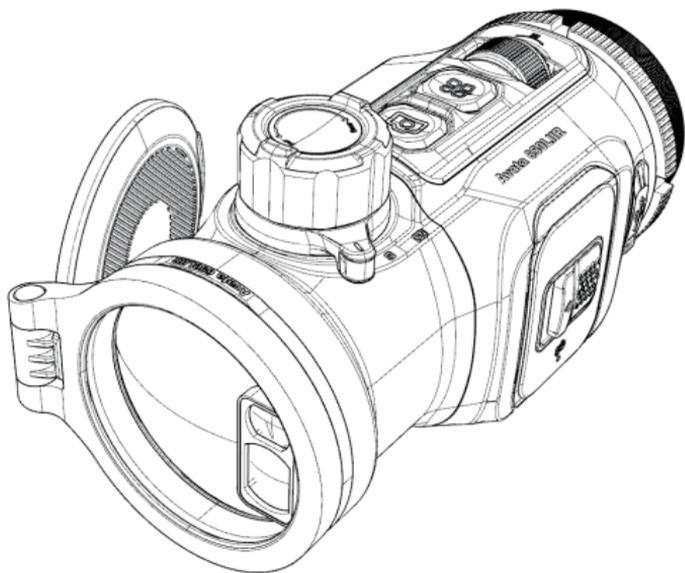


CONOTECH

# AVATA

THERMAL FRONT ATTACHMENT



## **Attention!**

Export of **Avata** models  
May have export limitations depending on  
the laws in your region.



## Attention!



The proper usage of the device is important for safe exploitation!  
Therefore read carefully the present manual!



If the device was left in storage for a longer period of time, before exploitation check its functionality.



Disassembling of the device is prohibited, except in authorized repair centers.



The external optical surfaces should be clean at all times. Touching the optical surfaces with bare hands is not recommended.



Sand and sea water can damage the optical coatings!



Do not point the device directly at the sun!



Image performance is dependent on scenery and atmosphere conditions. Contrast in the same image may vary as a function of the time of day due to the effect of the sun. For example, at sunset objects will have absorbed different levels of heat resulting in greater temperature differences and better contrast.



When left in storage for a longer period of time, batteries have to be removed and stored in polyethylene bags to prevent contact with metal. (It is recommended to recharge the batteries every two to three months)



When carrying or transporting the device, put the protective lens cap!



Condensation can cause fogging of the optical surfaces!  
Condensation occurs when the temperature or humidity changes as follows:

- *When moving the device from cold to warm place or vice versa;*
- *In places with high humidity.*

When equalizing the temperature of the device with the environmental, the condensation disappears. Use the towel to remove moisture



Clean the lens surfaces with the Lens Cloth or with the napkin!

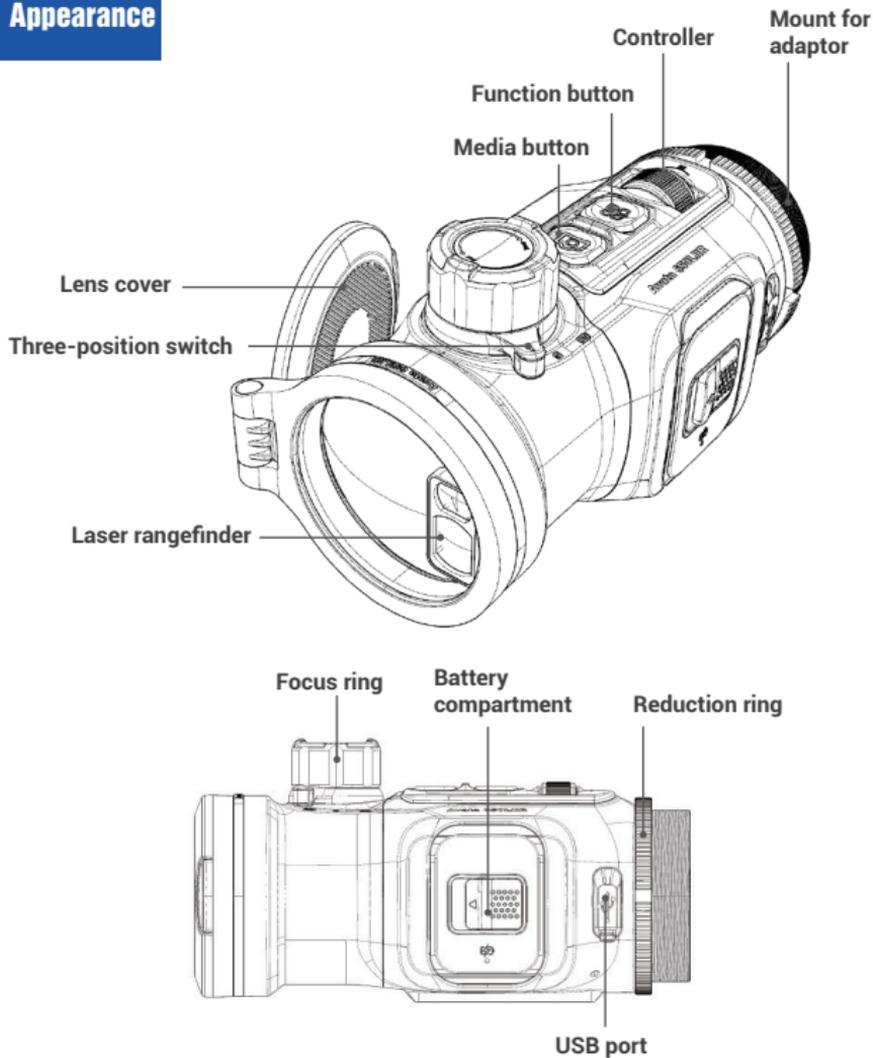


## **LEGAL NOTICE**

Before attaching to weapons, check the regional legal regulations in the area of application.

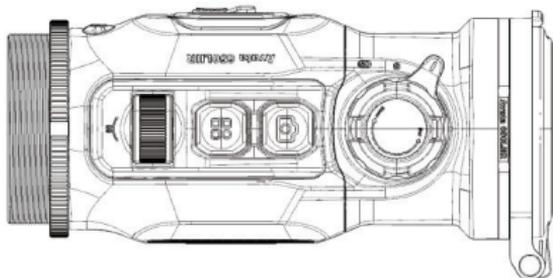
The attachment to a weapon is always the sole responsibility of the user.

## Appearance

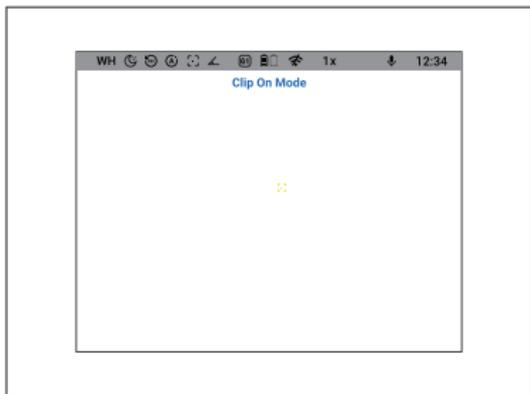


### NOTE

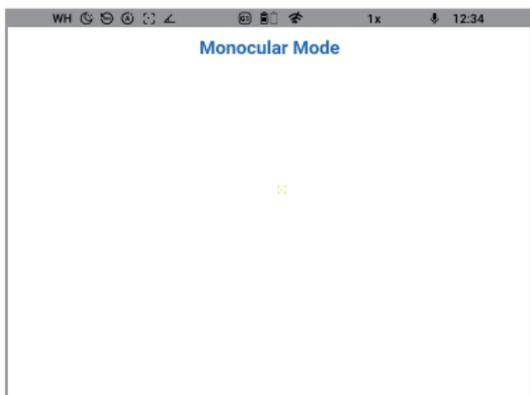
All images used in this instruction manual are for illustrative purpose only. Actual product may vary due to product enhancement. (V1.0)



	<p>Three-position switch</p>	<p>Standby Mode (on/off/standby)</p>
	<p>Media button</p>	<p><b>Short press:</b> Take photos <b>Long press:</b> Record videos</p>
	<p>Function button</p>	<p><b>Short press:</b> Enter the selected mode (Measurement/Color/Image/Pure) <b>Long press:</b> Turn on the measurement mode</p>
	<p>Controller</p>	<p><b>Rotate:</b> Magnification <b>Short press:</b> Quick menu <b>Short press twice:</b> NUC <b>Long press:</b> Main menu</p>
	<p><b>Long press Media button then rotate controller:</b> Zoom interface</p>	
	<p><b>Long press Function button then rotate controller:</b> Rotate left to select Clip-on mode Rotate right to select Monocular mode</p>	



**Clip-on mode**



**Monocular mode**



**ATTENTION!**

Turn off the device after usage, otherwise you can permanently damage the batteries!

## Firmware update via APP

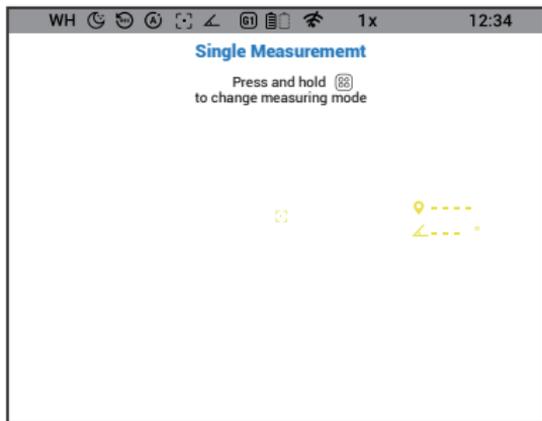
Easily keep your device at the forefront of technology with firmware updates directly through our dedicated app.



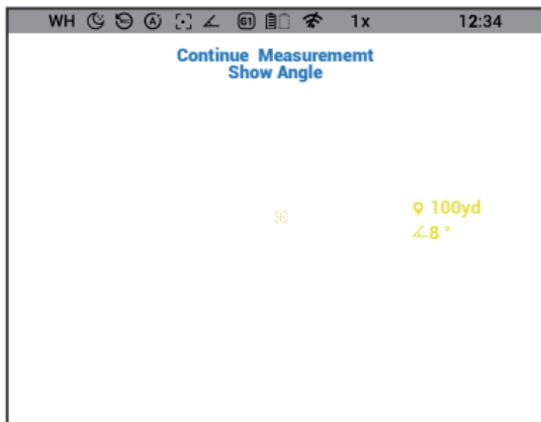
## Laser rangefinder

(only available in LIIR series)

When the  has already been set to measurement mode, short press  to enter it. When the  has been set to other modes, long press  to enter measurement mode.

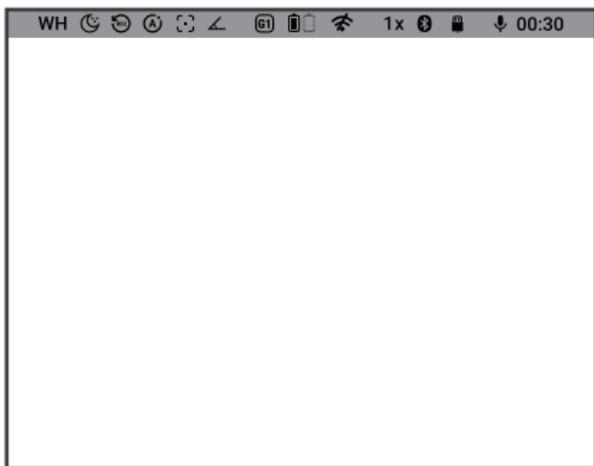


In the single measurement, long press  to switch continues measurement, vice versa. Aim  to the target, then the relevant distance will show up.



**NOTE**

If the Show Angle feature is turned on, then the angle will be displayed on the screen alongside the distance.



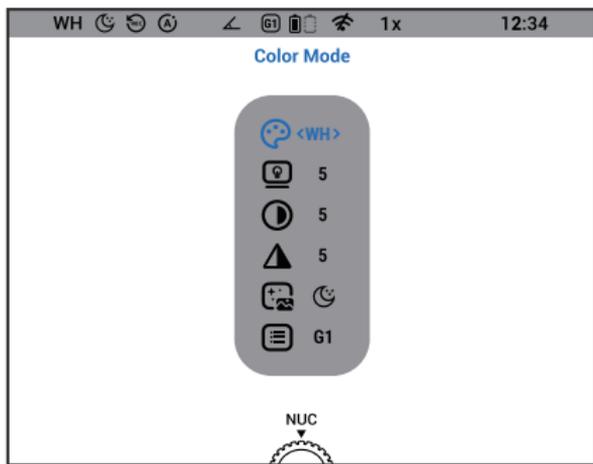
The status icons are respectively located at the top of the display and show information on the actual operating status of the device, including:

- Color Mode
- Image Mode
- Photo/Video
- Calibration Mode
- Rangefinder
- Angle/Horizontal Distance
- Zeroing Profile
- Battery
- Wifi
- Magnification
- Bluetooth
- USB-C
- Microphone
- Real Time

## Quick Menu

Short press the  to enter the quick menu, press  and  to select the modes.

In the quick menu, if the user makes no input within 5 seconds, the program will automatically save all changes and return to real image.



## Color Mode

Rotate the  to select the palette, long press the  to save and exit.

WH - White Hot      BH - Black Hot  
RH - Red Hot      RB - Rainbow



## Screen Brightness

Rotate the  to select the Screen Brightness from 1-10, long press the  to save and exit.



## Contrast

Rotate the  to select the Contrast from 1-10, long press the  to save and exit.



## Sharpness

Rotate the  to select the Sharpness from 1-10, long press the  to save and exit.



## Image mode

Rotate the  to select the Sharpness from Clear Night, Rain or Foggy, long press the  to save and exit.



Clear Night



Foggy



Rain



## Zeroing profile (Only available in Clip-on mode)

Rotate the  to select the Sharpness from G1-G4, long press the  to save and exit.

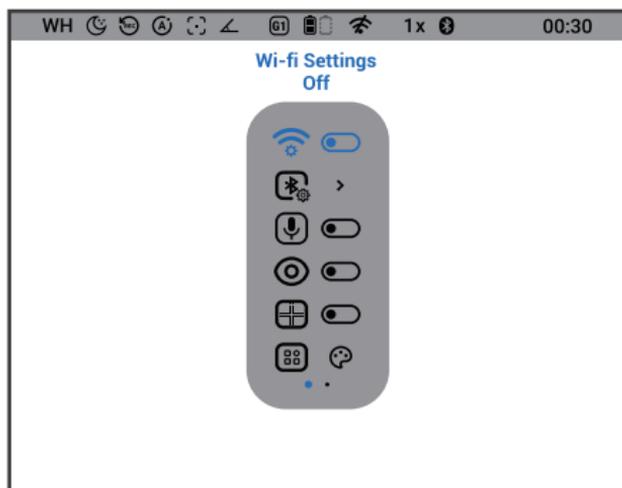


## PIP (Only available in Monocular mode)

Rotate the  to turn on/off PIP, long press the  to save and exit.

## Main Menu

Long press the  to enter/exit Main Menu, press  and  to select the settings.



## WIFI

Rotate the  to turn on/off WIFI, long press the  to save and exit.



## Bluetooth Settings

Rotate the  to enter the Bluetooth Settings, then rotate  to turn on/off Bluetooth. When turn on Bluetooth, please power on the Wireless Remote Controller 'JX-05S' and pair it.



## Microphone

Rotate the  to turn on/off Microphone, long press the  to save and exit.

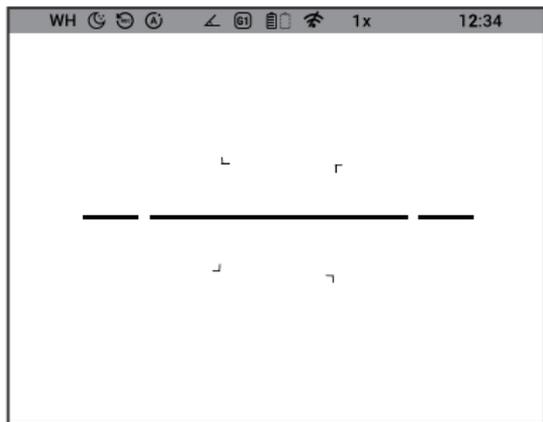


## Extreme Mode

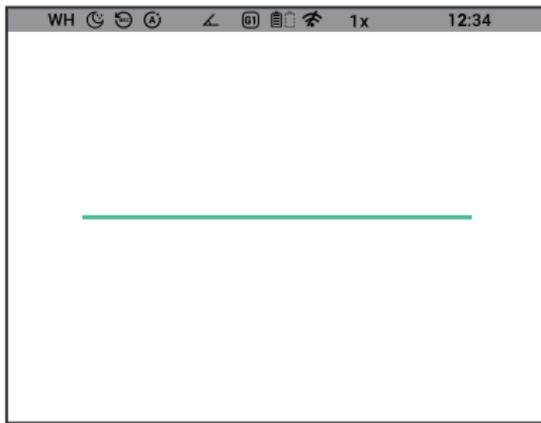
Rotate the  to turn on/off Extreme Mode, long press the  to save and exit.



## Display Alignment (Only available in Clip-on mode)



Rotate the  to turn on/off Display Alignment, long press the  to save and exit.



## Function Button

Rotate the  to select the function of Measurement/Color/Image/Pure mode, long press the  to save and exit. Please pay attention, the selected function will be shown on the function button as well.



Color mode



Image mode



Measurement mode



Pure mode



## Calibration Mode

Rotate the to select the Calibration Mode, long press the to save and exit.

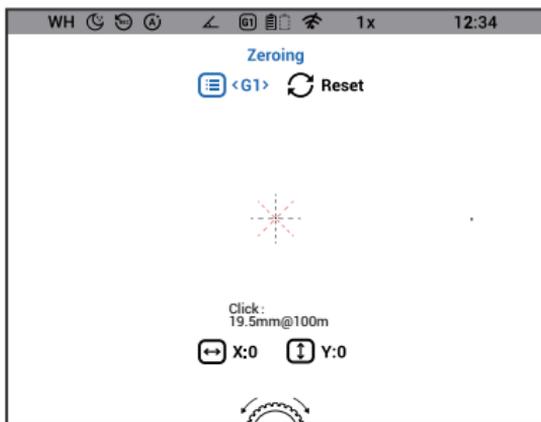
- Auto
- Manual
- Silent calibration



## Zeroing (Only available in Clip-on mode)

Please align the display before zeroing.

Rotate the to enter Zeroing, press and to select the zeroing profile, reset, X value and Y value. Then rotate the controller to select the value.



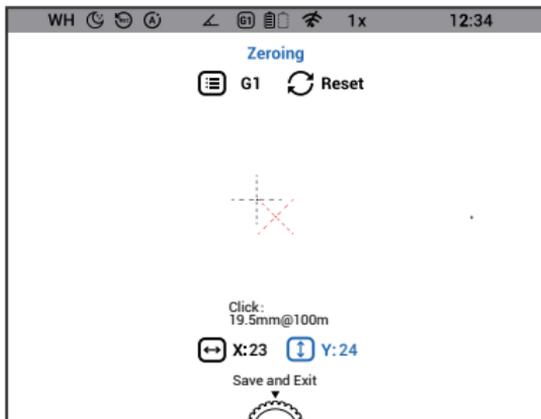
Take a shot, adjust the X and Y value to match the target.

650(LIIR)/1Click=19.5mm@100m

635/ 1Click=28mm@100m

The range of movement in the X direction is from -136 – 136 px.

The range of movement in the Y direction is from -88– 88 px.



After zeroing,  to save and exit.

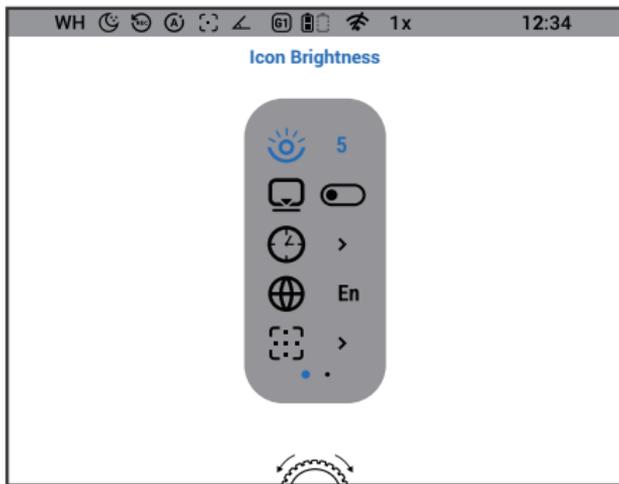


## Defective Pixel Repair

Short press the  to make the defective pixel repair, please cover objective lens to form the calibration.



## General Settings



### Icon Brightness

Rotate the  to select the Icon Brightness from 1-10, long press the  to save and exit.



### Pure Mode

Rotate the  to turn on/off Pure Mode, long press the  to save and exit.



## Time/Date Settings

Rotate the  to select 12H/24H in time setting, press  and  to select real time and date, long press the  to save and exit.



## Language Settings

Rotate the  to select the language, long press the  to save and exit.



## Measurement Settings (only available in LIIR series)

Rotate the  to turn on/off showing angle or horizontal distance, when perform distance measurement, long press the  to save and exit.



## Unit Settings

Rotate the  to select Metric or Imperial, long press the  to save and exit.



## Gyroscope

Rotate the  to turn on/off Gyroscope, long press the  to save and exit.



## Rocil Activated Video

Rotate the  to turn on/off Rocil Activated Video, long press the  to save and exit.



## Default Settings

Rotate the  to select default settings, short press the  to confirm, long press the  to save and exit.



## Internal Storage

Rotate the  to check the Internal Storage, Select  to delete all photos and videos, long press the  to save and exit.



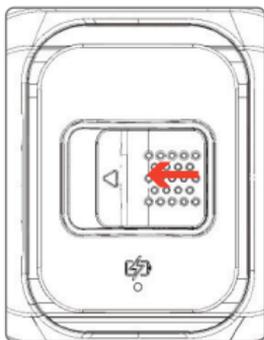
## Device Info

It indicates the device model, S/N number, firmware version and hardware version.

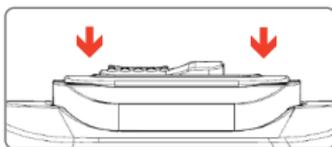
### Removable battery

Please install the battery based on the positive and negative signs.  
Replace the battery and close the compartment knob.

Open

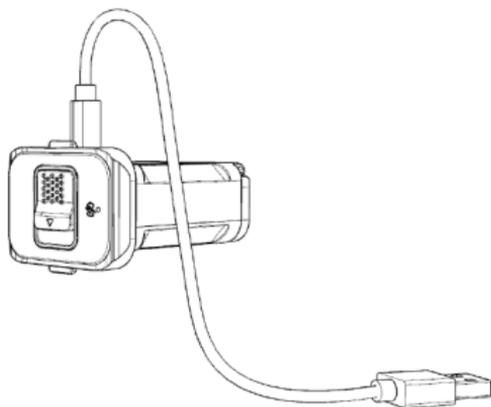


Close



## Battery compartment

AVATA battery compartment can function separately as a charger for 18500 batteries. Please be advised that the battery compartment must be removed to initiate charging. Upon connection with a USB-C cable, the charging process commences. The red light signifies that the battery is charging, and the green light indicates that the battery is fully charged.



## External battery

AVATA is powered by external battery package. It contains two removable and rechargeable 18500 batteries. The device can also function with just one battery

## External power supply

External power can be supplied from an external source, such as a power bank.

## Storage and Transportation

- Before storing it, clean obligatory the device (if on its surface there are moisture, dust or traces of dirt)!
- Make sure that there are no traces of moisture, and the battery compartment is empty!
- It is also possible for a short periods of time device to be stored in a suitable soft pack, bag or cartridge box.
- The premises in which the device is kept for long term have to be dry, enclosed, unheated and ventilated.
- During the storage should not be allowed exposure to aggressive environments, temperatures below  $-50^{\circ}\text{C}$  and above  $+60^{\circ}\text{C}$ , relative humidity greater than 80%, and prolonged periods of direct sunlight.
- Before each transportation, the product should be neatly packed in its original packaging (transport bag) and all other items and accessories should be carefully and steadily placed in the bag. After that the bag should be steadily placed in the transport suitcase.
- You can ship the product with all types of transport at different distances and at altitude up to 12000 m.

## Avata Specification

Model	Avata 635	Avata 650	Avata 650LIR
<b>Main Characteristics</b>			
Detector	Uncooled Vox		
Resolution	640×512		
Frame rate	50HZ		
Pixel	12μm		
Spectral range	8-14μm		
NETD	<20mK		
<b>Optical Characteristics</b>			
Objective lens	35mm	50mm	
Magnification	1×		
FOV(H×V), m @100m	22 × 17.5	15.4 ×12.3	
Close-up range	2m		
<b>Functions</b>			
Palettes	4		
Audio recording	YES		
Firmware update via APP	YES		
Photo/Video	YES		
<b>Display</b>			
Type	OLED		
Resolution	1024×768		
Built-in memory	64G		
<b>Power Supply</b>			
Battery	2×18500		
External power supply	5V USB-C		
Operating time (at t=22°C)	7h		
<b>Physical Characteristics</b>			
Weight (without external battery)	450g	450g	460g
Dimension	67×70×145mm	67×70×147mm	
<b>Environmental Compatibility</b>			
Ingress protection rating	IP67		
Operating temperature	-20°C ~ +50°C		
Storage temperature	-40°C ~ +70°C		
Shock resistance	7000J		
<b>Laser Rangefinder (Only available in 650LIR)</b>			
Safety class for laser equipment according to IEC 60825-1:2014	/		1
Measuring range	/		5-1200m
Measurement accuracy	/		±1m



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