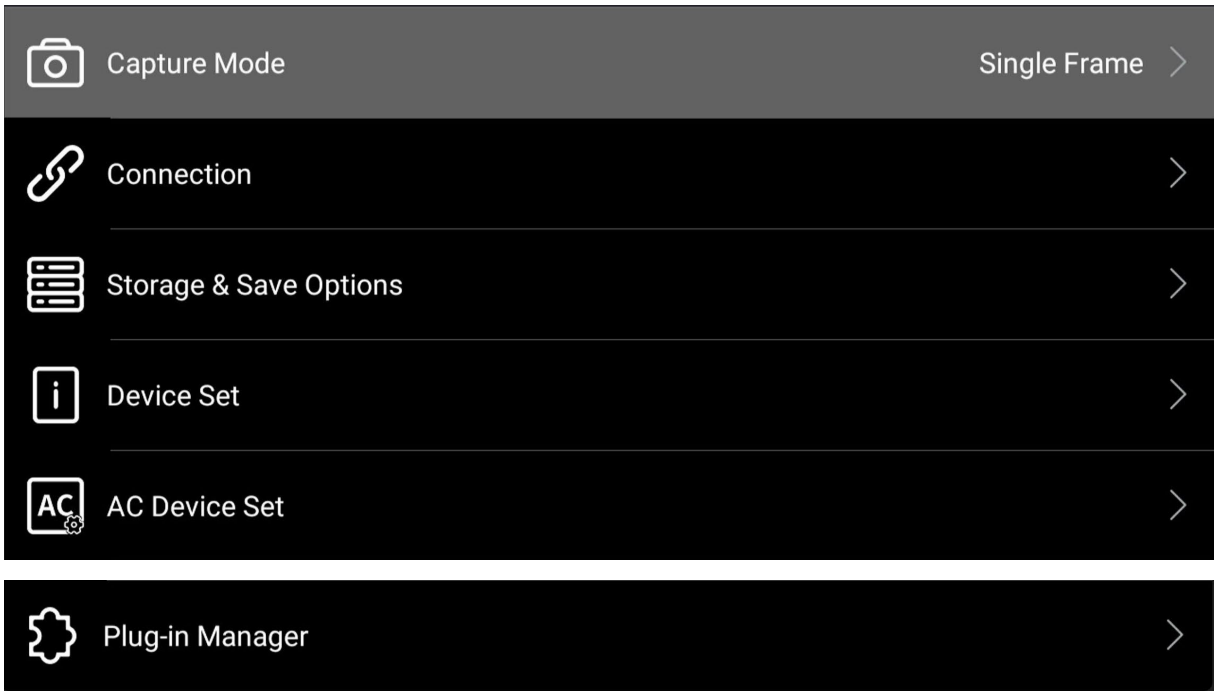
Leak detection mode:

Leak evaluation Mode:

Settings

Refer to chapter 4 system settings

4 System Settings



The acoustic imager Setup menu includes the following options:

Capture mode;

Connections;

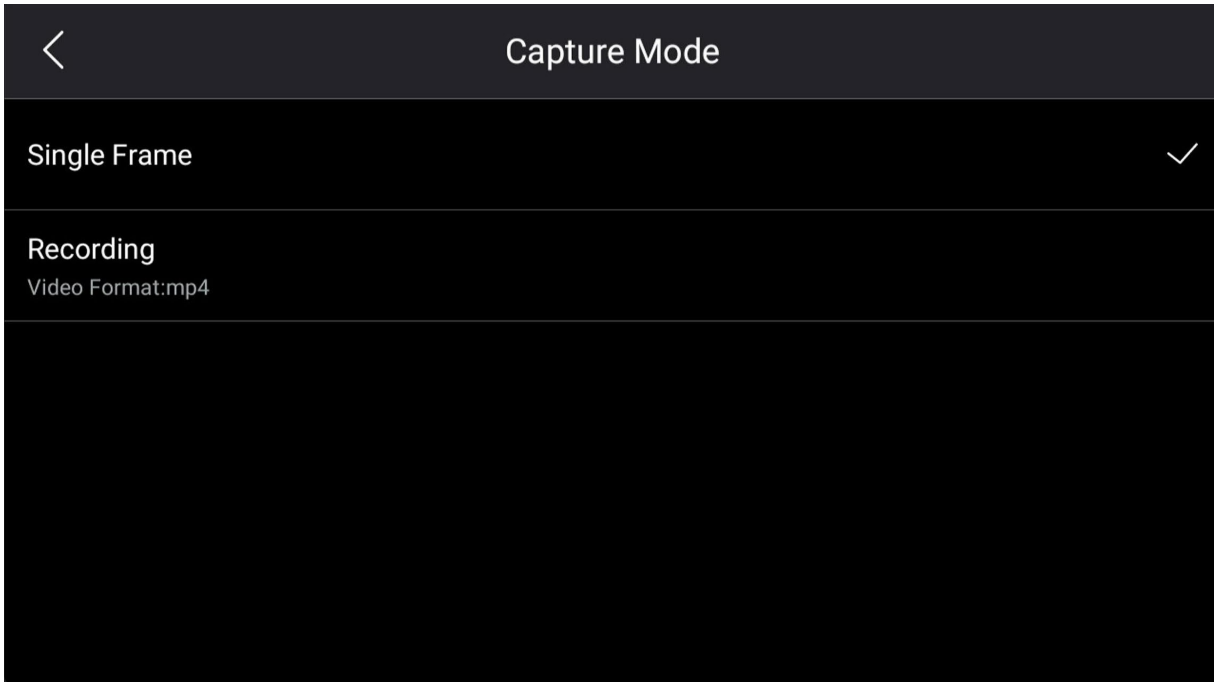
Storage & save options;

Device set

AC device set

Plug-in manager

4.1 Capture Mode



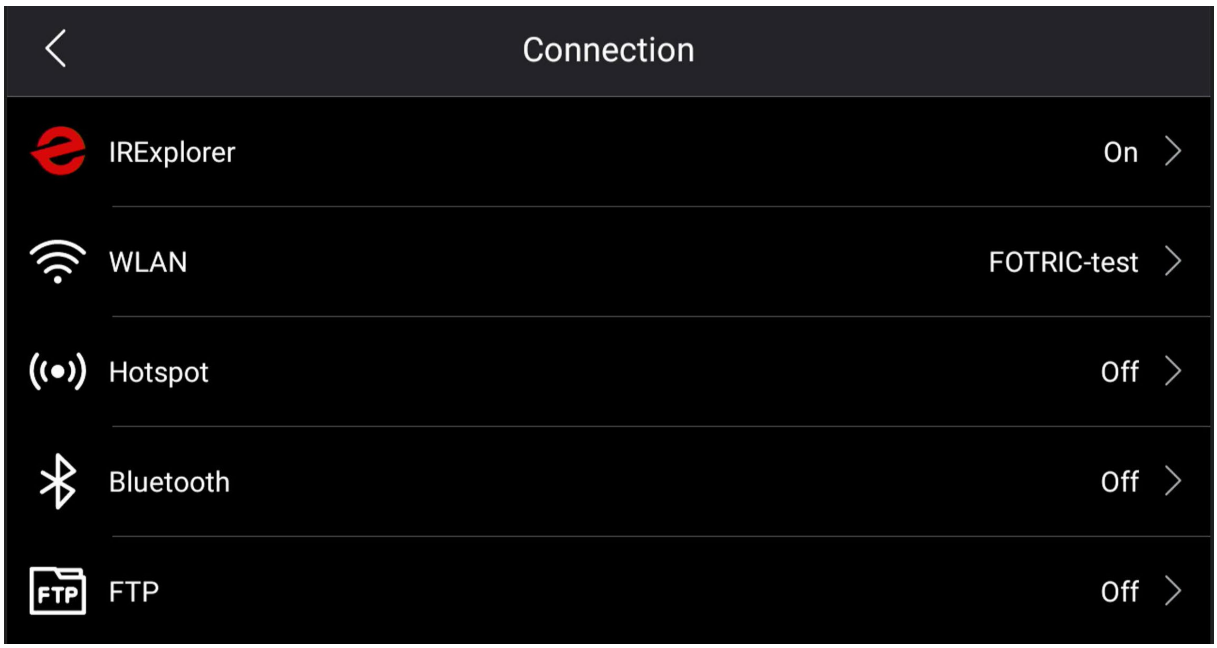
User may choose from single-frame capture and video recording(mp4).

How to record videos:

1. Select ‘Recording’ and press the capture button to start recording, press the capture button again to finish recording;
2. The video will be saved as MP4 format.

! Note: MP4 videos will not be editable after saving the file.

4.2 Connection

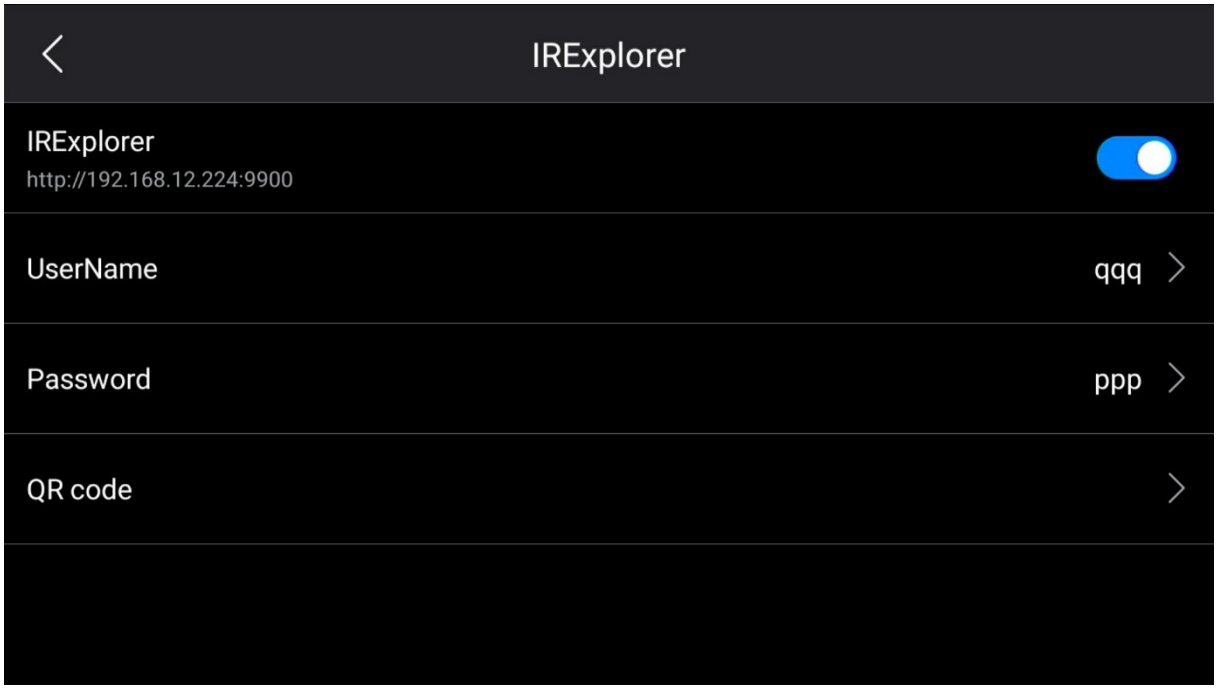


The connection allows you to set up IRExplorer, wireless network connection, portable hotspot settings, Bluetooth connection and FTP transfer.

4.2.1 IRExplorer

Enter IRExplorer interface to view web links, changeable usernames, passwords and scanned

QR codes



Tap on the acoustic imager screen. This displays the Main Menu toolbar;

Select Settings;

Select "Connections" -> "IRExplorer";

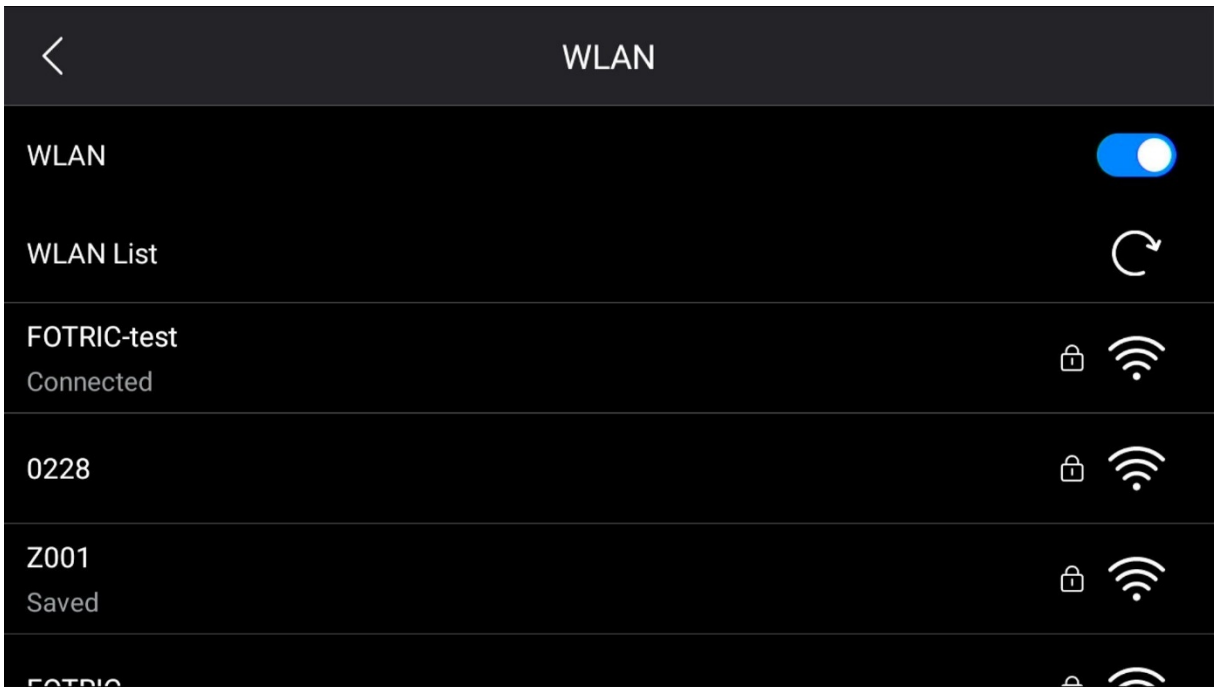
Flip the switch to view the IP address, and after turning it on, users can enter the IRExplorer login screen by entering the IP address using user's computer/mobile phone;

Login with username and password

Users can also scan the QR code to go directly to the login screen.

4.2.2 Wireless network (Wi-Fi)

The camera imager can utilize Wi-Fi to connect the acoutherm imager to a wireless local area network (WLAN).



Tap on the acoustic imager screen. This displays the Main Menu toolbar;

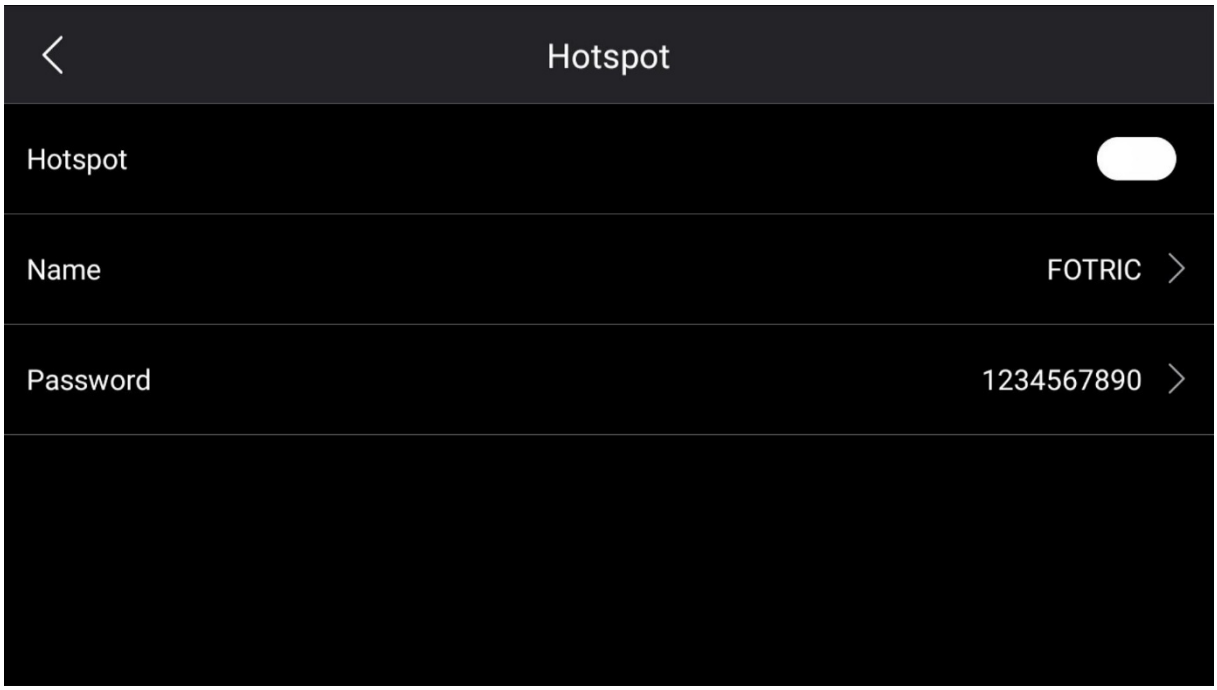
Select Settings;

Select "Connections" -> "Wireless Networks";

Turn on "Wireless Network". Then a list of available networks will appear;

Select one of the available networks. Networks with password protection will be indicated by a padlock icon.

4.2.3 Portable hotspot



Tap on the acoustic imager screen. This displays the Main Menu toolbar;

Select Settings. Enter the Settings screen;

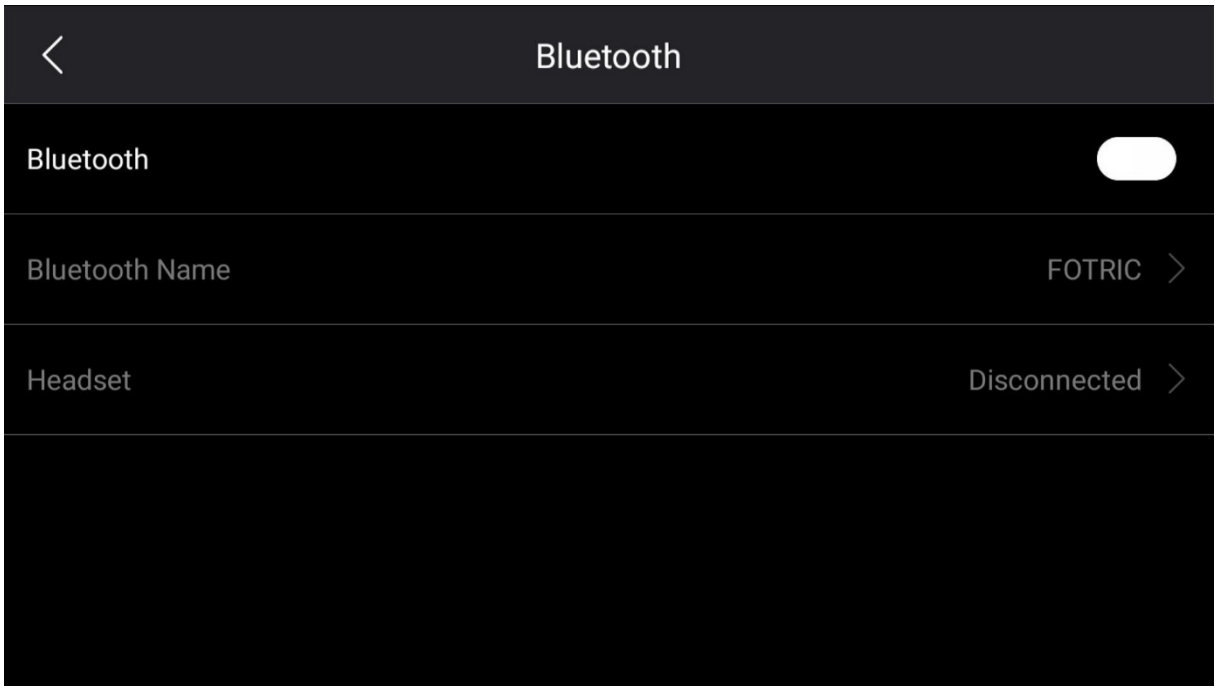
Select "Connections" -> "Portable Hotspot";

Select Turn on Portable Hotspot;

Configurable name and password for the hotspot;

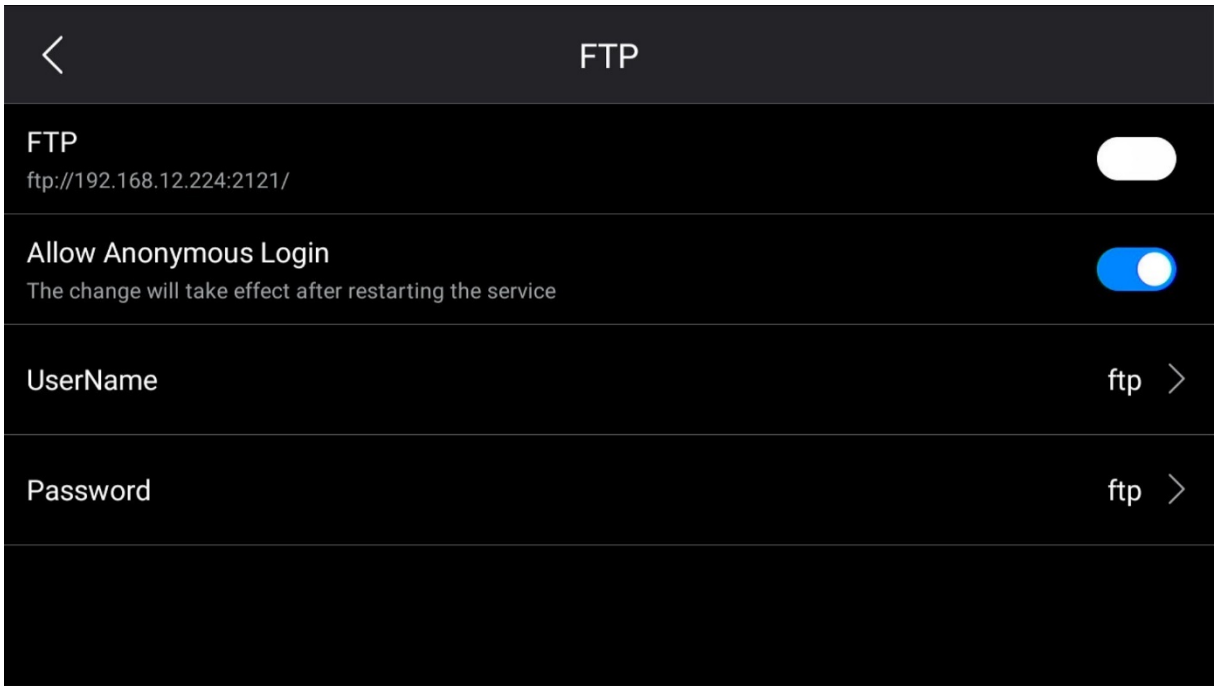
To transfer data using FTP, connect a device to the acoustic imager via a hotspot.

4.2.4 Bluetooth



The acoustic imager can be used to pair with other Bluetooth devices using a Bluetooth headset connection, and after adding a Bluetooth-enabled headset, users can use it to add voice notes. Adding a Bluetooth-enabled headset will automatically disable the built-in microphone and speaker.

4.2.5 FTP data transfer



FTP transfer, when the service is turned on, users can connect to the acoustic imager via other FTP clients for SD card file transfer.

Via "Settings" -> "Connections" -> "FTP Transfer".

Connect the client and the acoustic imager to the same WLAN or connect the client to the acoustic imager's hotspot and enable FTP transfer;

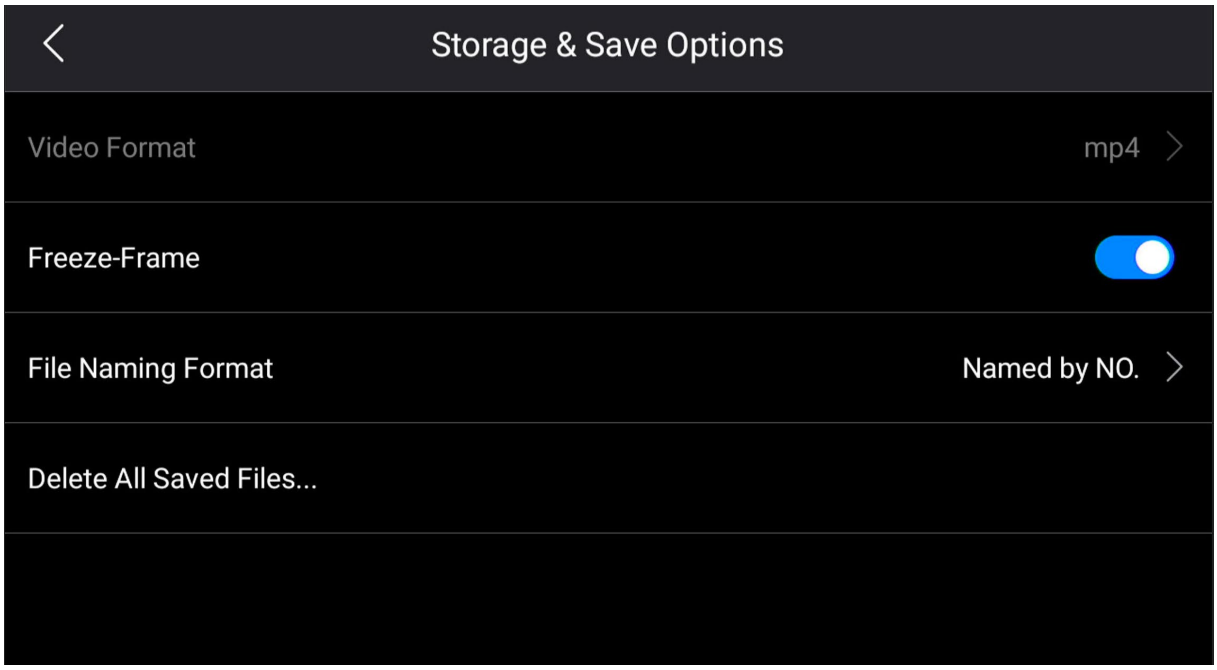
After successful opening, the type address will be displayed: ftp://IP:port. Users can connect to the acoustic imager FTP service by entering the ftp address through a client browser, file manager or FTP client tool for file transfer;

Can be configured to allow anonymous access or not. If anonymous access is enabled, the client does not need to perform any authentication and can connect to the device's FTP service to operate the file system;

If anonymous access is turned off, the client needs to enter the configured username and password to access the file system.

! Note: WLAN mode, requires the client to be connected to the same WLAN; Hotspot mode, requires the client to be connected to the acoustic imager hotspot before it can be accessed.

4.3 Storage and saving options



Video Format: this setting defines the format in which the video clips are stored.

Available options are:

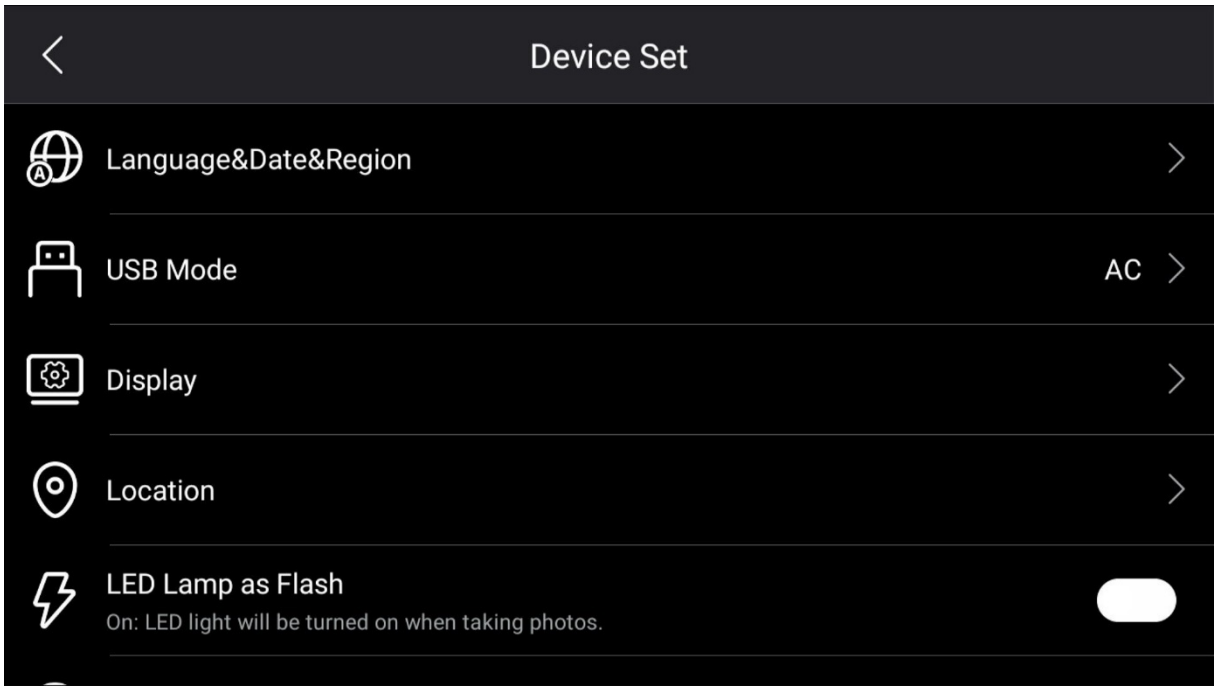
MP4 (*.mp4): After saving the file, you can only play the video can not be edited again, the content of the recorded video for the recording of the entire screen content, while recording the user's operating behavior;

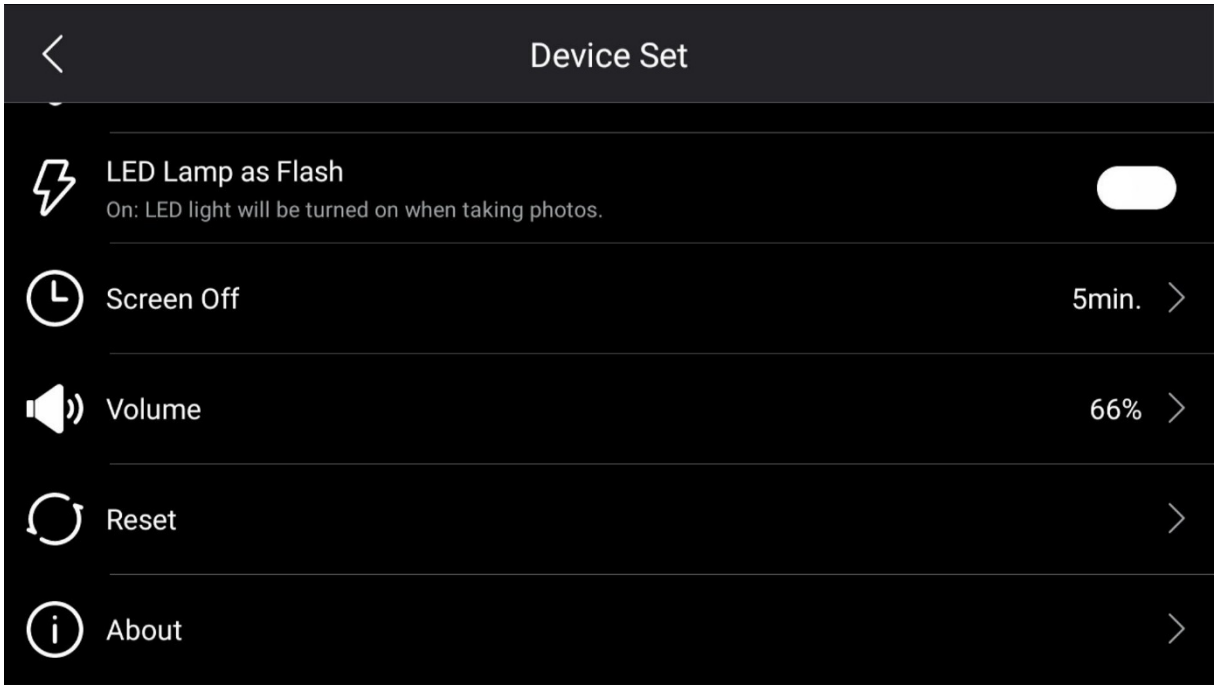
Freeze-frame: the option is for activate the freeze interface when doing single-frame capture;

File naming format can be selected: date serial number naming, serial number naming;

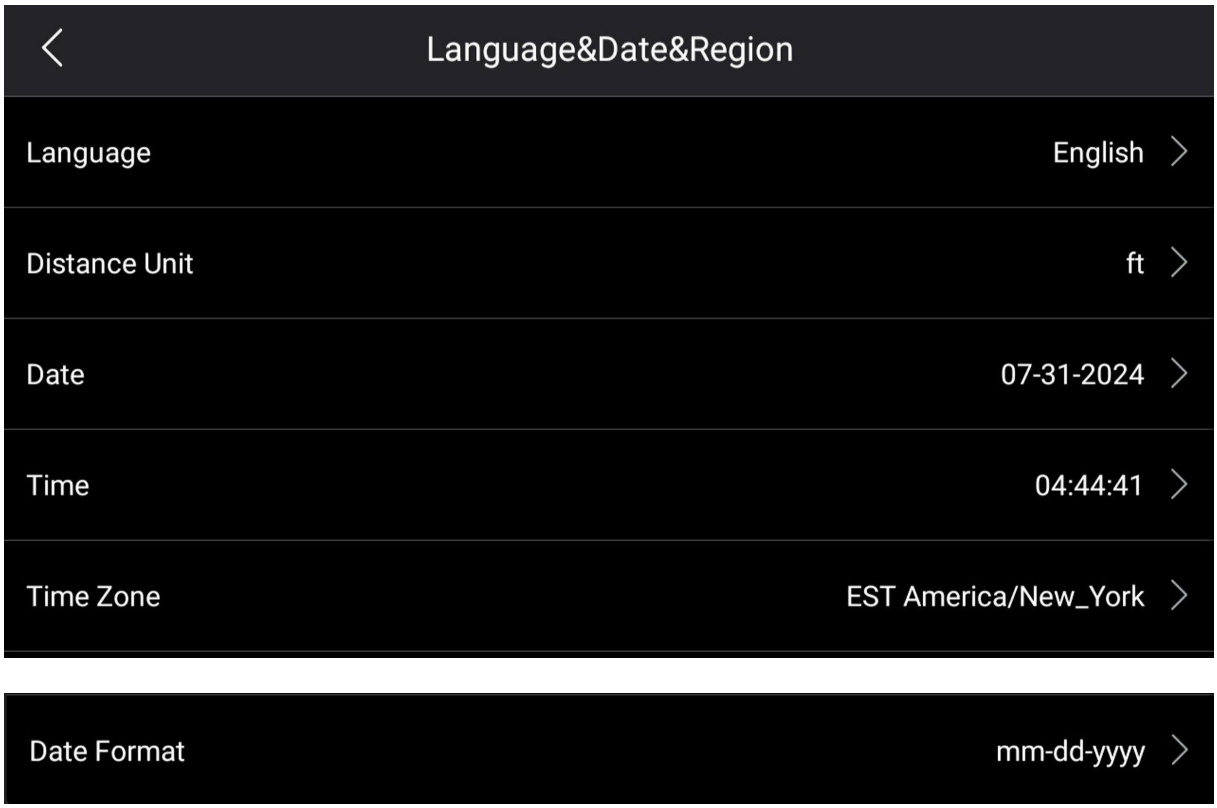
Deleting all saved files... : it will summon a dialog box in which the user can choose to permanently delete all files (images and videos) saved on the memory card, or cancel the deletion operation. ;

4.4 Device Settings



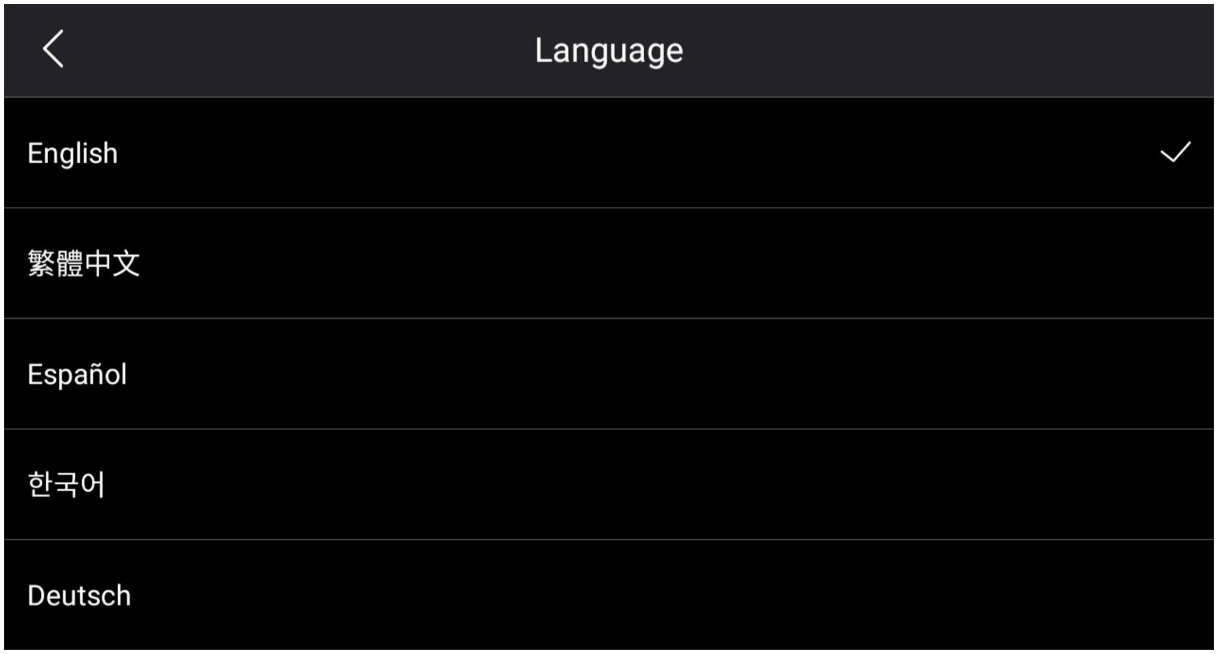


Language, time and regional settings

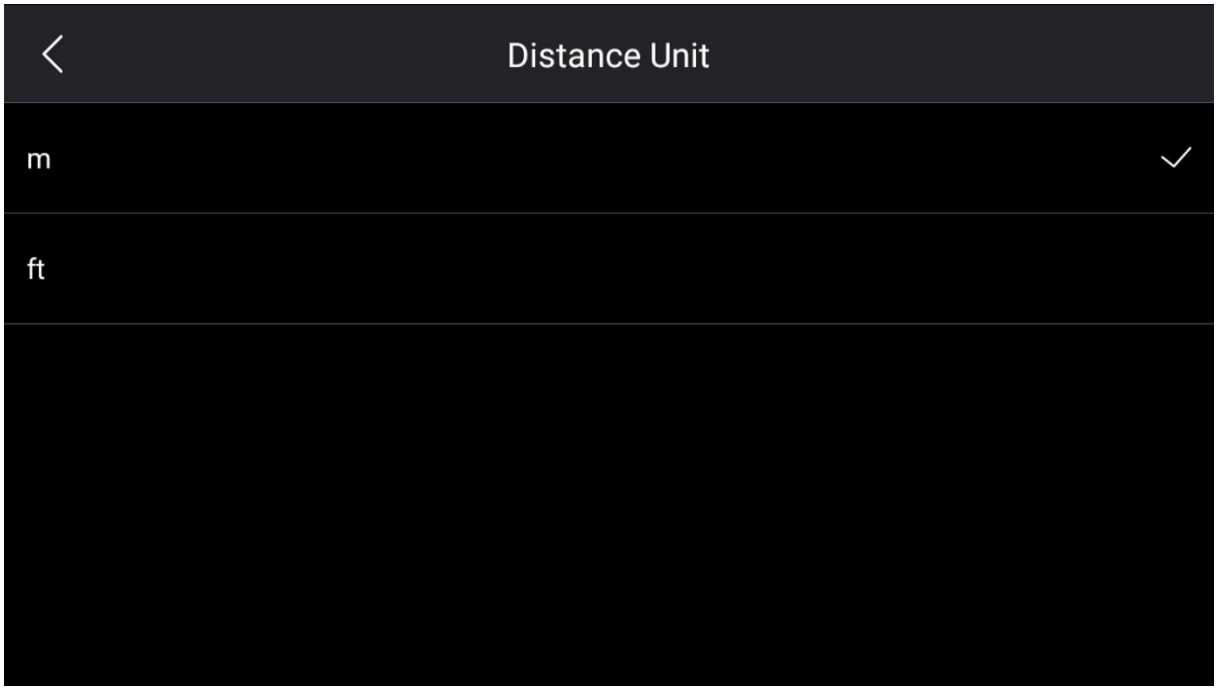


Language & date & region: This submenu contains settings for the following parameters: language, distance units, date, time, time zone, and date format settings.

Languages: Chinese, English, Traditional, Spanish, Korean, German, Portuguese, Italian



Distance units: m, ft.

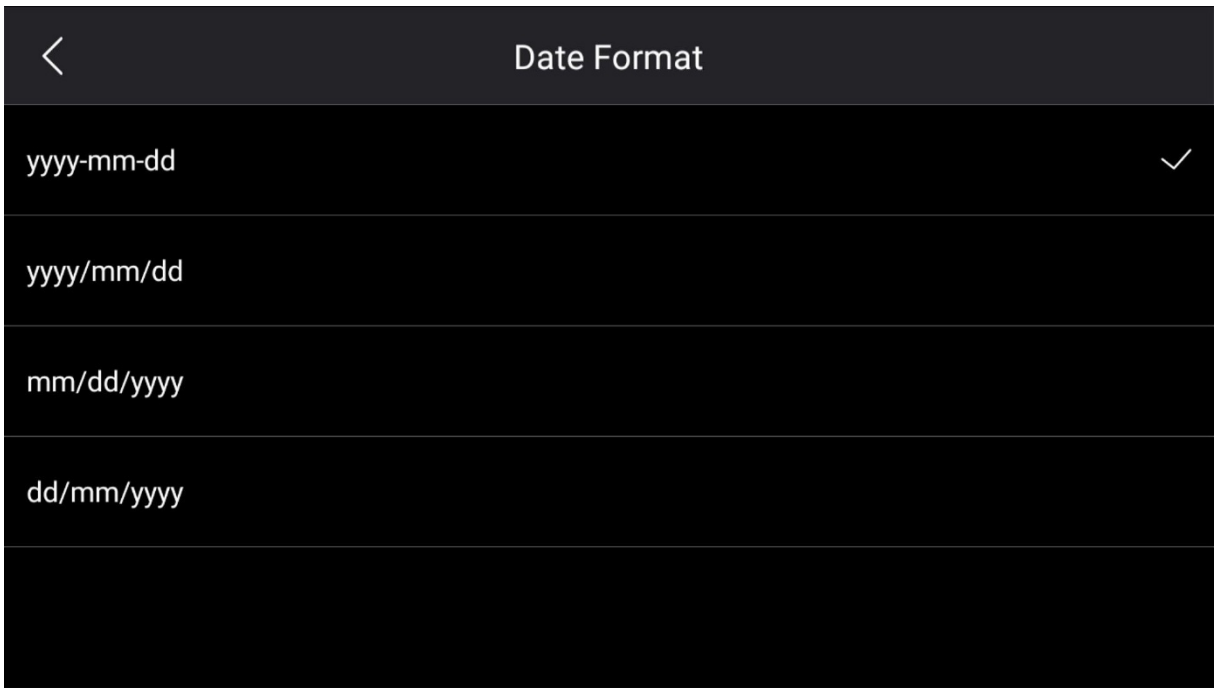


Date

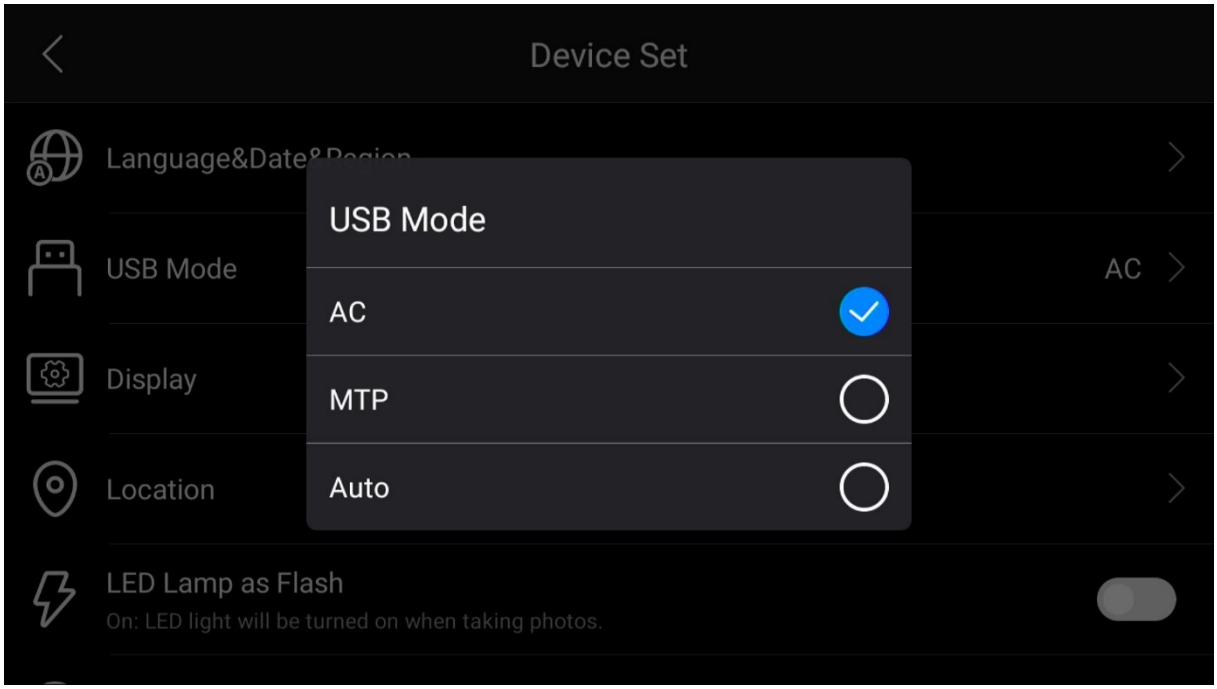
Time

Time zone

Date format

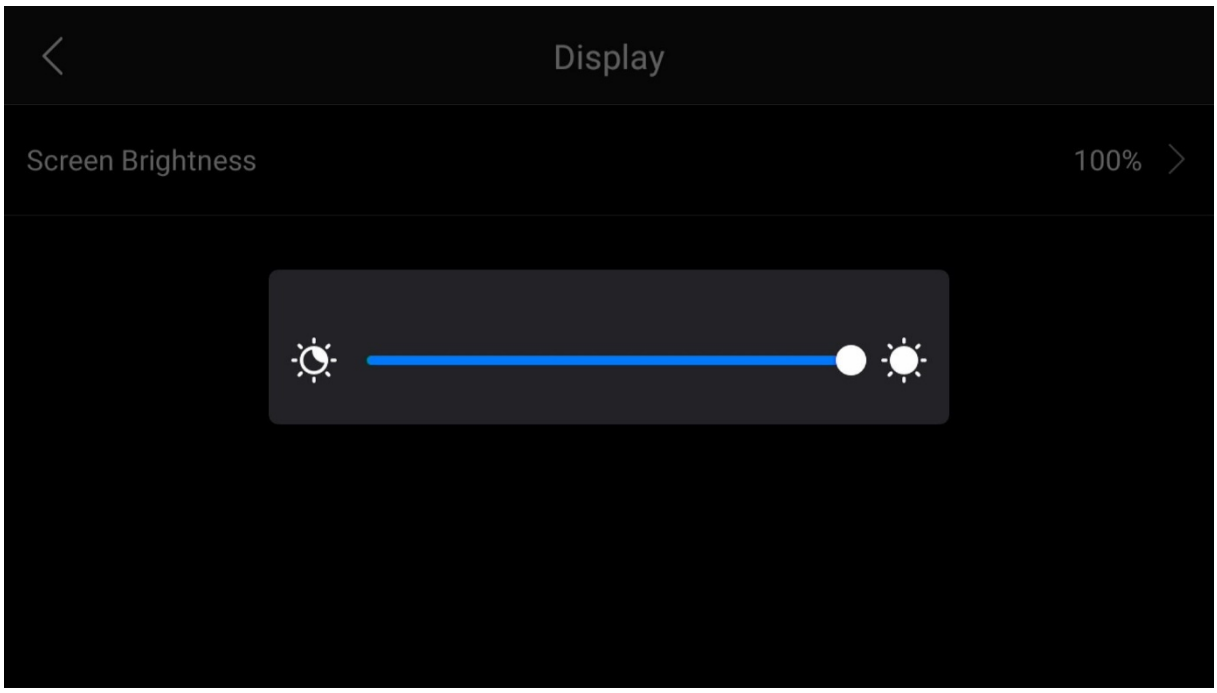


USB mode



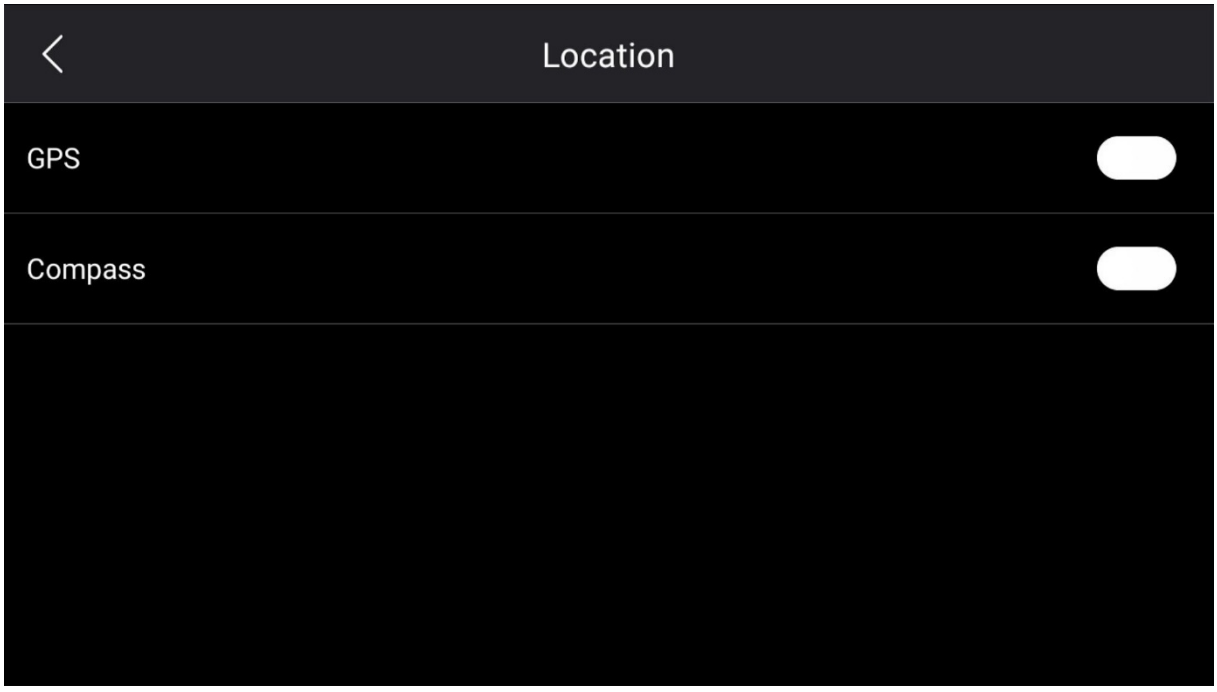
Available USB modes: channeling acoustic video and image stream (AC), transferring files (MTP), or automatic switch in-between(Auto).

Display



Display Settings: Slide to adjust screen brightness

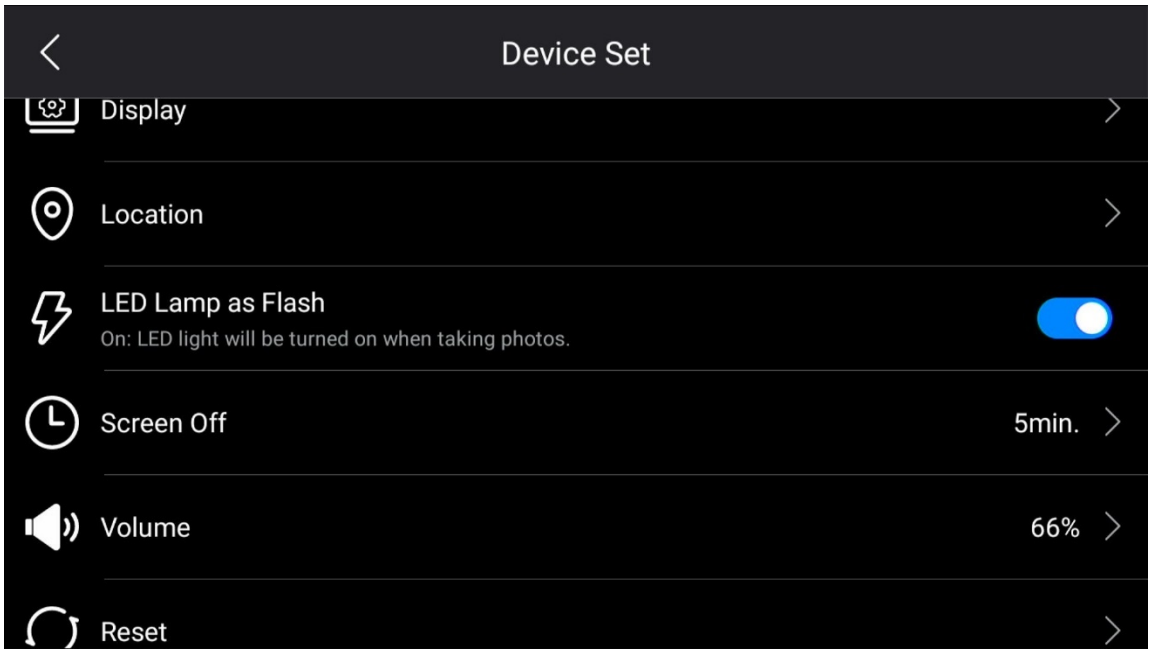
Location



GPS: Enable/disable GPS information in the image;

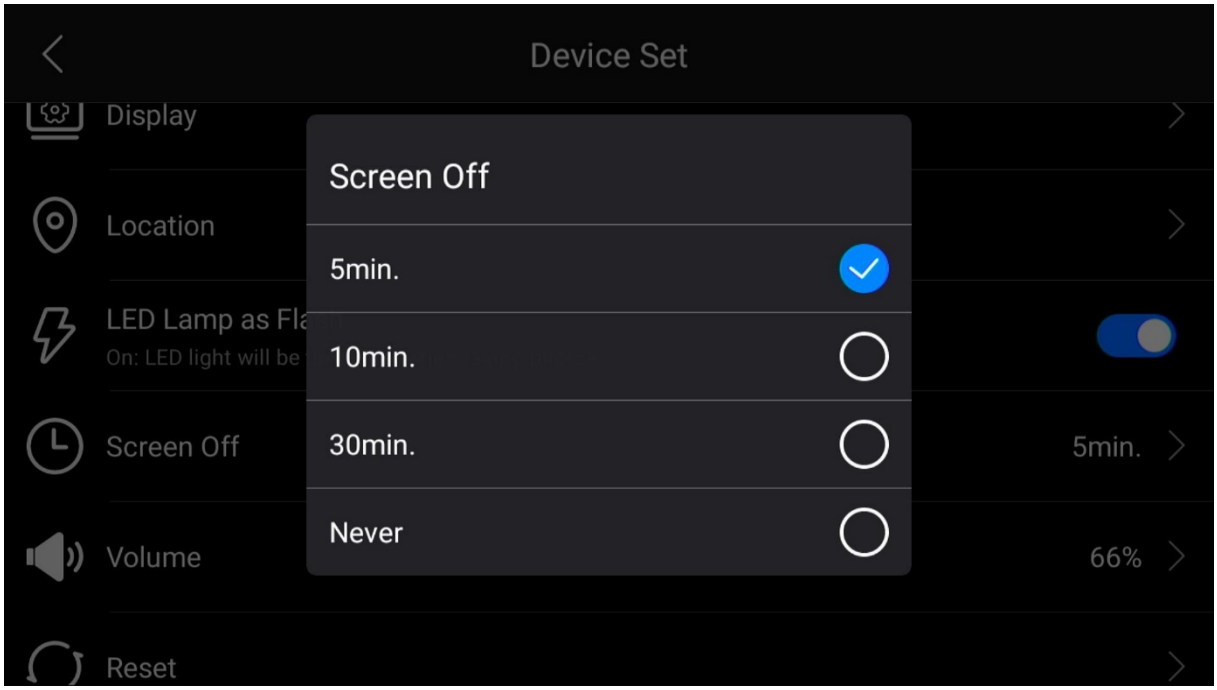
Compass: Enable/disable the compass display on the main interface.

LED lamp as flash light



The acoustic imager LEDs can be used as a flash for digital cameras. If the flash function is enabled, the LED light will enable the flash function when the trigger button is pressed to save the image. The LED can also be used as a flashlight by turning on the LED from the main screen drop-down menu.

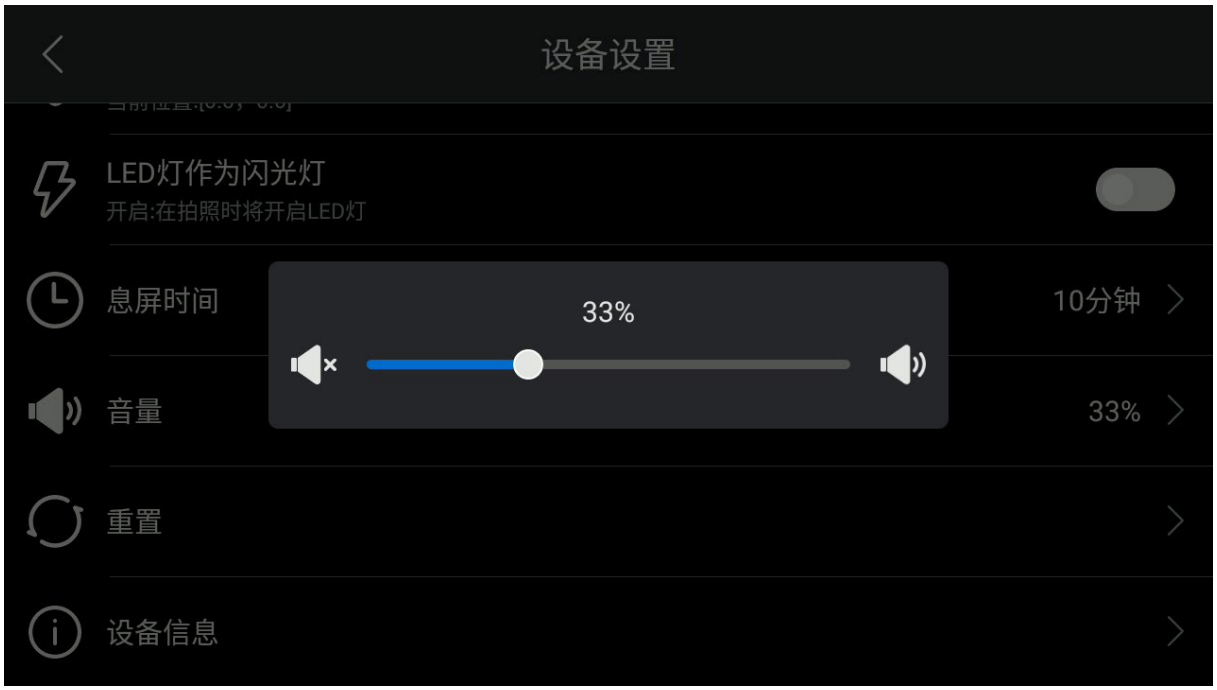
Screen off



Screen Off: Set how long the acoustic imager will automatically rest the screen after it has not been operated. Supports 5 minutes, 10 minutes, 30 minutes, permanent;

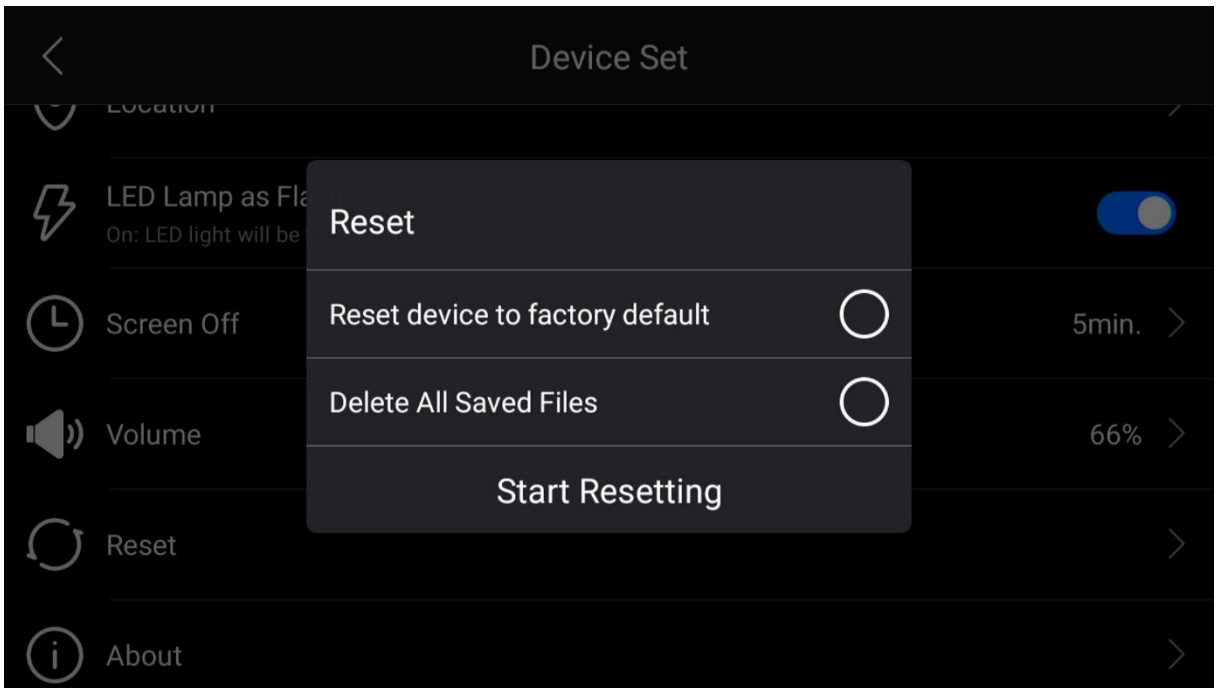
Tap on the camera's power key to wake up the screen in sleep mode. Users can also manually enter sleep mode by tapping the key when using the camera.

Volume



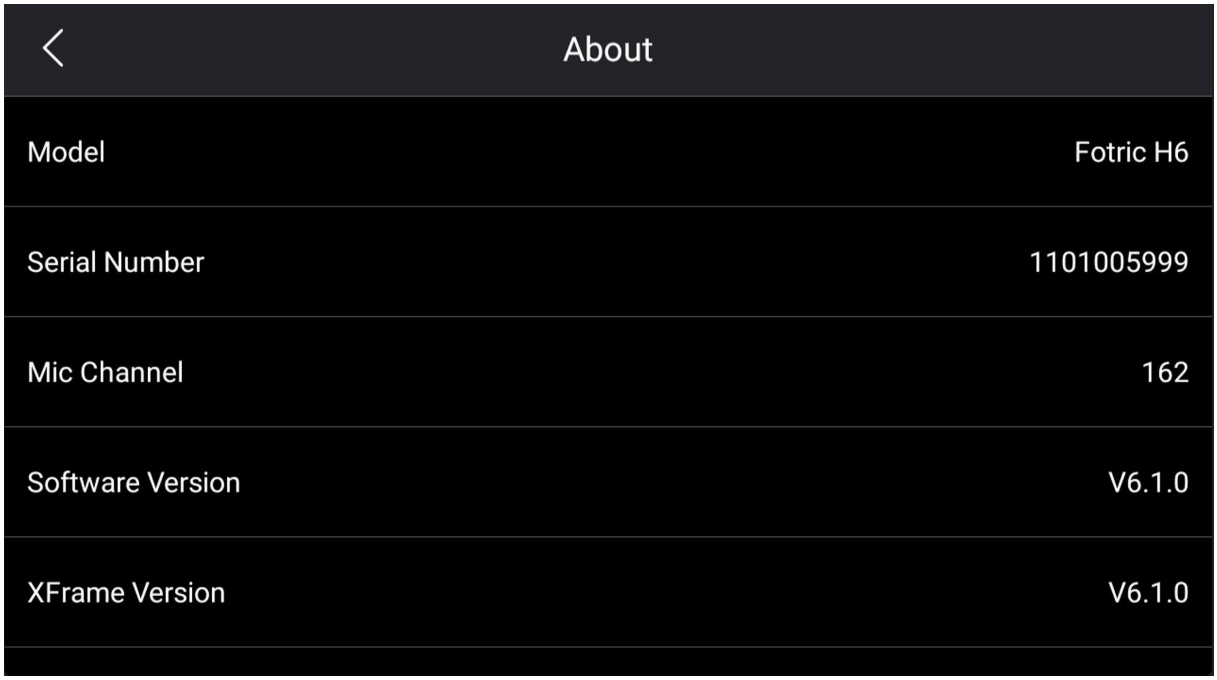
Volume Adjustment: Adjust the volume level by sliding the round button or tapping the on-screen volume setting bar.

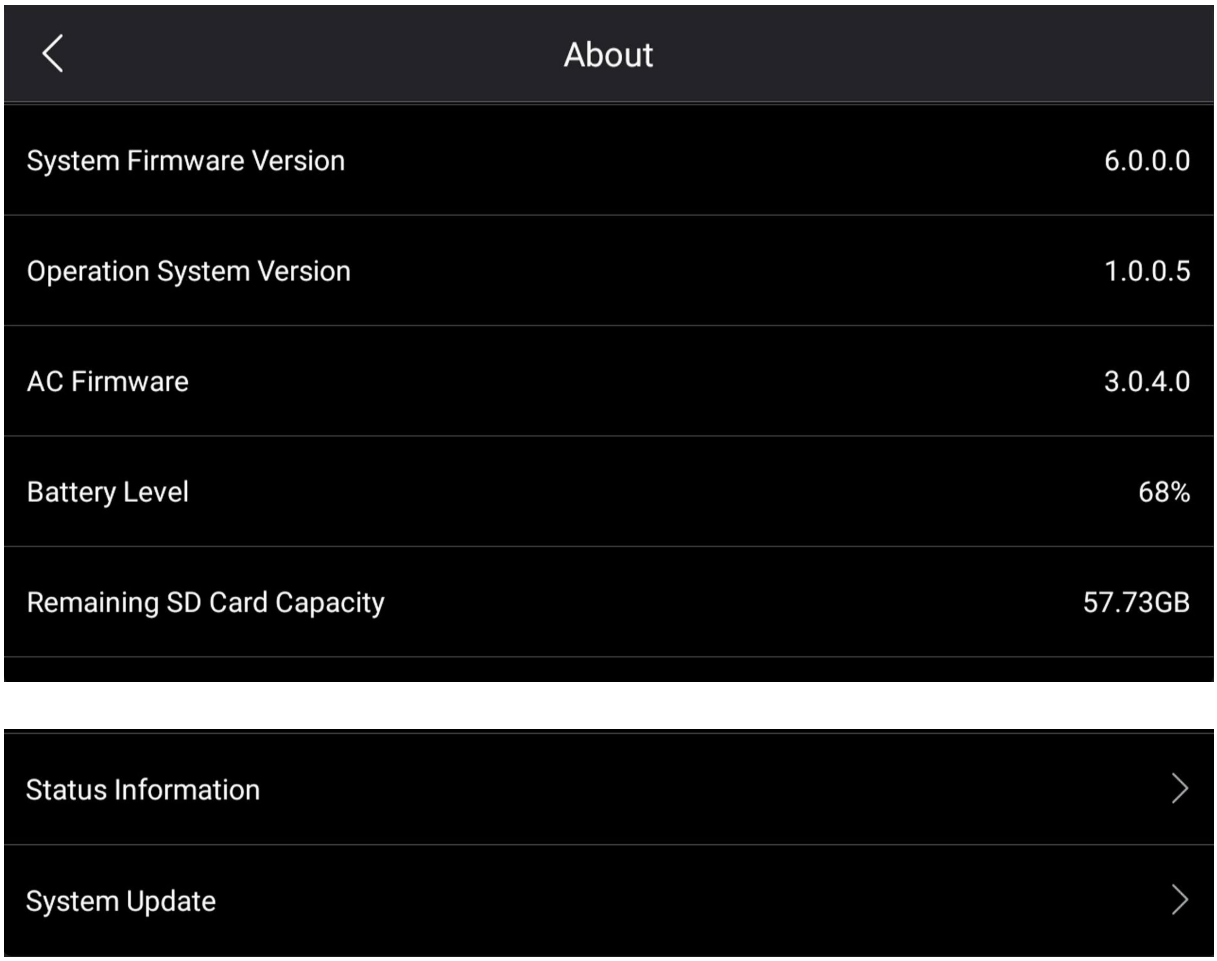
Reset



Reset Options: Parameters are reset to factory default settings and all saved files are deleted.

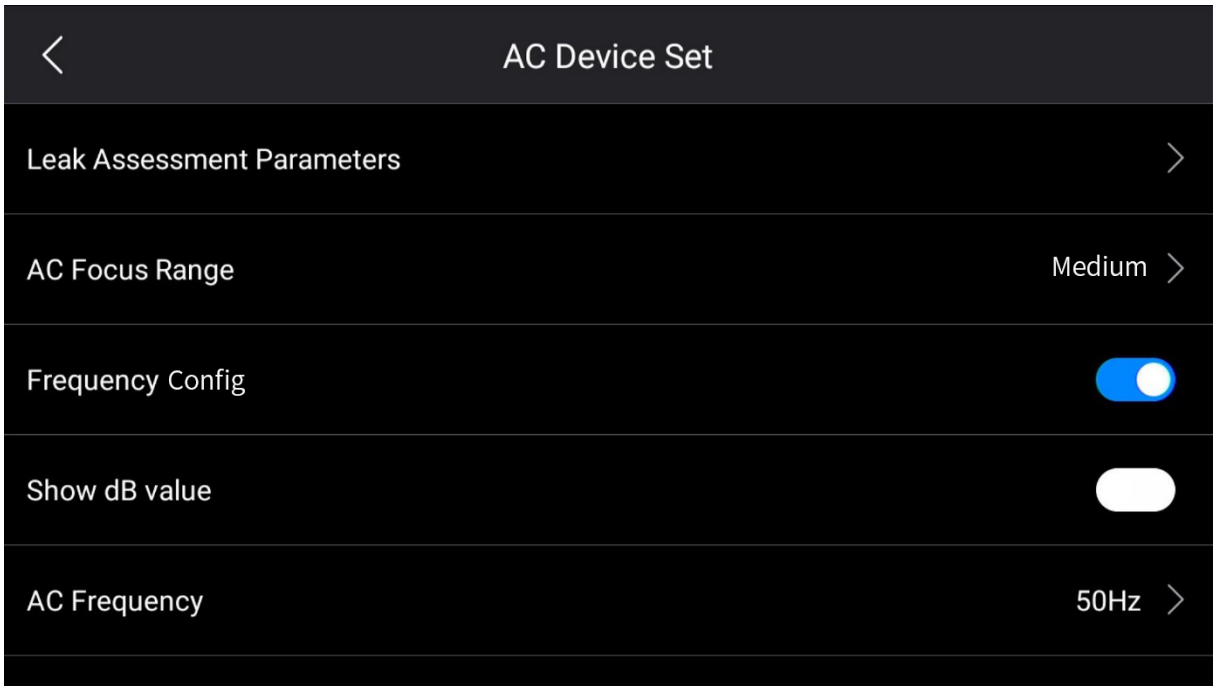
About

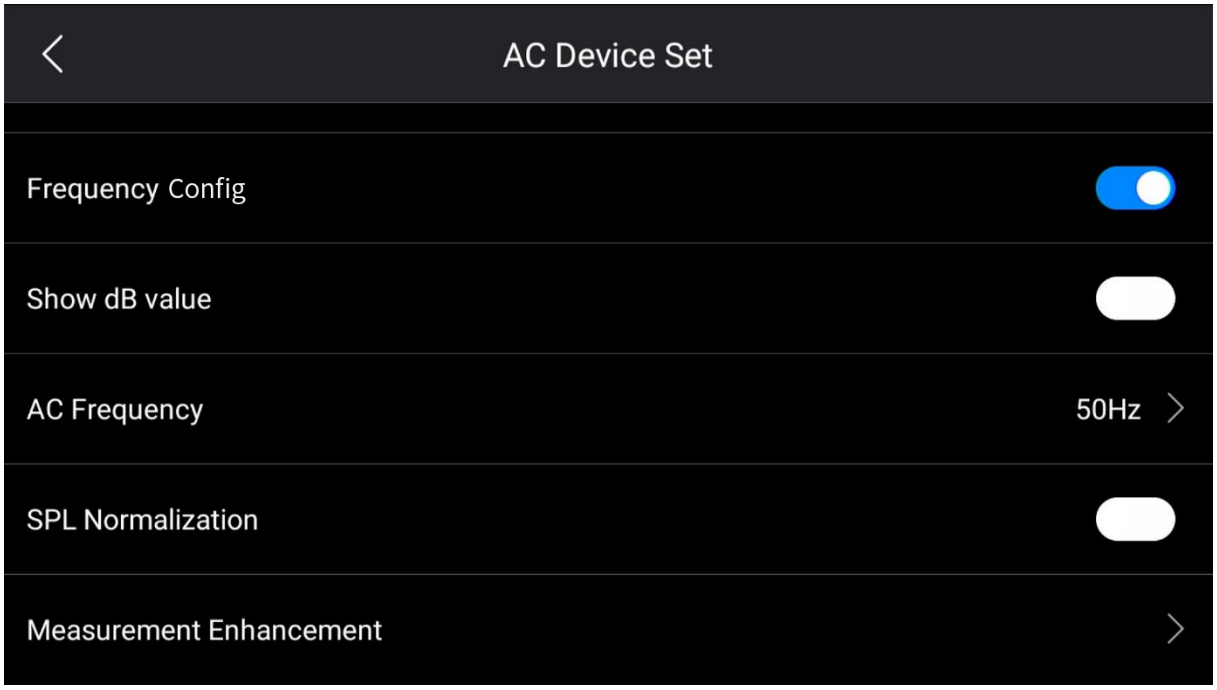




About: Model, Serial Number, Software Version, Mic Channel, XFrame Version, System Firmware Version, Operating System Version, AC Firmware Version, Lens, Battery Level, Memory Card Remaining Capacity, Status Information (IP Address, Mac Address, Bluetooth Address), System Update.

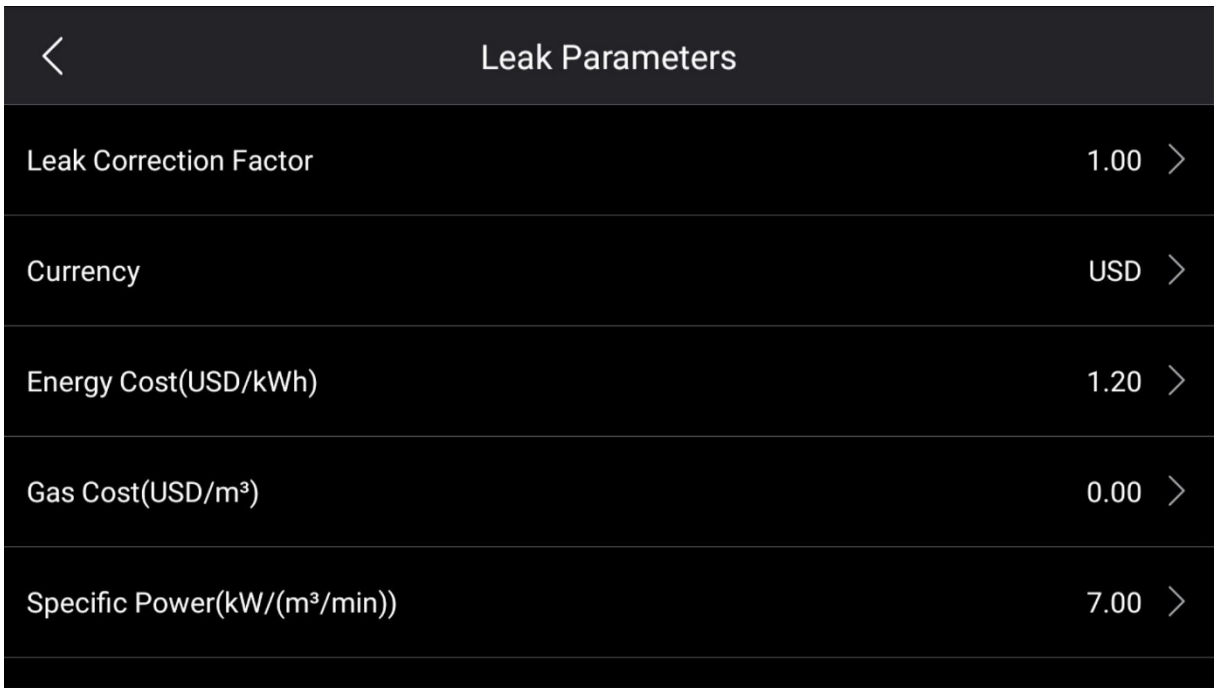
4.5 AC Device Set

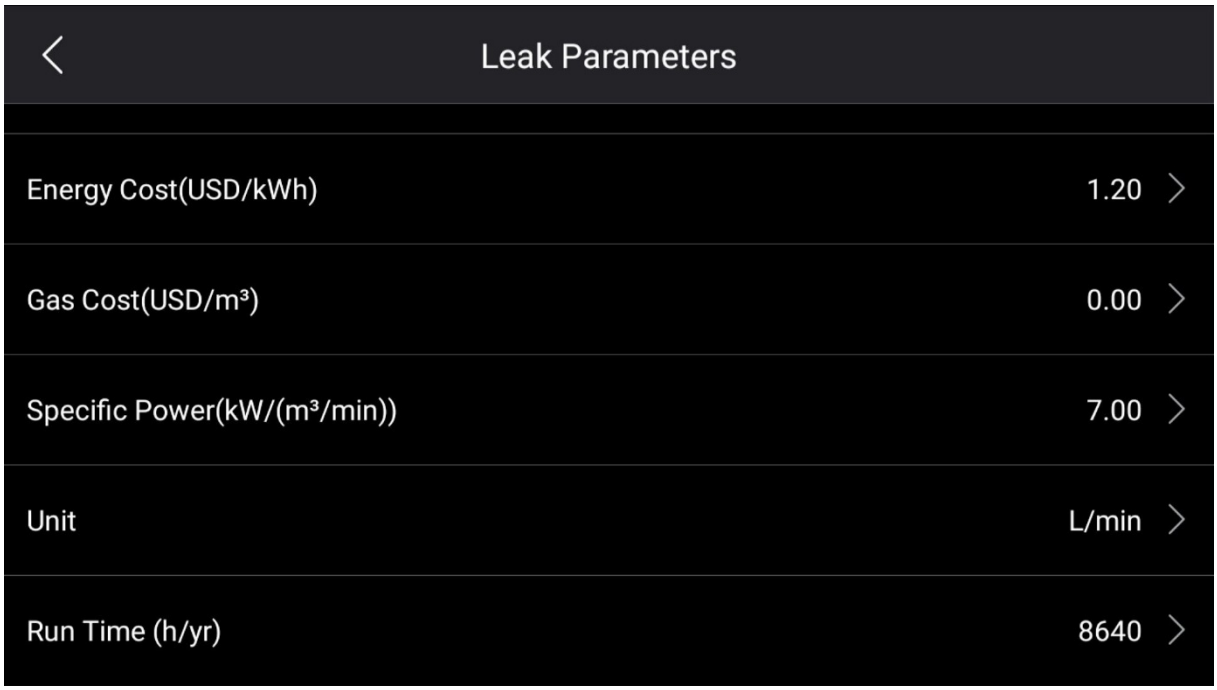




AC Device Set include: Leakage Evaluation Parameters, AC Focus Range, Frequency Set, Show dB Value, AC Frequency, SPL Normalization, and Menu Configuration(Measurement Enhancement);

Leakage evalulation parameters





Leak evaluation parameters include: leak correction factor, currency, energy cost, gas cost, specific power, unit, run time

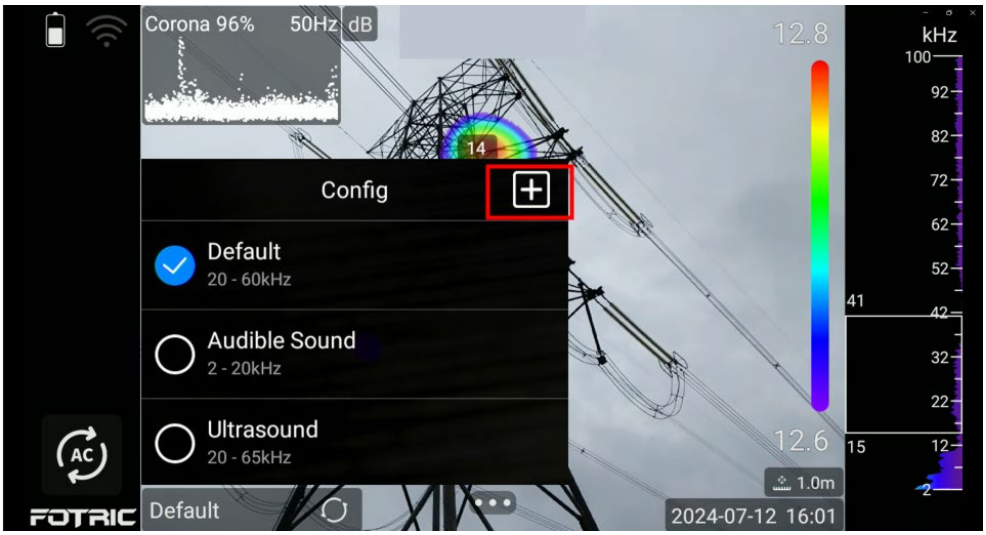
AC focus range

AC focus range: large, medium, small (adjust the size of the focus frame)

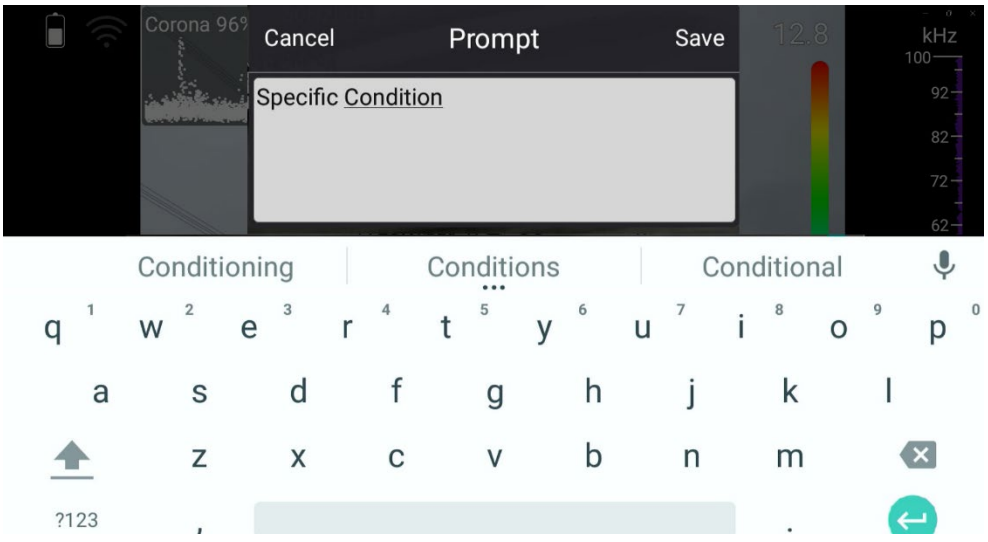
Frequency config

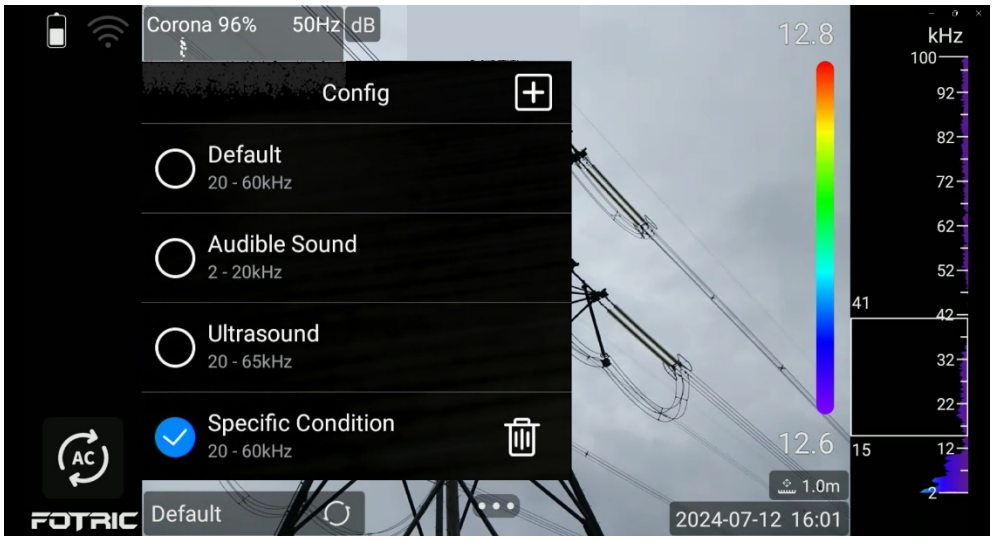
Turn on frequency configuration to gain access to customizing preset frequency range.

Once the 'Frequency Config'option is toggled, the button for adding customizing frequency span will appear on the main interface.



Users may manually select a range for the camera to narrow into and name the frequency range for later selection.



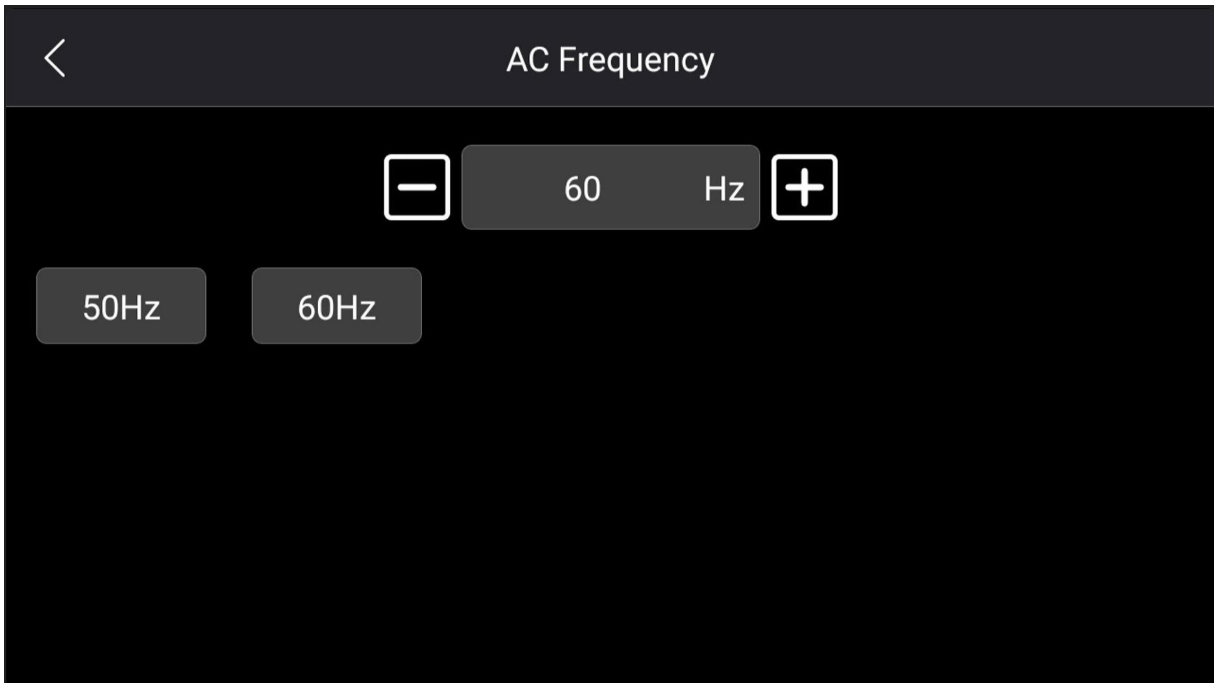


Show dB value

Whether the sound pressure value is displayed on the control screen

AC frequency

AC frequency can be selected from 50Hz, 60Hz



SPL normalization

Enable sound pressure level normalization to normalize the sound pressure level in PD mode and leak mode.

Menu Configuration

Menu Configuration: Includes Sound and Video Delay (T-FFTD®), Measurement Tools

Measurement enhancement

Turning on and off signal linger mode (T-FFTD®) and measurement tools.

4.6 Plug-in Settings

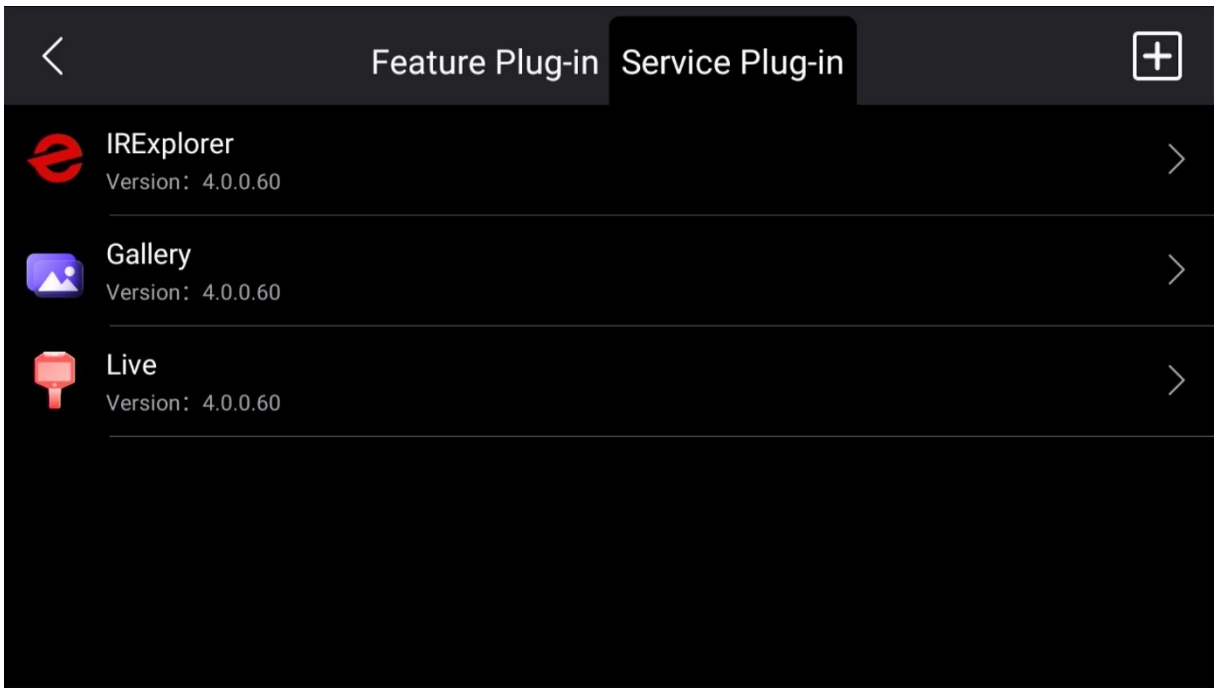
Plug-in manager

Some business plug-ins can be customized or added under license based on recipe;

On this interface, the user can choose to turn on/off the business plug-in. If the business plug-in is on, the corresponding logo appears on the left side of the main interface; otherwise, they won't appear.

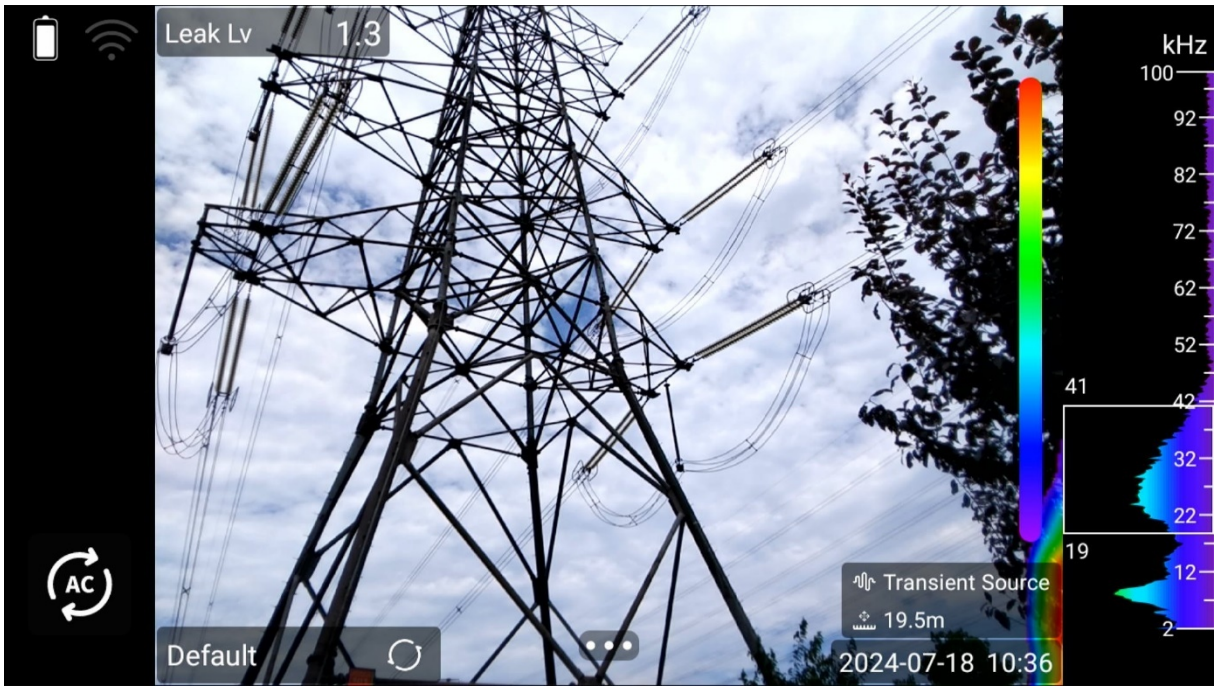
Service plug-in

The service plugin is a subsection of the IRExplorer

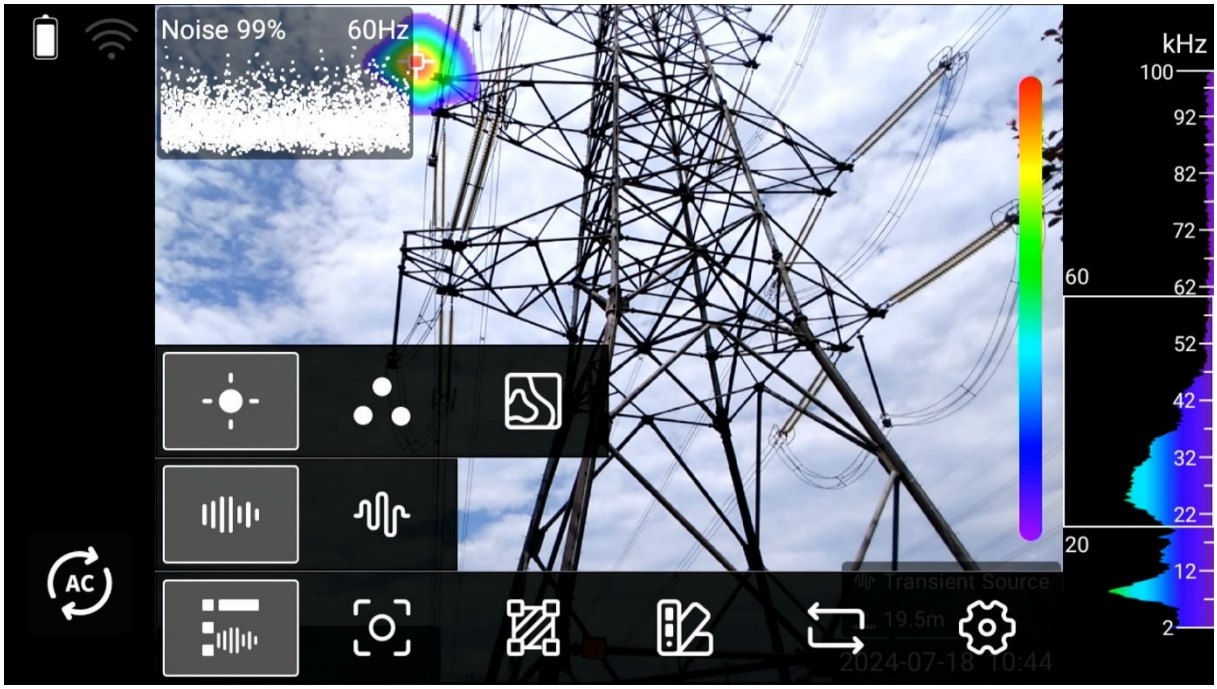


5 Image Freeze Interface

5.1 AC Images

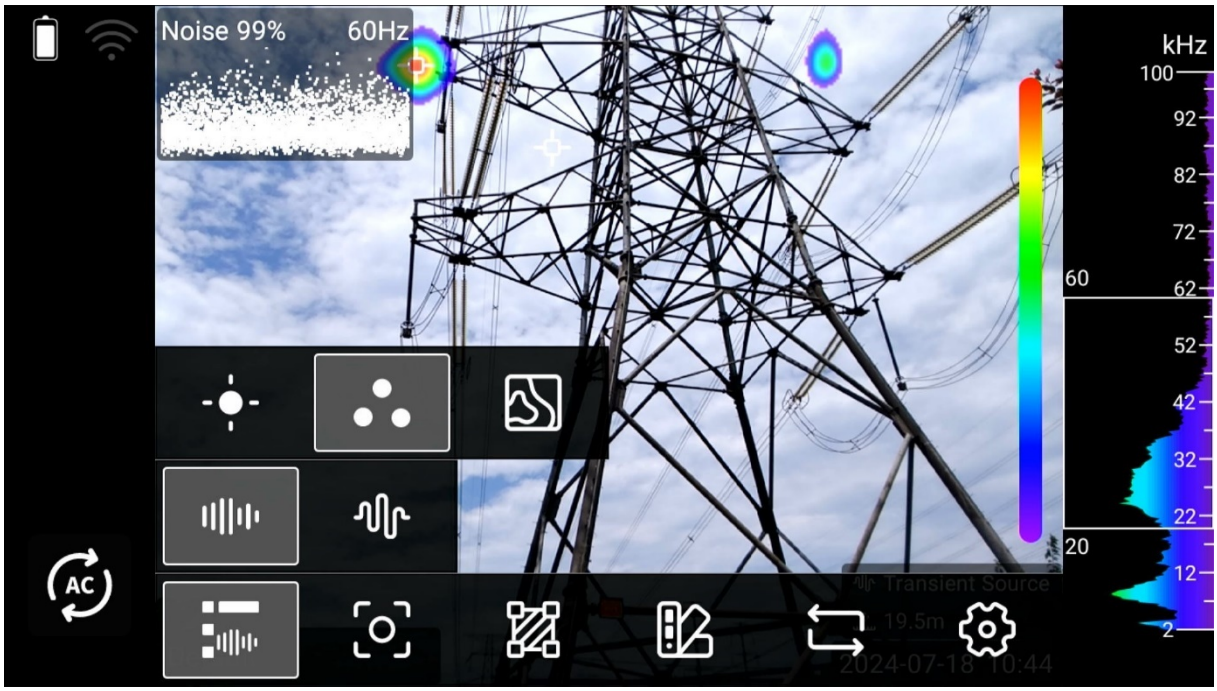


5.1.1 Source mode



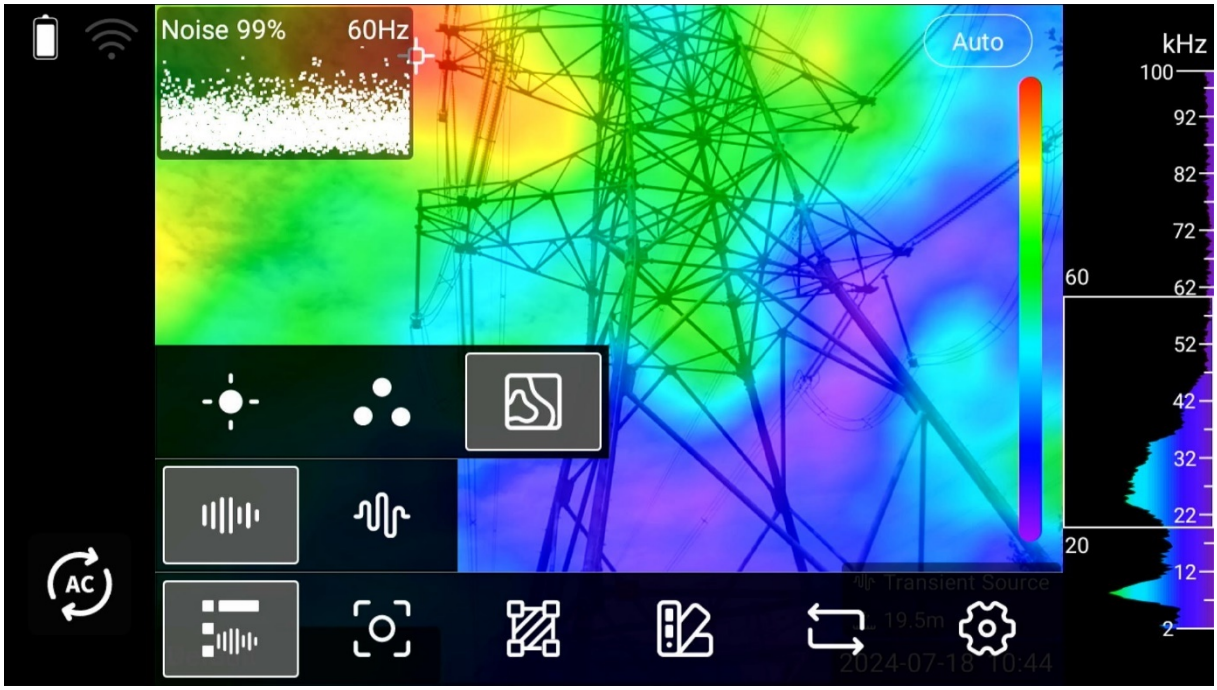
Sound source mode: Single;

Under this mode, the camera will only display the most prominent acoustic signal source.



Sound source mode: Multi;

Under this mode, the camera will display multiple prominent acoustic signal source as long as their strength passes certain threshold.



Sound source mode: Hologram.

Hologram mode will display the sound pressure level distribution on the screen. There are two sub display modes for hologram: auto and manual (please refer to the button on the top right corner of the screen). The auto mode will display the sound pressure level distribution of the entire screen. The manual mode will display the area where the signal strength exceeds a user-selected threshold.

Note: the number in manual mode (0.1~12) indicates how much lower the threshold is than the maximum point on the screen.

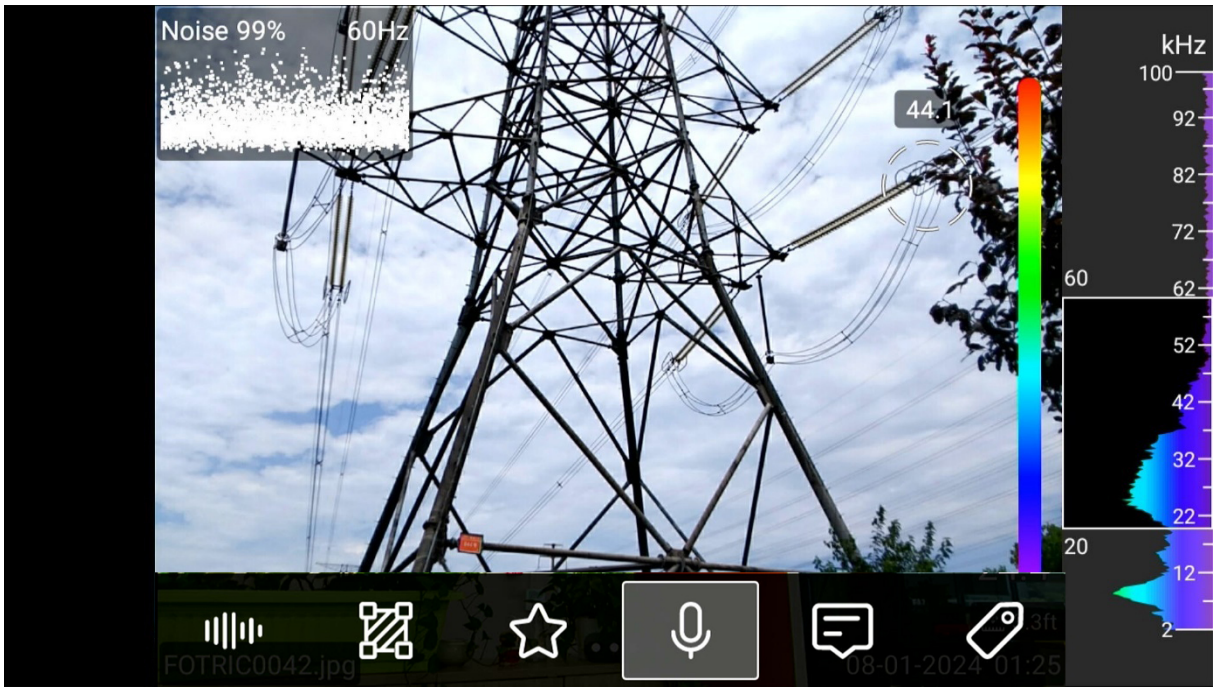
Measurement tools

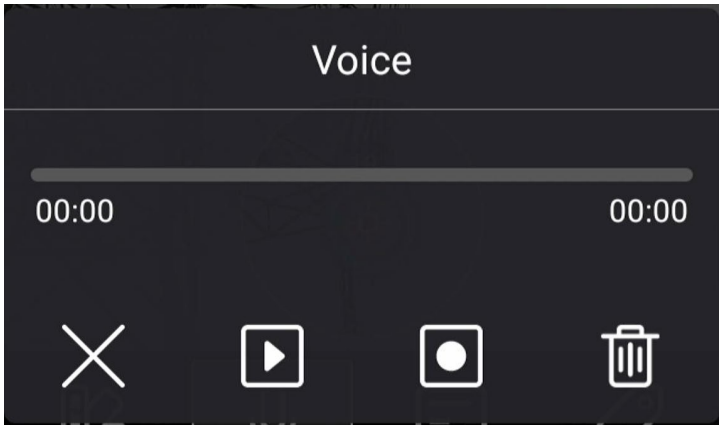
Apply spots and circles.

Distance range: 0.3m~100m, can also be customized for manual input;

5.1.2 Voice annotation

Voice annotation supports voice recording and recording in image files. It can be played in the image file or in the PC software.





 Close;

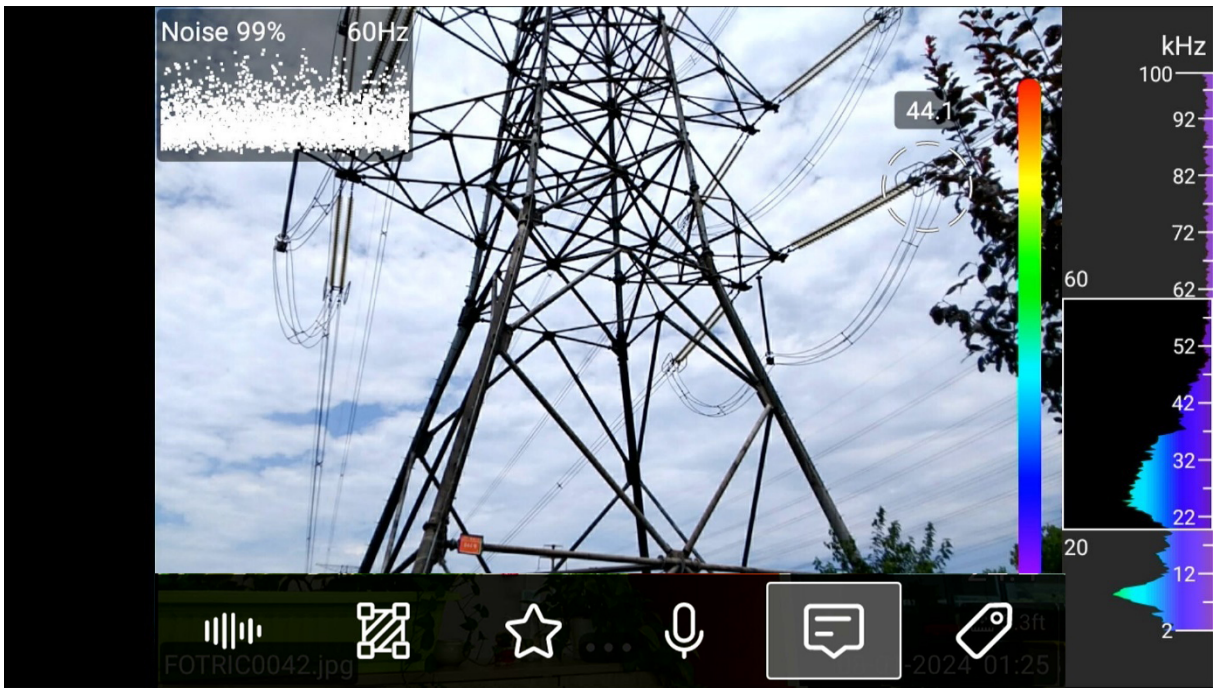
 Play;

 Recording;

 Delete.

5.1.3 Text annotation

User may apply add text annotation to an acoustic file by typing, OCR or QR code scanning.



 Close;

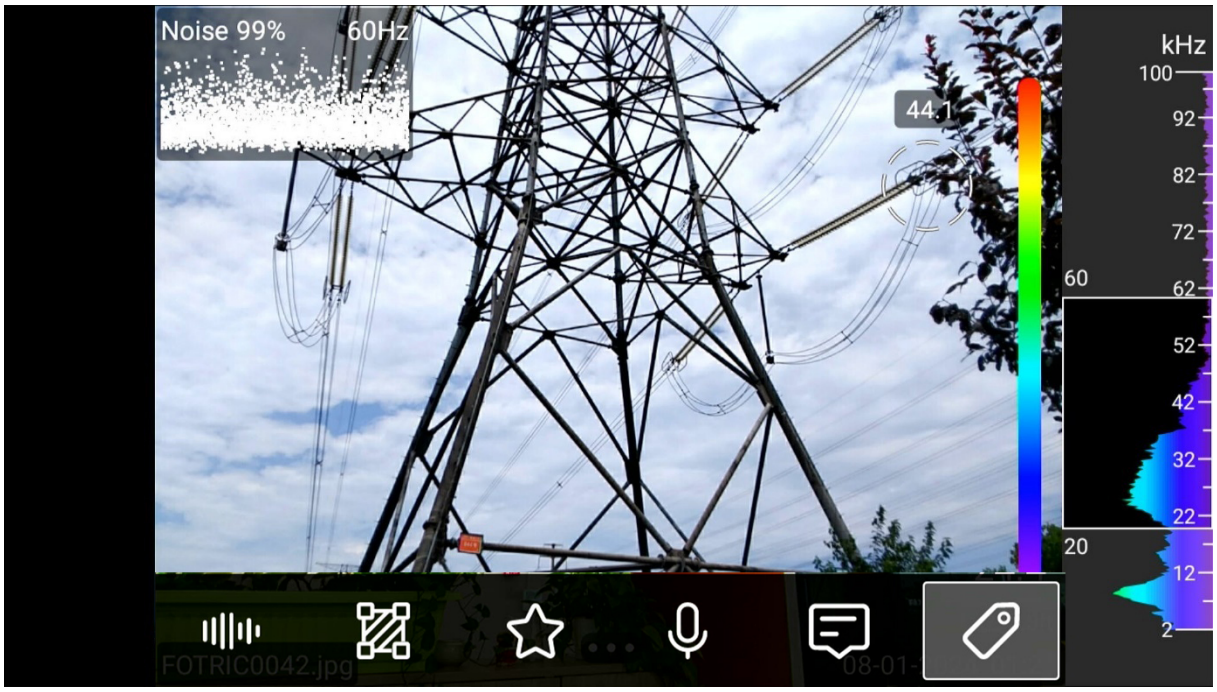
OCR text transcription

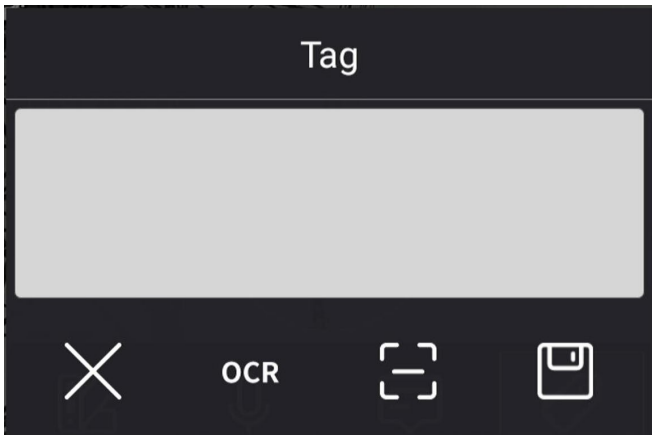
 QR code scanning

 Save.

5.1.4 Tag

Users may apply tag information on the acoustic image by typing, OCR or QR code scanning.





Close;

Text transcription;

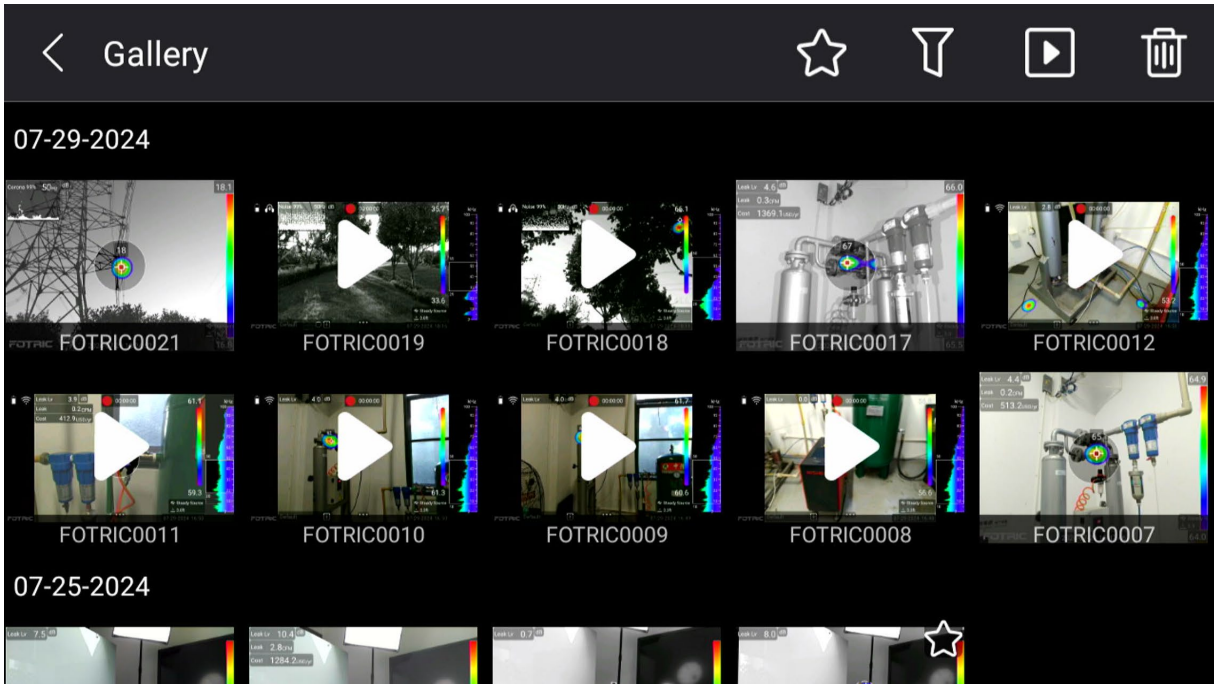
QR code scanning;

Save.

6 Gallery

Images are saved on the SD memory card, and all images that have been saved can be viewed through the gallery, which can be opened with the gallery button. The image files will be displayed in time group (day) as shown below. Users can switch between images by pressing the Left/Right buttons, and the Up/Down buttons switch between up and down rows. To return to the live image, press the Back button.

Items in the gallery are selected the first time they are clicked, and opened for analysis or playback when clicked again.



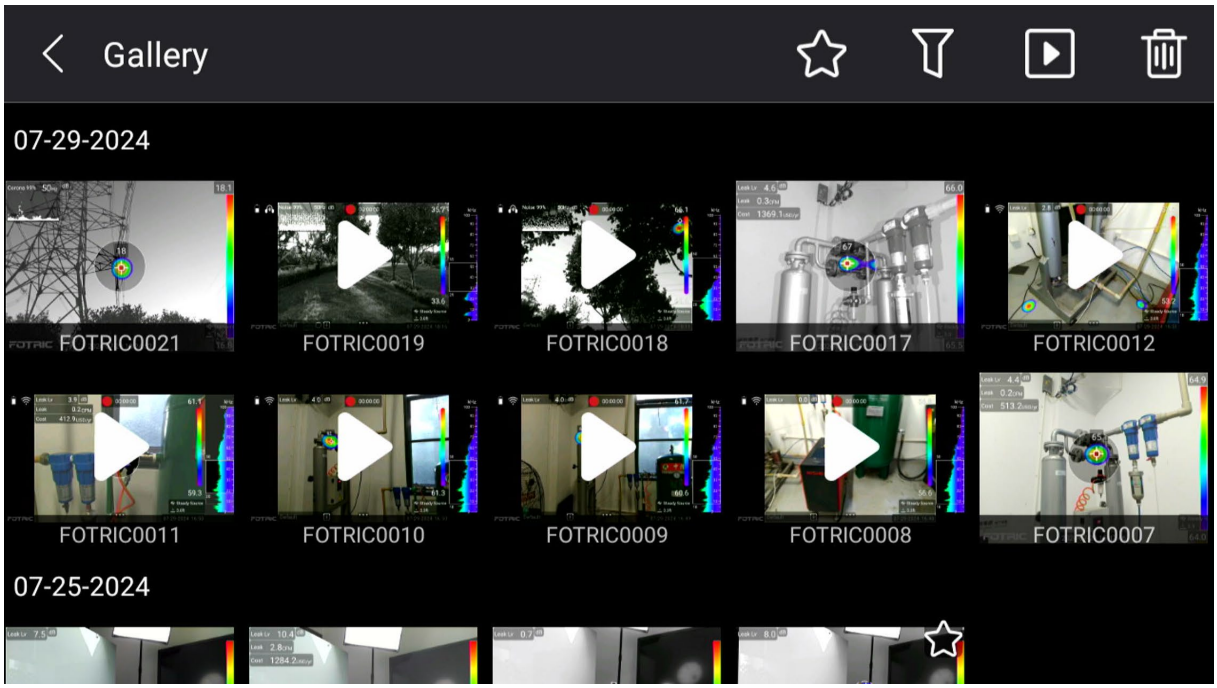
 Filter files by ‘favorite’ status;

 Tag filtering;

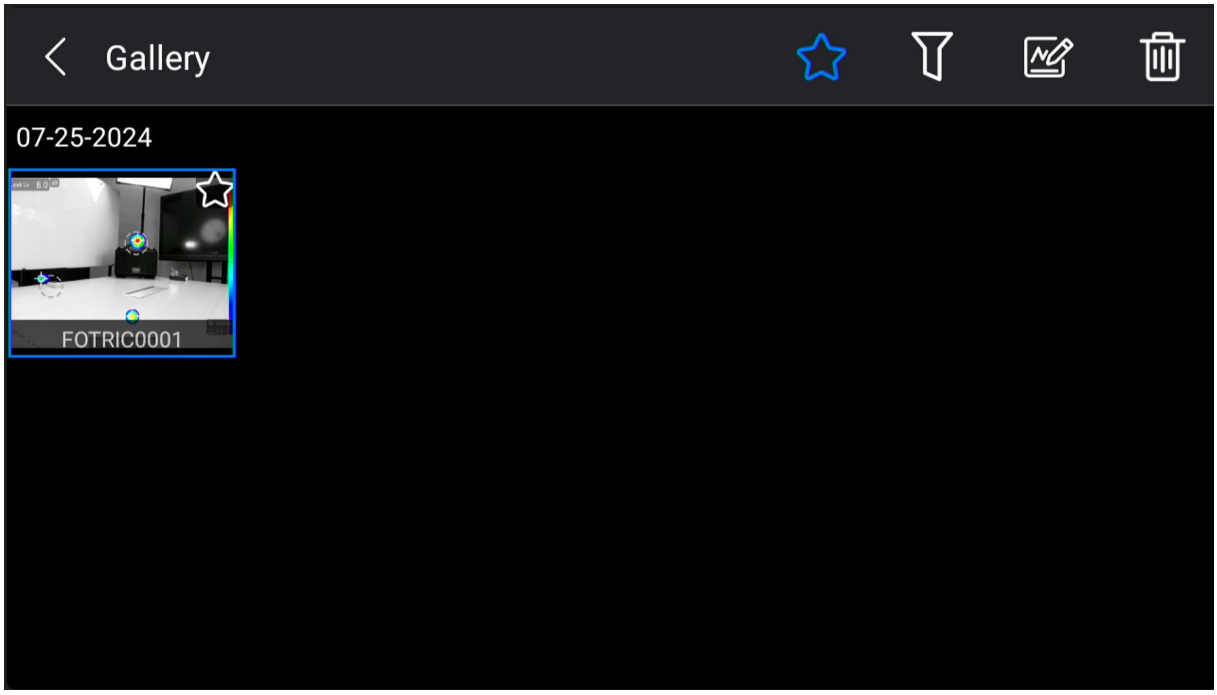
 Document analysis;

 Delete.

6.1 Favorite

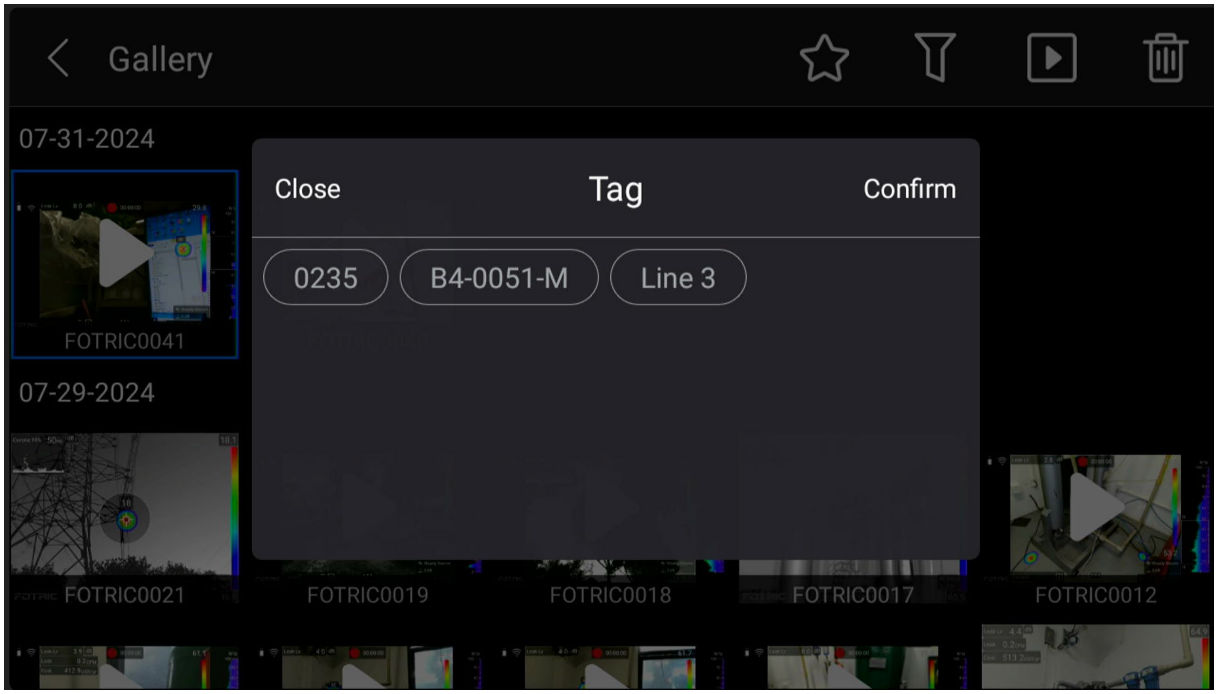


Click  to filter



6.2 Tag Filtering

Click  to enter the tag filtering interface.



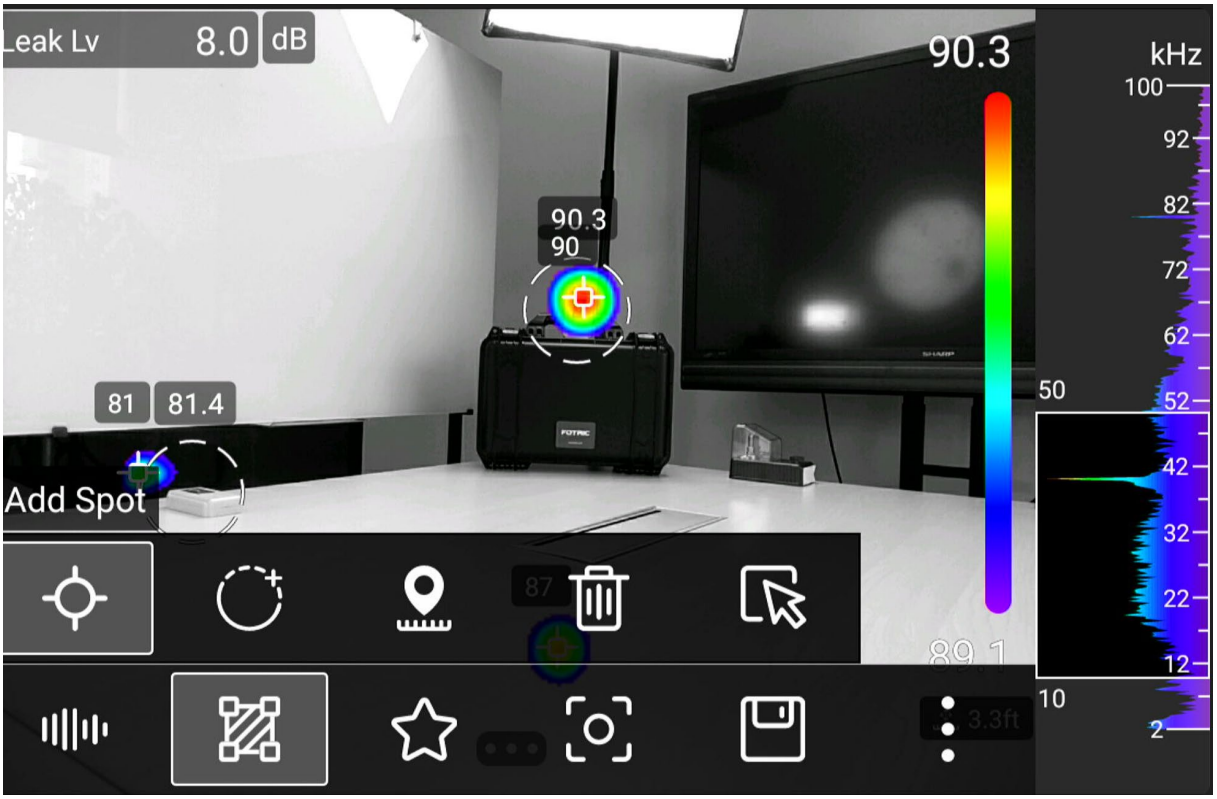
Select the tags that need to be filtered and click OK to filter out the files that have this tag.

6.3 Analyze Acoustic Image or Video

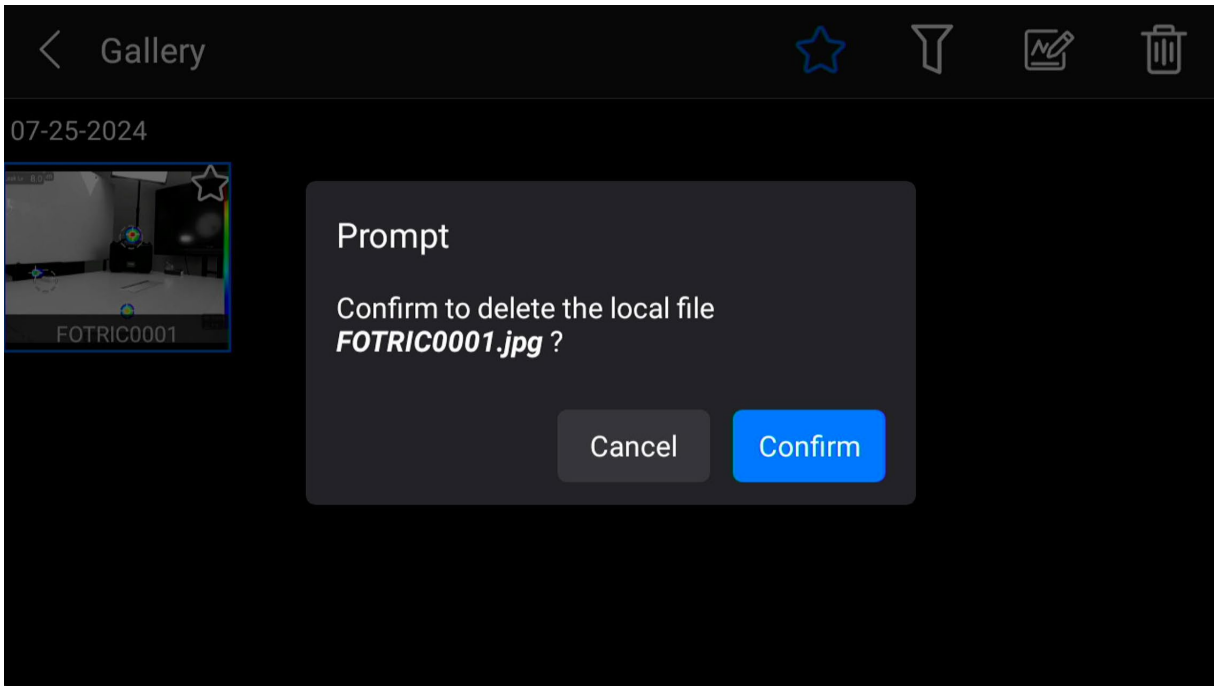
The image files in the gallery are divided into acoustic images and MP4 videos. The acoustic images can be opened, edited and analyzed. However, the MP4 videos cannot be changed.

Double click on the file or select the file and click  to open.

If it's an acoustic image, users can apply ROI to signify SPL at a specific area, apply favorite status, apply focus mode, add/edit annotations, tags, etc.

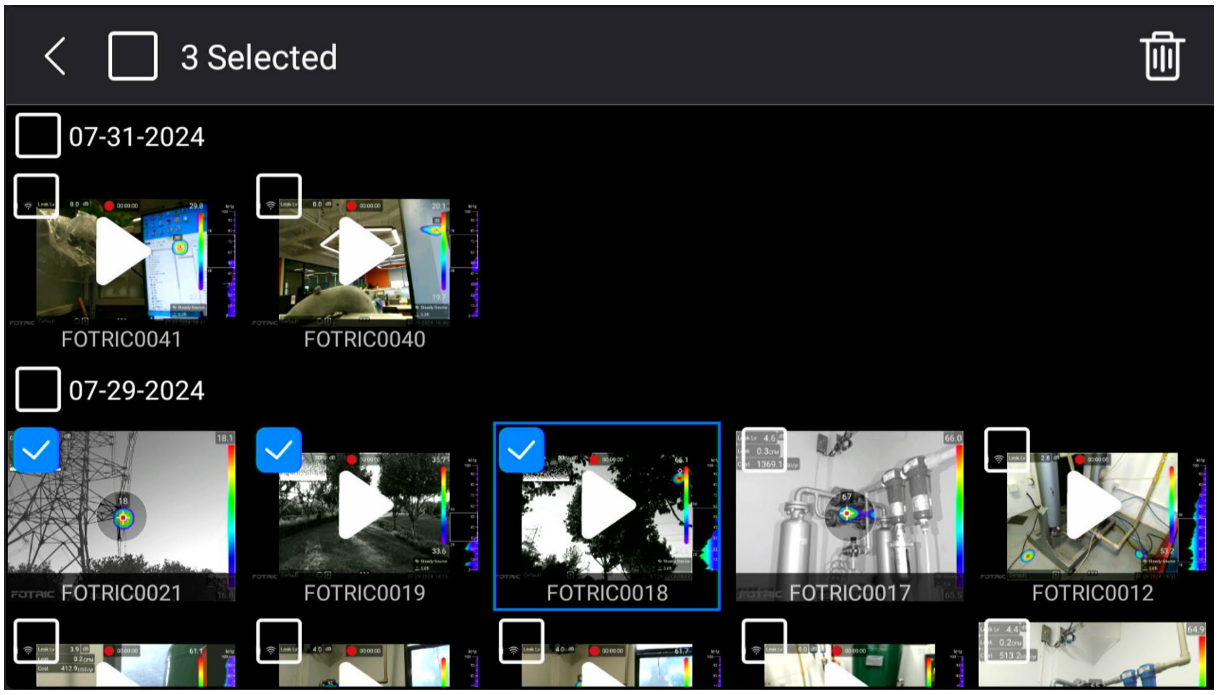


6.4 Deleting an Image or Video File



1. Select the file to be deleted
2. Click "Delete" button or press the main menu button to pop up the operation menu, select "Delete" to delete the corresponding file;
3. Click ‘Confirm’.

6.5 Delete Multiple Files



1. Long press one of the thumbnails to enter the multi-select state.

2. Select the files to delete

3. Click the delete icon - Confirm to delete the selected file.

About This Manual

This manual is intended to be used as a guide. The photographs, graphics, icons and illustrations provided in this manual are for explanatory and illustrative purposes only and may differ from the specific product, so please refer to the actual product. Due to product version upgrade or other needs, FOTRIC may update this manual without prior notice.

Trademarks and images used in this brochure are for illustrative purposes only and are copyrighted by the trademark owner.

statement denying or limiting responsibility

The products (hardware, software, etc.) provided in this manual may contain defects, errors, or failures, and FOTRIC makes no warranties of any kind, either express or implied, including, but not limited to, warranties of merchantability, satisfaction of quality, fitness for a particular purpose, and non-infringement of third-party rights, etc. FOTRIC shall not be liable for any special, incidental, occasional, or consequential damages resulting from the use of this manual or our products, including, but not limited to, damages resulting from loss of business profits, loss of data, or loss of documentation. This includes, but is not limited to, damages resulting from loss of business profits, loss of data or documentation.

To the fullest extent permitted by law, our liability will not exceed the amount you paid for the Product.

After the product is connected to the Internet, it may face risks including but not limited to network attacks, hacker attacks, virus infections, etc. For the problems caused by the product working abnormally, information leakage, etc., the Company is not responsible, but will provide you with technical support in a timely manner.

The product can sense motion detection and fire events when properly installed and configured, but cannot prevent accidents or resulting personal injury or property damage.

Thermal imaging products are classified by the U.S. Department of Commerce as an export controlled product under Export Control Classification Number (ECCN) 6A003.b.4.b. This product contains a focal plane array under Export Control Classification Number (ECCN) 61002.a.3.f. This product is not to be used in a controlled country (e.g., North Korea, Iran, Syria, Cuba, Sudan, etc.) Do not bring the product into, or use it in, a controlled country. Any loss or liability arising from the above behavior will be at your own risk.

When using this product, you are requested to comply strictly with applicable laws. You agree that this product is for civilian use only and shall not be used for infringement of third party rights, medical/safety equipment or other applications in which a product failure could result in life-threatening or personal injury, and fog of mass destruction, biological/chemical weapons, nuclear explosions, or any unsafe use of nuclear energy or uses that are dangerous or contrary to humanitarianism. Any loss or liability arising from such use will be at your own risk.

In the event of a conflict between the above and the applicable law, the provisions of the law shall prevail.

Certificate of conformity

The camera has been tested and found to comply with the technical requirements of FOTRIC.

FOTRIC technical requirements are based on the following national standards:

GB/T 19870-2018 Industrial detection type infrared acoustic camera

GB/T 18268.1-2010 Electromagnetic compatibility requirements for electrical equipment for measurement, control and laboratory use Part 1: General requirements

GB/T 2423.1-2008 Environmental test for electrical and electronic products Part 2: Test method Test A: Low temperature

GB/T 2423.2-2008 Environmental test for electrical and electronic products Part 2: Test methods Test B: High temperature

GB/T 2423.3-2016 Environmental test Part 2: Test method Test Cab: Constant damp heat test

GB/T 2423.5-2019 Environmental test for electrical and electronic products Part 2: Test methods Test Ea and guideline: Shock

GB/T 2423.10-2008 Environmental test for electrical and electronic products Part 2: Test method Test Fc: Vibration (Sine)

GB/T 4208-2017 Enclosure protection level (IP code)

GB 4943.1-2022 Audio-visual, information technology and communication technology equipment Part 1: Security requirements

GB 4824-2019 Industrial, scientific and medical equipment RF nuisance characteristic limits and measurement methods

GB 17625.1-2012 Electromagnetic compatibility limits Harmonic current emission limits (equipment input current per phase ≤ 16 A)

GB/T 17625.2-2007 Electromagnetic compatibility limits Voltage variations, voltage fluctuations and flicker in the public low-voltage power supply system for equipment with a rated current ≤ 16 per phase and unconditional connection

GB/T 17626.2-2018 Electromagnetic compatibility Test and measurement techniques Electrostatic discharge immunity test

GB/T 17626.3-2016 Electromagnetic compatibility Test and measurement techniques RF electromagnetic field radiation immunity test

GB/T 17626.4-2018 Electromagnetic compatibility Test and measurement techniques Electrical fast transient pulse group immunity test

GB/T 17626.5-2019 Electromagnetic compatibility Test and measurement techniques Surge (shock) immunity test

GB/T 17626.6-2017 Electromagnetic compatibility Test and measurement techniques Conducted nuisance immunity for RF field induction

GB/T 17626.8-2006 Electromagnetic compatibility Test and measurement techniques Magnetic field immunity test at working frequency

GB/T 17626.11-2008 Electromagnetic compatibility Test and measurement techniques Immunity test for voltage dips, short-term interruptions and voltage variations