



TU
TU Gen2 LRF Series Thermal Imaging Scope
Redefine Hunting by Laser Ranging



1 Product Profile

2 Detailed Explanation of Upgrades

3 Technical Specification

4 Applications

CONTENT



TU



TU Gen2



The TU Gen2 Series is equipped with a high-sensitivity thermal sensor of $12\mu\text{m}$ and a 1440×1080 HD AMOLED display. Paired with the robust PureIR image algorithm, it provides users with a more vivid and detailed visual experience. The product has undergone meticulous optimization in its detailed design, elevating user-friendly operation. Furthermore, the battery life has seen a substantial extension, resulting in a 20% increase in duration.

TU



TU420

TU440

TU450



TU620

TU630

TU650



TU431

TU451



TU631

TU651

TU Gen2 Series **NEW**

General version

LRF version



TU431 LRF

TU451 LRF



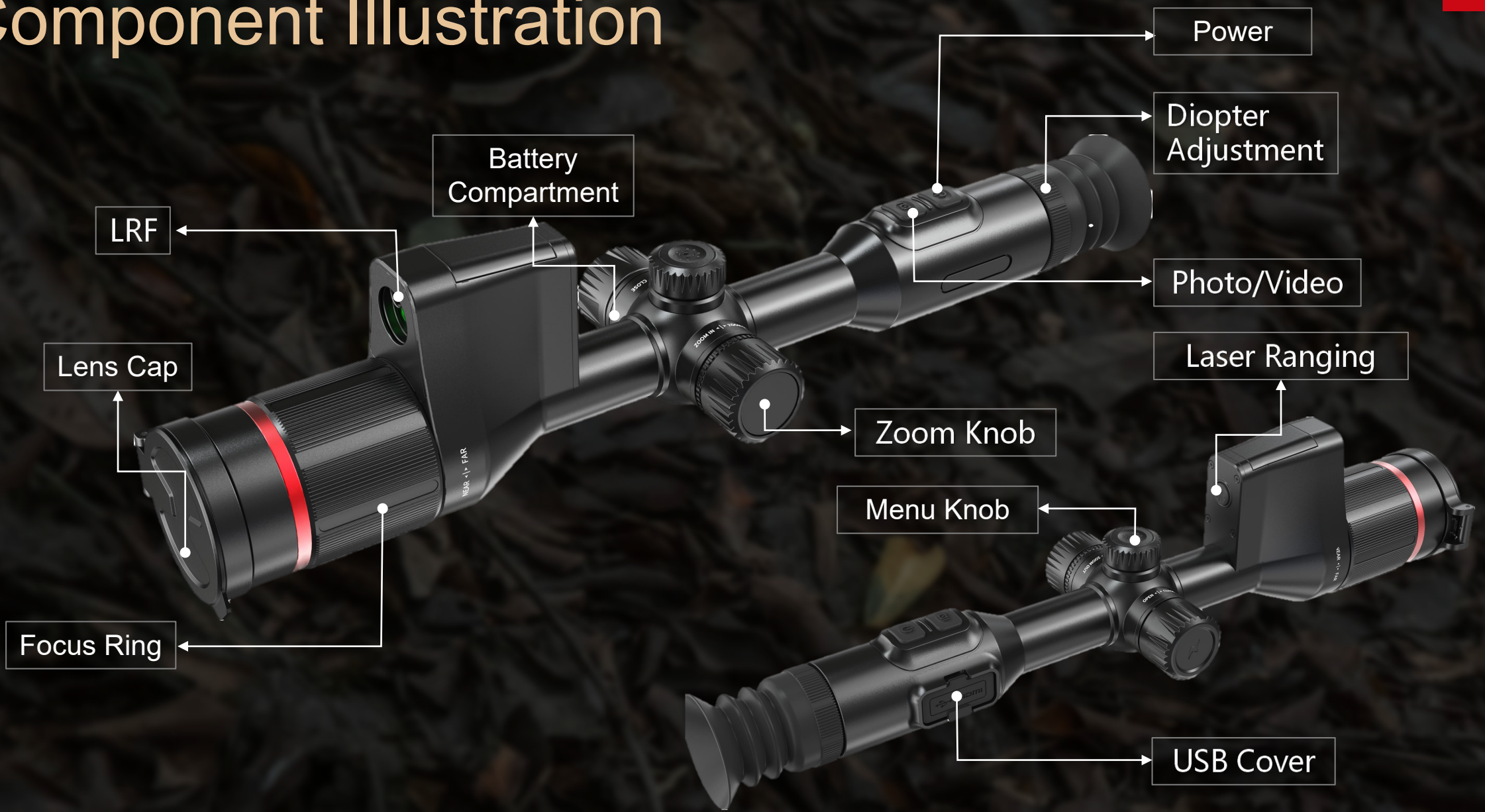
TU631 LRF

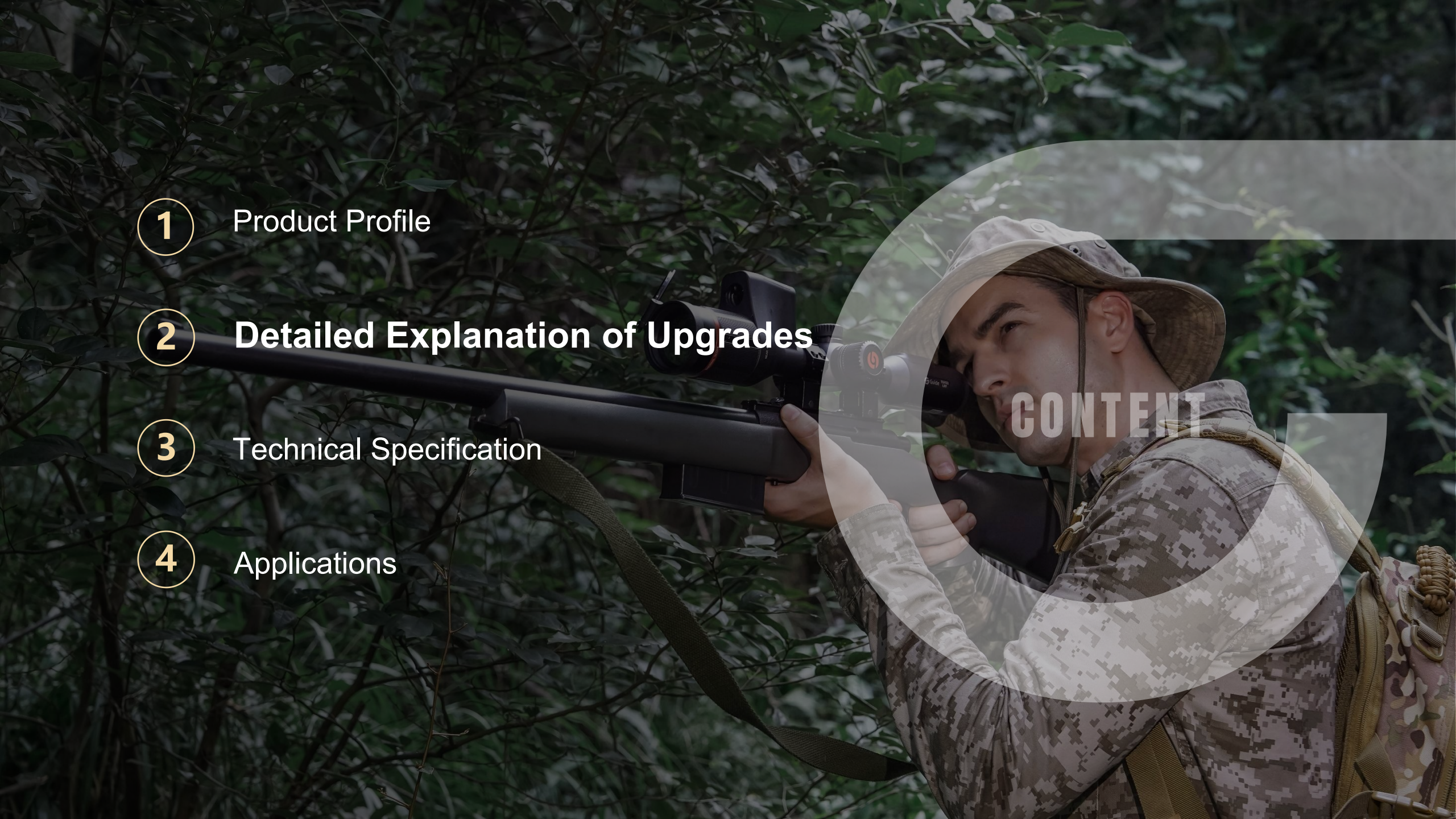
TU651 LRF





Component Illustration





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What are the upgrades in the full TU Gen2 Series?



Upgraded Detectors



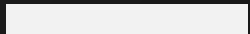
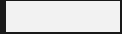
Thermal Sensor

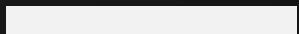
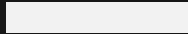
400×300@
640×480@ **12μm**

Aim farther and see better



TU Range performances

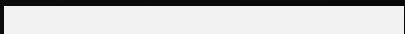
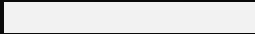


35mm
TU430
Detection  1000m
Recognition  500m

50mm
TU450
Detection  1400m
Recognition  700m

TU Gen2 Range performances

35mm
TU431
TU431LRF
Detection  **1400m**
Recognition  **700m**

50mm
TU451
TU451LRF
Detection  **2000m**
Recognition  **1000m**

Upgraded Display





TU



1024×768

0.39-inch AMOLED

TU Gen2



1440×1080

0.39-inch AMOLED

Higher resolution
More delicate visuals



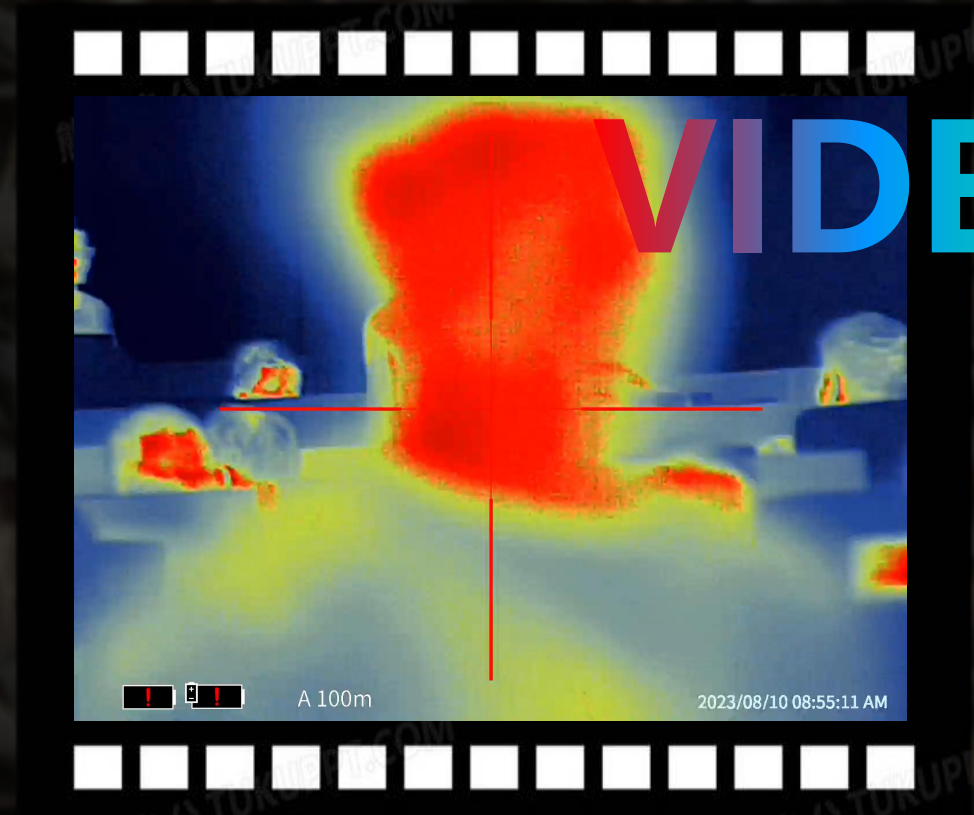


Screen Recording

AMOLED
FULL HD



0.39-inch AMOLED display provides with excellent viewing experience



Screen recording to record the whole operation process for sharing

Optimized Algorithms



- Highlighting high-temperature targets
- Sharper image edges with more details

Imaging Comparison Competitor

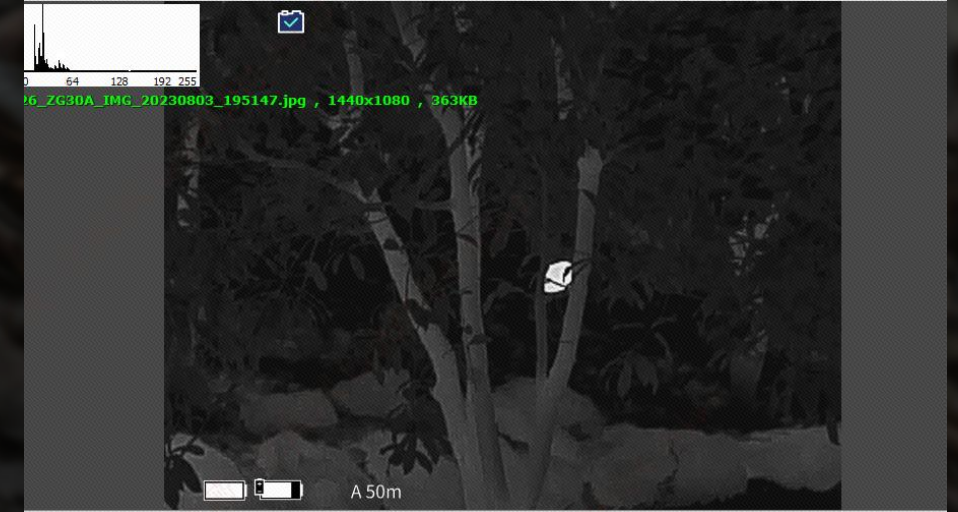
TU2

1. Small targets in the woods at night

Small heat source

Distance 30m

Time: 2023.08.03
Temp: 33°C
Light: 0.3 LUX



2. Nighttime outdoor high temperature difference panorama

Full-length portrait

Distance 100m

Time: 2023.08.03
Temp: 33°C
Light: 0.3 LUX



Imaging Comparison Competitor

TU2

3. Nighttime outdoor high temperature difference panorama

Half-length portrait

Distance 160m

Time: 2023.08.03
Temp: 33°C
Light: 0.3 LUX

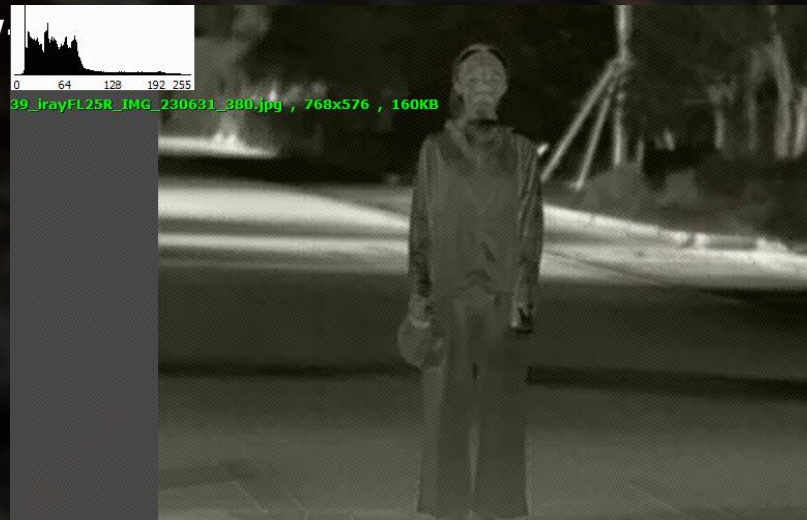


4. Daytime Outdoor Low Temperature Close-up

Full-length portrait

Distance 20m

Time: 2023.08.03
Temp: 35°C
Light: 1000000 LUX



Safe and Durable





800G/1ms

CE FC EAC UK CA IP67 RoHS

500G/1ms






**Battery life
improved by**

20%

Compared to the first generation TU, the battery life has been increased from 10 hours to 12 hours.



*Battery Life = One Built-in + Two External
(Support continuous power exchange)

Improved Experience





TU Series

NEAR <|> FAR

Battery Compartment



Zoom Knob

① Improved Left-Hand Operation Experience

by swapping the positions of the zoom knob and the battery compartment



TU Gen2 Series

NEAR <|> FAR

Zoom Knob



Battery Compartment



②
**Optimized USB Port Protective
Cover Opening Direction**

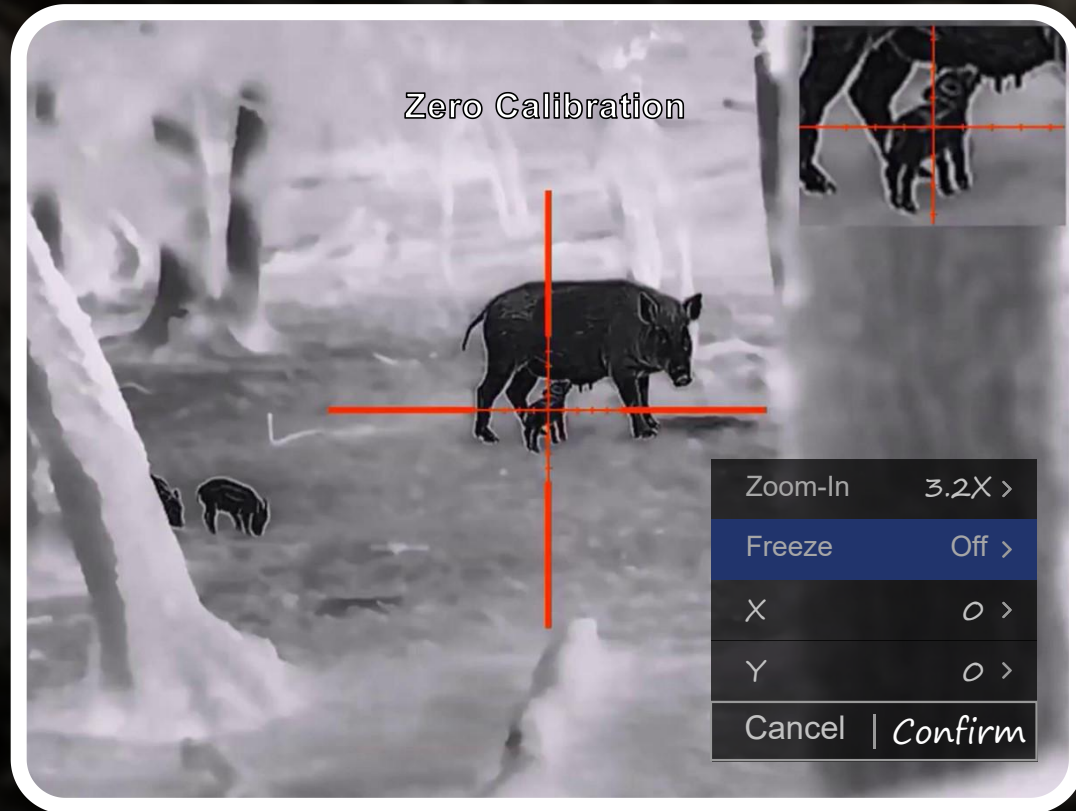
by swapping the positions of the open end
and the connection point

Solve the problem that the USB cover is prone
to drooping after impact

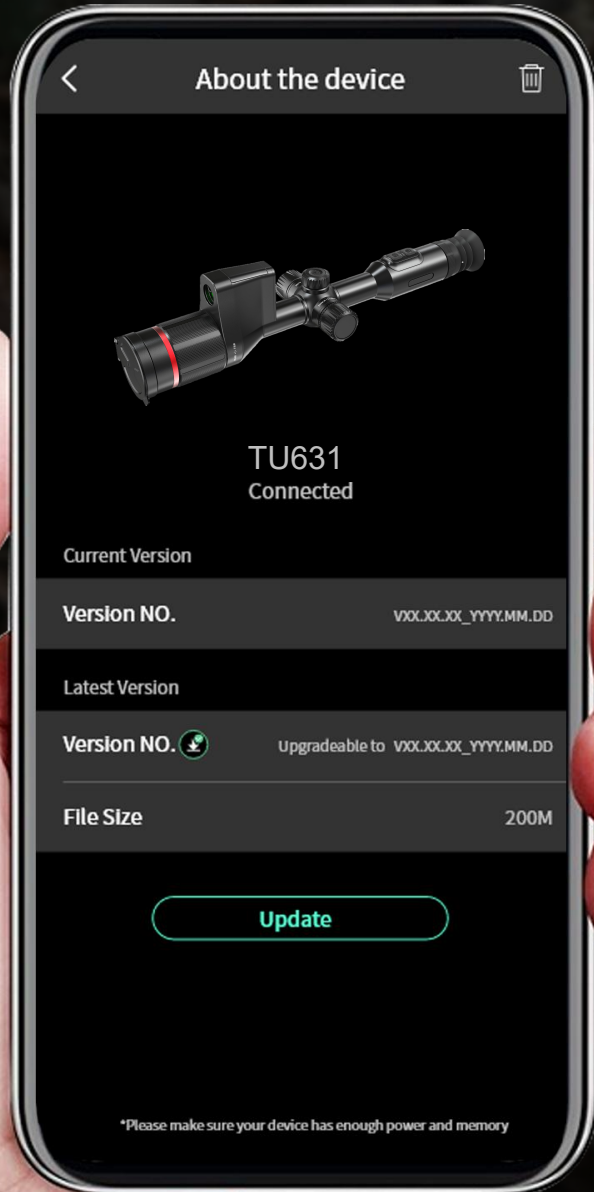




One-touch Freeze



This operation prevents the deviation caused by the artificial movement of the scope when adjusting the trajectory.



OTA Upgrade

Connect to the APP (Android or iOS) for
OTA upgrade, quick and convenient



Target IR

TU Gen2 LRF Series Unique Feature



Laser Ranging

Built-in laser rangefinder

for the precise distance information of targets without calibration



Max. **1500m**

- Laser wavelength: 905nm Class I
- Detection range: 5~1000m(400)/ 1500m(640)



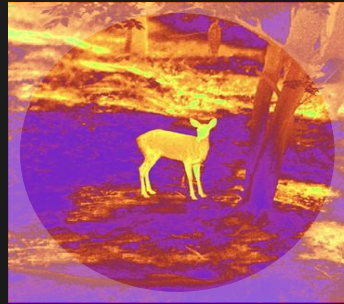
Summary of Upgrades

	TU Gen2 Series	TU Gen2 LRF Series
Hardware	Display -	Display LRF
Structure	Impact Resistant Button Logic	Impact Resistant Button Logic
Overall Performance	Upgrade Way Battery Life	Upgrade Way Battery Life

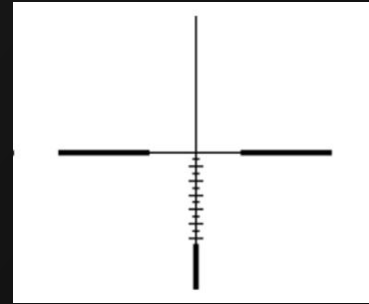
Continued Advantages



30mm rings



Multiple color palettes



10 kinds of reticles



IP67



1 Product Profile

2 Detailed Explanation of Upgrades

3 **Technical Specification**

4 Applications

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Technical Specification

Product model	TU431	TU451	TU631	TU651	TU431 LRF	TU451 LRF	TU631 LRF	TU651 LRF
Laser rangefinder	/				Max. measuring range: 1000m		Max. measuring range: 1500m	
IR Detector	400×300, 12 μm		640×480, 12 μm		400×300, 12 μm		640×480, 12 μm	
Focal length	35 mm, F1.0	50 mm, F1.0	35 mm, F1.0	50 mm, F1.0	35 mm, F1.0	50 mm, F1.0	35 mm, F1.0	50 mm, F1.0
Field of angle	7.8°×5.9°	5.5°×4.1°	12.5°×9.4°	8.8°×6.6°	7.8°×5.9°	5.5°×4.1°	12.5°×9.4°	8.8°×6.6°
Optical zoom	2.65x	3.78x	1.65x	2.36x	2.65x	3.78x	1.65x	2.36x
Digital zoom	1x ~ 4x		1x ~ 8x		1x ~ 4x		1x ~ 8x	
Display	0.39" AMOLED, 1440×1080							
Eyepiece	Exit pupil distance ≥ 48 mm; Diopter ± 4; Zoom: 14x							
Detection range	1000 m	1400 m		2000 m	1000 m	1400 m		2000 m
Color palettes	White Hot, Black Hot, adjustable Red Hot , Green Hot, Iron Red, Blue Hot							
Recording function	Photo/Video							
Battery type	Single 18650 battery (built-in) and customized battery (external)							
Operating time	≥ 12 hours							
Memory capacity	128GB							
Operating temperature	-30°C to 50°C							
Shock	800 G at 1 ms half sine pulse (as per IEC60068-2-27)							
Weight	≤990g (without eye mask and battery)				≤1250 g (without eye mask and battery)			
Size	≤377×107×69 mm (without eye mask)				≤377×107×99 mm (without eye mask)			



Standard Configuration



Packing Box



(US, UK, Australia and Europe)



5V2A adapter x1



Type C cable x1



Customized battery x2



Charger x1



Micro HDMI Cable x1



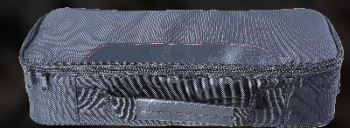
Device (with lens cover and eye mask)



Clip x2
(30mm Diameter)



Quick Start Guide x1



Carry Bag x1



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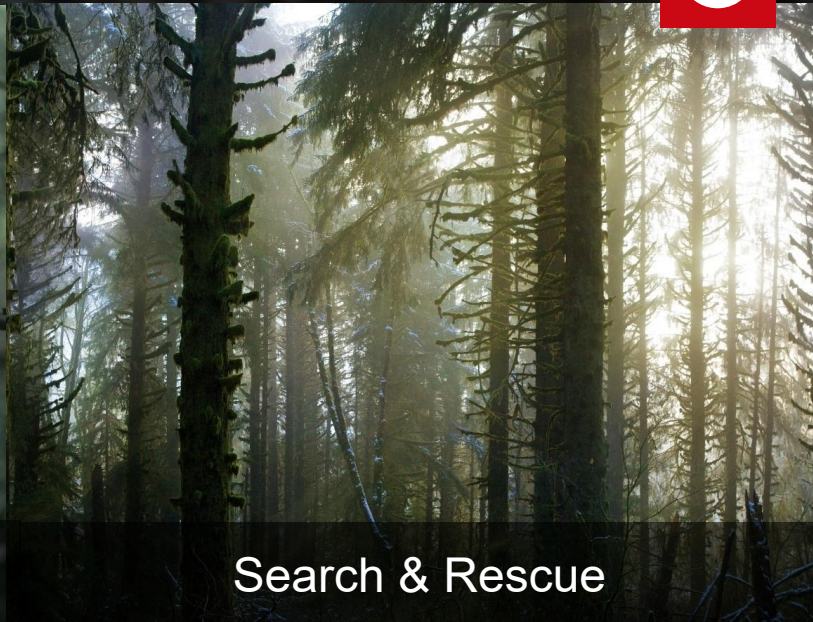
CONTENT



Outdoor



Hunting



Search & Rescue



Livestock Breeding



Personal Security





Law Enforcement

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